



Corporate Governance and Firm Performance: A Study of High Agency Costs of Free Cash Flow Firms

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Abstract

Excessive free cash flows can lead to high agency problems as retaining free cash flow reduces the ability of capital market to monitor managers. Managers are also likely to waste the free cash flow on value-decreasing investments. Based on the free cash flow hypothesis, this study examines the relationship between corporate governance and firm performance of a sample of high agency costs of free cash flow firms, which is defined as firms that have high free cash flow and low investment opportunities. The sample firms are extracted from firms listed on the S&P/TSX composite index between 2009 and 2012. Using corporate governance scores provided by *The Globe and Mail*, this study finds that better corporate governance is associated with better firm performance, measured by return on equity. The results highlight the importance of corporate governance in protecting shareholders' interests.

Indexing terms/Keywords: Agency cost of free cash flow; corporate governance; Agency problem; Firm performance

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Introduction

The free cash flow (FCF) hypothesis (Jensen, 1986) suggests that managers are likely to invest in projects that are not in the best interests of the shareholders when they have more cash than is needed to fund all positive net present value (NPV) investments. Agency theorists argue that excessive free cash flow can intensify the agency problem between managers and shareholders. This is because free cash flow can be used by managers as a tool to promote their self-interests.

The importance of corporate governance is recognized aftermath of major corporate scandals and financial crises. Regulators all over the world tighten regulations. Many empirical studies have been conducted over the last two decades to investigate the relationship between corporate governance and firm performance in the world. However, no consistent results were found (Pande, 2012). This study therefore contributes to the literature by providing more concrete evidence on the relationship between corporate governance and firm performance by focusing on a sample of firms that are considered to suffer from high agency problems. Based on Jensen's (1986) FCF hypothesis, this study defines firms with high agency costs of FCF as having high free cash flow and low investment opportunities.

Since corporate governance can reduce the agency problems between managers and shareholders, the aim of this study is to examine the relationship between corporate governance and firm performance for high agency costs of FCF firms. Specifically, we test if high agency costs of FCF firms with poorer corporate governance are associated with lower firm performance. Knowing how corporate governance affects firm performance is important to regulators and directors. The result of this study is also of interest to investors at large by showing whether sufficient governance mechanisms are in place to monitor managers and protect their interests.

This study finds support for the traditional agency theory and good corporate governance. Based on a sample of high agency costs of FCF firms listed on the S&P/TSX composite index between 2009 and 2012, this study finds that firms with better corporate governance (measured by corporate governance scores provided by *The Globe and Mail*) have higher firm performance (measured by return on equity). Improved governance structures can enhance the long-term prosperity of companies.

The structure of this paper is as follows. The next section reviews prior literature on corporate governance and firm performance, and develops the hypothesis tested in this study. Then, descriptions of the sample, data, and model specifications are provided. Finally, empirical results and conclusions are presented in the last section of the study.

Literature Review and Hypothesis Development

Agency problems occur due to a separation of ownership and control. Because of incomplete contractual relationship, managers may not act in the best interests of the shareholders (Jensen and Meckling, 1976). The free cash flow hypothesis based on the agency theory was proposed by Jensen in 1986. Jensen (1986) argues that when managers have more cash than is needed to fund all profitable projects, they are likely to waste the free cash on value-decreasing investments. The hypothesis suggests that excessive free cash flow will lower firm value and result in higher agency costs to shareholders. Brush et al. (2000) suggest three conditions for agency problems to occur. First, managers have strong motivations to satisfy their self-interests and maximize their own wealth. Secondly, excessive free cash flow could lead to managerial waste and inefficiency. Thirdly, weak corporate governance increases agency costs to shareholders.

