Testing the Pecking Order Theory of Capital Structure in Canadian Firms

by

Qinglan (Atty) LIU

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Approved: Dr. Colin Dodds

Faculty Advisor

Approved: Dr. F. Boabang

MFIN Director

Date: August 29, 2013

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Abstract

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The purpose of the study is to explore the validity of the Pecking Order Theory in Canadian firms. My model followed the work of Shyam-Sunder and Myers (1999) and Frank and Goyal (2002), and I run the regression on new debt issued and the aggregated deficit of the firm, its components and new debt issued. Dummy variables were included to spot any differential financial pattern in Canadian firms. The sample size was 120. All firms were listed on the Toronto Stock Exchange in 2012.

From the results, it is shown that firms mainly prefer debt after considering the internal sources of fund. The dividend payments and net working capital requirements are not the major concern to raise funds, but rather the investment needs and the cash flows from operations play key roles for external funding. And it is not significantly different across industries.

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Chapter 1 Introduction

1.1 Background

Capital Structure is one of most important study areas in Corporate Finance. Since the theory was introduced by Modigliani and Miller (1958), there have been many studies that focus on additional factors influencing this structure. For example, Agency theory and the Asymmetric information hypothesis. So far, these studies can be categorized into two major groups: the Pecking Order Theory and the debt cost-benefit tradeoff approach. The weight of empirical research shows that the Pecking Order Theory is more appropriate to explain the capital structure pattern for companies.

The Pecking Order Theory, or Simple Pecking Order was first introduced by Myers (1984) and Myers and Majluf (1984). It explains the hierarchical sources of funds utilized by the company when it faces the need of financing. It holds the idea that because of the external financing cost and the asymmetric information problem, when the firm faces the need of financing, it will first prefer internal sources (i.e. retained earnings), then debt, and the last preference is equity. Specifically, the asymmetric information problem between the external investor and the inside manager causes high uncertainty of the return for the fund supplier, so that the supplier claims a higher return to compensate for the risk they undertake. Meanwhile, because the interest on debt can be fairly easily determined in advance and there is a tax shield and debt typically has a lower volatility than equity, the cost of debt is lower than

equity. Besides, financial institutions will charge transaction costs for helping firms searching for external funds, Emery and Finnerty (1997).

We can refer to tests that have been conducted. However, the results are not without controversy. Frank and Goyal (2003) used data from publicly traded U.S. firms to test the theory, but their results show that firms prefer equity sources. On the other hand, some studies have supported the validity of the theory. For example, Shyam-Sunder and Myers (1999) compared the Pecking Order Theory and alternative tradeoff hypothesis and found supporting evidence for the Pecking Order Theory. Lemmon and Zender (2004) argued that the theory gave a good explanation for the financial policy, and Leary and Roberts (2008) found that approximately 36% of their sample companies follow the pattern of Pecking Order Theory. Besides, recent study added new idea to extend the theory, such as agency cost (Myer, 2003), taxes (Hennessy and Whited, 2005) and managerial optimism (Heaton, 2002).

1.2 Purpose of the Study

To date, the U.S. has been the focus of many of those studies, rather than Canada. As a result, this paper is aimed at examining whether the theory is valid for Canada. If indeed this is the case, it will assist the Canadian investor to predict the firm's funding action and give a useful reference to the manager in making their financing decisions.

In order to test the theory, this paper will randomly select 120 firms listed on the Toronto Stock Exchange. The data were extracted from the financial reports of firms. In order to avoid any extreme specific industry bias, it excluded the financial services industry and the

regulated utility firms. Simple OLS regression and multiple OLS regression were run and dummy variables were included in the regression to determine the differences among industries.

1.3 Organization of Study

In this paper, there are five chapters. This current Chapter introduces the background knowledge and purpose of the study, and Chapter 2 provides a literature review and discusses the studies and methodologies that have been used to test the Pecking Order Theory. Chapter 3 explains the methodology this paper adopted and the sample selection. Chapter 4 analyzes and discusses the results. Chapter 5 summarizes the results of this paper, and provides recommendations for future work in this area.

Chapter 2 Literature Review

2.1 First Proposed Idea

Myers (1984) considered two dimensions to establish capital structure. The first part is called the Static Tradeoff Theory, which means that companies pursue the target debt ratio and achieve it over the long-term. The company may change the capital structure in the short period, but it remains stable in the long-run. The second part is called the Pecking Order Theory, which was first proposed by Myers (1984) and Myers and Majluf (1984). Its thesis is that the firm has a hierarchy of ways for raising funds for projects. The first priority is its internal resources, the second is debt, and the last priority is equity. Specifically, there are two reasons to explain for this financial pattern, which are asymmetric information theory and external transaction costs.

