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Determinants of Capital Structure: Evidence from Indian Stock Market with Special Reference to Capital Goods, FMCG, Infrastructure and IT sector

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Abstract

The current study aims to examine the relationship between various identified determinants (Profitability, Tangibility, Growth Rate, Business Risk, Size and Non Debt tax shield) and its impact on financial leverage (CS) decisions of Capital goods, FMCG, Infrastructure and IT sector in Indian Stock market. In order to realise the stated objectives of the study the researchers have collected data from the published financial statements of quoted firms in the Indian stock market from the above mentioned sectors for a period of ten years (2006-2015). In the very first step,we tested the data by using multico1tinearity test and then we use linear multiple regression model to investigate the impact of chosen independent variables on CS (leverage) decisions in Indian capital market. Later, residual diagnostic CS, such as Serial correlation test, Heteroskedasticity Test, Normality and CUSUM test have been run to assess the strength of the constructed regression model. The results show that ER (Earnings), TA (Tangibility) and GR (Growth) were the major determinants in case of capital goods sector and ER (Earnings), TA (Tangibility), GR (Growth), Size and NDTS were the major factors for the FMCG sector. GR (Growth), BR (Business Risk) and Size for the Infrastructure sectors and ER (Earnings), BR (Business Risk) and Size were the major factors for the IT sector. The study revealed inconsistency in independent variables influencing the financial leverage component, though there is statistical support for the proposed determinants with respect to earnings and growth rate influencing the financial leverage.

Keywords: *Leverage, CUSUM Test, Heteroskedasticity, NDTS, Pecking Order Theory*

1. Introduction

Capital Structure (CS) is the blend of long-term sources of funds used by a firm to finance its overall business operations and growth. A firm's CSis a mixture of debt, common stock and preference shares. A firm with more borrowed funds (debt) than shareholder's equity is often considered to be a highly leveraged and therefore carries more risk to investors. Generally business firms raise debt because of the tax advantage associated with the debt funds. Tax laws allow interest payments as an allowable expenditure against revenues to arrive at taxable income. Further, through debt financing one can avoid dilution of holding. The CS is one of the most explored topics in finance domain. Academic research suggests a wide array of new models to explain the theory of CS and has also tried to furnish the much required empirical support regarding practical applications of these suggested models in the actual business scenario.

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The Modigliani-Miller Hypothesis, proposed by Franco Modigliani and Merton Miller (1958), creates the ground for new outlook on modern CS. They developed a proposal that helps firms to find out how taxes and financial distress impact a firm's CS decision. Initially, they proposed the theory of irrelevance. According to them in perfect market situations, it does not make any difference whether a firm uses borrowed funds or equity while framing its CS to finance its operations. The theory emphasizes the fact that a firm's operating income (earnings) and the risk of its underlying assets, are the major sources of the value of the firm. The theory reiterate the fact that a firms operating income is the major determinant of its total value.

In a perfect capital market, that is, no-transaction costs, symmetry of market information to all the participants, no bankruptcy costs, the investor and corporates can borrow funds at the equal interest rate, no taxes and return on investment is not affected by uncertainty of the sector. The value of a firm is independent of its CS. However, the imperfections which exist in the actual cenarioare the dominant factors for irrelevance. As a result, the CS should be investigated from the perspective of imperfections in the capital market and its impact on the value of the firm. Therefore, a firm should select an optimal debt-to-equity mix to finance its business operations that enhances the wealth of the shareholders and decreases in the overall weighted average cost of capital. Therefore a firm should frame an optimum CS, in which the value of the firm is highest and the overall cost of capital is the lowest.

2. Literature Review

The search for information started with a study of the literature that concludes various theories and gives a basic outline that enables a researcher to create a fundamental knowledge regarding the topic and also to find literature that would help the others get a deeper insight with respect to the proposed topic. Research on CS and its determinants by various economists and practicenors is not a new effort; the theory of CS commenced with the seminal research paper of Modigliani and Miller (1958). They guided the conditions of irrelevance of such CS model

Again Miller (1977) has acknowledged that the value of the firm will rise and the overall weighted cost of capital would decrease with use of debt on account of allow abilityof interest charges for tax purpose. Later, several conflicting theories of CS have been proposed by various experts, for example: Static Trade-off Theory (STO), Pecking Order Theory (POT), and Agency Cost Theory (ACT) etc.

