EXAMINING THE EFFECTS OF LARGE AND SMALL SHAREHOLDER

PROTECTION ON CANADIAN CORPORATE VALUATION

By

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A Thesis Submitted to
Saint Mary's University, Halifax, Nova Scotia
in Partial Fulfillment of the Requirements for
the Degree of Master of Finance.

September, 2013, Halifax, Nova Scotia

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Date: September 16, 2013

Abstract

Examining the effects of large and small shareholder protection on Canadian corporate valuation

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Abstract: First, we introduce a theoretical model of the positive effect of shareholder protection on the valuation of the firm. Then, we present a linear regression model to examine the effect of the shareholder protection and of the cash flow ownership by a controlling shareholder on firm valuation. In this research, we use a sample of 366 Canadian public firms listed on Toronto Stock Exchange market from 10 different industries. Consistent with the theoretical model, we find evidence of higher value of the firms with better shareholder protection in Canada. And the results generally confirm the prediction that higher cash flow owned by the controlling shareholder improves firm valuation.

September 16, 2013

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CHAPTER 1: INTRODUCTION

When the laws in a country are protective to outside shareholders and are well enforced, investors are willing to finance firms and the financial markets will be broader and more valuable. But how to better protect outside investors, such as shareholders and creditors, and how to promote the development of financial markets are key questions to pose. When their rights get better legal protection, outside investors are willing to pay more for financial assets, such as stocks and bonds. Because they recognize that, with better legal protection, the company's profits will be returned to investors as more interest, dividends, capital gains rather than to the entrepreneur who controls the company and may expropriate minority shareholders. By limiting expropriation, the law raises the prices of securities in the market. In turn, it also allows more entrepreneurs to finance their investment outside the company, resulting in the expansion of financial markets and development of the economy.

The effect of shareholder protection on firm valuation has been studied extensively in US market. La Porta et al. (2002) have presented a model of the effects of legal protection of minority shareholders and of cash flow ownership by a controlling shareholder on the valuation of firms. They have tested this model with 539 large firms of 27 different counties, and found evidence of a higher valuation of firms in countries with better protection of minority shareholders than in firms with higher cash flow ownership by a controlling shareholder. However, this examination is not focused on a single country with a large enough number of testing firms. It is difficult to say what are the unique features of the effect of shareholder protection on firm value among these 27 countries. In order to gain a deeper understanding of the Canadian firms, this research will follow the lead of La Porta, and examine the effect of shareholder protection on

Canadian corporate valuation, and will present a theoretical and empirical analysis of this effect.

CHAPTER 2: LITERATURE REVIEW

According to Morck et al (1988), there exists an U-shaped relationship between equity ownership and firm value based on an examination of US firms. It means that a firm's performance improves with higher equity ownership, but after some certain point a firm's performance starts to deteriorate. Managers start to pursue private benefits at the expense of outside investors. Stulz (1988) formalized the cost of large shareholdings and expropriation minority shareholders in a model which demonstrated a concave relationship between managerial ownership and firm value. If the managerial ownership increases, the negative effect on firm value imposed by shareholders will exceed the incentive of the marginal benefits shareholders can gain. The model also shows that the entrenchment cost relates to manger's ability to fend off value-enhancing takeovers.

The ownership structure in the US has relatively little concentration. However, most firms in other countries are controlled by large shareholders. (Rafael La & Shleifer, 1999) Therefore, studying non-US firms can provide better evidence about the effect of a large shareholder on firm value. Because of this consideration, this research will focus on examining the Canadian public firms regarding the effects of ownership structure on firm value.

The effects of shareholder protection and ownership structure on corporate valuation have been studied extensively. Large shareholders have stronger incentives to maximize the firm value, and are more capable to gather information regarding to manager performance. Therefore, they can help to overcome one of the biggest issues in corporate management the agency problem. However, large shareholders can look for their own interests, which do not coincide with the interest of other investors and employees. (Shleifer & Vishny, 1997)

"Firm's performance improves with higher managerial ownership, but that, after a point, managers become entrenched and pursue private benefits at the expense of outside investors." (Claessens et al, 2002)

There also exists a negative relation between large controlling shareholders and firm value, and a positive effect between cash flow rights of large shareholders and firm value. Increases in control rights by the large shareholder are accompanied by declines in firm value. However, an increase in cash flow rights by the large shareholder is associated with an increase in firm value.