On one hand, the information gap between the manager and potential investor engages an adverse selection problem. The high uncertainty makes the investors demand a higher return. For the internal source of funds, there is not this kind of conflict, so that the cost is cheaper than external sources. Meanwhile, because the equity is subject to more serious uncertainty than the debt and the inclusion of tax shield, the cost of debt is lower than the cost of equity. Additionally, due to the asymmetric information, when the firm issues debt, the market may consider it is a positive signal that the company considers its stock share to be undervalued.

On the other hand, floating and other transaction costs to raise external funds may

influence the managers of the firm in their financing decision. So the firm will first prefer the lower cost source of funding. Meanwhile, the past research also stated that the cost of new debt is much cheaper than the new equity cost, Emery and Finnerty (1997).

The Pecking Order Theory has spawned a number of statistics to test validity of the theory.

2.2 Aggregated Model

Shyam-Sunder and Myers (1999) operated tests to discriminate between the Pecking Order Theory and the Trade-off Theory and their results found in favor of the Pecking Order Theory.

In the test in Shyam-Sunder and Myers (1999), the aggregated data process is shown as Equation 2.1 below:

$$DEFt = DIVt + Xt + \Delta Wt + Rt - Ct = \Delta Dt + \Delta Et \cdots\cdots (2.1)$$

where DEFt is the deficit of fund, which is increased by the capital out flow like dividend payment and Capital Expenditure, but decreased by internal source of fund raised, like Operating cash flow; therefore, DIV_t is dividend payment; Xt is capital expenditure; ΔWt is change in net working capital; Rt is current portion of long-term debt; Ct is Operating cash flow. ΔDit is the first difference of long-term debt between successive periods, which is a proxy to reflect the new debt issued. ΔEit represents the new equity issued.

The important assumption is made that the component of the deficit and the deficit are independent variables. Particularly, before this test, Shyam-Sunder and Myers (1999) held

the idea that equity is seldom issued again after the IPOs, except when the cost of debt is extremely to high, for example the junk debt issued costs or a bankruptcy problem occurs. Besides, to avoid the size effect, the data input are divided by the sale, net asset, or total assets.

Then the Pecking Order Theory can be test by running the regression:

$$\Delta Dit = \alpha + \beta DEFit + \mu it \quad \cdots\cdots (2.2)$$

For the strong form of Pecking order, then $\alpha = 0, \text{and } \beta = 1$,which means that the required funds needed for the project are raised by debt. Because every one unit of new debt issued is the result of one unit of deficit of the funds, so there is no room for equity.

For the weak form of Pecking order, then $\alpha \neq 0$ but is close to 0, and $\beta \neq 1$ but less than 1, which means that when the firm faces a deficit in funding, it may not totally use debt to fund it. Although the $\beta \neq 1$, it is close to 1, it reflects the major way of fund raising is still debt. In terms of this, the second priority is debt after considering the available internal sources.

The Shyam-Sunder and Myers (1999) study provides supportive evidence to prove the validity of Pecking Order Theory. Other studies for specific countries also support the theory in the weak form. For example, Vasiliou et al (2009) used cross-section data to study the situation in Brazilian firms.

2.3 Disaggregated Model

Alternative model, Disaggregated Model, is prepared by Frank and Goyal (2002), which

is shown as below:

$$\Delta Dit = \alpha + \beta 1 DIVit + \beta 2 Xit + \beta 3 \Delta Wit - \beta 4 Cit + \mu it \cdots\cdots(2.3)$$

Compared with the method used by Shyam-Sunder and Myers (1999), this regression does not have the current portion of long-term debt (Rt). From their initial empirical tests, this component has less influence on the result. Later studies also followed this adjustment to the regression process.

2.4 Conventional Model

Additionally, there is a method called the Conventional Model, which was mentioned by Frank and Goyal (2002). It is a method to regress more factors to discover the relationship between the issuing debt and other independent variables.

One of the formats is presented below,

$$\Delta Dit = \alpha + \beta T \Delta Tit + \beta MTB \Delta MTBit + \beta LS \Delta LSit + \beta P \Delta Pit + \beta DEFDEFit + \mu i \cdots\cdots(2.4)$$

where T is tangibility of asset, MTB is market-to-book ratio, LS is log sales, and P is profitability. The Δ present the first different procedure. The regression pools the panel data to draw the results. The important part in this model is the use of tangible factor. Harris and Raviv (1991) stated that in the Pecking Order Theory, the fewer tangible assets, the greater asymmetric problem, so they accumulated more debt. However, the result for this were not shown in the Frank and Goyal (2002) paper.

Chapter 3 Methodology

In this paper, it will adopt the methodologies that were used by Shyam-Sunder and Myers (1999) and Frank and Goyal (2002). However, some adjustments were made. The details are discussed in the following section.

3.1 Variable Definition

In order to test the validity of the Pecking Theory and run the regressions, it is required to define the variables first, including deficit of fund (DEF), New debt issued, and the component of DEF (ie. Net Investment, Change in Net Working Capital, Dividend Payment, and Cash Flow after interest and tax). All these data were extracted from the financial statements of the sample firms. The definitions are listed as below.