2.1 The Static Trade Off Theory

The theory of CS (also referred to as the tax based theory), which was proposed by Myers (1984) claims the necessity of establishing a balance between savings (tax savings from debt financing) and cost associated with debt (such as agency cost, bankruptcy cost and financial distress cost). Most managers agree that borrowing saves taxes and that too much borrowing can lead to financial distress. This is very true in case of firms which carry huge intangible assets.

If the firm is engaged in framing a CS without external sources, then the firm will not be able to achieve any value addition. In order to achieve an optimal CS, firms need to establish a balance between agency cost of financial distress and the tax advantage of debt financing (Ghosh & Cai, 2001). Therefore, this theory advocates that issuing excessive equity by a firm means moving away from the optimum CS. According to Myers (2003), in order to attain the optimum CS a firm should borrow up to the level where the PV of interest tax shields and the PV of financial distress costs are equal at that point.

Several times this theory has been examined in various literatures with the empirical evidence that claim against the optimal CS. For example, Graham & Harvey's (2001), Titman & Wessels (1988), Rajan & Zingales (1995), Fischer et al., (1989), Booth et al., (2001), Gul (1999), Hackbarth et al., (2007). The most important evidence against this theory is the inverse relation between profitability and leverage i.e., less borrowings firms are most profitable firms and vice-versa. (Fama & French (2002), Kester (1986), Baskin (1989)).

2.2 Pecking Order Theory

This theory was first recommended by Donaldson (1961) and it was modified by Myers and Majluf

(1984). Given the pecking order of financing, there is no well-defined target debt-equity ratio, as there are two kinds of equity, internal and external. When it comes to financing new investments generally all firms prefer to finance through internally generated funds (retained earnings) on the first occasion, then with borrowed funds, and the last option being the issue of common stocks. According to this theory all firms follow this order as there is no need to disclose of proprietary information to outsiders. As the mangers have privileged proprietary financial information about the firm, this asymmetry of information affects the firm's decisions. This is the reason why highly profitable firms generally use little or no debt while financing the new investments.

On contrary, the less profitable organizations borrow more because their financing need go beyond retained earnings and further, debt comes earlier than external equity in the pecking order (Fama & French, 2004) and (Lu, 2007). Therefore, the pecking order theory claims that, there is a negative relation between profitability and leverage (Baskin, 1989), Friend & Lang (1988), Vasiliou, Eriotis & Daskalakis, (2003); Saeed, (2007)). Most of the empirical studies are mainly on data from developed nations like US, Japan, UK, France etc Bradley et al., (1984), Friend & Lang (1988), Kim & Sorensen (1986), Balla & Mateus (2003), Titman & Wessels (1988) and Chaplinsky & Niehaus (1993), Myers (1984), Rajan & Zingales (1995), Wald (1999) Booth et al., (2001), Fama & French (2002), Omet & Mashhardive (2003), Green et al, (2003); Chen (2003), Baner (2004), Green & Tong (2004), (Halov N., & Heider F., 2005), (Koufopoulos, 2006) etc.

2.3 Agency Costs

This theory was proposed by M.C. Jensen & Meckling (1976). According to this theory there exist two types of conflicts of interest in any firm. Those are the conflict between the shareholders and managers and, between the shareholders and bondholders. Generally, the shareholders' and managers' conflicts arise because managers may take decisions in their own interests that are not compatible with the objective of wealth maximization. Later, a great amount of empirical research has been devoted to document the relation between agency costs and CS decisions. Williams (1987), Grossman et al., (1982) claim that high debt-equity ratio and lower agency costs enhance the value of the firm by encouraging managers to act more favorably in the interests of equity share holders. This view was supported by (Ang et al., 2000), (William, 1987), (Jensen 1986) and (Harvey et al., 2004). This leads to significant agency costs in the form of bankruptcy costs (Hunsaker 1999), (Titman 1984), (Chambers & Lacey, 1999) (Berger & Bonaccorsi, 2005) and (Jensen, 1986). Later, many empirical studies by Garvey & Hanka (1998), Childs et al. (2005) and Lee et al. (2004), Stulz (1991), (2006) Kent et al. (2004), (DeMarzo & Fishman 2007), Stulz (1990), (Kalcheva & Lins, 2007), Green (1984), Margarits & Psillaki (2007), Alvarez et al. (2006), Harris & Raviv (1990), Kent et al. (2004), (DeMarzo & Fishman (2007), Alvarez et al. Smith & Warner (1979), Margarits & Psillaki (2007) supported this model. Therefore this theory advocates that the CS decisions needs be taken to reduce agency costs. High financial leverage (debt to equity ratio) decreases the agency cost and maximises the firm value by compelling managers to take decisions in favour of shareholders (Berger, 2002).

