



## Ownership Structure and Family Grouping: Potential Expropriation via Dividends

Yoser Gadhoun

Full Professor of Finance Dean of Research Development Prince  
Mohammad Bin Fahd University Kingdom of Saudi Arabia

### ABSTRACT

*The purpose of this paper is to examine a number of aspects of management and financial management in family controlled and group affiliated firms in Canada. The main purpose of this research is to examine whether large shareholders can and do exploit their position to the disadvantage of smaller, independent investors. Using data from a range of financial sources, the study examines the behavior of family owned, group affiliated and independent firms to see whether there are differences in policies, particularly related to the question of payment of dividends. A series of logit regression models are used in testing the hypotheses that family owned companies differ in relation to these policies. The findings show that there is little evidence that large shareholders use their power directly to expropriate small shareholders, although there is evidence that large shareholders exert excessive influence over the policy relating to dividend payments. The findings suggest that some subtle uses of power by major shareholders are at play in determining company policy, and this may be of practical interest to market regulators in assessing whether small shareholders are sufficiently protected. The paper explores an area which has received relatively little attention, given the importance of the issues raised for capital markets.*

**KEYWORDS :** Family-owned firms, Group-affiliated firms, Expropriation, Dividends, Corporate Governance, Ownership structure.

### 1. INTRODUCTION

A series of studies have supported the contention that the family business is the predominant form of business organization in western world today. Ward and Aronoff (1990) explain that the first generation of family businesses was the result of the rapid economic growth and development in the period following World War II. Daily and Dollinger (1992) argue that later privatization is partially responsible for the prevalence of this form of organization. Yeh et al. (1998) show that 76% of listed companies in Taiwan are under family control. Claessens et al. (2000) surveyed 2980 publicly traded corporations in 9 east-Asian countries and found that, with the exception of those in Japan, the majority of these corporations were controlled by families (they found a concentration ratio of 67.2% in Malaysia and 71.5% in Hong Kong). According to Dyer (1986) 175 firms of the fortune 500 firms are controlled by families in the US. If one considers the entire range of family businesses from the smallest local stores to the largest multinational corporations, 90% of all businesses in the US are family controlled, including corporations, partnerships and sole proprietorships. They produce half of GNP and employ half of the work force of the US (Becker and Tillman, 1978; Dyer, 1986). In Canada, Attig and Gadhoun (2003) found that family controlled organizations occupy the pinnacle of the corporate landscape. It is quite common for Canadian listed firms to be owned, controlled, managed and financed within the domain of a single family. The study cited demonstrated that 56.16% of 1121 Canadian listed firms are controlled by families.

Despite the surprising prevalence and economic importance of the family-owned firms (e.g. Ayala family in Philippines, Li Ka-shing family in Hong Kong, Kyuk Ho Shin Family in Korea, Agnelli family in Italy, Wang family in Taiwan, Molson family in Canada, etc.), researchers in the field of finance have almost completely neglected the study of family owned businesses. The principal exception consists of investigations of the performance of this type of organization. Some studies have found that owner-operated firms outperform their professionally managed counterparts (Radice, 1971; Williamson, 1981; Demsetz, 1983; Daily and Thompson, 1994; Yeh and Shu, 2000). However, studies seldom provide adequate analysis, and they generally do not lead to predictions of financial policies for the family-owned firms. The present study is designed to make up for those shortcomings in earlier studies, provide fuller analysis of the issues involved in family owned, publicly quoted companies, and provide predictions as to the likely financial policies to be adopted by such corporations.

Social scientists have suggested three reasons for the lack of scientific investigation of family businesses. First, researchers have for the most part willingly accepted the idea, initially presented by Berle and Means (1932), that the control of businesses eventually rests in the hand of professional managers, not families. Second, it is difficult to study both family and business systems simultaneously because each

belongs to a different field of scientific research. Third, there is a widespread belief that work and family exist as distinct, self-contained systems. The most important of these three reasons for failure to study the family businesses and related groupings is the assumption made by Berle and Means (1932). They argued that control of large (American) firms had shifted from owners to professionals. Furthermore, this new professional class owned no important blocks of the stocks in the corporation and often are motivated by different interests than the owners of the firm, namely, the shareholders.

In contrast with the conclusions of Berle and Means, several studies show that, in family firms, controlling families may have power in excess of their cash-flow rights. Families may be able to exercise disproportionate power through the use of pyramids, cross-holdings and interlocking directorates (La Porta et al., 1999; Claessen, Djankov, Lang, 1999; Attig and Gadhoun, 2003). These approaches to lever family control provide a strong motivation for families to develop syndicated groups of listed and unlisted firms. Each firm is juridically independent from the others, while all are unified by means of mutual shareholding to ensure a solid base of control. Family businesses are strongly motivated to engage in hierarchical grouping, in order to increase the capacity to manage debt and also to balance other contingent losses. The pyramidal structure allows the dominating investor, usually the founder, his descendants or successors, who head the holding company, to exert control with a limited amount of capital. Several authors such as Mok, Lam and Cheung (1992) have documented the improvement of stock return brought about by such group constitution. Other authors such as Faccio and Lang (2001) and Gadhoun, Lang and Leslie (2003) show some potential for expropriation within such groups. The controlling family possesses the ability to increase its wealth at the expense of other minority shareholders in this type of organization. Family grouping is a more complex configuration than an individual family business, and whatever its virtues and vices, its proliferation affects national economies and societies in significant ways and deserves as much attention from financial academics, and possibly from capital market regulators, as family firms.

Based upon the above arguments regarding the lack of research into family firms and group affiliated firms, this paper examines the extent to which these two types of organization differ from their professionally managed counterparts on some selected financial features. One area of special attention is the payment of dividends. The inclusion of non-family, group affiliated firms is intended to help in the process of characterizing family-owned and family grouping organizations. A further goal of the paper is to examine, at least tentatively, any indirect expropriation potential within these types of organizations.

Agency theory can provide an explanatory framework to investigate the hypothesized relationships and may build a model for under-

standing the functional differences between family and non-family businesses (and similarly between group affiliated and non-group affiliated firms). The reasoning behind agency theory is that the alignment of ownership with control produces advantages for the family firms over non-family firms. In family firms because there is less diversity of interests between managers and owners, less opportunism and less moral hazard, and consequently family firms are not exposed to some of the risks that face firms where ownership and control are separated.

One would expect different behaviors between family and non-family firms which are largely attributable to the different management styles and motivations of founders or their successors versus professional managers (Dyer, 1986). Professional managers, because of their training, are characterized by a unique set of values and beliefs and often do not behave in the same manner as the owner of a firm (Schein, 1968). Professional managers adopt a utilitarian contract, and they expect tangible assets and monetary rewards for their efforts. Their careerist sentiment toward large firms and short planning horizons make them less likely to be loyal (Alcorn, 1982). However, the owner who maintains a personal stake in the success of the firm will be highly motivated to build value in the firm and will reduce prospects for opportunistic behavior. Another noticeable difference between the two organizations is the extent to which decision making is centralized. Family-owned firms are generally characterized by centralized decision making processes; one person, or a few individuals tied by blood or marriage, dominate the decision making. Even if non-family members are given senior management positions, they demonstrate the same characteristics as family members, such as trust and loyalty. This pattern may be explained by the owner's desire for overarching control.

The owners in family business often have their personal wealth concentrated in the business. The sole owner of a family business, or the family members who own a family business, are therefore in a different position in relation to the firm than investors who buy shares in a listed family firm, who can be described as "minority shareholders". While minority shareholders may have the same concerns as they would have when investing in any listed firm, the presence of a substantial voting block in the hands of the family may be detrimental to the interests of minority shareholders. The insistence of the family on overarching control may be a primary contributor to a process of expropriation of minority shareholders. Therefore, the most significant agency problem in these firms is the conflict of interests between non-family members and the controlling shareholders, usually family members. As argued by Shleifer and Vishny (1997), "Large owners gain nearly full control of the corporation, they prefer to generate private benefits of control that are not shared by minority shareholders". Especially, important possibilities for expropriation arise when the corporation is affiliated to a group controlled by the same shareholder (Faccio et al., 2001).

In Canada, much corporate activity is undertaken by conglomerates formed by interrelated firms that collectively own controlling blocks of each others' stocks. Ownership of these conglomerates is usually concentrated in the hands of a family such as the Irvings, the Molsons, the Brofmans, the Sobeys, the Demarais, etc. This is not exceptional; large groups around the world tend to be controlled by families (La Porta et al., 1999). In order to solidify their dominance in firms, the controlling family lever control through pyramidal and cross-shareholdings (Faccio and Lang, 2001). Consequently, important and wealthy families are frequently organized in groups.

Corporate wealth can be expropriated by the insiders who set unfair terms for intra-group sales of goods and services, for transfer of assets and controlling stakes, and who secure management succession and management appointments through decisions within the family. The insider who controls the conglomerate might enrich himself at the expense of the atomistic shareholders in all the firms affiliated to the group. On the other hand, expropriation is enhanced in Canada by the use of dual class shares, mainly in family firms. Consequently, family interests may be enlarged at the expense of minority (outside family) shareholders (Attig et al, 2003).

There are different mechanisms of expropriation. Dividend payments are one of them (Faccio and Lang, 2001). In fact, dividends play a

basic role in containing insider expropriation because they remove corporate wealth from insider control. If profits are not distributed to shareholders, they may be diverted by the insiders for personal use or committed to unprofitable projects that provide private benefits for insiders. Therefore, outside shareholders have a preference for dividends over retained earnings (La Porta et al. 1999). In fact, most small-shareholders do not buy shares with an eye to control, but rather in order to receive dividends and capital gains. They are easily manipulated by the large shareholders and top managers.

It is worth noting that different dividend theories are proposed in the literature. According to various authors, dividend policy can be either residual or without importance (neutral), at least in a perfect capital market. Others, by relaxing some hypotheses within signaling theory or agency theory, have shown that dividend payments are relevant. Bhattacharya (1979), Miller and Rock (1985) and John and Williams (1985) have shown that, by relaxing the hypothesis of symmetric information, dividend policy is not neutral. In fact, because the insiders have more information than the outsiders, they can use dividend policy as a signal to convey credible private information to the market. In fact, the dividend, as a signal, allows investors to evaluate better the firm's prospects and to estimate the firm's proper value. Within the context of Modigliani and Miller's (1961) analysis, it can be said that the market's reaction to dividend announcements is not due to the dividend in itself, but rather to its informative value. In addition, because dividend payments drive immediate and future outlays, they demonstrate the liquidity of the firm. An increase of the dividend signals the existence not only of high current cash flows, but also the growth potential that management anticipates and which is necessary for the preservation of those payments.

Authors, such as Easterbrook (1984) and Rozeff (1982), have shown the non-neutrality of dividend policy within the framework of the agency theory. They show that dividend payments subject the managers to the discipline of the capital market for external financing. In the case where they have falsely signaled their firm's prospects by inflating the dividend, the firm will be required to go more often to the capital market. In this way dividend payments provide a mechanism for monitoring the firm. Jensen (1986) argues that the dividend payments can reduce the manager's propensity to waste free cash flows either by consuming excessive professional advantages or by dissipating them in investments which exceed the optimum. Consequently, dividend payments reduce the agency costs. Both mechanisms explain the positive market reaction to dividend announcements.

However, these theories do not make predictions for the dividend policy of a family controlled grouping where the ownership is concentrated. These theories assume the wide dispersion of equity ownership. The principal interest in the present analysis is to investigate whether the traditional theoretical approaches toward understanding dividend policy remain valid if one takes into account the type of organization (family versus non-family) and the ownership structure<sup>1</sup>. It is important to discover whether the family dynamics and the differences in management style and motivation of owners versus non-owners cause any contrast in dividend payments between family and non-family firms. In keeping with the previous points, it may be interesting to investigate whether the family control and group affiliation affect dividend payments. The principal concern of this paper is to investigate the expropriation opportunities via dividend policy within the family controlled grouping.

The remainder of this paper is organized as follows. Section 2 describes the research objectives and sets out the research hypothesis. Data construction and methodology are presented in section 3. Section 4 discusses the empirical results. Final concluding remarks are given in section 5.