1. Net Investment (I_i): explains the funds needed for investment purposes. The proxy data comes from the Investment Activity Cash Flow. The higher the need for investment, this leads to the potential for borrowing. The relationship should be positive.

2. Change in net working capital (ΔW_i): explains the liquidity requirement of the firm, which is the first difference of Net Working Capital (CA-CL). If the firm increases net working capital, then the need for liquidity increases, which means the funding for other investment projects is less, so that new borrowing would have to increase to finance the investment opportunities. The relationship should be positive.

3. Dividend Payment (DIV_i): explains the cash outflow from the firm because of

distribution. The data were extracted from the financial statements of shareholder equity. It is not required that all sample firms selected have dividend payments, because the payment is a proxy to reflect the firm's liquidity situation. Low liquidity may lead to the demand for new borrowing to support the investment needs. Therefore, the relationship with new borrowing is expected to be positive.

4. Cash Flow after interest and tax (C_i): explains the inside fund available to the firm. The proxy is cash flow from operations. If the firm has more Cash Flow available, the need for new borrowing will be less. So the relationship should be negative.

5. New Debt issued (ΔD_i): explains the new issued debt. The data are for the different amount on the long-term debt account between two successive periods. The data are dependent variable for testing theory by finding the significant level of the relationship.

3.2 Sample Data Selection

Cross-section data for 2012 are used to study the current financial pattern in Canadian firms. They were extracted from the financial reports of publicly traded firms listed on the Toronto Stock Exchange. The firms were selected according to the criteria that the headquarters were located in Canada and they are incorporated in Canada. Additionally, some 'special' firms are excluded for the sample, for example, the financial institutions and regulated utilities firms, because they have their own particular financial pattern. Last but not least, although not all the defined variable data are required, the dependent variable must have a complete data set, so that the firm missing crucial data will be left out of sample.

In order to test the validity of the theory, 120 random samples were collected. The quantity of samples relative to industry is according to the percentage of the industry held in the population pool. The random process utilizes the Excel function*, Randombetween (top, down)*, after considering the criteria issue. After that, 11 industries were sorted, included Mining, Oil & Gas, Energy Service, Clean Tech, Life Sciences, Technology, Real Estate, Communication & Media, Diversified, Forest Products, and Utilities. Furthermore, to avoid the size effect, all data collected were divided by total assets. The detailed data set can be seen in Appendix A.

3.3 Procedure

3.3.1 Aggregated Model

First, I run the regression between the aggregated DEF and the increase of new debt. (Using Equation 2.2 but for convenience renumbered as 3.1)

$$\Delta Di = \alpha + \beta DEFi + \mu i \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (3.1)$$

where:

$DEFi=Ii+\Delta Wi+Divi-Ci$

$\Delta D_i=D_t-D_{t-1}$

If the results support the strong form, then $\alpha = 0$, and $\beta = 1$. This means that after the IPOs, the company's total need of funds is debt after considering the insider source (Cash Flow after Tax and Interest).

If the results support the weak form, then $\alpha \neq 0$, but is close to 0, and $\beta \leq 1$ but

close to 1. This reflects the firm does not totally depend on the debt issued.

3.3.2 Disaggregated Model

Secondly, the alternative model is to regress the component of DEF with new debt.

$$\Delta Di = \alpha + \beta 1 Ii + \beta 2 \Delta Wi + \beta 3 DIVi - \beta 4 Ci + \mu i \quad \cdots\cdots(3.2)$$

where:

I_i: Net Investment

ΔW_i: Change in Net Working Capital

DIV_i: Dividends Payment

C_i: Cash Flow after interest and taxes

This models helped to confirm the result from aggregated model whether it satisfys the Pecking Order theory. Besides, it can also show the major factors that drive the new debt issue.

If the result supports the strong form, then $\alpha = 0$, and $\beta 1 = \beta 2 = \beta 3 = 1$, and $\beta 4 = -1$.

If the result supports the weak form, then $\alpha \neq 0$, but is close to 0; and $\beta 1, \beta 2, \beta 3 \leq 1$ but close to 1, and $\beta 4 \geq -1$ but close to-1.

3.3.3 Dummy Variable Model

To spot the difference among different industries, this paper includes the dummy variable regression on the aggregated model.

$$\Delta Di = \alpha + \beta DEFi + D1\beta DEFi + D2\beta DEFi + \cdots + D10\beta DEFi + \mu i \quad \cdots\cdots(3.3)$$

There are 10 dummy variables for 11 industries. The coefficient for Dn is the difference between the benchmark industry.

