



## The Impact of Free Cash Flows to the Financial Flexibility of the Banks listed in the Colombo Stock Exchange

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### Abstract

There are considerable arguments in favour of and against the positive relationship between free cash flows (FCF) and financial flexibility. The aim of the study is to determine the impact of free cash flows on the financial flexibility of the banks listed in the Colombo Stock Exchange (CSE). The free cash flow will measure according to the model in Journal of Finance: Agency costs and ownership structure in 2000 and financial flexibility will determine using the financial leverage based on the model captured according to the Accounting Horizons Journal: Financial flexibility and investment decisions in 2007. The population of the study is the banks listed in the CSE. The sample consists of 60 observations covering 12 banks for a period of over 05 years from 2015 to 2019. The panel regression model has been used to test hypotheses. The results indicate that there is a positive significant relationship between free cash flows and the financial flexibility of the banks listed in CSE.

**Keywords:** Free cash flow; Financial flexibility; Leverage; Free Cash Flows; Colombo Stock Exchange

### 1. Introduction

Financial flexibility can be described as a firm's ability to access financing at a low cost and respond to unexpected changes in a value maximising way in the firm's cash flows or investment opportunities in a timely manner [1],[2]. The sources of financial flexibility and the impact of financial flexibility on the corporate financial policies are controversial in responding to insufficient resources in unexpected periods [3]-[8], defined free cash flows as the net cash flow available in the firm at the management's discretion without affecting the firm's operating activities. Companies and their stakeholders always have a selection between the funding sources for their investments either internally or externally.

The results of the study taken on Tehran Stock Exchange [9], shows that the free cash flows have a positive and significant impact on the financial flexibility of the firms listed in Tehran Stock Exchange. That was the only article which has been studied the free cash flow impact on the financial flexibility of the firms listed in a stock exchange. It is always the profitability, firm value and the dividend policy which have been investigated in the studies. Therefore, this study attempts to answer the research question in the perspective of the Sri Lankan Contest: What is the impact of free cash flows on the financial flexibility of the banks listed in the Colombo Stock Exchange?

This will address mainly the knowledge gap of figuring out whether the firms maintain adequate free cash flows according to the leverage policy in order to meet the financial flexibility of the firm. Thus, the study investigates whether there is a positive significant relationship between free cash flow and financial flexibility.

## **2. Literature Review**

The theories of free cash flows were firstly introduced in 1986 for the first time by Jensen and it progressively evolved in the financial literature as a new topic [1]. Recently, free cash flows is a key performance driver which showcases the performance of a business unit and the cash a firm holds after spending the necessary cash for operations [5].

But flexibility has not been identified as a key determinant when it comes to the corporate financial policy making until very recent years. But according to a survey done by the CFOs [4], it suggests that financial flexibility is the vital factor of corporate capital structure decisions.

It is posit that in the free cash flow theory, managers do not behave in a manner consistent with profit maximization. Managers use excess cash flow to pursue objectives that have little to do with retained profits and a great deal to do with making the managers' lives better or easier [6].

The agency cost of free cash flow mainly affects to the increase in the cash flow sensitivity. The agency cost can be defined as the cost in light of the firm as a nexus of relationship as a result of the hiring of managers as agents to act on behalf of the shareholders [7].

Agency cost arises when it comes to the choice of the decision between the investment and maximisation of the shareholder wealth. The choice is in between the use of debt financing or free cash flows. The study have measured measured leverage with four variables, their findings consistently show that leverage has a negative impact on agency cost [11].

From the foregoing empirical evidence, in relation to the impact of free cash flow on agency cost, the impact of leverage on agency cost, as well as the impact that leverage has on free cash flow; it is sufficient to assume that in a circumstance of high leverage, the impact of free cash flow on agency cost will be of a reduced influence.

Finally, we should note that agency problems are omitted from the model. The level of liquidity and the net benefit of financial flexibility that result from the model are likely to be overstated if managers are tempted to opportunistically exploit this flexibility for their own private benefit.