## 2. RESEARCH OBJECTIVES AND HYPOTHESES

### 2.1 Research objectives

The first objective of this paper is to have some understanding of selected financial features of family and group affiliated firms. Secondly, this paper examines whether family control and group affiliation configuration influence the dividend decisions of firms, and especially if the content of these decisions depends on the degree of ownership concentration. The literature on dividend policy devotes enormous efforts in examining the motivations for cash distribution. No study

emphasizes the dividend payment that pertains to family controlled grouping. Following Khan and Rocha (1982), it is argued here that not only the ownership structure but also the type of organization are critical variables affecting organizational financial policies. Yeh and Shu (2000) show that family controlled groupings are motivated to engage in the manipulation of year-end earnings. Along the same line, it is proposed to investigate whether family firms pay more or less dividends than their professionally managed counterparts – whether non-family groupings or individual firms.

More specifically, the present study has two principal objectives : (1) to characterize family and group affiliated businesses in Canada, and (2) to investigate the impact of family ownership and group affiliation on dividend policy, as revealed in the level and frequency of changes in the regular cash dividend payments.

For objective (1), family and group affiliated firms are characterized by investigating the following variables: size, ratio of research and development expenditure to sales, number of analysts that follow a given firm, systematic and business risk, agency costs, free cash-flows, number of shareholders, volume of transactions, number of directors and managers and the industry to which the firm belongs. In addition a dummy variable is a dummy used to distinguish firms that have two classes of shares.

For objective (2), it is argued that the concentration of ownership in family businesses, by creating stronger links between management and shareholders, reduces conflicts of interest and asymmetry of information. Furthermore, it is deduced that as the level concentration increases, the need to signal the situation of the firm by frequent variation of the regular dividend decreases. Consequently, it is expected that family businesses will pay lower dividends. According to the expropriation hypothesis, family members benefit from on-the-job consumption and prefer more free cash-flows than paying dividends. These mechanisms ensure the accumulation of wealth for their descendants. Moreover, they are inclined to postpone tax payments.

For the group affiliated firms, however, more cash payments within the constituents of the group can be expected as a mechanism of expropriation of minority shareholders. Besides, because inter-firm dividends are not taxable in Canada<sup>2</sup>, unlike capital gains, if the large shareholder is a firm, it would be anticipated that increasing concentration of ownership will increase dividend payments. This conjecture can be tested, and hence an indirect test can be given for the impact of article 112 of Canadian tax law on the behavior of Canadian firms regarding dividend payments. It is argued here that the firms where the large shareholders are companies and not individuals pay higher dividends than similar firms not affiliated to a group, even in the absence of agency costs and asymmetry of information. Such a conclusion is in direct contradiction of the predictions of financial theory, and therefore provides an important test of the argument presented. The incentive for dividend payments is explained in this case by the recovery of the tax paid on dividends by the receiver. Consequently, one would expect group affiliated firms to pay more dividends.

## 2.2 Hypotheses

For years, dividends have puzzled financial economists. Dividend policy is in fact highly complex. The concentration of ownership, the family status of the firm or its affiliation to a group cannot be the only explanatory variables of the dividend payment. The objective of the present study is to find out if the integration of those considerations as independent variables in the dividend model can improve its explanatory power and the significance of its parameters.

To formulate the hypotheses for testing, two theories were used: agency theory and signaling theory. These theories stipulate that by creating stronger links between family members, who are usually managers, and outside shareholders, family ownership reduces the separation between ownership and control, hence the conflict of interests and agency costs are reduced. These supposed stronger links between shareholders and managers in family firms reduce the asymmetry of information. Consequently, the need to signal the situation of the firm by frequently varying the regular dividend is reduced. So dividend payments would be less desirable in a family business. Besides, it is reasonable to expect a more stable dividend policy in family than non-family business. According to agency and signaling the-

ories, two opposing forces influence the decision to pay dividends :

**i)** The dividend payments will be required by shareholders in a family or a non-family firms in order to reduce agency costs. Further, it may be an attempt to signal higher future prospects to minority shareholders;

**ii)** The shareholders and especially outsiders will limit their dividend requests because of the transaction costs of external financing which would be generated.

Any firm seeks to minimize the sum of the two costs. Furthermore, the rate at which corporations pay dividends provides a perspective on insider expropriation because dividends transfer wealth from the controlling shareholder to all shareholders on a pro-rata basis. On the other hand, dividends will be required by shareholders in order to reduce agency costs or it may be an attempt to signal higher future prospects. Consequently, the hypotheses to be tested in this study can be explicitly formulated as follows :

**H<sub>1</sub>:** *Family (group affiliated) firms pay less (more) cash dividends than non-family (non-group affiliated) firms.*

**H<sub>2</sub>:** *Dividends are more stable in family (group affiliated) firms than in non-family (non-group affiliated) firms.*

However, other competitive hypotheses not based on agency and signaling theories may be considered as candidates to explain and predict the dividend decisions within family businesses and group affiliated firms. For example, the hypothesis of ownership structure neutrality, the fiscal effect hypothesis, the indirect monitoring hypothesis and the hypothesis of expropriating debt holders might all be considered, and all of them stipulate the opposite outcome of the two hypotheses advanced for testing in this paper.

The neutrality of the ownership structure hypothesis stipulates that, because of conflict of interests between the large and the small shareholders in a family business, the large shareholders, usually the founder or his successors, still need the normal methods of signaling to minority shareholders. The atomistic uninvolved absentee shareholder needs to be assured that large shareholders in the family firm do not benefit privately from their position.

The expropriation of debt holders hypothesis indicates that the conflict of interests between shareholders and debt holders are more serious in family firms, where ownership concentration is high. Hence, large shareholders may prefer more dividends in order to circumvent the priority of debt holders on the firm's income stream.

The indirect monitoring hypothesis states that large shareholders may not monitor management decisions themselves, but rather would force an increase in dividends. Consequently, family firms not managed by a member of a family would be forced to go outside to raise investment funds and thereby subject themselves to capital market monitoring. This argument is particularly plausible when considering the Bronfman or the Molson families in Canada who control huge holdings and cannot be on the boards of all their companies.

Finally, the fiscal effect hypothesis stipulates that, because interfirm dividends are not taxable for the receiver according to the Canadian Income Tax Act (art. 112(1)), a large shareholder, when it is a firm and not an individual, and especially if that firm is ultimately controlled by a family, would favor dividends over capital gains. Before discussing the results of the empirical study, the methodology and data construction are described in the following section.

## 3. DATA CONSTRUCTION AND METHODOLOGY

### 3.1. Data

There is no viable electronic database on ownership of Canadian firms. Data on the identity and on the size of holdings of the five largest shareholders was collected manually. Six hundred Canadian firms were randomly selected from a databank named **Stock-Guide**. The following were eliminated: 21 foreign firms, 18 firms which had priced only preferential shares and 5 mutual funds. Of the 556 remaining firms, information which pertained to the identity and

percentage of voting rights held by the five largest shareholders was obtained from 3 sources :

*The Financial Post* (FP), "Survey of Industrials" and "Survey of Mines and Energy Resources," 1989, 1990, 1991;

*Stock-Guide* (where information is collected from proxy circulars), under the heading "Corporate Profile," 1989, 1990, 1991;

*Intercorporate Ownership in Canada* (LP) from Statistics Canada, 1989 and 1991.

The information was processed in two stages. In the first stage an observation was kept if the three information sources concurred with regard to both the principal shareholder's identity and the size of each block of shares that he/she owns or controls. In each case where the sources had contradictory information on the identity or the size of the block, the observation was treated in a second stage. The objective in this second stage was to reconcile disagreements among information sources through additional research. The procedure was to reverse the process while checking whether the shareholder participated in the firm. The three sources of verification were LP, FP, and the proper sources of the "contradictory" blockholder.

After the second stage, the number of observations that satisfied the sample criteria was 338 for the year 1989, 365 for 1990, and 348 for 1991. The percentage of rejection corresponds respectively to 40, 35 and 37 percent, with the average equal to 37 percent.

### 3.2. Measurement and method

As it is often difficult to ascertain the threshold of stock concentration necessary to expropriate, this study treats effective control as a continuous function of stock concentration rather than separating the measure into a nominal variable. Ownership concentration (COC), is measured by the sum of the voting rights held by the five largest shareholders.

$$COC = \sum_{i=1}^5 \alpha_i \quad (1)$$

with  $\alpha_i$  = the voting rights of the shareholder,  $i$ . Other measures of the concentration such as the Herfindahl measure, the entropy or Gini indices are either less useful or impossible to use when one considers the empirical data available.

In addition to the measure of ownership concentration, three categories of variables were used to explain differences in the dividends paid by firms: governance firm structure variables, corporate decision-making variables and firm payout policy variables (Gadhoun, 2003). More specifically, the independent variables are related to the agency costs, information asymmetry, the ownership structure, and other features of the firms thought to have influence on the firm's dividend payment:

**i) Agency costs:** According to Easterbrook (1984) and Rozeff (1982), the dividend payments are part of the firm's optimum monitoring package and serve to reduce agency costs (Jensen and Meckling, 1976). According to Jensen (1986), firms with substantial free cash flows, possibly including family owned firms, will have a tendency to have high agency costs. In fact, the free cash flows can be used at the discretion of the managers. They can waste them by using them for professional advantages (on-the-job consumption) or by self-aggrandizing (over-investing in negative net present value projects), so that the size of the firm is increased and at the same time, the power of the managers. It would follow from this that if the free cash flows increase, the managers will be urged by the shareholders to pay more dividends. The free cash flows are defined as net operating income on an after-tax basis, corrected for the change in working capital, less depreciation, and regular and preferred shares dividend payments; all the while accounting for financial activities such as the new issues and the repayment of the debt which comes to term in less than a year. All of this is divided by the total assets so as to control for the size effect. The necessary information is gathered from the Stock-Guide database over the 1987-1991 period. This variable is referred as "CFL".

**ii) Information asymmetry:** Despite the indirect costs of dividends such as adverse personal taxes and transaction costs of external financing, firms persist in paying dividends in order to reduce the presumed information disequilibrium between managers and shareholders by conveying credible private information to the market (Bhattacharya, 1979, John and Williams, 1985, and Miller and Rock, 1985). In fact, the dividend payments require the managers to go to the capital market more frequently. It is assumed that cash dividends are accompanied by raising capital to finance existing and future investments. Since it is likely that the suppliers of funds will not supply the funds unless the managers disclose the proposed purpose for the funds, large shareholders who do not effectively monitor the business may gain new information about management intentions. The model presented here anticipates a positive relationship between information asymmetry and dividends. Many theoretical studies, such as that of Glosten and Milgrom (1985), explain the existence of a positive relationship between the level of information asymmetry and the bid-ask spread. Given that the estimation of the latter is costly<sup>3</sup> and that many studies have shown the existence of a strong negative correlation between the spread and the volume of transactions<sup>4</sup>, volume of transactions will be used here as a substitute for the bid-ask spread. The model used in this study anticipates a negative relationship between the dividend payments and the volume since the dividend payments reduce the bid-ask spread and therefore increase the volume. The information regarding the volume is gathered from the Stock-Guide database over the 1987-1991 period. "VOL" refers to this measure.

**iii) Size effect:** Zeghal (1979) showed that firms produce information (in addition to their financial statements) in proportion with their size, and that large firms benefit from the distribution of more accurate information about themselves to a greater extent than smaller firms. If such information is widely available, the signaling efficiency of dividends is diminished. Given the signaling costs, a negative relationship between size of firm and dividend payments can be expected. However, it is usually assumed that the large firms tend to have high free cash flows and weak growth. Hence, it is still arguable that rational shareholders will request high dividends from large firms in order to lessen the agency costs. Thus a positive relationship between the size and dividend payments may also be hypothesized. In summary, it is difficult to anticipate the sign of the relationship. Many measures of firm size are suggested in empirical studies. In this study, the average of the total assets over the 1987-1991 period is used. The information is gathered from the Stock-Guide database. However, it was found that the size, the insider stake and the transaction volume of the firms are multicollinear. In order to separate out the size effect, the size was regressed on the other variables and a new variable was reported into the regression equations, "RES", which is the residual of the regressions of the size on the other variables.