The legal protection of minority shareholders and outside investors can help prevent the large shareholder searching for own benefit and manager tunneling of firm value, which includes outright theft and selling products or assets below market value. La Porta (2002) examined 27 companies countries about the effect of legal protection on valuation, and found evidence that higher valuation of the firms often combines with better protection of minority shareholders. Moreover, the difference lay among countries in term of the structure of laws and their enforcements are that should account for the different effects on firm valuation. Canada, compared with U.S. and European countries, appears to be a one that does not easily fit into a simple dichotomous world. It neither lies in the Anglo-American model, which relies heavily on external constraints, nor in the Continental European model, which relies more heavily on internal constraints. (Gedajlovic & Shapiro, 1998)

Based on these former studies, this research will examine the effect of shareholder protection on firm value of Canadian public firms. It proposes to offer support of a positive relationship between the degree of shareholder protection and firm value, and also evidence of a concave relationship between equity ownership and firm value.

CHAPTER 3: METHODOLOGY

3.1   THEORETICAL MODEL

First, we assume a firm is fully controlled by a single shareholder which is called the entrepreneur. The entrepreneur is also the manager of the firm, who owns α percent of the firm cash flows. Secondly, we assume the firm has an amount of cash C, and will invest in a project which can generate a gross return of R. So, the profit of the project is RI without any cost incurred. The entrepreneur can benefit himself by diverting a share of the profit from the firm to his own account and this transfer of shares can take place in the form of salary, personal loans, non-arm-length transactions, and outright theft. As a result, he will receive sRI-C(k,s)RI from the company. C(k,s) is the cost of theft, which is the profit he wastes when s is diverted. K is the degree of shareholder protection the firm offered. The better protection provided, the more firm value would be increased. We can assume that stealing is costlier in a more protective legal regime, $C_s > 0$, marginal cost of stealing should be larger than zero, $C_{ss} > 0$, and marginal cost of stealing rises as more is stolen, $C_{ks} > 0$.

Based on La Porta's (2002) research model about the effect of investor protection on firm valuation, we know the entrepreneur should maximize his profit by maximizing:

$$\alpha(1 - s)RI + sRI - C(k, s)RI \qquad\qquad 3.1$$

Because the function has the shared multiplier RI, we can assume that the entrepreneur maximizes:

$$U = \alpha(1 - s) + s - C(k, s) \qquad\qquad 3.2$$

Then we will get the first order of this function regarding to s:

$$U_s = -\alpha + 1 - C_s(k,s) = 0 \qquad\qquad 3.3$$

It can be written as:

$$C_s(k,s) = 1 - \alpha \qquad\qquad 3.4$$

Based on this function, we can arrange the first condition of it and get several testable

implications. Taking the first order difference with respect to k, we get

$$\frac{ds^*}{dk} = -\frac{C_{ks}(k,s)}{C_{ss}(k,s)} < 0 \qquad\qquad 3.5$$

It means that better shareholder protection leads to the less expropriation. Taking the

first order condition of α, we obtain

$$\frac{ds^*}{d\alpha} = -\frac{1}{C_{ss}(k,s)} < 0 \qquad\qquad 3.6$$

This means that the entrepreneur has higher cash flow rights of the firm; there is less

expropriation of minority shareholders. If we change the s^* with equation $q =$

$(1 - s^*)R$, where q is the Tobin's Q ratio, we can get the following conditions:

$$\frac{dq}{dk} = -\frac{ds^*}{dk}R > 0 \qquad\qquad 3.7$$

$$\frac{dq}{d\alpha} = -\frac{ds^*}{d\alpha}R > 0 \qquad\qquad 3.8$$

The first one demonstrates that the firm with more protection of shareholders should

have more firm value. The second one means that the firm should be worth more value if

the controlling entrepreneur has more cash flow rights of the firm.

3.2   RESEARCH MODEL

In order to test the effect of shareholder protection on firm value, this study

accepts the use of the linear regression method. Due to its simple and efficient qualities,

linear regression has been applied among many similar former studies. La Porta et al.

(2002) estimated the relationship between valuation, investor protection and ownership

using linear regression model. Claessens et al. (2002) also applied linear regression methods to test the incentive and entrenchment effects of large ownership on corporate valuation.