## **3. Definitions**

This study adopted descriptive statistical research that aimed at analysing the effect of the variables by describing the data and characteristics of the population. This is a deductive research which started with the theory and then ended up with a confirmation as it does intend to prove a theory. It is testing the hypothesis by looking at the cause and effect and making predictions leading it to be quantitative research.

The main source of data is extracted from the audited annual reports which are available at the Colombo Stock Exchange website. Secondary data was extracted from audited financial statements of banks sourced from CSE for a period of five years (2015–2019). The population consisted of 12 Banks according to the Global Industry Classification Standard (GICS) of the CSE site. It covers 60 observations in total.

Free cash flows will be measured according to the Ang et al. which is free cash flow is equal to operating income before tax after deducting tax paid, interest paid and the cash dividend paid. Financial flexibility will be determined using the financial leverage based on the model captured by Marchica, 2007 [10].

The free cash flow is the independent variable and the financial flexibility is the dependent variable. The control variables are market to book value, firm's size, asset's growth and profitability. The alternative hypothesis,  $H_1$  is free cash flows affect financial flexibility and the null hypothesis,  $H_0$  is free cash flows does not affect financial flexibility.

The hypothesis is captured by the following regression model.

$$\text{Financial Leverage} = \beta_0 + \beta_1\text{FCF} + \beta_2\text{Asset Growth} + \beta_3\text{Firm Size} + \beta_4\text{Market to Book Value} + \beta_5\text{Profitability} + \varepsilon$$

#### Independent variable

Free cash flow (FCF) = (Operating Income before Tax – Tax paid – Interest paid – Dividend paid)

#### Dependent Variable

Financial leverage (L) = Book value of debt divided by book value of total assets

#### Control variables

Asset Growth (AG) : Total assets of the current year minus the total assets of previous year divided by the total assets of the previous year

Firm's Size (FS) : Natural logarithm of total assets

Market to Book Value (MB): Current market value of the stock at the end of the financial year divided by book value of the stock at the end of the financial year

Profitability (ROE) : Return on equity which shows the return obtained by shareholders.

#### **4. Findings reasoning: There is positive significant relationship between free cash flows and the financial flexibility**

Data was sorted, cleaned and coded and then entered into EViews. Initially, there were no missing values and only few outliers were identified in the testing. It was proved that the data has a linear relationship between the dependent variable and the independent variable.

Since this study tries to investigate a significant relationship between research variables, the study can be classified as a descriptive-correlation study.

Table 01: Descriptive Statistic

	$\bar{x}$	$\tilde{x}$	Max	Min	$\sigma$	J-Be	P		FCF	L	AG	FS	MB	ROE
FCF	3.70	2.09	14.1	0.01	4.29	13.7	0.00	FCF	1.00					
L	0.90	0.91	0.94	0.76	0.03	50.0	0.00	L	0.19	1.00				
AG	0.18	0.14	1.43	-0.03	0.19	2193	3.93	AG	-0.17	-0.3	1.00			
FS	19.29	19.49	21.05	17.55	1.05	3.93	0.13	FS	0.84	0.22	-0.10	1.00		
MB	0.86	0.79	1.72	0.29	0.34	3.71	0.15	MB	0.13	-0.02	0.28	0.04	1.00	
ROE	12.29	13.63	23.47	0.70	5.86	2.91	0.23	ROE	0.56	0.66	-0.12	0.53	0.22	1.00

Table 02: Correlation Analysis

Source : Study findings

The value of the correlation between the same variable is +1.000. It indicates that there is a perfect positive correlation between those variables. Accordingly, there is a positive and weaker correlation between the leverage and free cash flows. It interprets that when the free cash flows increase there is a slight increase in the leverage.

The analysis of the linear relationship between one or more variables can be defined as the regression analysis. In order to run a regression analysis, there are two assumptions to be fulfilled. Those are heteroskedasticity and multicollinearity.

To check the heteroskedasticity, the Breusch-Pagan-Godfrey test has been conducted using EViews. In the test of Breusch Pagan, there is no heteroskedasticity if the probability value is less than 0.05. In the results of the test of Breusch Pagan, the probability value is 0.0026. Therefore, it proves that there is no heteroskedasticity and the data set is homoscedasticity.