**iv) Past growth:** According to the pecking order theory, firms can be expected to pay less dividends if they experienced past growth. This conjecture supports the view that growth entails higher investment expenditures and may influence dividend payments because external financing is costly (Myers and Majluf, 1984). The implicit relationship between the dividend policy and the investment policy is confirmed by Higgins (1972) and Rozeff (1982). The model tested in this study anticipates a negative relationship between the past growth and dividend payments. Empirical studies have used several ways to measure growth. Following Gonedes (1978) and Rozeff (1982), the average of the historical sales growth ("CRC", hereafter) for the 1987-1991 period is used here. The information is gathered in from Stock-Guide database.

**v) Potential growth:** For reasons set out in the preceding paragraph, prudent managers will retain a greater proportion of the cash flows of the firm if they anticipate an expansion in order to avoid external financing with its attendant costs. Hence, the present model predicts a negative relationship between the anticipated growth and the dividend payments. Rozeff used Value Line's forecast of the growth of sales revenues as a measure of the management's expectations of growth. However, according to Thomadakis (1977), the management's expectation of growth should be an evaluation specific to the market. On this basis, and according to Lang and Litzenberger (1989), the expected growth used in this study was derived from a practical version of the Tobin's Q ratio ("QRM", hereafter)<sup>5</sup>. QRM is the average of the

market value over the book value of equity over the 1987-1991 period. The information is gathered from the Stock-Guide database.

Consequently, the multiple OLS regression equation tested in this study can be formulated as follows :

$$NDV_i = \beta_0 + \beta_1^{(-1)}COC_i + \beta_2^{(-1)}CFL_i + \beta_3^{(-1)}VOL_i + \beta_4^{(-1)}CRC_i + \beta_5^{(-1)}QRM_i + \beta_6^{(-1)}RES_i + E_i \quad (2)$$

where  $i$  is the enterprise index and  $E_i$  is the error term.

Currently, there is no agreement on what constitutes an appropriate indicator of dividend policy. Several researchers have suggested using multiple indicators. In this study dividends are defined as total cash dividends paid to common shareholders. The rate at which dividends are paid was measured by nine different indicators (see Appendix I). The diversity of measures of the dividend rate should help insulate the overall conclusions from biases in individual measures that might arise from accounting practices and manipulations by controlling shareholders. The use of different averages (3, 5 and 10 years) allows the smoothing out of noise and transitory factors. The results of a correlation analysis between these variables are reported in Appendix I. Results show that these variables are generally significantly correlated. According to the correlation coefficients and other results of regressions not reported here, only the DSM (the dividend/share from Stock-Guide databank) and D10 (the ten years dividend/book-value from Compustat) dividend variables are used in further analysis.

In addition, differences in dividend policy may be related to the importance of concentrated leadership and decision-making control. For example, in owner-controlled firms, the major shareholder has more effect on the decision process, while in large firms, the separation and diffusion of decision management and decision control limit the power of individual decision agents to expropriate the interests of minority shareholders (Fama and Jensen, 1983). It can be inferred that in family business expropriation (via dividends and other mechanisms) of residual claimants is more pronounced than in the professionally managed firms. Obviously, this conclusion is also valid within group-affiliated firms with large shareholders. To control for these effects, interaction variables for family and group-affiliated firms are used separately. Other variables are used to control for risk and industry distribution<sup>6</sup>.

Concerning the family and group classification, there is no agreement in the literature on what constitutes a family. One commonly used definition considers a family business to be business in which the members of a family have legal control over ownership. For the purpose of this study, the focus was kept upon very big families (FML) and groups (GRP) according to Statistics-Canada, in order to keep the analysis and documentation simple. All other configurations will be called non-family (NFML) and non-group affiliated (NGRP) firms. The variables FML and GRP are dummy variables. In order to capture every subtle detail, a new classification has been introduced: strong family affiliated firms (SFML) versus weak family affiliated firms (WFML) with FML = SFML if BL1 > 30% and FML = WFML if BL1 ≤ 30%. A similar classification was used for strong group affiliated firms (SGRP) versus weak group affiliated firms (WGRP).

Following Gadhoom (2003), a logit model was used to investigate whether a family's stake and group affiliation affect dividend stability ( $H_2$ ). To shed more light on the impact of ownership structure on dividend stability, a logit model was used to examine the direction of dividend changes (cuts and rises).

$H_2$  predicts a positive relationship between ownership concentration and the stability (STB, hereafter) of the dividend policy. To measure stability, for each firm, the quarterly dividends for ten years (1982-1991) have been taken from the Laval data file. There is a change in the level of dividends in the following case :

$$\text{if } \Delta NDV_{it} = NDV_{it} - NDV_{i,t-1} \neq 0 \text{ then } CHG_{it} = 1 \text{ and } STB_{it} = 0 \quad (3)$$

where  $NDV_{it}$  symbolizes a yearly dividend which is the sum of the quarterly dividends after taking into account all possible splits of stocks and CHG is a dummy variable which indicates the presence of a dividend change. The model to test is the following :

$$E(STB_{it}) = 1 / (COC, FAC) = P(STB_{it}) = \beta_0 + \beta_1 COC_i + \sum_{k=1}^k \beta_k FAC_k \quad (4)$$

where  $k$  is the number of control variables (VAC, hereafter)<sup>7</sup>,  $E(.)$  is the operator of mathematical expectations and  $P(STB_{it})$  is a latent variable which indicates the probability with which dividend stability for the firm  $i$  in the period  $t$  is observed, given the values of the independent variables.  $P(STB_{it})$  is a bounded variable belonging to the interval [0,1], which is not the case of the independent variables. The transformation of this response variable to  $[P(STB_{it})/1-P(STB_{it})]$  allows the elimination of the superior limit ( $P(.) = 1$ ) and the transformation of the latter to  $\log [P(STB_{it})/1-P(STB_{it})]$  allows the elimination of the inferior limit ( $P(.) = 0$ ). In keeping with these transformations and when the model is repeated ( $N_i - 1$ ) times, it can be formulated in the following way<sup>8</sup> :

$$\log \left( \frac{P(STB_{it})}{1 - P(STB_{it})} \right) = \beta_0 + \beta_1 COC_i + \sum_{k=1}^k \beta_k VAC_{ik} \quad (5)$$

$i$  = firm index;  $j = 1, \dots, (N_i - 1)$  which corresponds to a repetitive index;  $VAC_k$  are the  $k$  control variables and  $P$  symbolizes the probability. The  $\beta$  parameters are estimated according to the maximum likelihood method (MLM, hereafter). The focus of interest in model (5) is  $P(STB_{it})$ . After certain algebraic manipulations, it can be shown that :

$$P(STB_{it}) = \frac{\exp(\beta_0 + \beta_1 COC_i + \sum_{k=1}^k \beta_k VAC_{ik})}{1 + \exp(\beta_0 + \beta_1 COC_i + \sum_{k=1}^k \beta_k VAC_{ik})} \quad (6)$$

where  $\exp(.)$  is the exponential operator.

Subsequently, the analysis has been refined by studying the direction of dividend changes. For this, in a first step, the number of rises and the number of cuts of dividends during the test period (10 years) was calculated. In a second step, the latter were standardized by the number of years of survival of the firm ( $N_i$ ) within the research period. The variables "increases of dividends" (HAU) and "decreases of dividends" (BAI) are dummy variables and are defined :

$$\text{Logit} \left[ P \left( \frac{HAU_{it}}{CHG_{it}} \right) \right] = \log \left[ \frac{P(HAU_{it}/CHG_{it})}{1 - P(HAU_{it}/CHG_{it})} \right] = \beta_0 + \beta_1 COC_i + \sum_{k=1}^k \beta_k VAC_{ik} \quad (8)$$

$$\text{Logit} \left[ P \left( \frac{BAI_{it}}{CHG_{it}} \right) \right] = \log \left[ \frac{P(BAI_{it}/CHG_{it})}{1 - P(BAI_{it}/CHG_{it})} \right] = \beta_0 + \beta_1 COC_i + \sum_{k=1}^k \beta_k VAC_{ik} \quad (9)$$

## 4. EMPIRICAL RESULTS

### 4.1 Descriptive statistics

Table 1 (Panel A and Panel B) present the basic information for the whole sample regarding the intensity and identity of ownership in Canada. Table 1 shows that the concentration of ownership is high in Canada. The five largest shareholders own around 55 percent of all the voting rights. Data not reported here show a 96% significant correlation between ownership and voting rights. Besides 11% of the companies of the sample use dual or multiple class shares. The voting rights are stable over the time in much the same manner as the ownership rights.

**Table 1 : Descriptive Statistics of Canadian Ownership Structure**

Panel A : Descriptive statistics of the level of ownership concentration						
Variable	N <sup>b</sup>	Mean	Median	Standard-deviation	Minimum	Maximum
COC 89 <sup>a</sup>	338	55,71	56,25	23,67	0	100
COC90	365	54,52	56,5	25,05	0	100
COC 91	348	54,21	55,75	24,44	0	100
BL1 89	338	43,39	42,75	24,11	0	100
BL1 90	365	43,58	42,9	24,68	0	100
BL1 91	348	43,2	43,8	23,96	0	100
BL2 89	338	8,48	4,51	9,92	0	42,3
BL2 90	365	8	3,3	9,94	0	45,7
BL2 91	348	8,16	2,05	10,29	0	46,3
BL3 89	338	2,87	0	6,1	0	33,6
BL3 90	365	2,29	0	5,47	0	33,3

BL3 91	348	1,92	0	4,91	0	33,3
BL4 89	338	0,64	0	2,88	0	23,3
BL4 90	365	0,51	0	2,43	0	18,6
BL4 91	348	0,61	0	2,65	0	18
BL5 89	338	0,33	0	2,9	0	12,2
BL5 90	365	0,13	0	1,1	0	12,2
BL5 91	348	0,31	0	2,66	0	17,6
<b>Panel B : Descriptive statistics by shareholder's identity</b>						
Variable	N	Mean	Median	Standard-Deviation	Minimum	Maximum
BLI 89 <sup>c</sup>	337	41,61	46,1	30,06	0	100
BLI 90	364	40,54	42,5	31,26	0	100
BLI 91	347	39,64	43,6	30,58	0	100
BLE 89	337	14,13	0	23,09	0	87,6
BLE 90	364	14,02	0	23,32	0	92,3
BLE 91	347	14,6	0	23,39	0	95,5
INV 89	337	0,37	0	3,18	0	42,8
INV 90	364	0,21	0	1,82	0	20,7
INV 91	347	0,32	0	2,69	0	30,2
INF 89	337	0,87	0	3,89	0	33,9
INF 90	364	1,39	0	4,78	0	33,9
INF 91	347	1,95	0	6,6	0	47,6
AUI 89	337	11,44	0	22,07	0	87,6
AUI 90	364	11,12	0	22,28	0	91,8
AUI 91	347	10,82	0	21,64	0	95,5
GOV 89	337	1,25	0	6,42	0	63
GOV 90	364	1,13	0	5,52	0	57
GOV 91	347	1,14	0	5,43	0	42,3

- a COC = the fraction of voting rights held by the five largest shareholders. BL1 = the fraction of voting rights held by the 1<sup>st</sup> large shareholder.
- b The number of observations which respect our sampling criteria may vary from one observation to another.
- c The fraction of voting rights held by the insiders (BLI), by external shareholders (BLE), by individuals (INV), by financial institutions (INF), by companies (AUI) and by governmental institutions (GOV).

The largest shareholder own on average more than 43% of the voting rights making him/her very powerful. Indeed the second largest shareholder owns on average around 8% of the voting rights. The second largest shareholder cannot exercise any power over the principal shareholder. The ratio BLC2/BLC1 is about 19% on average which make the expropriation of minority shareholders by the principal shareholder quite possible. In fact, the second largest shareholder cannot effectively and inexpensively monitor and influence the largest shareholder. The principal shareholder is in 81% of cases a firm and not an individual. It can also be seen from Table 1 (Panel B) that the principal shareholder is in almost all cases an insider (CEO, chairman, honorary chairman or a key executive officer). Panel B shows that state control in this sample as well as control by financial institutions are very small.