In this research, the dependent variable is firm value, and the independent variables include degree of shareholder protection and cash flow rights held by the firm-controlling shareholder. Moreover, this study adds two more independent variables, firm size (Kumar et al, 1999) and investment opportunities (Beck et al, 2008), to the model. It supposed to be a positive effect of investment opportunities and firm size on firm value.

$$V = a + bG + cP + dCF + \varepsilon \qquad\qquad 3.9$$

Where V is firm value, G is investment opportunities, P is shareholder protection, and CF is cash flow hold by controlling-shareholder. All the coefficients of the variables in the model are larger than zero. In other words, all the independent variables have positive effect on the value of dependent variable.

The higher level of investment opportunities should have a positive effect on the firm value. It shows that the firm has the ability to generate more profit in the future. If the company offers better protection to the shareholders, it will prevent the manager from tunneling and minority shareholder expropriation, and increase the firm value. If the cash flows of the firm held by large shareholder increase, it will prevent them from tunneling firm assets as well and eventually increase firm value.

3.3   SAMPLING DESIGN

There are over 6500 public companies in Canada. It would be time consuming and inefficient to examine every public company, therefore, the research will only test the firms which are currently listed on the Toronto Stock Exchange (TSX) market.

These stocks must meet several specific requirements. The firm should prepare a comprehensive business plan, have strong growth prospects, have a track record of financial and non-financial performance, be in a position of competitive strength along both financial and non-financial measure, have a clear understanding of how the company compares to peers, map out and implement improvement initiatives, and minimize window dressings. Compared to unlisted public companies, the firms listed on the TSX have less accounting problems, and are more mature in their own business. Using the TSX listed companies in the research will offer better results.

There were 1560 stocks listed on the TSX at the end of June 2013. Excluding all the income funds and structured product and diversified industry sectors, the total number of the public companies, which have large shareholders, is 804. Like La Porta et al. (2002), we also exclude all affiliates of foreign firms and the subsidiaries of other firms. Further more, we filter the large shareholder ownership data regarding to the one who owns over 5 percent of the cash flow of the firm. In this research sample, there are 10 different industries, which are divided recording to TSX listing sectors. Table 3.1 gives details about the size of each sector.

Table 3.1 Summaries of Sample Firms

Sector	Number of Firms
Clean Technology	36
Communication and Media	28
Financial Services	54
Forest Products	14
Life Sciences	42
Oil and Gas	279
Real Estate	14
Technology	47
Utilities and Pipelines	11
Mining	279

3.4   MEASUREMENT PROCEDURES

There are five variables in our research model, which are firm value, investment opportunities, firm size, shareholder protection and cash flow owned by controlling shareholder. We need to find each variable an appropriate proxy or measurement to test the model.

3.4.1   Firm Value

Here, we use Tobin's Q as the measurement of firm value. (La Porta et al, 2002) Researchers have used market-to-book ratio as well as Tobin's Q to measure the variations in market values resulting form different ownership structure. The denominator of Tobin's Q is defined as the book value of assets, and the numerator is the book value of assets minus the book value of common stocks and deferred taxes plus the market value of the equity. The data source is Mergent Online Database

3.4.2   Investment Opportunities

The sales growth rate is used as the proxy for the firm's existing investment opportunities. Here we collect the last year annual percentage sales growth rate, which is 2012 sales growth rate, and all the sales data are expressed in Canadian Dollars. The Mergent Online Database is the data source.

3.4.3   Shareholder Protection

In the research, Anti-director right measures the degree of shareholder protection. (La Porta et al, 2002) The anti-director rights is formed by adding one when: (1) the firm allows shareholders to mail their proxy vote, (2) shareholders are not

required to deposit their shares prior to the General Shareholders' Meeting, (3) cumulative voting or proportional representation of minorities on the board of directors is allowed, (4) an oppressed minorities extraordinary mechanism is in place, (5) the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting is less than or equal to sample mean, or (6) when shareholder have preemptive rights that can only be waived by a shareholders meeting. The range for the index is from zero to six. The Source for this variable is Sedar.

3.4.4 Cash Flows Owned by Controlling Shareholders

Cash Flow rights are computed as the product of all the stock ownership along the control chian. The control chain is combined with a shareholder's direct and indirect voting rights in the firm. Direct owning shares are the stocks registered under the shareholder's name, and Indirect owning shares are shares held by entities that in turn the shareholder controls. When two or more shareholders meet our criteria for control, the sum of direct and indirect voting rights exceed 10 percent, we would assign control to the shareholder with the largest voting rights. Source: Bloomberg Database.