Chapter 4: Analysis of the Results

4.1 Data Description

After taking the scale process, the summary of the data are shown as Table 4.1

Table 4.1 Summary of the data

Variable	Obs	Mean	Std. Dev.	Min	Max
sdd	120	.1955767	2.290446	-2.134235	24.96269
sddiv	120	.0181198	.0304075	0	.1730038
sdnwc	120	.0058292	.1375909	-.6836797	.5600452
sddcf	120	.0716203	.1494342	-.7278477	.671857
sdni	120	.1023759	.136876	-.1343936	.8859316
sddef	120	.0547046	.2011806	-.29739	1.05725

where:

sdd means the standardized New Debt issued, which is New Debt issued divided by total assets, or the percentage of total asset. Similarly, sddiv is the standardized New Debt issued Dividend Payment, sdnwc is the standardized change in net working capital, sddcf is the standardized Cash Flow after interest and tax, and sdni is the standardized Net Investment. Table 4.1 lists the number of observation, mean, standard deviation, minimum and maximum value, which is a general description of the data set.

4.2 Aggregated Model Regression

By regressing the standardized new debt issued and the standardized deficit of funds, the results are shown in Table 4.2

Table 4.2 Results of regression $\Delta Di = \alpha + \beta DEFi + \mu i$ (Equation 3.1)

Source	SS	df	MS	Number of obs =	120
				F(1, 118) =	0.65
Model	3.42064017	1	3.42064017	Prob > F =	0.4217
Residual	620.870317	118	5.26161286	R-squared =	0.0055
				Adj R-squared =	-0.0029
Total	624.290957	119	5.2461425	Root MSE =	2.2938

sdd	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
sddef	.8427408	1.045201	0.81	0.422	-1.227042	2.912523
_cons	.1494749	.2170622	0.69	0.492	-.2803674	.5793173

To avoid the violation of assumption that the residuals are normally distributed, we run the robust standard error regression again and make a comparison. The new results is shown as Table 4.3

Table 4.3 Results of robust standard error regression

Linear regression

					Number of obs =	120
					F(1, 118) =	2.06
					Prob > F =	0.1535
					R-squared =	0.0055
					Root MSE =	2.2938

sdd	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
sddef	.8427408	.5866965	1.44	0.154	-.319078	2.00456
_cons	.1494749	.1835371	0.81	0.417	-.2139785	.5129284

In comparing the results from the regression above, the coefficient remain the same (0.8427), but the p-value makes a great difference, as it decreased from 0.422 to 0.154 for the coefficient.

Since the coefficient for deficit and new debt is 0.8427, it reflects the weak form of the Pecking Order Theory. The increasing significance of the results are in favor of the result.

To explain the details, the intercept is 0.1495 with the 0.1835 Robust standard error, low t-value and high p-value. The results mean that the intercept is not statically significant from Zero, or closed to Zero. For the coefficient, it is 0.8427 with a 0.5867 Robust standard error, t-value is 1.44 and p-value is 0.154, approximately at the 15% significance level is acceptable.

The regression results illustrated that for every 1 unit of deficit of fund increase, there will be 0.8472 units of new debt issued, at the 15% significance level. Although the coefficient is not exactly equal to 1, it is close to 1. Besides, the intercept is not significant from 0, or nearly Zero. So the result supports for the weak form of the Pecking Order Theory. This result is close to the finding of Shyam-Sunder and Myers (1999).

4.3 Disaggregated Model Regression

To obtain the influence by the individual component on the new debt issued, I run the disaggregated model, and results are shown below as Table 4.4

Table 4.4 Results of Disaggregated Model Regression

$$\Delta Di = \alpha + \beta 1Ii + \beta 2\Delta Wi + \beta 3DIVi - \beta 4Ci + \mu i \quad \text{(Equation 3.2)}$$

Source	SS	df	MS
Model	7.02195061	4	1.75548765
Residual	617.269007	115	5.36755658
Total	624.290957	119	5.2461425

Number of obs = 120
F(4, 115) = 0.33
Prob > F = 0.8593
R-squared = 0.0112
Adj R-squared = -0.0231
Root MSE = 2.3168

sdd	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
sddiv	-3.17537	8.175041	-0.39	0.698	-19.36855	13.01781
sdnwc	.1632784	1.586728	0.10	0.918	-2.979723	3.30628
sdni	1.496004	1.715137	0.87	0.385	-1.901352	4.89336
sddcf	-1.210929	1.664676	-0.73	0.468	-4.508332	2.086473
_cons	.1857344	.2753254	0.67	0.501	-.3596321	.731101

Again, I run the robust standard error regression to avoid the violation of the assumption required for OLS to compare the different results.