The main empirical investigation was motivated by the question whether family-owned (group affiliated) firms have different ownership structure, payout policies and other financial characteristics from non-family (non-affiliated) firms. A test of the difference of means for some selected variables was performed. The results are summarized in Table 2<sup>10</sup>.

**Table 2 : Mean Comparison Tests For Family and Group Affiliated Firms**

<b>Panel A</b>									
Variables	Definition	Family data				Group data			
		FML (n=37)	NFML (n=440)	t	Prob	GRP (n=66)	NGRP (n=298)	t	Prob
COC	Concentration	68,42	52,56	-3,99	0,0001	62,48	52,07	-3,14	0,0018
BL1	Major shareholder's voting rights	53,11	40,49	-3,17	0,0016	51,96	41,17	-3,34	0,0009
BLI	Manager, directors, and CEO's V.R <sup>1</sup>	63,7	37,4	-7,06	0,0001	48,14	37,71	-2,55	0,011
HFM	Herfindahl's measure	3673,97	2411,59	-3,48	0,0005	3410,31	2500,64	-3,03	0,0026
NAC	Shareholders' number	1869	15069,26	2,61	0,011	11609,27	17877,5	0,72	0,4739
SUB	Subaltern Shares (1,0)	0,27	0,09	-2,33	0,0246	0,13	0,11	-0,55	0,5776
MUL	Multiple voting shares (1,0)	0,18	0,09	-1,46	0,1511	0,06	0,1	1,27	0,2045
LEV	Voting leverage	2,06	1,4	-0,64	0,5205	1,63	1,42	-0,36	0,7124
VOL	Transaction volume	2802,8	8313,91	3,58	0,0005	9476,08	9072,57	-0,13	0,8941
<b>Panel B</b>									
Variables	Definition	FML (n=37)	NFML (n=440)	t	Prob	GRP (n=66)	NGRP (n=298)	t	Prob
		419400,64	1980574,25	2,81	0,0052	2493376,82	2193096,9	-0,33	0,7388
RDE	R&D on sales	1.4282	0.9467	-2.01	0.0454	2.2102	2.21025	0.00	1.00
NAF	Financial analysts number	7,52	9,98	2,15	0,0391	10,72	9,79	-0,71	0,4777
VES	Variation of the EPS	19,09	44,68	2,42	0,0174	52,01	34,79	-0,68	0,4965
BET	Beta	-1,54	-0,74	1,3	0,198	-0,12	-0,87	-3,37	0,0009
VGP	Gross profit variation	12,31	21,44	4,11	0,0001	23,29	21,14	-0,47	0,6344
CMM	Modigliani & Miller's F.C measure	-27388,4	-26492,04	0,07	0,9432	-67130,27	-19923,53	1,68	0,095
CFL	Lehn & Poulsen F.C measure	3555,17	5280,59	0,17	0,8619	-6056,68	10690,26	0,78	0,4365
AGC	Agency costs	1,5	1,09	-0,1	0,9152	3,83	-0,18	-2,29	0,0225
NDI	Directors number	9,62	9,36	-0,43	0,6655	12,66	9,14	-5,47	0,0001
NMA	Managers number	5,08	4,93	-0,18	0,8539	6,64	4,9	-2,54	0,0112
<b>Panel C</b>									
Variables	Definition	FML (n=37)	NFML (n=440)	t	Prob	GRP (n=66)	NGRP (n=298)	t	Prob
D10	Average 10-year dividend	0,02	0,04	2,13	0,0346	0,07	0,03	-1,61	0,1127
DY5	5-year dividend yield	2,07	2,16	0,21	0,8277	3,75	1,91	-1,69	0,0953
DL3 <sup>2a</sup>	3-year dividend/share	0,49	0,34	-0,52	0,607	0,67	0,31	-2,04	0,0454
DC3 <sup>3b</sup>	3-year dividend/share	0,53	0,41	-0,37	0,7116	0,64	0,39	-1,48	0,143
DCD	10- year dividend/share	0,47	0,37	-0,41	0,6794	0,49	0,38	-0,99	0,3187
DP5	Five year dividend payout	5,95	19,48	1,14	0,2609	32,93	15,45	-2,19	0,0316
DPM	Dividend payout (average)	-2,73	20,59	1,2	0,2371	45	12,3	-2,92	0,0045
DSM	Dividend/share (Stock-Guide)	0,37	0,3	-0,3	0,7616	0,73	0,26	-2,14	0,0359

DYM	Dividend yield (average)	2,11	2,54	0,75	0,45	4,93	2,01	-1,62	0,1091
HAU	Dividend increase	298,75	292,13	-0,08	0,9321	154,16	293,18	2,69	0,008
BAI	Dividend decrease	297,89	291,81	-0,07	0,9378	152,19	293,2	2,73	0,0073
SPF	Special dividend frequency	297,1	290,74	-0,08	0,9349	151,54	291,77	2,71	0,0076
SPM	Special dividend amount	297,11	290,71	-0,08	0,9345	151,43	291,73	2,71	0,0076
DTR	Debt Stock-Guide	0,25	0,28	0,73	0,4605	0,31	0,27	-1,42	0,1555

Table 2 shows that, on average, concentration within family firms is about 68.42% and it is about 52.56% in non-family firms. The major shareholder owns 53.11% of the voting rights in family firms, while the major shareholder owns only 40.49 of the voting rights in the non-family business. On the other hand, concentration for group affiliated firms is about 62.48%, compared with 52.07% for non-group affiliated firms. The major shareholder's voting rights are 51.96% in group affiliated firms and 41.17% in non-group affiliated firms. These features show that ownership in Canada is highly concentrated and that large shareholdings are, as expected, more obvious for family and group affiliated firms.

On the other hand, the stake of insiders in family firms is 63.7%, and 37.4% for non-family firms. However, it is lower for group affiliated firms where it equals 48.14%, and is the lowest for the non-group affiliated firms. The proportion of non voting shares and multiple voting shares is highest in family firms (27% and 18% respectively). It is equal to 9% for non-family business and group affiliated firms. It can be concluded that controlling families use different means to achieve control within their business: they own a large part of the control over cash flow rights, they seem to appoint their relatives to management positions (as indicated by the variable BLI) and they use non voting shares and multiple voting shares to entrench their control, and may eventually expropriate minority shareholders. Other data not reported here (e.g., Gadhoun et al., 2003) show that most Canadian family firms use pyramidal structure and cross-holdings. Table 2 also shows that the number of shares is significantly less important in family-owned firms than their counterparts.

Table 2 (Panel B) shows that family firms are smaller than their counterparts which is consistent with previous empirical studies (Faccio and Lang, 2001, and Claessens et al., 2000). Family firms do not show any statistically significant differences in agency costs and do not seem to have more or less free cash flows than their counterparts according to the sample used in this study, and the proxy measures

developed. They do not seem to have more senior managers or more directors on their boards than their counterparts. However, they seem to be less risk averse and their expenditures on research and development are significantly more than their counterparts. This confirms the results of Daily and Dollinger (1992) who found that family-owned firms have more vision but are less aggressive. They are obviously less pointed by financial analysts than their counterparts which show some inefficiency in the financial analyst's market. Most of these conclusions apply to the difference between group and non-group affiliated firms also.

Table 2 (Panel C) shows that, at the univariate level, there is no significant difference in dividend payments between family firms than their counterparts. The same results apply for special dividends and debt. However, group affiliated firms pay more dividends (normal and special) than the non-group affiliated firms. This result will be examined further at the multivariate level of analysis.

In order to be able to capture some subtle behavior within families, strongly family owned firms were distinguished from the weakly owned ones, and a test of difference of means was performed to investigate eventual differences among the three categories (strongly family owned firms, weakly family owned firms and the non-family-owned firms). The results are presented in Table 3. They confirm that concentration in strongly family-owned firms is higher than concentration either in weakly family-owned or non-family-owned firms. This concentration is about 72.68% for strong family owned firms, and the managers, directors and CEO stake of voting rights (BLI) is 68.56%. This indicates that management and ownership are congruent especially in strongly family firms. Panel A (Table 3) shows also that the proportion of multiple voting shares and non-voting shares are the highest within the strongly family controlled businesses. Panel B (Table 3) suggests that size is the lowest for strongly family owned firms and that risk is the lowest within this category of firm. This result confirms a previous study of Daily and Dollinger (1992). For almost all the other variables, results are similar to those of Table 2.

**Table 3 : Mean Comparison Tests (Strong and Weak Family Owned Firms)**

Panel A						
Variables	Definition	FML=1 (n=37)		FML=0 (n=440)	F	Prob
		SFML (n=31)	WFML (n=6)	NFML (n=440)		
COC	Concentration	72,68	46,42	52,56	11,32	0,0001
BL1	Major shareholder's voting rights	59,6	22,36	40,49	11,61	0,0001
BLI	Manager, directors, and CEO's V.R	68,56	38,57	37,4	17,38	0,0001
HFM	Herfindahl's measure	4186,39	1026,46	2411,59	11,96	0,0001
NAC	Shareholders' number	1869		15069,26	0,25	0,6157
SUB	Subaltern Shares (1,0)	0,29	0,16	0,09	5,97	0,0028
MUL	Multiple voting shares (1,0)	0,22	0	0,09	3,27	0,391
LEV	Voting leverage	2,27	1	1,4	1,09	0,3381
VOL	Transaction volume	3178,19	863,44	8313,91	1,36	0,2575
Panel B						
		SFML	WFML	NFML	F	Prob
TAL	Size	495479,30	39007,37	1980574,26	0,41	0,6637
RDE	R&D on sales	1,59	3,03	2,05	0,41	0,6658
NAF	Financial analysts number	7,52	7,27	9,98	1,89	0,1704
VES	Variation of the EPS	19,09	19,21	44,68	1,02	0,3149
BET	Beta	-1,61	-1,19	-0,74	1,79	0,1689
VGP	Gross profit variation	12,46	11,54	21,44	2,02	0,1344
CMM	Modigliani & Miller's F.C measure	-32376,79	-2446,5	-26492,04	0,09	0,9104

CFL	Lehn & Poulsen F.C measure	4415,61	-747	5280,59	0,01	0,9891
AGC	Agency costs	4,14	-11,71	1,09	1,33	0,2654
NDI	Directors number	9,9	8,16	9,36	0,37	0,6877
NMA	Managers number	5,12	4,83	4,93	0,03	0,9737
Panel C						
		SFML	WFML	NFML	F	Prob
D10	Average 10-year dividend	0,02	0,03	0,04	0,36	0,7011
DY5	5-year dividend yield	1,81	3,35	2,16	0,34	0,7124
DL3	3-year dividend/share	0,5	0,4	0,34	0,46	0,6312
DC3	3-year dividend/share	0,6	0,06	0,41	0,83	0,4375
DCD	10- year dividend/share	0,53	0,16	0,37	1,01	0,3666
DP5	Five year dividend payout	1,34	28,99	19,48	2,62	0,0739
DPM	Dividend payout (average)	-9,79	32,55	20,59	3,42	0,0338
DSM	Dividend/share (Stock-Guide)	0,41	0,16	0,3	0,32	0,725
DYM	Dividend yield (average)	1,89	3,2	2,54	0,17	0,8459
HAU	Dividend increase	259,83	499,83	292,13	0,71	0,4937
BAI	Dividend decrease	258,8	499,83	291,81	0,71	0,4924
SPF	Special dividend frequency	257,87	499,83	290,74	0,72	0,4896
SPM	Special dividend amount	257,89	499,75	290,71	0,71	0,4898
DTR	Debt Stock-Guide	0,25	0,29	0,28	0,35	0,7058

This analysis was repeated for group affiliated firms (strongly affiliated group firms, weakly affiliated group firms and non-affiliated group firms). The results are summarized in table 4. Concentration and insider stake holding are higher in the strongly affiliated group firms.