3.5   DATA COLLECTION PROCEDURES

In order to generate the controlling shareholder percentage ownership, we only keep the firm with 10 percent or higher than 10 percent of the equities owned by one shareholder, no matter whether the owner is an individual or a corporation. In each company, only the highest ownership data will be reserved for this research. As a result, there are 366 firms that meet all the qualifications in ten different industries.

Table 3.2 Summaries of Final Sample Firms

Sector	Number of Firms
Clean Technology	27

Communication and Media	21
Financial Services	25
Forest Products	7
Life Sciences	25
Oil and Gas	49
Real Estate	9
Technology	27
Utilities and Pipelines	6
Mining	170
Total	**366**

3.5.1 Tobin's Q

Tobin's Q is the proxy used to measure the valuation of the firm. It needs the book value of the total assets, book value of the equity, deferred taxes, and market value of the equities to calculate its value. All of these inputs variables are generated from the Mergent Online Database. The range of the value starts from -33.71, and ends at 50.42. Most of the values fluctuate between 1 and 2. The average of Tobin's Q is 1.31.

Table 3.3 Summary of Tobin's Q

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Tobin's Q	366	1.314481	4.070626	-33.71	50.42

From Table 3.4, Life Sciences has the highest Tobin's Q, 5.4145, which means Life Sciences industry has the highest level of firm value compared to other industries, and technology firms have the lowest average Tobin's Q value.

Table 3.4 Mean Value of Tobin's Q in Each Industry

Industry	Mean
Clean Technology	1.3124
Communication & Media	2.3471
Financial Services	2.1106
Forest Products	1.1417
Life Sciences	5.4145
Mining	0.8042
Oil & Gas	1.0840
Real Estate	0.9820
Technology	0.5157
Utilities & Pipelines	1.0606

3.5.2 Sales Growth Rate

To analyze the effect of sales growth on firm valuation, we will use the last year sales growth rate. In order to calculate 2012 sales growth rate, we need to have the total revenue of 2011 and 2012, which are available on the Mergent Online Database. Because of the unique accounting record method generally applied in the Mining industry, most of firms don't have revenue account in their income statements, then we used operating income before taxes to substitute for revenue.

Table 3.5 Summary of Sales Growth Rate

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Sales Growth Rate	366	8.15511%	1.312835	-15.3543	6.8428

Table 3.6 presents the average sales growth rate among different industries. Life Sciences has the highest sales growth rate in 2012, and Communication and Media industry has the lowest sales growth rate, which decreased nearly 24%.

Table 3.6 Mean Value of Sales Growth Rate in Each Industry

Industry	Mean
Clean Technology	18.82%
Communication & Media	-23.43%
Financial Services	10.18%
Forest Products	4.62%
Life Sciences	33.67%
Mining	-2.09%
Oil & Gas	28.20%
Real Estate	5.59%
Technology	3.75%
Utilities & Pipelines	-8.34%

3.5.3 Anti-director Rights

According to the rules of Anti-director right index, we assign each firm a number value correlated with its level of shareholder protection. The mean value of the sample is 4.79. Most of public firms in Canada allow shareholders to mail their proxy and use

cumulative voting or proportional representation of minorities on the board of directors.

Further more, they also offer an oppressed minorities mechanism.

Table 3.7 Summaries of Anti-director Rights

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Anti-director Rights	366	4.786885	0.6566354	3	6

All of the ten industries have the similar average Anti-director rights. The

technology industry took the first place with 5.1481 shareholder protection degree.

Table 3.8 Mean Values of Anti-director Rights in Each Industry

Industry	Mean
Clean Technology	4.8148
Communication & Media	4.8571
Financial Services	4.8000
Forest Products	5.1429
Life Sciences	4.8400
Mining	4.6118
Oil & Gas	4.9796
Real Estate	5.1111
Technology	5.1481
Utilities & Pipelines	5.0000

3.5.4 Cash Flows Owned by Controlling Shareholder

The arithmetic mean value of percentage cash flow owned by the largest

controlling shareholder is 19.10%. The range of cash flow right is from 7.51% to

70.12%. The Forest Product industry has the highest mean value of cash flow ownership,

and Technology sector has the lowest level of cash flow ownership.