Table 4.5 Results of robust standard error regression

Linear regression

Number of obs = 120
F(4, 115) = 0.78
Prob > F = 0.5404
R-squared = 0.0112
Root MSE = 2.3168

sdd	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
sddiv	-3.17537	3.930532	-0.81	0.421	-10.961	4.610258
sdnwc	.1632784	.4104786	0.40	0.692	-.6498006	.9763574
sdni	1.496004	1.11586	1.34	0.183	-.7143002	3.706308
sddcf	-1.210929	1.109125	-1.09	0.277	-3.407892	.9860336
_cons	.1857344	.2473217	0.75	0.454	-.3041623	.6756312

Comparing with two different regressions, the coefficients remain the same, but the other parts make a great difference, which may reflect the problem of violating the OLS assumption. Since it is a multiple variable regression, the main problem may be due to multi-collinearity. After the robust regression, it is shown that the net investment and cash flow after tax and interest are closer to the hypothesis, and the p-value becomes lower.

However, the other factors are much different from the hypothesis.

From the results, it reflects the relationship between new debt and the factor variable. The major factor influencing the new debt issued is from the new investment (coefficient 1.496; 0.18 p-value), and cash flow after interest and tax (coefficient -1.21; 0.277 p-value). On the other hand, the dividend payment and increase of new working capital are not significant for the high p-value and low t-value. This may show that the demands of dividend payment and the working capital requirement are not the major concern for Canadian firm s in seeking externally sourced funds.

4.4 Dummy Model Regression

To spot any different behavior by industry, I conducted the dummy variable regression, and the dummy is created by the interaction variable to explore the coefficient effect, because the coefficient plays crucial role in this test instead of the intercept. The result are illustrated as Table 4.6

Table 4.6 Dummy Regression

$$\Delta Di = \alpha + \beta DEFi + D1\beta DEFi + D2\beta DEFi + \cdots + D10\beta DEFi + \mu i \quad \text{(Equation 3.3)}$$

Linear regression

Number of obs = 118
F(19, 98) = 9981.78
Prob > F = 0.0000
R-squared = 0.0449
Root MSE = 2.4666

sdd	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
_Iinds_2	-.8252601	.994481	-0.83	0.409	-2.798775	1.148255
_Iinds_3	-.8011243	.9944215	-0.81	0.422	-2.774521	1.172273
_Iinds_4	-.7603711	.9943028	-0.76	0.446	-2.733533	1.21279
_Iinds_5	-.7613862	.9942867	-0.77	0.446	-2.734516	1.211743
_Iinds_6	-.752796	.9951667	-0.76	0.451	-2.727672	1.22208
_Iinds_8	-.7554645	.9943276	-0.76	0.449	-2.728675	1.217746
_Iinds_9	-.7404947	.9943323	-0.74	0.458	-2.713715	1.232725
_Iinds_10	-.7706908	.9943104	-0.78	0.440	-2.743867	1.202486
_Iinds_11	-.7641992	.9942843	-0.77	0.444	-2.737324	1.208926
sdddef	3.29148	3.709742	0.89	0.377	-4.070381	10.65334
_IindXsddd_2	-2.26635	3.713909	-0.61	0.543	-9.636481	5.103781
_IindXsddd_3	-3.101189	3.713448	-0.84	0.406	-10.47041	4.268027
_IindXsddd_4	-2.96915	3.711045	-0.80	0.426	-10.3336	4.395298
_IindXsddd_5	-3.286277	3.709744	-0.89	0.378	-10.64814	4.07559
_IindXsddd_6	-2.704608	3.732751	-0.72	0.470	-10.11213	4.702915
_IindXsddd_8	-3.043274	3.711477	-0.82	0.414	-10.40858	4.322032
_IindXsddd_9	-2.427008	3.710622	-0.65	0.515	-9.790617	4.936602
_IindXsdd~10	-2.828728	3.711424	-0.76	0.448	-10.19393	4.536473
_IindXsdd~11	-2.85958	3.709742	-0.77	0.443	-10.22144	4.502283
_cons	.7588867	.9942835	0.76	0.447	-1.214237	2.73201

It directly runs the robust dummy variable regression. The coefficient of _Iinds2 is the differential coefficient for the Oil and Gas industry, when compared with the Mining Industry. As the result in the table illustrated, the t-value is too low and the P-value is too high, which means it is not significant differences among industries.

Chapter 5: Conclusions and Recommendations

The purpose of the study is to test whether the Pecking Order Theory is valid in Canadian firms, so that it can assist the firm manager in making its financing decision as well as assist investors estimate the further financing actions of firm. This paper used the first difference of debt as a proxy for new debt issued and the deficit of the fund to run the regression. The sample was picked from the companies listed in 2012 on the Toronto Stock Exchange. 120 firms were chosen according to the random sample selection procedure. Besides, I try to spot any difference across industries by running the dummy variables regression.

According to the statistical results from the previous chapters, it is shown that the Canadian firms follow the weak form of the Pecking Order Theory. This means that firms do not only rely on the debt financing but also equity. However, the results still illustrated that the major source of funding is debt, approximately accounting for 80%.

Besides, the results from the disaggregated model regression gives us a hint that dividends payment and net working capital requirement were not the major needs for the firms to fund, but the major factors is the demand for investment. It means after considering whether there is enough internal funding, the need for raising new debt is driven by the investment decision. Last but not least, after running the dummy variables regression, the results reflected that there were not significant difference across industries.