Considering the importance of CS decision in real world and conflicting opinions given by the various theories, the current paper examines the relationship between various chosen determinants of CS and its impact on debt to equity ratio (financial leverage) in Indian stock market.

Most of the existing empirical studies on determinates of CS have mainly concentrated on the developed economies like US stock markets, England, France, Canada, Australia, Japan etc. A Little or minimal attention has been given to emerging economies like India. Moreover, the literatures on the proposed subject carefully define the several attempts to model corporate leverage guidelines. However, what optimal mix of debt and equity a firm should employ to finance its investments still remains unanswered. Seeing the importance of CS decisions in real world and conflicting opinion given by the various theories, it is found that there is an evident gap in the proposed area.

In addition, firms in India are found to be following different patterns of raising funds for financing

their investments. For example, some follow a very aggressive policy and others, conservative. Therefore, one needs to investigate the causes for this behavior. Thus, the current study has been undertaken in order to provide a background has to the mangers to decide the degree up to which its firm can extend its financial leverage to get the maximum benefits and at the same time to avoid the company from going into bankruptcy due to its excessive leverage.

2.4 Major Determinants

The term CS, also called as Financial Leverage (FL), is referred to as the composition of a wide variety of financial instruments such as shareholder's equity, loans and preference share capital. This section presents a short discussion of the various determinants suggested by various conflicting theories of CS which may affect the firm's debt and equity ratio.

2.5 Assets Tangibility (TG)

Most of the CS theories argue that tangibility of assets is positively related to financial leverage. Tangible assets are collateralizable and are most widely accepted as a source for raising debt instruments at a lower interest rate from financial markets. If there is no collateral security, then the lenders demand high rate of interest that reduces the wealth of the shareholders.

Scott (1977) argues that "by selling secured debt, firms increase the value of their equity by expropriating wealth from their existing unsecured creditors". Jensen & Meckling (1976) also suggest that, in the case of default, while serving the debt, debt holders can recover their claim by selling the firm's assets which have more collateral value. Even Myers & Majluf (1984) argued that firms may find it advantageous to sell secured debt. As per Static trade-off theory states that if the ratio of the fixed assets to the Total Assets (TA) is more than this ensures more safety to the creditors, which means the creditors can realise more value by liquidating the assets in case of bankruptcy.

Majority of the empirical studies on this determinant conducted across the world established a direct relationship between the level of debt with assets tangibility (Kremp, Stöss, & Gerdesmeier, 1999; Rajan & Zingales, 1995, Stulz & Johnson, 1985; Johnson, 1997, Cheng & Shiu, 2007, Gaud, Jani, Hoesli, & Bender, 2005, Voutsinas & Werner, 2011, Yang et al., 2010, Bradly, Jarrel & Kim, 1984) they found that assets tangibility shares positive relations with borrowings and they describe that large firms with more tangible assets use more debt.

As most of the earlier researchers considered tangibility of assets as the ratio of fixed assets over total assets, we also measured the tangibility factor inthe same way. TAN = FA/TA Where, TAN = Tangibility of assets,

FA = Fixed Assets,

TA = Total Assets,

2.6 Size (SZ)

Size is one of the most extensively used determinants while testing for the choice of capital structure. The bankruptcy cost theory recommends that there exists a positive relation between the leverage and size of a firm. In addition, many studies documented that big firms prefer long-term debt, meanwhile small firms prefer short-term debt to finance their assets Smith (1977). Larger firms are generally less prone to bankruptcy which means lesser the probability of bankruptcy and lower the bankruptcy costs (Michaelas et al., 1999, Rajan & Zingales, 1995). In a study by Martin and others (1988), they documented that there exists a positive relation between the size of firms and financial leverage. Even bankruptcy cost theory argues that lower the bankruptcy costs, the higher the usage of debt. Static Trade-off theory recommends that diversified large firms (Remmers and others 1974), (Pinches & Mingo, 1973) should prefer debt financing to equity financing to frame target CS as they have low financial distress costs than smaller or new firms. Empirically, when this relationship is tested by various researchers, there exist contradictory opinions between size of the firm and leverage. Titman (1988) observed a direct relationship between the size of the firm and debt equity ratio. Research findings of Cheng & Shiu (2007), Gropp & Heider (2010), Céspedes, González, & Molina (2010) and Guney, Li & Fairchild (2011), supported this view. But results of some empirical studies did not support

this theoretical relation for example, Shah and Khan (2007) and Mishra & Tannous (2010). Empirical findings of Chiarella et al. (1992), Pandey (2001), Jõeveer (2006), Daskalakis & Psillaki (2008), and Gill et al., (2009) and Afza & Hussain (2011), do not support this theoretical relation.