**Table 4 : Mean Comparison Tests (Strong and Weak Group affiliated Firms)**

Panel A						
Variables	Definition	GRP=1 (n=66)		GRP=0 (n=298)	F	Prob
		SGRP (n=55)	WGRP (n=11)	NGRP		
COC	Concentration	67,65	36,61	52,07	12,9	0,0001
BLI	Manager, directors, and CEO's V.R	54,19	17,94	37,71	10,29	0,0001
HFM	Herfindahl's measure	3943,83	742,71	2500,64	15,04	0,0001
NAC	Shareholders' number	8504,37	19889	17877,5	0,2	0,8215
SUB	Subaltern Shares (1,0)	0,16	0	0,11	1,35	0,2612
MUL	Multiple voting shares (1,0)	0,07	0	0,1	0,88	0,4168
LEV	Voting leverage	1,76	1	1,42	0,33	0,7205
VOL	Transaction volume	8157,35	16069,72	9072,57	0,59	0,5559
Panel B						
		SGRP	WGRP	NGRP	F	Prob
TAL	Size	2569848,42	2118666,02	2193096,91	0,02	0,9758
RDE	R&D on sales	0,74	3,38	2,08	3,71	0,0254
NAF	Financial analysts number	10,58	12,12	9,79	0,33	0,7203
VES	Variation of the EPS	55,04	21,01	34,79	0,63	0,5336
BET	Beta	-0,18	0,16	-0,87	2,62	0,0746
VGP	Gross profit variation	25	14,69	21,14	0,78	0,46
CMM	Modigliani & Miller's F.C measure	-60635,55	-99603,9	-19923,53	2,31	0,1003
CFL	Lehn & Poulsen F.C measure	-4233,87	-15170,75	10690,26	0,64	0,5254
AGC	Agency costs	3,71	4,4	-0,18	0,8	0,4522
NDI	Directors number	12,76	12,1	9,14	13,73	0,0001
NMA	Managers number	6,83	5,6	4,9	3,51	0,031
Panel C						
		SGRP	WGRP	NGRP	F	Prob
D10	Average 10-year dividend	0,08	0,05	0,03	4,25	0,0154
DY5	5-year dividend yield	3,47	5,07	1,91	5,08	0,0067
DL3	3-year dividend/share	0,67	0,68	0,31	4,35	0,0138
DC3	3-year dividend/share	0,65	0,55	0,39	1,77	0,1725



DCD	10- year dividend/share	0,43	0,77	0,38	1,45	0,2377
DP5	Five year dividend payout	31,97	37,64	15,45	3,68	0,0263
DPM	Dividend payout (average)	45,64	41,89	12,3	6	0,0028
DSM	Dividend/share (Stock-Guide)	0,66	1,08	0,266	7,67	0,0006
DYM	Dividend yield (average)	4,47	7,17	2,01	5,37	0,0051
HAU	Dividend increase	130,01	274,9	293,18	3,21	0,0413
BAI	Dividend decrease	127,96	273,36	293,2	3,28	0,0388
SPF	Special dividend frequency	127,36	272,45	291,77	3,25	0,0399
SPM	Special dividend amount	127,23	272,45	291,73	3,25	0,0398
DTR	Debt Stock-Guide	0,32	0,29	0,27	1,08	0,3398

Table 4 shows that concentration in strongly affiliated group firms is 67.65% and that the managers, directors and CEO voting rights are 54.19%, indicating higher concentration in strongly affiliated group firms and higher insider management participation. The proportions of non-voting shares and multiple voting shares are higher within the strongly affiliated group firms. From Panel B (Table 4), it can be seen that size is the highest within the strongly affiliated group firms, and that this category is riskier (*beta*) than the non-group affiliated firms, but not as much as the weakly affiliated group firms. From Panel C (Table 4) the same conclusion can be reached as were described in relation to previous tables.

The next empirical investigation was motivated by the following question: do family-owned firms (group affiliated firms) belong to specific industries? Consequently, the industries in which family-owned firms are predominant were examined. Table 5 summarized the results for the distribution of family-owned firms across industries and shows that family firms are not randomly or uniformly distributed among industries. The same applies for group affiliated firms. Table 5 shows that group-affiliated firms are mainly concentrated in the Resource-Intensive Manufacturing (Petroleum Refining), Finance and Insurance Services, Wholesale Services, and Construction industries with respective frequencies of 15.15%, 15.15%, 15.15% and 9.09%. Family-owned firms are concentrated into four major industries : Technology-Intensive Manufacturing (Communication Equipment),

those with more prospective strategies.

Resource-Intensive Manufacturing (Food and Products), Industrial Products, and Wholesale Services, with respective frequencies of 18.92%, 18.92%, 13.51% and 18.92%.

According to these findings, it can be concluded that there are preferred industries for family firms and for group affiliated firms as well as industries where they do not appear to flourish, a hypothesis that needs some more exploration. In order to investigate what determines the attraction of a family to preferred industries, a dummy variable was used that took the value one (1) if the industry was preferred (industries 17, 18, 23 and 24 in table 5) and zero (0) otherwise. Then the companies' features throughout the two classes of industries (1 and 0) were compared. The results are presented in Panel B in Table 5 and show that family-owned firms are concentrated in the industries with higher R&D expenses on sales (RDE) and with lower risk (BET). These features characterize complex industries with higher barriers to entry, showing that family firms tend to keep out competitors in order to enhance their business and voting control. For the group-affiliated firms' distribution over industries, an analogous method was used. The results (Panel B, Table 5) show that group-affiliated firms are predominant in the industries with higher risk (BET,VGP), where the number of financial analysts engaged by the firms are higher (NAF), and research and development expenditures are higher. It can be inferred that families and group affiliated firms prefer less risky industries and

**Table 5 : Family and Group Ownership according to Industry**

Panel A: Firms' (family and group affiliated) Industry distribution									
Number	Industry	FML (n=37)		NFML (n=439)		GRP (n=66)		NGRP (n=298)	
		Frequency	Percent	frequency	Percent	frequency	Percent	frequency	Percent
11	Mines	1	2,7	25	5,69	5	7,58	15	5,03
12	Precious Metal and Minerals	0	0	45	10,25	3	4,55	28	9,4
13	Oil and Gas Producers	2	5,41	76	17,31	10	15,15	51	17,11
14	Distribution of Oil and Gas (Pipelines)	0	0	4	0,91	0	0	4	1,34
15	Paper and Forest Products	3	8,11	17	3,87	4	6,06	12	4,03
16	Food Processing	0	0	16	3,64	1	1,52	9	3,02
17	Industrial Products	5	13,51	34	7,74	0	0	33	11,07
18	Consumer Products	7	18,92	30	6,83	1	1,52	25	8,39
19	Technology	2	5,41	23	5,24	0	0	19	6,38
20	Real Estate and Construction	2	5,41	17	3,87	6	9,09	11	3,69
21	Transportation	0	0	8	1,82	1	1,52	4	1,34
22	Utilities	0	0	11	2,51	3	4,55	8	2,68
23	Merchandising	7	18,92	36	8,2	10	15,15	25	8,39
24	Communication and Media	7	18,92	14	3,19	3	4,55	14	4,7
25	Financial services	0	0	38	8,66	10	15,15	23	7,72
26	Management Companies	0	0	29	6,61	8	12,12	11	3,69
27	Consultation	1	2,7	16	3,64	1	1,52	6	2,01

  

Panel B : Firms (family and group-affiliated) selected features							
Variables		FML			GRP		
		FML	NFML	t	GRP	NGRP	t
RDE	R&D on sales	1,42	0,94	0,0454	1,01	6,47	0,0001

NAF	Financial analysts number	7,84	9,21	0,1738	9,13	6,56	0,0319
BET	Beta	-1,94	-0,71	0,4928	0,22	0,15	0,7771
VES	Variation of the EPS	27,06	26,25	0,93303	24,48	32,61	0,5866
VGP	Gross profit variation	8,89	10,95	0,5356	27,99	5,02	0,0279

#### 4.2 OLS regression results and discussion (H<sub>1</sub>)

The first hypothesis and main empirical motivation of this study was to investigate whether family-owned firms use dividend policy to expropriate minority shareholders. Regressions on nine different dependent variables (measuring the dividend payout, as described in the preceding section) were examined separately. Only the results of D10 and DSM are reported here. Three models were tested using these two independent variables (see Table 6 and Table 7). The regressions were performed on the global family sample, the reduced *only-family* sub-sample and *non-family* sub-sample and similarly for the group-affiliated firms. In a second step, the same investigation was applied but with the interaction effects with the family and group affiliation respectively. Results are summarized in table 8.

**Table 6 : Regressions Results (Depandant Variable, D10, ten years dividend/book-value)**

Variables		D10				
		Model 1				
		Family			Group	
		Global (n=228)	FML (n=205)	NFML (n=22)	GRP (n=153)	NGRP (n=46)
INTERCEPT		0.78 (0.0001)	1.06 (0.0285)	0.75 (0.0001)	0.14 (0.7506)	0.47 (0.0058)
BL1	Major shareholder's voting rights	0.01 (0.0001)	-0.003 (0.6114)	0.01 (0.0001)	0.009 (0.1129)	0.01 (0.0001)
VOL	Transaction volume	6.34 (0.0029)	4.09 (0.8711)	6.31 (0.004)	5.24 (0.3658)	9.41 (0.0001)
QRM	Tobin's Q Ratio	-0.007 (0.076)	0.17 (0.3439)	-0.007 (0.0688)	0.24 (0.0617)	0.09 (0.0216)
CFL	Lehn & Poulsen F.C measure	-0.99 (0.0343)	2.36 (0.3794)	-0.94 (0.0503)	-0.94 (0.1525)	-1.48 (0.0601)
RES	Size effect <sup>4</sup>	0.23 (0.0001)	0.14 (0.1725)	0.22 (0.0001)	0.38 (0.0002)	0.2 (0.0001)
CRC	Past Growth	-0.003 (0.0089)	0.01 (0.129)	-0.004 (0.0049)	-0.01 (0.1089)	-0.005 (0.0006)
R-square		0,3024	0.4795	0,3139	0.4152	0,2568
Adj R-sq		0,2836	0.2843	0,2932	0.3275	0,2265
		Model 2				
INTERCEPT		1.11 (0.0001)	1.2 (0.0457)	1.11 (0.0001)	0.35 (0.3693)	0.93 (0.0001)
BLI	Manager, directors, and CEO's V.R	0.0044 (0.0177)	-0.004 (0.5203)	0.005 (0.0106)	0.005 (0.1903)	0.003 (0.1351)
VOL	Transaction volume	4.65 (0.0325)	7.08 (0.7874)	4.39 (0.0501)	3.68 (0.5152)	6.63 (0.008)
QRM	Tobin's Q Ratio	-0.005 (0.1904)	0.15 (0.3823)	-0.005 (0.1947)	0.28 (0.0362)	0.07 (0.0689)
CFL	Lehn & Poulsen F.C measure	-1.04 (0.0343)	2.3 (0.3655)	-1.02 (0.0438)	-1.1 (0.1007)	-1.14 (0.1675)
RES	Size effect	0.23 (0.0001)	0.16 (0.1275)	0.22 (0.0001)	0.036 (0.0004)	0.17 (0.0002)
CRC	Past Growth	-0.003 (0.0105)	0.01 (0.1365)	-0.004 (0.0055)	-0.01 (0.1165)	-0.005 (0.0013)
R-square		0.2434	0.4847	0.2468	0.4033	0.17
Adj R-sq		0.2229	0.2915	0.224	0.3138	0.1362
		Model 3				
INTERCEPT		0.78 (0.0001)	0.82 (0.2291)	0.76 (0.0001)	0.27 (0.6222)	0.55 (0.0025)
COC	Concentration	0.009 (0.0001)	0.0006 (0.9421)	0.01 (0.0001)	0.005 (0.4031)	0.009 (0.0008)
VOL	Transaction volume	6.49 (0.0032)	-1.95 (0.9391)	6.37 (0.0052)	4.7 (0.4488)	8.91 (0.0005)
QRM	Tobin's Q Ratio	-0.006 (0.1048)	0.19 (0.2858)	-0.006 (0.0982)	0.26 (0.0499)	0.07 (0.0647)
CFL	Lehn & Poulsen F.C measure	-0.96 (0.0439)	1.7 (0.5081)	-0.93 (0.06)	-0.97 (0.1525)	-1.21 (0.1325)
RES	Size effect	0.22 (0.0001)	0.14 (0.1761)	0.22 (0.0001)	0.038 (0.0002)	0.18 (0.0001)
CRC	Past Growth	-0.003 (0.0087)	0.01 (0.1496)	0.004 (0.0051)	-0.02 (0.0925)	-0.005 (0.001)
R-square		0.2775	0.471	0.282	0.3878	0.2198
dj R-sq		0.258	0.2726	0.2603	0.296	0.188