Table 3.9 Summary of Cash Flows Owned by Controlling Shareholder

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Cash Flow Rights	366	19.10101%	.0941621	7.51%	70.12%

Table 3.10 Mean Value of Cash Flows Owned by Controlling Shareholder in Each Industry

Industry	Mean
Clean Technology	18.71%

Communication & Media	28.16%
Financial Services	20.62%
Forest Products	32.80%
Life Sciences	18.06%
Mining	18.29%
Oil & Gas	18.12%
Real Estate	27.42%
Technology	15.14%
Utilities & Pipelines	20.37%

CHAPTER 4: RESULTS

This chapter will present the results of the linear regression in regard to the whole sample as well as different industries. Table 4.1 presents the relationship between valuation, investor protection, and ownership. We estimated all the industry regressions using random effects. The random effects specification apply both internal and between industry variations in cash flow controlled by a large shareholder to estimate the impact on firm valuation. But it will not treat the company in a particular industry as an independent observer. The standard error is used to reflect the cross-correlation between observations due to common industry components.

Table 4.1 Results of random-effect Regression for the Whole Sample

Tobin's Q	Coef.	Std. Err.	t	P>|t|
Sales Growth Rate	-0.15	-0.15	-0.92	0.360
Anti-director Rate	**0.93**	0.32	2.88	0.004
Cash Flow Ownership	0.17	2.25	0.08	0.939
Cons.	-3.16	1.60	-1.97	0.050

Table 4.1 presents results of random-effect regression for the sample of 366 firms with a controlling shareholder. The dependent variable is Tobin's Q, which stands for the firm valuation in the test model. The independent variables are (1) growth in sale, 2012 sales growth rate; (2) anti-director rate, the proxy for shareholder protection level in the model; (3) cash flow ownership, the percentage of firm's cash flows owned by controlling shareholder. It also presents the constant variable in the model.

In Table 4.1, Anti-director rates and cash flow ownership both have a positive coefficient in the model, which meet the specifications in the theories. The cash flow ownership has a statistically significant effect on firm value at the five percent level, because the t-statistic value is 2.25; larger than two. However, the sales growth rate has

an insignificant negative coefficient, which does not coincide with the theoretical forecast. This may has resulted from the data we used to calculate the growth rate. In the mining industry, due to the different accounting procedures, most of the firms do not have revenue or an sales account in their income statements, and we used operating income before taxes in year 2011 and 2012 to calculate the sales growth rate. Furthermore, a large part of the firms in mining industry has negative operating incomes. These facts may lead to our deviation from the 'right' path.

Table 4.2 Results of Regression for Ten Industries

Clean Technology				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-0.0416	0.1381	-0.30	0.766
Anti-director Rate	**_0.5967_**	0.1972	3.03	0.006
Cash Flow Ownership	-0.5460	2.3282	-0.23	0.817
Cons.	-1.4502	1.0857	-1.34	0.195
Communication and Media				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-0.3234	0.7303	-0.44	0.663
Anti-director Rate	**_0.8611_**	0.2172	3.96	0.001
Cash Flow Ownership	-0.6658	1.0907	-0.61	0.550
Cons.	-2.5281	1.0004	-2.53	0.022
Financial Services				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-0.9719	3.0565	-0.32	0.754
Anti-director Rate	-0.9610	1.5575	-0.62	0.544
Cash Flow Ownership	-4.1462	11.3903	-0.36	0.719
Cons.	7.6775	7.5659	1.01	0.322
Forest Product				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-2.6121	2.5157	-1.04	0.375
Anti-director Rate	**_1.0531_**	0.2770	3.80	0.032
Cash Flow Ownership	0.7809	1.1561	0.68	0.548
Cons.	-4.4114	1.4482	-3.05	0.056
Life Science				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-1.8117	1.8161	-1.00	0.330

Anti-director Rate	5.7545	3.9872	1.44	0.164
Cash Flow Ownership	8.8781	23.6869	0.37	0.712
Cons.	-23.4304	21.0643	-1.11	0.279
Mining				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-0.1329	0.1207	-1.10	0.272
Anti-director Rate	0.4610	0.3180	1.45	0.149
Cash Flow Ownership	**<u>0.3132</u>**	2.4583	0.13	0.899
Cons.	-1.3821	1.5409	-0.90	0.371
Oil and Gas				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	0.0208	0.0918	0.23	0.822
Anti-director Rate	**<u>0.4070</u>**	0.1539	2.64	0.011
Cash Flow Ownership	0.3642	1.0676	0.34	0.735
Cons.	-1.0142	0.7967	-1.27	0.210
Real Estate				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	0.1376	0.3143	0.44	0.680
Anti-director Rate	**<u>1.3877</u>**	0.2131	6.51	0.001
Cash Flow Ownership	0.6351	0.4478	1.42	0.215
Cons.	-6.2923	1.1312	-5.56	0.003
Technology				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	-4.9832	3.7115	-1.34	0.192
Anti-director Rate	**<u>8.3155</u>**	2.6637	3.12	0.005
Cash Flow Ownership	13.2656	23.4068	0.57	0.576
Cons.	-44.1156	14.4424	-3.05	0.006
Utilities and Pipelines				
Tobin's Q	**Coef.**	**Std. Err.**	**t**	**P>|t|**
Sales Growth Rate	0.2184	0.5590	0.39	0.722
Anti-director Rate	0.0000			
Cash Flow Ownership	-0.2649	1.7298	-0.15	0.888
Cons.	1.1320	0.4038	2.80	0.068