Corporate governance is crucial in building investors' trust and attracting investors to the marketplace (Buallay et al., 2017). The impact of corporate governance on firm performance is therefore of great importance to shareholders. Bhagat and Bolton (2008) find that better governance is associated with better contemporaneous and subsequent operating performance. However, no significant relationship is found between corporate governance and future stock market performance. Sueyoshi, Goto and Omi (2010)



investigate the relationship between corporate governance and firm performance of Japanese manufacturing industries and find that stable shareholding is associated with higher operational performance only when the holdings by stable shareholders are more than 61.21%. Guo and Kga (2012) study Sri Lankan companies and find that director shareholdings have a significant effect on firm performance while the proportion of non-executive directors is negatively related to firm performance. Siddiqui (2015) examines the relationship between corporate governance and firm performance by conducting a meta-analysis of 25 previous studies. Siddiqui (2015) finds that external governance mechanisms (measured by anti-takeover provisions) and firm's market performance (measured by Tobin's Q and market to book value) are key moderators of this relationship.

However, the results of studies on corporate governance and firm performance are mixed in nature. Fallatah and Dickins (2012) find that corporate governance and firm performance of Saudi-listed companies are unrelated. Gupta and Sharma (2014) report limited impact of corporate governance on firms' share prices and performance. Arora and Sharma (2016) study a sample of Indian manufacturing firms and find that larger boards are associated with better firm performance while CEO duality is not related to firm performance. Buallay et al. (2017) study the relationship between corporate governance and firm performance for firms listed in Saudi stock exchange and find insignificant results on the relationship between corporate governance adoption and firm's operational and financial performance. No significant impacts are also found for largest shareholder's ownership and board independence on firm's market performance.

Given the preceding mixed results reviewed, this study adopts a sample that suffers severe agency problems (that is, firms with high agency costs of free cash flow) and aims to provide more concrete evidence on the relationship between corporate governance and firm performance. Based on the traditional agency theory, this study hypothesizes that corporate governance can lower the free cash flow problem and is positively related to firm performance. That is, the following hypothesis is tested:

H1: High agency costs of FCF firms with lower corporate governance scores have poorer firm performance.

Data and Method

Sample and Data

This study investigates a sample of firms with high agency costs of FCF. The sample firms are extracted from firms listed on the S&P/TSX composite index for the period 2009-2012. Excluding firms that do not have all the required financial and accounting data for the entire period, the initial sample consists of 452 firm-year observations. Based on Jensen's (1986) FCF hypothesis, firms that have high free cash flow (*defined as above the median free cash flow of firms listed on the S&P/TSX composite index*) and low investment opportunities (*defined as below the median Tobin's Q of firms listed on the S&P/TSX composite index*) are defined as having high agency costs of FCF. The final sample consists of 133 firm-year observations.

In terms of data sources, the corporate governance scores used in this study are obtained from *The Globe and Mail* (G&M). The corporate governance scores are based on assessments on four elements: board compositions, shareholding and compensation, shareholder rights, and disclosure. The reason for choosing this sample period, 2009-2012, is that there were several modifications to composites of the index in 2009 and 2013. Therefore, to ensure consistency in corporate governance measurements, the sample period is limited to between 2009 and 2012. The financial and accounting data used in this study are obtained from the Standard & Poor's Compustat database.

Empirical Model

To examine the relationship between corporate governance and firm performance of high agency costs of FCF firms, the following model is tested using a least square regression:



$$ROE_{it} = \alpha_i + \beta_1 CG_{it} + \beta_2 FSIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 RETAIN_{it} + \beta_5 INDUSTRY_{it} + \varepsilon_{it} \quad (1)$$

The dependent variable of Model 1 is firm performance. Following previous research (including Danoshana and Ravivathani (2013); Roudaki and Bhuiyan (2015)), firm performance is measured by return on equity (ROE). The main variable of interest is corporate governance score (CG). The free cash flow hypothesis (Jensen, 1986) suggests that firms with excessive free cash are likely to make value-decreasing investments and have greater agency problems. Strong corporate governance encourages investors' confidence by helping align managers' and shareholders' interests and reducing the agency costs of free cash flow problem. Therefore, better corporate governance is expected to be associated with better firm performance.