**Tableau 7 : Regressions Results (Dependant Variable, DSM, dividend/share)**

Variables	Definition	DSM				
		Model 1				
		Family			Group	
		Global (n=228)	FML (n=205)	NFML (n=22)	GRP (n=153)	NGRP (n=46)
<b>INTERCEPT</b>	Intercept	0.08 (0.0113)	0.1 (0.2617)	0.08 (0.0095)	0.23 (0.2596)	0.08 (0.0135)
<b>BL1</b>	Major shareholder's voting rights	0.002 (0.0001)	0.0007 (0.5698)	0.002 (0.0001)	0.002 (0.3595)	0.002 (0.0003)
<b>VOL</b>	Transaction volume	2.87 (0.0001)	2.19 (0.7182)	2.98 (0.0001)	2.3 (0.4381)	2.78 (0.0001)
<b>QRM</b>	Tobin's Q Ratio	-0.0003 (0.6701)	0.03 (0.4207)	-0.0003 (0.6558)	-0.05 (0.4009)	0.003 (0.2103)
<b>CFL</b>	Lehn & Poulsen F.C measure	0.2 (0.1956)	6.21 (0.0001)	0.04 (0.773)	-0.07 (0.8082)	0.74 (0.0026)
<b>RES</b>	Size effect <sup>a</sup>	0.08 (0.0001)	0.06 (0.0033)	0.08 (0.0001)	0.09 (0.0119)	0.07 (0.0001)
<b>CRC</b>	Past Growth	-0.0007 (0.0249)	0.0003 (0.8694)	-0.0007 (0.0288)	-0.006 (0.1303)	-0.001 (0.004)
<b>R-square</b>		0.2855	0.85	0.2873	0.2417	0.3276
<b>Adj R-sq</b>		0.2738	0.8179	0.2745	0.1525	0.3105
<b>Model 2</b>						
<b>INTERCEPT</b>	Intercept	0.14 (0.0001)	0.02 (0.7866)	0.15 (0.0001)	0.33 (0.0571)	0.17 (0.0001)
<b>BLI</b>	Manager, directors, and CEO's V.R	0.001 (0.0135)	0.001 (0.2144)	0.001 (0.0312)	0.001 (0.6197)	0.0005 (0.346)
<b>VOL</b>	Transaction volume	2.6 (0.0005)	0.69 (0.9086)	2.68 (0.0003)	1.8 (0.536)	2.23 (0.0019)
<b>QRM</b>	Tobin's Q Ratio	-0.0003 (0.6977)	0.03 (0.3461)	-0.0003 (0.6754)	-0.04 (0.4577)	0.002 (0.2767)
<b>CFL</b>	Lehn & Poulsen F.C measure	0.21 (0.1946)	6.12 (0.0001)	0.04 (0.7774)	-0.09 (0.7684)	0.82 (0.0011)
<b>RES</b>	Size effect	0.08 (0.0001)	0.06 (0.0034)	0.08 (0.0001)	0.09 (0.0171)	0.07 (0.0001)
<b>CRC</b>	Past Growth	-0.0007 (0.0217)	0.0003 (0.8475)	-0.0007 (0.0246)	-0.007 (0.0977)	-0.001 (0.0044)
<b>R-square</b>		0.2623	0.8565	0.2636	0.2327	0.2913
<b>Adj R-sq</b>		0.2503	0.8258	0.2503	0.1425	0.2733
<b>Model 3</b>						
<b>INTERCEPT</b>	Intercept	0.07 (0.0671)	0.07 (0.5041)	0.07 (0.065)	0.26 (0.3034)	0.1 (0.012)
<b>COC</b>	Concentration	0.002 (0.0008)	0.0009 (0.5602)	0.002 (0.0015)	0.001 (0.5865)	0.001 (0.0179)
<b>VOL</b>	Transaction volume	3.02 (0.0001)	2.33 (0.6974)	3.12 (0.0001)	2.3 (0.466)	2.66 (0.0003)
<b>QRM</b>	Tobin's Q Ratio	-0.0003 (0.6737)	0.03 (0.4239)	-0.0004 (0.656)	-0.05 (0.4171)	0.002 (0.2376)
<b>CFL</b>	Lehn & Poulsen F.C measure	0.21 (0.1737)	6.24 (0.0001)	0.05 (0.7352)	-0.07 (0.8143)	0.81 (0.0012)
<b>RES</b>	Size effect	0.08 (0.0001)	0.05 (0.0046)	0.08 (0.0001)	0.09 (0.0113)	0.07 (0.0001)
<b>CRC</b>	Past Growth		0.0002 (0.8973)	-0.0007 (0.0342)	-0.006 (0.1348)	-0.001 (0.005)
<b>R-square</b>		0.2732	0.8501	0.2763	0.2335	0.3054
<b>Adj R-sq</b>		0.2614	0.818	0.2632	0.1433	0.2877

The results in Tables 6 and 7 for the three models are similar. The coefficients of the ownership concentration (COC), major shareholder's voting rights (BL1) and the managers, directors and CEO stake (BLI)<sup>11</sup> are positive and significant for the global regression which is also the case for family and group affiliated firms. The expropriation of minority shareholders by family senior management via dividends is not clearly confirmed here by the data. Moreover, the last column of Table 6 shows that group-affiliated firms pay more dividends in Canada which confirms the fiscal effect hypothesis. An internal capital market within the constituents of the group is a plausible interpretation of these results.

The volume effect (VOL) and the size effect (RES) on dividend payments are positive and significant. The free cash-flows effect is negative and significant. These results are similar for the global family and for the global group samples.

These results show that Canadian corporations which are affiliated to groups or which are family owned exhibit a significantly positive relationship between dividend measures and ownership stakes. The controlling shareholders in family firms, even when they have a large ownership stake, pay more dividends. At first glance, this would appear to refute the hypothesis of expropriation via dividends. But when the results are analyzed together with those of groups, it is reasonable to think that expropriation is effected by other means, and primarily through intra-group cash-flow distribution. It is hard to infer from these results whether, in the Canadian capital market, minority shareholders enjoy protection from expropriation or not.

To shed more light on the effects of shareholders on dividend payments, and in order to overcome the small size sample of family owned firms, interaction effects were introduced (with family and group affiliation separately) into the Model 1 (where the ownership

variable is BL1). The results for Model 2 and 3 are not reported here. The other results are reported in table 8.

**Table 8 : Regressions Results With Interaction Effect**

Panel A: Interaction with family				
	DSM (n=374)		D10 (n=228)	
Variables	Parameter	t	Parameter	t
INTERCEPT	0.08	0.0078	0.52	0.0001
BL1	0.002	0.0001	0.01	0.0001
VOL	2.98	0.0001	9.07	0.0001
QRM	-0.0003	0.6474	-0.004	0.2148
CFL	0.04	0.7672	-0.94	0.0469
RES	0.08	0.0001	0.22	0.0001
CRC	-0.0007	0.0249	-0.004	0.0043
FML	0.01	0.9272	0.39	0.5047
FBL1	-0.001	0.4436	-0.01	0.0783
FVOL	-0.78	0.9372	-3.21	0.9184
FQRM	0.03	0.6158	0.17	0.4259
FCFL	6.16	0.0001	3.31	0.3232
FRES	-0.02	0.5197	-0.08	0.5366
FCRC	0.001	0.7468	0.01	0.1059
R-square	0.356		0.325	
Adj R-sq	0.333		0.284	
Panel B: Interaction with group affiliation				
	DSM (n=300)		D10 (n=200)	
Variables	Parameter	t	Parameter	t
INTERCEPT	0.08	0.0364	0.4723	0.0061
BL1	0.002	0.002	0.0126	0.0001
VOL	2.78	0.0009	9.4146	0.0002
QRM	0.003	0.2899	0.0906	0.0226
CFL	0.74	0.0106	-1.4887	0.0621
RES	0.07	0.0001	0.2037	0.0001
CRC	-0.001	0.0148	-0.00564	0.0006
GRP	0.15	0.2893	-0.3308	0.4731
GBL1	0.0002	0.9083	-0.00338	0.5885
GVOL	-0.47	0.8204	-4.1707	0.4918
GQRM	-0.05	0.1741	0.1570	0.2309
GCFL	-0.82	0.0219	0.5422	0.5925
GRES	0.02	0.385	0.1768	0.0737
GCRC	-0.005	0.0623	-0.01348	0.2380
R-square	0.335		0.3170	
Adj R-sq	0.305		0.270	

COC=Concentration; FML=family owned; BL1=Major shareholder's voting rights; BLI=Manager, directors, and CEO's V.R; VOL=Transaction volume; QRM=Tobin's Q Ratio; CFL=Lehn & Poulsen F.C measure; RES=size effect; CRC=Past growth; GRP= group affiliated; F stems for interaction with family whereas G stems for interaction with group.

It can be inferred from Table 8 that, for the family regressions, the only positive and significant interaction variable for the family sample is the free cash-flow into the DSM regression, whereas no significant interaction effect exists in the D10 regression. The results are the same for the group sample. This finding (positive and significant coef-

ficients of the FCFL and GCFL interaction variables) is consistent with the hypothesis that family firms pay more dividends when they have abundant free cash flows. This can be explained by the competitive hypothesis described in the preceding section, and by the fact that the Canadian market anticipates the expropriation effect and imposes on family firms higher dividend payouts to reduce this effect.

For corporations affiliated to a group, the only significant (and negative) interaction effect is with the free cash-flows variable, but the coefficient of the binary group affiliation variable is not significant and the coefficient of the free cash-flows itself is positive and significant. This reinforces the conclusion that the Canadian capital market anticipates the potential for expropriation within group-affiliated corporations by requiring higher dividend rates. In the next section, the impact of firm status and ownership concentration on dividend stability is investigated.

**4.3 Stability of dividend policy (H<sub>2</sub>)**

Table 9 displays the results of logit regressions testing on H<sub>2</sub>. The tests were performed to observe the probability of maintaining stable dividend payments using maximum likelihood estimates. The estimation was performed for three models for the family and group samples separately. The results show a negative and significant relationship between stability in dividend payments and ownership concentration (COC), major shareholder's voting rights (BL1) and managers, directors and CEO control stake (BLI) in the corporation for family and group affiliated firms. However, there are no significant interaction effects for the group affiliated firms, whereas for the family firms the interaction between family and volume is negative and significant, the interaction between free cash-flow and family ownership is positive and significant, and the interaction between family ownership and insider control and family ownership and concentration are both negative and significant. The interaction effect is not significant with the major shareholder's voting rights. These results show that the major shareholder in family businesses induces more frequent dividend changes, perhaps as a function of his/her personal or business financial needs.