Table 4.2 shows the regression results of ten different industries. The number printed in bold with underlines stand for the value is significant at 10 percent or higher confidence. On the other hand, the results based on the data from forest product, real estate, and utilities and pipelines should be wiped out from our consideration, because

the available data point in these three industries is less than ten. It cannot obtain reasonable regression results with limited data points.

Most of their anti-director rights have significant positive effect on Tobin's Q value except financial service, life science, and utilities and pipelines. Especially, real estate sector has the highest value of coefficient. However, the Financial Service industry has a totally different business-running model compared to others. Due to this reason, La Porta et al (2002) didn't conclude the Financial Service industry into his research sample. In this paper, the result further shows that the financial service industry needs a different model or variables to explain the firm valuation changes.

The cash flow ownership of six industries, include forest product, life science, mining, oil and gas, real estate, and technology, have positive effect on Tobin's Q value. The other industries manifest negative effect on the firm valuation. And seven of the ten industries has a negative coefficient of sales growth rate, and only three of them get the positive coefficient value, which coincide with academic theory and former studies. This consequence may be due to the data mining process of the research sample. La Porta et al (2002) only tested the largest market capital size companies and their results proved positive effect on sales growth rate. This research, however, not only examined the most valuable firms, but also the relatively smaller size firms.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1   ROBUSTNESS OF THE RESULTS

In this section, we will address four issues of the robustness. (1) Can differences in market liquidity among industries account for our results? (2) Are the results somehow driven by more complex ownership structures? (3) Are our results driven by the choice of impropriate variable proxy? (4) And are our results driven by the selection of the research sample?

It can be argued that firm valuation is low when capital markets are illiquid. Firms may find it costly to raise money externally for agency reasons or, alternatively, the premium requirements. A liquidity premium may explain some industries having small coefficient of cash flow ownership, but this does not suffice to explain the negative value of the coefficients in some industries. Regardless of each firm's required rate of return, the research assumes that every firm in a non-agency world will invest until the marginal Tobin's Q equals to one. However, in practice, we used the actual value of Tobin's Q, not the marginal value because of the unavailable marginal Tobin's Q data. On the other hand, some private cash flows controlled by the large shareholder cannot be collected in the research, and they may account for our results.

The last year sales growth may be a poor measure of the firm's investment opportunities, which may be one cause of the bias of the results. Maybe the research should apply the geometric average of the past three-year sales growth rate. Another possible bias in our analysis is that the research only focuses on the largest shareholder in the firm with a stake above 10 percent. The reason behind the data-filtering standard is to make sure that the results are driven by the effects described in the model rather

than by the interaction between several large shareholders. The interaction between large shareholders of one firm, however, may have significant effects on firm valuation. The model doesn't include any variables related to explaining this interaction, which may result in the biased test results.

The main data-filtering standard is to examine the firms which are currently listed on Toronto Stock Exchange market, this and maybe the biggest bias of the analysis. Some sectors of TSX have a smaller number of listed companies, such as Utilities and Forest Products. So it is hard to make any valuable conclusions based on a relatively small amount of data. In any further study, we may need to add more quality firms to these small size industries of the TSX, and then we may get more valuable results.

5.2   CONCLUSIONS

In this paper, we presented a simple theory of the shareholder protection and ownership effects on firm valuation in different industries, for a large sample of publicly traded corporations in Canada. The main contribution of this research is generally to confirm the prediction that poor shareholder protection is penalized with lower firm valuation in Canada and the higher cash flow owned by the controlling shareholder improves firm valuation. These results are consistent with a large amount of the pervious literature. The sales growth rate, however, shows the inverse effect on firm valuation than our prediction. It may be the result of data mining problems, or if we added more variables in the model, the results may be different.

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