To capture the size variable on firm's leverage choice, the size is defined as the natural logarithm of total assets of the firm. It is given by the following formula

SZ = Log (TA) Where: SZ = Size of the firm Log = natural logarithm; TA = Total Assets

2.7 Profitability (PR)

The expected relationship between profitability (independent variable) and debt equity ratio depends on the theory used. According to signaling theory, firm's proposed CS (the issue of debt over equity) signals to outsiders the excellent future prospectus of the firm. If this is true, then there exists a significant positive relationship between leverage component and profitability of a firm. However, Pecking Order Theory (POT) claims that there is a negative relation between profitability and debt-equity ratio decision. According to this theory, more profitable firms borrow less because they have more retained earnings for their investment needs. The important advantage cited by the supporters of this view is that the retained earnings incur no flotation costs and managers know more about their company's future prospects. Myers (1984) observed a negative association between debt-equity ratio and profitability under this theory. Rajan & Zingales (1995) also supported this view in case of G7 nations except Germany and less statistical evidence in France. Similarly, empirical findings of Kester (1986), Titman et al. (1988), Friend & Hasbrouck (1989), Hovakimian, et al. (2001), and Sheel (1994) supported this view. Studies conducted in India and Nepal also supported this view (Baral 1996). Only a few empirical studies favored the claim of static trade-off hypothesis. Um (2001); DeAngelo & Masulis (1980), recommended that high profitability would provide a higher debt capacity. They argue that the firms with more profitability can get more tax benefits by increasing their debt.

Therefore in this study, profitability is defined as Return on Assets = EBIT/TA

Where: EBIT = Earnings before Interest and Taxes and TA= Total Assets

2.8 Growth Opportunities (GR)

Different theories suggest different contradictory opinions to show the relationship of growth with debt equity ratio (leverage component). Assets of a firm can be categorised in to two groups they are, tangibles and intangibles. Growth rate of firm is considered as an intangible asset. A firm with high degree of intangible assets cannot pledge these assets as security to raise debt funds from financial markets. So firm's with high growth opportunity are not likely to raise debt on the very first occasion and there exists an inverse relationship between growth and debt-equity ratio (Jensen & Meckling 1976). In a study by Rajan & Zingales (1995) they used market-to-book ratio (M/BV) as a proxy of growth rate across G7 nations which supported this view. Empirical studies conducted by Titman & Wessels (1988) and Kim & Sorensen (1986) confirmed this findings. However, Kester (1986) rejected this relationship with leverage.

However, Pecking order theory differs from the agency cost theory. This theory claims a direct relationship between FL and GR and advocates that higher growth rate calls for more funds and it can be raised through borrowings from outside (Sinha, 1992). According to this theory, firms generally opt to finance assets, through retained earnings on the first very first occasion then, second preference is with borrowed funds, and at the end the issue of new equity (Myers, 1984). Thus, the pecking order theory recommends a high debt equity ratio in CS of the growing enterprises than that of the stable or declining ones. Céspedes et al. (2010), Tang & Jang (2007) and Yang et al. (2010) found a positive relationship between leverage components with growth rate. In an empirical study conducted by Fama & French (2002) observed that firms having high growth rate prefer low debt. A study conducted by Bevan & Danbolt (2002) predicted a direct relationship with short term borrowed funds and an inverse relationship of growth rate only with long-term borrowed funds.

In this study, the growth rate as defined as follows: GR = $(TA_n – TA_0)/ TA_0$

Where, TA_n = total assets at the end of the study period and TA_0 = Total Assets at the beginning of study period

2.9 Business Risk (BR)

Various models of volatility have been adopted in historical research studies such as standard deviation of returns on sales, operating cash flow and change in operating income to determine the relationship. The high volatility in earnings and cash flows of firms face a higher degree of risk than when earnings level drops below the debt exposure and default while serving the debt. Therefore, various theories claim that less stable earnings of the firm, the greater is the chance of financial failure while serving the debt funds and more will be the bankruptcy costs. In the context of CS, when debt is introduced in the CS the agency problem is extended to the relationship between shareholders, lenders (creditors) and management. These conflicts positively influence the agency problems. Agency costs have their influence on a firm's CS. The empirical findings show that firms with high earnings volatility will prefer equity financing to debt when facing external financing choices. Thus, business risk is a substitute for the probability of failure and expected to share an inverse relationship with leverage. Empirical studies conducted by (Taggart, 1985), Garg (1988) and Paudel (1994) supported this view which suggests that as business risk (volatility) increases, borrowed funds in the CS of the firm should decrease. However, studies carried out in India and Nepal contradict the view of agency cost and the bankruptcy theories.