**Table 9 : Logit Regressions of Explanatory Variables on the Probability to Not Change the Dividend**

Panel A : Logit regressions of explanatory variables on the probability to not change the dividend payments with the maximum likelihood estimates (family interaction)						
	Model 1 (n=271)		Model 2 (n=271)		Model 3 (n=271)	
Variables	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>
INTERCEPT	0.9203	0.0001	0.7706	0.0001	0.7739	0.0001
BL1	-0.0116	0.0001				
BLI			-0.00951	0.0001		
COC					-0.0067	0.0111
VOL	-22.085	0.0001	-21.0914	0.0001	-20.9321	0.0001
CRC	0.0155	0.0001	0.0156	0.0001	0.0154	0.0001
CFL	1.5841	0.0013	1.5843	0.0012	1.5194	0.0019
QRM	0.0196	0.2692	0.0191	0.2424	0.0201	0.2648
RES	-0.5034	0.0001	-0.5165	0.0001	-0.5055	0.0001
FML	-0.6417	0.2779	2.5110	0.0091	1.7998	0.0573
FBL1	0.0030	0.7694				
FBLI			-0.0446	0.0015		
FCOC					-0.0325	0.0110
FVOL	45.2129	0.5512	205.6	0.0183	140.5	0.0919
FCRC	0.0107	0.5160	0.0186	0.3101	0.0169	0.3475
FCFL	50.4080	0.1654	77.5967	0.0395	71.5893	0.0601
FQRM	-0.1935	0.4869	-0.3809	0.2728	-0.3462	0.2882
FRES	-0.2758	0.1636	-0.5241	0.0169	-0.4017	0.0539
Concordant : PC	0.750		.755		.747	

**Panel B : Logit regressions of explanatory variables on the probability to not change the dividend payments with the maximum likelihood estimates (group interaction)**

Variables	Model 1 (n=222)		Model 2 (n=222)		Model 3 (n=222)	
	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>
INTERCEPT	0.99	0.0001	0.71	0.0001	0.78	0.0001
BL1	-0.01	0.0001				
BLI			-0.009	0.0001		
COC					-0.008	0.0085
VOL	-20.59	0.0001	-17.72	0.0001	-18.02	0.0001
CRC	0.01	0.0001	0.01	0.0001	0.01	0.0001
CFL	1.71	0.0061	1.59	0.0095	1.5	0.0144
QRM	-0.05	0.1853	-0.06	0.1485	-0.05	0.188
RES	-0.53	0.0001	-0.54	0.0001	-0.51	0.0001
GRP	-0.2	0.6483	0.63	0.1143	0.27	0.6053
GBL1	0.01	0.0795				
GBLI			-0.004	0.444		
GCOC					0.001	0.8356
GVOL	-5.24	0.4928	-9.58	0.1954	-9.64	0.228
GCRC	0.01	0.1124	0.01	0.2136	0.01	0.1304
GCFL	-0.16	0.8863	0.57	0.6094	0.21	0.8513
GQRM	-0.09	0.479	-0.12	0.356	-0.08	0.5383
GRES	0.04	0.6639	0.1	0.324	0.02	0.8034
Concordant : PC	0.744		0.744		0.738	

COC=Concentration; FML=family owned; BL1=Major shareholder's voting rights; BLI=Manager, directors, and CEO's V.R; VOL=Transaction volume; QRM=Tobin's Q Ratio; CFL=Lehn & Poulsen F.C measure; RES=size effect; CRC=Past growth; GRP=group affiliated ; F stems for interaction with family whereas G stems for interaction with group.

On the other hand, the results for the group logit regressions show that the only presence of a principal shareholder, no matter how large the stake he/she has in the company and no matter who he/she is, induces more frequent changes in cash distribution. This is consistent with Wooldridge's (1982) results, that dividend change contains information about future earnings, and that the market should react to the unexpected or surprise element in dividend change. Furthermore, the large shareholder within a group may request frequent changes of dividends, also depending on the financial needs of the constituents of the group either to avoid tax payment, making most of the constituents converge to zero taxable gains, or to allow movements of capital funds within the group making the latter function as an internal capital market.

**4.4 Dividend rises and cuts in family owned and group affiliated firms**

Table 10 summarizes the results of logit regressions of explanatory variable on the probabilities of a dividend rise (equations 2 to 4) and on the probability of a dividend cut (equations 5 and 6). The parameters were estimated using the maximum likelihood approach. The regressions were performed on the family and group samples separately. The results show a significant influence from the principal shareholder on the decisions to rise or to cut dividend payments, for both samples (family and group). These results accord with those of the preceding section, and suggest that the largest shareholder has a preference for dividend changes depending on his/her financial needs. The data do not show a unique direction of change. This may confirm the extent to which the largest shareholder in family and group affiliated firms use his/her discretion to pay more or less dividends depending on his/her personal or business needs no matter what the minority owners favor. This is a very indirect confirmation of expropriation.

The interaction effects of the family with ownership concentration, and insider control (managers, directors, and CEO stake), volume of transaction are significant, indicating that decisions to change dividend payments are monopolized by the major shareholders in the family business, suggesting an expropriation of the minority shareholders. Interaction results for the group sample are not significant.

**Table 10 : Logit Regressions of Explanatory Variables on the Probabilities to Rise Dividend Payments**

**Panel A : Logit regressions of explanatory variables on the probabilities to rise dividend payments with the maximum likelihood estimates (family interaction).**

Variables	Model 1 (n=278)		Model 2 (n=278)		Model 3 (n=278)	
	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>
INTERCEPT	-1.4218	0.0001	-1.2651	0.0001	-1.3135	0.0001
BL1	0.0103	0.0001				
BLI			0.00787	0.0001		
COC					0.00638	0.0144
VOL	24.3415	0.0001	23.5361	0.0001	23.8135	0.0001
CRC	-0.0115	0.0001	-0.0117	0.0001	-0.0115	0.002
CFL	-1.3414	0.003	-1.3614	0.0025	-1.3170	0.0035
QRM	-0.0203	0.3813	-0.0193	0.3538	-0.0210	0.3780
RES	0.4277	0.0001	0.4368	0.0001	0.4305	0.0001
FML	-0.7527	0.2510	-3.4882	0.0009	-3.1208	0.0042
FBL1	0.00922	0.3709				
FBLI			0.0452	0.0015		
FCOC					0.0388	0.0055
FVOL	-81.7743	0.2377	-227.1	0.0051	-181.1	0.0204
FCRC	-0.0111	0.4789	-0.0245	0.1641	-0.0203	0.2400
FCFL	10.1174	0.7470	-29.8390	0.3387	-20.0566	0.5213
FQRM	0.8011	0.0051	1.0332	0.0011	0.9819	0.0018
FRES	0.3802	0.0544	0.551	0.0086	0.4498	0.251
Concordant : PC	.734		.737		.733	

**Panel B : Logit regressions of explanatory variables on the probabilities to rise dividend payments with the maximum likelihood estimates (group interaction).**

Variables	Model 1 (n=229)		Model 2 (n=229)		Model 3 (n=229)	
	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>	Parameter	X <sup>2</sup>
INTERCEPT	-1.4068	0.0001	-1.1689	0.0001	-1.1876	0.0001
BL1	0.0108	0.0005				
BLI			0.00659	0.0038		
COC					0.00505	0.0924
VOL	24.6324	0.0001	22.8942	0.0001	22.7457	0.0001
CRC	-0.0132	0.0004	-0.0140	0.0002	-0.0135	0.0004
CFL	-1.6273	0.0056	-1.5742	0.0072	-1.4956	0.0104
QRM	0.0503	0.2674	0.0537	.2372	0.0511	0.2613
RES	0.4459	0.0001	0.4468	0.0001	0.4279	0.0001
GRP	-0.7162	0.1301	-1.2582	0.0049	-1.4324	0.0105
GBL1	0.00215	0.7508				
GBLI			0.0116	0.0367		
GCOC					0.0137	0.0620
GVOL	0.6982	0.9119	2.8305	0.6480	6.0679	0.3638
GCRC	0.00207	0.8560	0.00483	0.6755	0.00292	0.8019
GCFL	0.0555	0.9582	-0.5474	0.6059	-0.3835	0.7215
GQRM	0.1528	0.2492	0.2218	0.0978	0.1354	0.3054
GRES	0.0459	0.6572	0.00457	0.9662	0.0730	0.4810
Concordant : PC	.729		.731		.729	

COC=Concentration; FML=family owned; BL1=Major shareholder's voting rights; BLI=Manager, directors, and CEO's V.R; VOL=Transaction volume; QRM=Tobin's Q Ratio; CFL=Lehn & Poulsen F.C measure; RES=size effect; CRC=Past growth; GRP=group affiliated; F stems for interaction with family whereas G stems for interaction with group.

The principal shareholder, which is in most cases a firm, is not concerned about stability or growth over time of dividend payments. This is in direct contrast with the views of individual shareholders. In addition, this finding suggests the possibility of complex cash-flow exchanges between companies having cross-holdings, reciprocal holdings or pyramidal holdings. It is possible to imagine an internal capital market within groups. The cash-flows may depend also on the fiscal status of a company in a given year (positive or negative earnings) which influence the rise or cut of dividends. To sum up, these results show that the largest shareholder exerts influence on dividend payments no matter what are the expectations of minority shareholders.

## 5. CONCLUSION

It has been shown that a number of environmental changes increase, in some rather profound ways, awareness and sensitivity to family business issues. Several well documented studies have shown that family dynamics have influenced the behavior of firms. The differences in style and motivation that may exist between the founder or his/her successors and descendants and the professional managers explain the differences in behaviors between family-owned firms and non-family-owned firms.

Despite the prevalence of family business, thoughtful analysis and predictions of their financial policies have rarely been provided. The economic importance of family-owned firms throughout the world and the lack of attention paid to them until recently by financial academicians motivated this investigation. Most important controlling families in Canada and many other countries in western Europe and east Asian countries ensure a solid base of control primarily through pyramidal structure, cross-holdings and interlocking directorate. The motivation of the sophisticated equity linkages among firms is to conceive business groups.

The two objectives of this paper are, first, to characterize the two previous types of organizations. Secondly, dividend payments in family-owned and group affiliated firms have been studied in order to investigate whether they are prone to engage in expropriation of non-family shareholders who are usually the minority uninvolved absentee owners.

It has been shown that Canadian family-owned firms are smaller, more risk averse and more long term oriented than their counterparts. They own a large part of the control over cash-flow rights. The number of shares and the volume of transaction are less important in family-owned firms than in their counterparts. They seem to appoint their relatives into management positions. There is also evidence that they favor less complex industries in order to maintain their control and avoid entrenchment of professional managers. They use multiple voting shares extensively to lever their control. Almost the same conclusions can be reached for group-affiliated firms, except in so far as they relate to the size of the firms.

The results show no obvious evidence of expropriation via dividends for family-owned firms. Family-owned firms pay no less dividends than their individually listed counterparts especially when free cash-flows are high. It can be hypothesized that the Canadian capital market anticipates the expropriation effect and imposes on family firms higher dividends to reduce this effect. However, there is evidence that the largest shareholder induces frequent dividend changes in family firms. He/she uses his/her discretion to pay more or less dividends depending on his/her personal or business needs, no matter what are the expectations or preferences of the minority shareholders.

On the other hand, the correlation between dividend payments and the affiliation to a group is significantly positive. The largest shareholder within a group may request frequent changes of dividends also depending on the financial needs of the constituents of the group either to avoid tax payments, making most of the constituents converge to zero taxable gains, or to allow movements of funds within the group making it function as an internal capital market.

Overall, and although the results might be insufficient to illustrate expropriation of minority shareholders by family-owned firms, when the results of family and group affiliated firms are taken together, and the tendency of family-owned firms to monopolize multiple voting shares, with the option the controlling family-owner has to raise or to cut dividends, some light is shed on the expropriation potential within family firms.

Nevertheless, more research is required to isolate the private benefits extracted by the controlling family with a large sample of families and a better definition of the latter. A better definition is also needed, at the conceptual and empirical levels, of the different mechanisms of expropriation. Finally, one of the key implications of this study is to

create a reasonable doubt that family-owned firms, insufficiently studied in finance, have idiosyncratic financial features and policies that deserve the attention of corporate governance academics and professionals. The implications in terms of regulation in capital markets, especially, for business grouping is potentially an important area of investigation.