All in all, the results are in favor the Pecking Order Theory, which is similar to the findings of Shyam-Sunder and Myers (1999). Managers can use the Pecking Order Theory as

a kind of reference to handle the capital structure decision, which means that in short-term when the firm faces the need of financing a project or an investment, it can use debt after considering the internal source of funds. Equity can be used moderately. However, there is no preciseness as to the percentage of debt and equity to be used.

Other questions still exist in this paper. For example, the database is not large enough, and I only used the Cross-section data for one year. There is the potential to use other models to test the order of preference by finding the percentage used by debt or equity, so further study is required to fill the gap.

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Appendix A

No.	Company	Industry	TA	ND	Div	ΔNWC	CFATI	NI
1	Agnico Eagle Mines Limited	Mining	5,255,842	-90,095	174,849	59,465	696,007	376,156
2	Barrick Gold Corporation	Mining	47,282,000	-592,000	750,000	-2,186,000	5,439,000	6,521,000
3	Cerro Grande Mining Corporation	Mining	26,808	-455	0	-2,379	626	2,781
4	Centerra Gold Inc.	Mining	1,554,131	-3,866	28,187	-209,300	134,720	48,639
5	Crocodile Gold Corp	Mining	478,637	25,257	0	-50,351	58,831	159,825
6	Detour Gold Corporation	Mining	2,353,243	27,230	0	-505,273	-45,248	909,487
7	Eco Oro Minerals Corp	Mining	47,591	2,365	0	-32,537	-34,639	-4,947
8	Formation Metals Inc	Mining	179,914	17,548	0	51,414	-5,851	73,405
9	Globex Mining Enterprises Inc.	Mining	24,094	601,451	0	-430	-837	3,170
10	Goldcorp Inc.	Mining	3,121,200	189	438,000	-826,000	2,097,000	2,296,000
11	IAMGold Corporation	Mining	5,376,200	644,500	94,100	-143,000	441,000	1,213,300
12	Ivernia Inc.	Mining	214,911	1,990	0	-1,778	-19,653	-4,761
13	MDN Inc.	Mining	36,168	-77,191	0	-5,578	2,447	-2,731
14	Noranda Income Fund	Mining	477,629	2,186	0	34,885	64,611	24,632
15	Orvana Minerals Corp.	Mining	290,277	-2,029	0	4,025	51	1,784
16	Polaris Minerals Corporation	Mining	80,153	2,250	0	11,640	-6,101	11,194
17	Premier Gold Mines Limited	Mining	480,411	1,546	0	40,698	-5,923	54,856
18	Richmont Mines Inc.	Mining	148,244	702	0	-14,415	7,656	36,825
19	Stonegate Agricom Ltd	Mining	66,263	4,325	0	-14,443	-3,573	14,981
20	St Andrew Goldfields Ltd.	Mining	219,748	7,403	0	22,935	54,085	36,599
21	Teck Resources Limited	Mining	34,617,000	459	496,000	-514,000	2,795,000	2,516,000

22	Veris Gold Corp.	Mining	348,459	3,769	0	18,414	-13,188	29,476
23	Wallbridge Mining Company Limited	Mining	48,711	-13,665	0	-406	-1,780	-1,382
24	Anderson Energy Ltd.	Oil&Gas	343,478	-86,725	0	-23,038	29,839	10,924
25	Bonavista Energy Corporation	Oil&Gas	4,062,852	-177,884	224,801	-23,497	382,045	407,481
26	Canadian Oil Sands Limited	Oil&Gas	10,171,000	392	654,000	173,000	1,864,000	1,062,000
27	Crew Energy Inc.	Oil&Gas	1,833,802	12,158	0	57,935	213,591	235,611
28	Heritage Oil Corporation	Oil&Gas	3,021	48	2	-568	-181	759
29	MEG Energy Corp	Oil&Gas	8,018,679	764,016	0	180,670	240,824	1,820,520
30	NuVista Energy Ltd.	Oil&Gas	878,174	-269,539	0	17,270	58,521	-118,021
31	Penn West Petroleum Ltd.	Oil&Gas	14,491,000	-538	514,000	283,000	1,193,000	305,000
32	Spyglass Resources Corp.	Oil&Gas	581,521	49,065	0	21,730	64,038	112,241
33	Talisman Energy Inc.	Oil&Gas	21,858,000	-84,000	286,000	895,000	2,716,000	1,466,000
34	Badger Daylighting Ltd.	Energy Service	225,582	-16,781	11,030	4,193	46,201	53,881
35	Bonnett's Energy Corp.	Energy Service	96,403	-5,643	0	5,402	25,984	10,698
36	Canyon Services Group Inc.	Energy Service	406,113	-55	36,916	-10,764	87,912	76,928
37	Mullen Group Ltd.	Energy Service	1,555,904	-69,921	84,299	22,086	279,854	107,879
38	Petrowest Corporation	Energy Service	124,743	-12,130	0	-12,095	27,449	17,476
39	ZCL Composites Inc.	Energy Service	120,526	-1,015	1,590	8,268	9,797	2,810
40	Hydrogenics Corporation	Clean	42,088	405	0	2,498	-1,063	400
41	SunOpta Inc.	Clean	707,310	34,165	0	32,294	30,977	49,747
42	Tembec Inc.	Clean	1,059,000	53,000		-44,000	13,000	25,000
43	Boralex Inc.	Clean	1,229,871	-35,321	0	-125,432	47,396	75,087
44	Newalta Corporation	Clean	1,318,758	8,061	18,918	-3,019	116,616	154,996