The second assumption, multicollinearity of the regression analysis tested using the variance inflation factor (VIF). The VIF value indicates the degree of change in the variance of a coefficient estimate of a variable has been inflated due to collinearity with the other variables. The centered VIF is estimated when there are other variables with a constant variable.

Accordingly, the centered VIF value is less than 10 in the free cash flow variable, the asset growth variable, the firm size variable, the market to book value variable and the profitability variable of the finding. As a rule of thumb, a variable whose value is less than 10 may not need further investigation since it indicates that there is no multicollinearity between the variables.

Since the two assumptions met, the study tested the regression model. The regression can be run either as a normal regression or a panel data regression. The data set which was used in the study is the type of panel data. Therefore, the panel data regression will be run to test the significance of the model.

In panel data regression, it needs to be identified whether to use the fixed effect model or the random effect model. The Hausman test used to identify to decide which model suits the data set.

According to the Hausman Test, if the probability value of the test is less than 0.05 then the study should use a fixed effect model. In the finding, the probability value is 0.0011 which is less than 0.05. Since, the probability value is less than 0.05, the study should use the fixed effect model.

The results of the fixed effect model are interpreted in the following table.

Table 03: Results of the fixed effect method  
(Hausman Test 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.502327	0.409743	-1.225954	0.2269
FCF	-4.46E-09	1.47E-09	-3.041338	0.0040
AG	-0.027613	0.012722	-2.170534	0.0355
FS	0.070877	0.020748	3.416045	0.0014
MB	0.038278	0.012730	3.006810	0.0044
P	0.001875	0.000875	2.142732	0.0378

Source : Study findings

Table 04: Results of the fixed effect method  
(Hausman Test 2)

R-squared	0.864117
Adjusted R-squared	0.813556
S.E. of regression	0.015223
Sum squared residual	0.009965
Log likelihood	175.9534
F-statistic	17.09060
Prob (F-statistic)	0.000000

Source : Study findings

As per the above table, the control variables significantly influence the financial flexibility of the firm because the probability value of Asset Growth, Firm Size, Market to Book Value and Return on Equity is 0.0355, 0.0014, 0.0044 and 0.0378 respectively which is less than 0.05.

R-Squared is an indicator which analyses the percentage of the variation in the dependent variable that can be explained by the independent variable. In the above model the independent variable is explained by 0.86 of the dependent variable. In other words the explanatory power of the independent variable is 86%.

According to the above findings, the probability of the model is 0.0000. The probability should be less than 0.05 in order for the model to be significant. Since the probability is less than that it can be concluded that the model is significant. When the probability is 0.00000, it indicates that the model is highly significant.

According to the regression model, it accepts the alternative hypothesis and it rejects the null hypothesis. That concludes that there is a positive significant impact on the financial flexibility of the firms by the free cash flows.

## 5. Conclusions

The aim of the study is to investigate the impact of free cash flows on the financial flexibility of the firms listed in CSE. The sample comprises 12 banks with a yearly observation for a period of 2015 to 2019. From Hausman's test findings, the R-squared for the model was 0.86 which indicates the explanatory power of the independent variable and the probability value of 0.0000 implies that the regression model was highly significant in predicting the relationship between the free cash flows and financial flexibility. The correlation analysis reflects the positive relationship between free cash flows and financial flexibility. This concludes that there is a positive significant relationship between free cash flows and the financial flexibility

The limitations of the study are the utilization of the secondary data which is considered as historical data and hence the study is based on the historical information. Also, the findings may not hold in the next five years as a result of macro-economic factors that might affect the leverage of the listed firms in CSE. Further, this study was carried out within a limited time frame of five years with inadequate resources which constrained the scope and depth of the study.

Future researchers and academicians can test the same variables for other GICS of CSE or conducting the same research after a ten year period and check whether the same result exists or can select more than twelve companies for testing with different variables.

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