Four control variables, including firm size, leverage, retained earnings and industry, that have been suggested by previous studies (Kandukuri et al., 2015, Buallay et al., 2017, Palaniappan, 2017) as having an influence on firm performance, are included in the model. Table 1 provides the definitions of all relevant dependent, independent and control variables used in the analyses.

Table 1 Variable descriptions

Variable	Symbol	Description
Dependent variable		
Firm performance	<i>ROE</i>	Ratio of net income to shareholder equity.
Independent variable		
Corporate governance	<i>CG</i>	Corporate governance score is collected from <i>The Globe and Mail</i> .
Control variable		
Firm size	<i>FSIZE</i>	Natural logarithm of total assets.
Leverage	<i>LEVERAGE</i>	Ratio of total debt to total assets.
Retained earnings	<i>RETAIN</i>	Ratio of retained earnings to total equity.
Industry dummy	<i>INDUSTRY</i>	Dummy variable that equals one if the firm belongs to the industrial sectors, including agriculture, forestry, fishing, mining, construction and manufacturing sectors, or 0 otherwise.

Results

Table 2 reports the descriptive statistics for the sample data (that is, high agency costs of FCF firms) and the initial sample of all firms listed on the S&P/TSX composite index (excluding firms with missing financial and accounting data). For the high agency costs of FCF firms, the median ROE is 10.24% and the median corporate governance score is 65, which is slightly lower than the median corporate governance score of the initial sample, 69. The maximum and minimum corporate governance scores of high agency costs of FCF firms are 96 and 39, respectively. The median LEVERAGE of high agency costs of FCF firms is 16.06%, which is lower than the median LEVERAGE of the initial sample, 18.18%. This is probably because high agency costs of FCF firms have high levels of free cash flow and therefore have less need to borrow money. The median RETAIN of high



agency costs of FCF firms is 61.67%, which is much higher than the median RETAIN of all firms listed on the S&P/TSX composite index, 53.52%. The finding suggests that high agency costs of FCF firms like to retain their earnings and therefore result in high levels of free cash flow. The mean FCF of high agency costs of FCF firms is 4.57%, which is much higher than the mean FCF of the initial sample firms, 1.96%.

Table 3 presents the correlation matrix. It shows that ROE is significantly positively associated with FSIZE and RETAIN while negatively related to LEVERAGE. The correlation results suggest that larger firms are associated with better firm performance. Firms with higher retained earnings are associated with better firm performance while firms with higher debts have worse performance.

Table 2 Descriptive statistics

	High agency costs of FCF firms (133 firm-year observations)					Firms listed on S&P/TSX composite index (452 firm-year observations)				
	Mean	Median	Max	Min	SD	Mean	Median	Max	Min	SD
ROE (%)	6.84	10.24	62.24	-250.29	25.56	10.15	10.39	278.08	-250.29	21.46
CG	67.26	65.00	96.00	39.00	16.02	68.13	69.00	97.00	27.00	16.03
FSIZE (ln)	9.71	9.45	13.61	6.96	1.85	9.00	8.80	13.62	5.65	1.71
LEVERAGE (%)	17.26	16.06	60.49	0.00	13.44	19.80	18.18	60.49	0.00	14.45
RETAIN (%)	42.58	61.67	94.45	-438.62	74.00	35.82	53.52	94.45	-438.62	60.31
FCF (%)	4.57	3.84	25.32	0.42	3.24	1.96	2.07	34.04	-54.72	9.60

ROE is the ratio of net income to shareholder equity. CG is the corporate governance score collected from *The Globe and Mail*. FSIZE is the natural logarithm of total assets. LEVERAGE is the ratio of total debt to total assets. RETAIN is the ratio of retained earnings to total equity. FCF is the ratio of free cash flow to book value of assets.