45	AEterna Zentaris Inc.	Life Sciences	67,665	-132	0	-4,658	-30,815	272
46	DiagnoCure Inc.	Life Sciences	11,256	-29	0	-2,117	-2,977	2,626
47	MethylGene Inc.	Life Sciences	39,598	17	0	6,652	-18,316	16,897
48	Novadaq Technologies Inc.	Life Sciences	57,587	433	0	30,717	-1,520	6,211
49	ProMetic Life Sciences Inc.	Life Sciences	22,991	6	0	12,876	-2,133	719
50	Sandvine Corporation	Technology	136,214	-3,011	0	-7,834	7,160	3,920
51	COM DEV International Ltd.	Technology	261,014	1,671	0	-2,499	20,676	223
52	Davis + Henderson Corporation	Technology	1,289,390	-6,562	74,042	2,775	163,186	81,321
53	CGI Group Inc.	Technology	10,453,442	3,275,227	0	602,325	613,262	2,849,034
54	Redknee Solutions Inc.	Technology	58,757	572	0	4,541	6,975	1,624
55	Open Text Corporation	Technology	2,444,293	272,967	0	212,976	266,490	281,539
56	NexJ Systems Inc.	Technology	67,083	428	0	-17,068	-10,660	-962
57	Cineplex Inc.	Comm & Media	1,327,456	18,127	0	58,577	179,327	75,239
58	Bell Aliant Inc.	Comm & Media	3,238,300	300	432,800	-11,300	-700	-418,200
59	Glentel Inc.	Comm & Media	560,201	101,305	11,765	-47,741	82,547	148,583
60	Rogers Communications Inc.	Comm & Media	19,618,000	582,000	820,000	-144,000	3,421,000	2,834,000
61	Transcontinental Inc.	Comm & Media	2,136,200	45,800	52,800	-106,000	229,000	106,100
62	Torstar Corporation	Comm & Media	1,471,244	174,739	41,054	192,861	90,605	47,733
63	Yellow Media Limited	Comm & Media	1,756,476	-907,547	0	326,492	238,573	38,585
64	Imax Corporation	Comm & Media	421,872	-34,243	0	17,124	73,630	35,519
65	A&W Revenue	Diversified	62,728	4	387	663	5,598	-2,180

	Royalties Income Fund	Industries						
66	AirBoss of America Corp.	Diversified Industries	118,821	-455	4,304	-2,381	10,855	7,292
67	Armtec Infrastructure Inc.	Diversified Industries	361,700	8,538	0	-33,941	27,539	877
68	Badger Daylighting Ltd.	Diversified Industries	225,582	-16,781	12,058	4,193	46,201	53,881
69	Black Diamond Group Limited	Diversified Industries	557,196	10,229	27,684	-16,775	103,515	164,032
70	Bonnett's Energy Corp.	Diversified Industries	64,969	-5,643	0	5,977	25,984	10,698
71	Brampton Brick Limited	Diversified Industries	205,346	-11,612	0	-5,812	16,153	5,251
72	Calfrac Well Services Ltd.	Diversified Industries	1,524,821	-9,866	44,557	-75,669	196,251	259,184
73	Canadian Tire Corporation Limited	Diversified Industries	13,181,400	5,300	101,700	320,900	743,000	261,500
74	CCL Industries Inc.	Diversified Industries	1,654,083	-90,673	26,037	-15,562	199,322	103,646
75	Chorus Aviation Inc.	Diversified Industries	812,307	116,250	74,408	29,068	142,807	165,177
76	ClubLink Enterprises Limited	Diversified Industries	652,589	12,293	7,910	5,933	34,753	23,284
77	Contrans Group Inc	Diversified Industries	384,014	-33,255	13,551	-62,643	44,243	6,751
78	Dorel Industries Inc.	Diversified Industries	2,204,086	30,917	28,577	105,112	107,217	61,164
79	EnerCare Inc.	Diversified Industries	802,046	-2,154	38,605	13,458	96,090	67,390
80	FirstService Corporation	Diversified Industries	1,317,910	204,658	9,603	186,690	102,991	61,854
81	George Weston Limited	Diversified Industries	21,804,000	-584,000	319,000	-533,000	1,852,000	916,000
82	Glacier Media Inc.	Diversified Industries	624,037	-11,533	2,766	1,886	39,843	15,666
83	High Liner Foods Incorporated	Diversified Industries	631,283	-17,691	6,379	-7,485	78,984	12,724
84	Lassonde Industries Inc.	Diversified Industries	800,028	-29,851	8,593	13,919	101,500	24,867
85	Leon's Furniture	Diversified	585,592	46	28,047	22,572	47,904	6,725