Therefore, in this study, business risk is defined as the standard deviation of operating cash flow BR = SD (OPCF)

2.10 Non-Debt Tax Shields (NDTS)

Firms with high leverage component in their CS gain more benefits in the form of tax shield on interest payment as interest payment is an allowable expenditure according to tax laws. However, Pecking Order Theory (POT) ranks NDTS as second order and ranked retained earnings as a first order of preference to external financing. According to POT, profitable firms generally have financial surplus. In order to utlise the surplus, the firms supply their financial requirements from internal sources when necessary. However, empirical studies showed contradictory results on this issue. Studies conducted by Bradly, Jarrell & Kim (1984), Titman & Wessel could not lead to any result. The marginal tax rate is described as the present value of current and expected future taxes paid on an additional rupee of income earned today.

Therefore, in this study NDTS is defined as an incentive that a firm acquires from tax deduction against depreciation and interest payments other than long term interest loan.

Non-Debt Tax Shield is given by OI – I - T/0.33

Where, OI = operating income, I = represents income and T = income tax payments.

3. Research Design

3.1 Objectives of the Study

- To explore the relation that exists between the CSs with various determinants.
- To explore the impact of various identified determinants of CS (tangibility, profitability, non-debt tax shield, growth rate, size and Business risk) on financial leverage.
- To identify the key drivers of CS of various chosen sectors for the leverage component.

3.2 Nature of the Study

The current study is analytical, quantitative and historical. The research is based on the secondary data of fifteen companies which belong to the sectors listed in the Indian stock market, such as Capital goods, FMCG, Infrastructure and IT sectors listed on Indian stock market. The yearly financial data of the companies were collected from the published annual reports.

3.3 Specification of the Model

The following multiple regression model has been used to test the theoretical relation between financial leverage (debt equity ratio) and various determinants of the capital structure.

$$Y\ (Debt\ to\ Equity) = a + b_1 X_1\ (TG) + b_2 X_2\ (ER) + b_3 X_3\ (GR) + b_4 X_4\ (Size) + b_5 X_5\ (NDTS) + b_6 X_6\ (Volatility) + \epsilon \quad (1)$$

Where,

Y = Leverage (Debt to Equity ratio) of the firms and the dependent variable in the model

X is the vector of explanatory variables in the estimation model

X_1 = Tangibility (TG)

X_2 = Profitability or Earnings Rate (ER)

X_3 = Growth Rate (GR)

X_4 = Size (SIZE)

X_5 = Non-debt Tax Shield (NDTS)

X_6 =Business risk (Volatility)

a = constant intercept term of the model

b_s = coefficients of the estimated model

ϵ = error component

3.4 Dependent Variable (Y)

It is defined as the ratio of total debt to capital employed.

It is given by FL = TD / CE (2)

Where, FL = Financial Leverage, TD = Total Debt and CE = Capital Employed.

3.5 Independent Variable (S) (Xn)

Earnings Rate or **Profitability** ($\mathbf{X_1}$)

It is given by X_1 = EBIT / TA (3)

Where, EBIT = Earnings before Interest and Tax and TA = Total Assets.

Tangibility ($\mathbf{X_2}$):

It is given by X_2 = TFA / TA (4)

Where, TFA = Total Fixed Assets and TA = Total Assets.

Growth Rate ($\mathbf{X_3}$):

It is given by $X_3 = (TA_n - TA_0)/ TA_0$ (5)

Size of the Firm($\mathbf{X_4}$): It is defined as the logarithm of total assets of the firms. It is given by X_4 = Log (Total Assets)..... (6)

Non-Debt Tax Shield($\mathbf{X_5}$):

It is given by X_5 = OI-I- T/0.33 (7)

Where, OI= operating income, I= represents income and T= income tax payments.

Business Risk ($\mathbf{X_6}$): It is defined as the standard deviation of operating cash flow. It is given by X_6 = SD (OPCF) (8)

Where, SD = Standard Deviation and OPCF = Operating Cash Flow of the firm.