Table 3 Correlation analysis

	ROE	CG	FSIZE	LEVERAGE	RETAIN
ROE	1.00				
CG	0.06	1.00			
FSIZE	0.18 **	0.34 ***	1.00		
LEVERAGE	-0.16 *	-0.11	-0.33 ***	1.00	
RETAIN	0.67 ***	-0.07	0.27 ***	-0.16 *	1.00

ROE is the ratio of net income to shareholder equity. CG is the corporate governance score collected from *The Globe and Mail*. FSIZE is the natural logarithm of total assets. LEVERAGE is the ratio of total debt to total assets. RETAIN is the ratio of retained earnings to total equity. *, **, *** denote significance at the 10%, 5% and 1% levels, respectively.

Table 4 presents the least square regression results. Based on a sample of high agency costs of FCF firms, the results show that better governed firms have better firm performance. The result is consistent with the traditional agency theory, and the findings of Rosenberg (2003) and Fallatah and Dickins (2012). Rosenberg (2003) reports that firms with effective corporate governance practices are associated with greater profits while



firms with poor governance bring less value to shareholders. Fallatah and Dickins (2012) also find that corporate governance is positively related to firm performance.

Table 4 also shows that firms with higher retained earnings have better firm performance. The finding is consistent with the finding Khan et al. (2013). Khan et al. (2013) study the Pakistan textile industry and show that variations in retained earnings have an impact on firm performance, measured by stock returns.

Table 4 Analysis of corporate governance and firm performance of high agency costs of FCF firms

<i>Intercept</i>	-14.116 (-1.138)
<i>CG</i>	0.196 * (1.774)
<i>FSIZE</i>	-0.283 (-0.252)
<i>LEVERAGE</i>	-0.077 (-0.590)
<i>RETAIN</i>	0.239 *** (10.202)
<i>INDUSTRY</i>	Yes
Adjusted R ²	0.479
Total obs	133

The dependent variable is *ROE*, defined as the ratio of net income to shareholder equity. *CG* is the corporate governance score collected from *The Globe and Mail*. *FSIZE* is the natural logarithm of total assets. *LEVERAGE* is the ratio of total debt to total assets. *RETAIN* is the ratio of retained earnings to total equity. *, **, *** denote significance at the 10%, 5% and 1% levels, respectively.

Conclusions

"Corporate governance is the system by which companies are directed and controlled" (World Bank Group, 1992). Corporate governance deals with the relationships between managers, board of directors, controlling shareholders, minority shareholders and other stakeholders. Corporate governance is particularly important in the presence of free cash flow problems. The free cash flow hypothesis (Jensen, 1986) suggests that when managers hold excessive cash flow, they are likely to waste the free cash flow on unprofitable projects or on organization inefficiencies.

Agency theorists argue that corporate governance mechanisms can alleviate agency conflicts between shareholders and managers. Corporate governance can be implemented through mechanisms, such as shareholder ownership (Tosi and Gomez-Mejia, 1989), board of directors (Fama and Jensen, 1983), and executive compensation (Bebchuk and Fried, 2003). In this study, we adopt a corporate governance index provided by *The Globe and Mail* (G&M) and examine the relationship between corporate governance and firm performance of firms with high agency costs of FCF. Given that previous research has not found conclusive evidence on the causality between good governance and good performance, this study aims to provide a more solid evidence by adopting a sample of firms that deem to have high agency problems. Specifically, this study examines a sample of high agency costs of FCF firms, defined as having high free cash flow and low investment opportunities.



The results of this study show that for firms with high agency problems, corporate governance is positively related to firm performance. That is, good corporate governance is effective in mitigating the agency costs of FCF problem and in safeguarding against mismanagement. Good corporate governance ensures that companies are accountable and transparent to investors.

In conclusion, this study highlights the importance of corporate governance. The results will be of interests to the investment community, managers and regulatory agencies. An implication from this study is that investors should make their future investments in companies with good corporate governance. As the quality of corporate governance involves many soft factors (Pande, 2012), future research can conduct qualitative research to investigate how different factors affect corporate governance and determine the causality relationship between corporate governance and firm performance.

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