	Limited	Industries						
	Magellan Aerospace	Diversified						
86	Corporation	Industries	755,807	2,041	0	10,720	35,890	53,937
	Molson Coors	Diversified						
87	Canada Inc.	Industries	16,212,200	1,524,000	237	-1,691,500	983,700	2,635,100
	Mullen Group	Diversified						
88	Ltd.	Industries	1,555,904	-69,921	84,299	22,086	279,854	107,879
	Parkland Fuel	Diversified						
89	Corporation	Industries	903,454	-73,651	67,751	-5,435	136,380	51,308
		Diversified						
90	PFB Corporation	Industries	62,865	-5,513	1,624	-6,862	902	6,060
	Richards Packaging	Diversified						
91	Income Fund	Industries	156,259	-1,846	8,439	1,345	13,242	1,291
	Richelieu	Diversified						
92	Hardware Ltd.	Industries	349,869	-297	10,026	33,191	45,622	7,183
	Secure Energy	Diversified						
93	Services Inc.	Industries	767,911	3,740	0	-27,553	99,266	191,272
	Strongco	Diversified						
94	Corporation	Industries	382,803	5,647	0	4,324	8,270	11,461
		Diversified						
95	Tim Hortons Inc.	Industries	2,284,179	42,538	135,329	1,640	559,287	242,208
	TerraVest	Diversified						
96	Capital Inc.	Industries	77,283	3,678	0	-6,510	11,857	2,728
	Tuckamore Capital Management	Diversified						
97	Inc.	Industries	428,133	11,112	0	14,083	-10,341	-2,964
		Diversified						
98	Uni-Select Inc.	Industries	1,241,130	-44,576	11,269	-48,012	104,999	44,458
	Vitran	Diversified						
99	Corporation Inc.	Industries	238,497	34,925	0	-6,253	-16,198	14,454
	WestJet Airlines	Diversified						
100	Ltd.	Industries	3,746,615	-102,265	37,549	1,246,100	721,634	269,307
	Wenzel Downhole Tools	Diversified						
101	Ltd.	Industries	78,846	0	0	-7,265	21,756	9,543
	Altus Group	Diversified						
102	Limited	Industries	418,039	-9,578	13,793	4,740	21,932	4,771
	CanWel Building Materials Group	Diversified						
103	Ltd.	Industries	335,443	36,188	8,027	55,223	-3,825	7,989
104	Data Group Inc.	Diversified	224,629	-3,101	15,278	-4,543	15,378	2,419

		Industries						
	Linamar Corporation	Diversified Industries	2,411,814	62,948	20,705	40,600	352,761	364,589
	Acadian Timber Corp	Forest Products	285,235	-1,906	0	-753	16,065	144
	Canfor Pulp Products Inc.	Forest Products	758,000	-111,400	11,400	-108,100	87,900	59,800
	Norbord Inc.	Forest Products	1,115,000	168,000	0	304,000	136,000	19,000
	West Fraser Timber Co. Ltd.	Forest Products	2,618,000	37,000	24,000	8,000	195,000	119,000
	Brookfield Canada Office Properties	Real Estate	5,163,600	-351,600	29,000	-379,200	125,600	48,400
	Canlan Ice Sports Corp.	Real Estate	102,824	-3,132	1,000	-1,769	8,146	4,516
	Cominar Real Estate Investment Trust	Real Estate	5,617,049	1,625,035		1,168,750	148,109	1,111,111
	Dundee International Real Estate Investment Trust	Real Estate	1,400,269	65,527	0	81,846	52,320	239,297
	First Capital Realty Inc.	Real Estate	7,318,792	395,796	159,157	121,909	182,901	446,108
	InnVest Real Estate Investment Trust	Real Estate	1,418,019	1,813	0	123,089	70,248	10,531
	Retrocom Real Estate Investment Trust	Real Estate	780,318	45,552	0	27,822	23,111	75,646
	Morguard Corporation	Real Estate	4,386,182	84,595	7,708	-153,543	121,715	555,758
	Capital Power Corporation	Utilities	526,000	205,000	91,000	166,000	242,000	466,000
	Enbridge Inc.	Utilities	47,172,000	1,285,000	20,000	49,000	2,874,000	6,204,000
	Keyera Corp.	Utilities	2,678,338	125,783	157,095	-25,668	237,979	440,201