**Appendix I**

<b>Panel A : Spearman Correlation Coefficients</b>									
	D10	DY5	DL3	DC3	DCD	DP5	DPM	DSM	DYM
D10	1.00	0.78 (0.0001)	0.74 (0.0001)	0.73 (0.0001)	0.75 (0.0001)	0.54 (0.0001)	0.51 (0.0001)	0.75 (0.0001)	0.75 (0.0001)
DY5		1.00	0.89 (0.0001)	0.88 (0.0001)	0.86 (0.0001)	0.63 (0.0001)	0.51 (0.0001)	0.93 (0.0001)	0.97 (0.0001)
DL3			1.00	0.97 (0.0001)	0.90 (0.0001)	0.60 (0.0001)	0.55 (0.0001)	0.96 (0.0001)	0.90 (0.0001)
DC3				1.00	0.92 (0.0001)	0.60 (0.0001)	0.55 (0.0001)	0.98 (0.0001)	0.89 (0.0001)
DCD					1.00	0.54 (0.0001)	0.45 (0.0001)	0.90 (0.0001)	0.81 (0.0001)
DP5						1.00	0.86 (0.0001)	0.64 (0.0001)	0.62 (0.0001)
DPM							1.00	0.58 (0.0001)	0.53 (0.0001)
DSM								1.00	0.95 (0.0001)
DYM									1.00
<b>Panel B : Pearson Correlation Coefficients</b>									
	D10	DY5	DL3	DC3	DCD	DP5	DPM	DSM	DYM
D10	1.00								
DY5	0.42 (0.0001)	1.00							
DL3	0.25 (0.001)	0.56 (0.0001)	1.00						
DC3	0.27 (0.0001)	0.73 (0.0001)	0.92 (0.0001)	1.00					
DCD	0.23 (0.0001)	0.49 (0.0001)	0.76 (0.0001)	0.86 (0.0001)	1.00				
DP5	0.17 (0.0043)	0.29 (0.0001)	0.15 (0.0044)	0.25 (0.0001)	0.17 (0.0039)	1.00			
DPM	0.15 (0.0104)	0.24 (0.0001)	0.18 (0.0010)	0.20 (0.0010)	0.08 (0.1959)	0.89 (0.0001)	1.00		
DSM	0.33 (0.0001)	0.75 (0.0001)	0.83 (0.0001)	0.97 (0.0001)	0.77 (0.0001)	0.27 (0.0001)	0.22 (0.0001)	1.00	
DYM	0.37 (0.0001)	0.97 (0.0001)	0.52 (0.0001)	0.71 (0.0001)	0.42 (0.0001)	0.24 (0.0001)	0.21 (0.0001)	0.73 (0.0001)	1.00
D10: The ten years dividend/book-value Stock-Guide DY5: The five years dividend yield (div/market-value) DC3: The three years dividend/share average DCD: The ten years dividend/share DP5: The five years dividend payout DPM: The dividend payout average (DPM) DYM: The dividend yield average (DYM) DSM: The dividend/share Stock-Guide DL3: The three years dividend/share average The data for the first four variables was gathered from Compustat, the data for the second four variables was gathered collected from "Stock-Guide", and the data for the last variable was gathered from "Ruban Laval".									

## REFERENCES

- Alcorn, P.B., (1982), *Success and survival in the family-owned business*, McGraw-Hill New York.
- Attig, N., Gadhoun, Y., and Lang L., (2003), Bid-Ask Spread, Asymmetric Information and Ultimate Ownership, working paper, University of Quebec in Montreal.
- Aldrich, J.H. and F.D. Nelson, (1986), *Linear probability, logit and probit models*. Series: Quantitative Applications in the Social Sciences, A Sage University Paper, Sage Publications Inc.
- Barnes, P., I. Davidson and M. Wright, (1996), "The Changing Nature of Corporate Control and Ownership Structure", *Journal of Business Finance and Accounting*, Vol. 23, 651-671.
- Becker, B.M. and F.A. Tillman, (1978), *The Family-owned Business*, Commerce Clearing House, Chicago.
- Berle, A. and G.C. Means, (1932), *The Modern Corporation and Private Property*, MacMillan, New York.
- Bhattacharya, S., (1979), "Imperfect information, dividend policy, and the 'Bird in the Hand' fallacy", *Bell Journal of Economics*, Vol. 10, 259-270.
- Claessens, S., S. Djankov and L. Lang, (2000), "The separation of Ownership and Control in East Asian Corporation", *Journal of Financial Economics*, Vol. 58, 81-112.
- Daniels, R.J. and R. Morck, (1995), *Le défi posé par la régie des sociétés au Canada*, in *La prise de décision dans les entreprises au Canada*, Industrie Canada, University of Calgary Press, Calgary.
- Daily, C.M. and M.J. Dollinger, (1992), "An Empirical Examination of Ownership Structure in Family and Professionally Managed Firms", *Family Business Review*, Vol. 2, 117-137.
- Daily, C.M. and S.S. Thompson, (1994), "Ownership structure, strategic posture, and firm growth: An empirical examination", *Family Business Review*, Vol. 7, 237-249.
- Demsetz, H., (1983), "The structure of ownership and the theory of the firm", *Journal of Law and Economics*, Vol. 26, 375-390.
- Denis, D.J. and J. Serrano, (1996), "Active investors and management turnover following unsuccessful control contests", *Journal of Financial Economics* 40, 239-266.
- Denis, D.J., D.K. Denis and A. Sarin, (1997), "Agency problems, equity ownership and corporate diversification", *Journal of Finance*, Vol. 52, 135-160.
- Dyer, W.G., 1986, *Cultural change in family firms: Anticipating and managing business and family transitions*, Jossey-Bass, San Francisco.
- Easley, D. and M. O'Hara, (1987), "Price, trade size, and information in securities markets", *Journal of Financial Economics*, Vol. 19, 69-90.
- Easterbook, F.H., (1984), "Two agency cost explanations of dividends", *American Economic Review*, Vol. 74, 650-659.
- Eckbo, B.E. and S. Verma, (1994), "Managerial share ownership, voting power and cash dividend policy", *Journal of Corporate Finance*, Vol. 1, 33-62.
- Emmons, W.M. III, (1997), "Implications of ownership, regulation and market structure for performance: evidence from the U.S. electric utility industry before and after the new deal", *Review of Economics and Statistics*, Vol. 79, 279-289.
- Faccio, M. and L. Lang, (2001), "The ultimate ownership of Western European Corporations", *Journal of Financial Economics*, Faccio, M., L. Lang and L. Young, (2001), "Dividends and expropriation", *American Economic Review*, Vol. 91, 54-78.
- Fama, E.F. and M.C. Jensen, (1983), "Separation of ownership and control", *Journal of Law and Economics*, Vol. 26, 301-325.
- Gadhoun, Y., (1999), "Potential effects of managers' entrenchment and shareholdings on competitiveness", *European Journal of Operational research*, Vol. 118, 332-349.
- Gadhoun, Y., Lang, L., and Young, L., (2003), *Who Controls U.S.?*, mimeo, The Chinese University of Hong Kong.
- Glosten, L.R. and P.R. Milgrom, (1985), "Bid, ask and transaction prices in a specialist market with heterogeneously informed traders", *Journal of Financial Economics*, Vol. 14, 71-100.
- Gonedes, N., (1978), "Corporate signalling, external accounting, and capital market equilibrium: Evidence on dividend, income and extraordinary items", *Journal of Accounting Research*, Vol. 16, 26-79.
- Hansmann, H., (1996), *The ownership of enterprise*, Harvard University Press, Cambridge, MA.
- Harris, M. and A. Raviv, (1988), "Corporate governance: Voting rights and majority rules", *Journal of Financial Economics*, Vol. 20, 203-235.
- Haubrich, J., (1994), "Risk aversion, performance pay, and the principal agent problem", *Journal of Political Economy*, Vol. 102, 258-276.
- Higgins, R.C., (1972), "The Corporate Dividend Saving Decision", *Journal of Financial and Quantitative Analysis*, Vol. 7, 1527-1541.
- Holderness, C., R. Kroszner and D. Sheehan, (1999), "Were the good old days that good? Changes in managerial stock ownership since the great depression", *Journal of Finance*, Vol. 54, 435-470.
- Howe, J.S. and C.J. Lin, (1992), "Dividend policy and the bid ask spread: An empirical analysis", *Journal of Financial Research*, Vol. 15, 1-10.
- Huber, P.J., (1981), *Robert Statistics*, Wiley Series in Probability and Mathematical Statistics.
- Jensen, M.C., (1986), "Agency costs of free cash flow, corporate finance, and take-overs", *American Economic Review*, Vol. 76, 323-329.
- John, K. and J. Williams, (1985), "Dividends, dilution and taxes: A signaling equilibrium", *Journal of Finance*, Vol. 40, 1053-1070.
- Khan, M.R. and J.R. Rocha, (1982), "Recurring managerial problems in small business", *American Journal of Small Business*, Vol. 7, 50-58.
- Knopf, J.D. and J.L. Teal, (1996), "Risk taking behavior in the U.S. thrift industry: ownership structure and regulatory changes", *Journal of Banking and Finance*, Vol. 20, 1329-1350.
- Lane, W.R., (1988), *Founders, ownership structure and financial performance*, Working paper, Louisiana State University.
- Lang, L. and R. Litzberger, (1989), "Dividend announcement: Cash flow signaling vs free cash flow hypothesis?", *Journal of Financial Economics*, Vol. 24, 181-191.
- La Porta R., F. Lopez-de-Silanes and A. Shleifer, (1999), "Corporate ownership around the world", *Journal of Finance*, Vol. 54, 471-518.
- La Porta R., F. Lopez-de-Silanes, A. Shleifer and R.W. Vishny, (1997), "Legal determinants of external finance", *Journal of Finance*, Vol. 52, 1131-1150.
- Miller, M. and F. Modigliani, (1961), "Dividend policy, growth, and the valuation of shares", *Journal of Business*, Vol. 34, 411-443.
- Miller, M., Rock, K., (1985), "Dividend policy under asymmetric information", *Journal of Finance*, Vol. 40, 1031-1051.
- Mok, H.K., K. Lam and I.K. Cheung, (1992), "Family control and return covariation in Hong Kong's common stock", *Journal of Business Finance and Accounting*, Vol. 19, 277-293.
- Morck, R., A. Shleifer and R. Vishny, (1989), "Alternative mechanisms of corporate control", *American Economic Review*, Vol. 79, 842-852.
- Myers, S. and N. Majluf, (1984), "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, Vol. 13, 187-221.
- Patry, M. and M. Poitevin, (1995), "Pourquoi les investisseurs institutionnels ne sont pas de meilleurs actionnaires?" In: *La Prise de décision dans les entreprises au Canada*, Industrie Canada, University of Calgary Press, Calgary.
- Prowse, S.D., (1995), *Corporate governance in an international perspective: A survey of corporate control mechanism among large firms in the US, New York University Salomon Center 4(1) (UK, Japan and Germany)*.
- Prowse, S.D., (1990), "Institutional investment patterns and corporate financial behavior in the United States and Japan", *Journal of Financial Economics*, Vol. 27, 43-66.
- Radice, H., (1971), "Control type, profitability and growth in large firms", *The Economic Journal*, Vol. 81, 547-562.
- Roe, M., (1993), "Some differences in corporate structure in Germany, Japan, and the United States", *The Yale Law Review*, Vol. 102, 1927-2003.
- Royer, P. and J. Drew, 1994, *Impôt et planification*. Sciences et Culture, Montréal.
- Rozeff, M., (1982), "Growth, beta, and agency costs as determinants of dividend payout ratios", *Journal of Financial Research*, Vol. 5, 249-259.
- Schein, E.H., (1968), "Organizational socialization and the profession of management", *Industrial Management Review*, Vol. 9, 1-16.
- Shleifer, A. and R.W. Vishny, (1997), "A survey of corporate governance", *The Journal of Finance*, Vol. 52, 737-783.
- Thomadakis, S.B., (1977), "A value based test of profitability and market structure", *Review of Economics and Statistics*, Vol. 59, 179-185.
- Ward, J.L. and C.E. Aronoff, (1990), "To Sell or Not To Sell", *Nation's Business*, Vol. 78, 63-64.
- Williamson, O.E., (1981), "The modern corporation origins, evolution, attributes", *Journal of Economics Literature*, Vol. 19, 1537-1568.
- Williamson, O.E., (1988), "Corporate finance and corporate governance", *Journal of Financial Economics*, Vol. 23, 3-28.
- Wooldrige, J.R., (1982), "The information content of dividend changes", *Journal of Financial Research*, Vol. 5, 237-246.
- Yeh, Y.H., T.S. Lee and J.Y. Shu, (1998), *Family Control, Board Composition and Corporate Performance in Taiwan stock market*, NFA/APFA First Joint International Conference, Asia-Pacific Finance Association and Nippon Finance Association (Tokyo, Japan).
- Yeh, Y.H. and J.Y. Shu, (2000), *The year-end anomaly of Taiwan family control grouping*. Zeghal, M., (1979), *L'effet de la taille de la firme sur la valeur informationnelle des états financiers*. Ph.D. Thesis, Université Laval.
- Zingales, L., (1995), "What determines the value of corporate votes?" *Quarterly Journal of Economics*, Vol. 110, 1075-1110.