3.6 Hypotheses of the Study

This study has tested the following null hypotheses in relation with the defined variables and CS of listed companies:

HYPOTHESIS 1, 2,3,4,5 and 6

H0: There is no significant relation between the Size, Business Risk, Growth Rate, Profitability, Non-Debt Tax Shield, and Tangibility with Financial Leverage.

3.7 Sources of Data and Sampling

In this research, the data Sample chosen was yearly financial overview of sectors, namely Capital goods, FMCG, Infrastructure and IT.

3.8 Plan of Analysis

In the first phase, data has been collected from the financial statements of all the companies with respect to the leverage component and its determinants from 2006 to 2015. In the second phase, all the determinants have been tested for multicollinearity in order to obtain flawless regression results and in the third phase, regression has been run by using E-views software for the selected sectors resulting in the coefficients for each determinants. These determinants have been tested at 5% level of significance. In the last phase, residual diagnostics have been run to assess the strength of the constructed regression model.

4. Data Analysis and Interpretation

In statistics, collinearity is an anomaly which is used to explain how one predictor variable behaves in relation

Table 1. Inter correlation matrix of independent variables for various sectors

			Capital Goods			
	ER	TG	GR	BR	Size	NDTS
ER	1					
TG	0.165483	1				
GR	0.054102	0.007408	1			
BR	0.083656	–0.04217	0.049529	1		
Size	0.139784	–0.11621	–0.01766	0.507895	1	
NDTS	0.165176	–0.18452	–0.04288	–0.01403	–0.05008	1
			FMCG			
	ER	TG	GR	BR	Size	NDTS
ER	1					
TG	0.136747	1				
GR	–0.04016	–0.38577	1			
BR	0.009628	–0.10478	0.079244543	1		
Size	0.17298	0.229006	–0.83129697	–0.08698	1	
NDTS	0.429421	–0.10683	0.300464751	0.017353	0.009117	1
			IT Sector			
	ER	TG	GR	BR	Size	NDTS
ER	1					
TG	–0.21574	1				
GR	–0.10759	0.159441	1			
BR	–0.09978	0.019038	0.017707	1		
Size	0.230478	–0.22429	–0.81837	–0.01045	1	
NDTS	0.469338	–0.23228	–0.03019	–0.01307	0.350354	1
			Infrastructure			
	ER	TG	GR	BR	Size	NDTS
ER	1					
TG	0.346481	1				
GR	–0.06742	–0.53223	1			
BR	0.092108	0.061117	–0.04801	1		
Size	0.073207	0.110751	–0.27927	–0.57345	1	
NDTS	0.063363	–0.20103	0.472178	0.076366	–0.05501	1

to another predictor variable in a multiple regression model. When two independent predictors or variables are highly inter-correlated, they both express the same information and any inference drawn from such data may not be practically reliable. Therefore, statistically, in any empirical study where we are running a multiple regression, it is advised not to have any degree of multicollinearity. If they exist, then those predictors are redundant and do not add any predictive value to the dependent variable. Therefore, in the current study we have used Pearson correlation coefficient to establish collinearity among independent variables. Independent variables having correlation coefficient at 0.70 or greater would not be included in regression.

In Table 1, the highest correlation coefficient value recorded was0.507895 between Size and BR in the Capital goods sector. In the FMCG sector the highest correlation coefficient value noticed was 0.429421 between ER and NDTS variables. However, in case of IT sector, the highest correlation value recorded was 0.469338 between ER and NDTS. In case of Infrastructure, the highest correlation value detected was 0.472178 between GR and NDTS. Therefore, in this case collinearity would not create any problem in the proposed regression model.

4.1 Capital Goods Sector

Intercept is α in the set equation. Standard error measures the variability in approximation of the coefficient and lower standard error means that the coefficient is closer to the true value. Result shows that BR, Size andNDTS are not statistically significant; However, ER is significant at 1%. Whereas, TA and GR are significant at 5% in the Capital goods sector.

Table 2. Regression results for capital goods sector

	Coefficients	Standard Error	t Stat	P-value	
Intercept	0.138105	0.036077	3.828058	0.0002	
ER	–0.398707	0.098096	–4.064461	0.0001	Significant**
TA	0.218644	0.092146	2.372798	0.0186	Significant*
GR	0.032850	0.016161	2.032697	0.0435	Significant*
BR	–0.001035	0.001016	–1.018124	0.3099	Insignificant
Size	6.84E-05	7.35E-05	0.930398	0.3533	Insignificant
NDTS	6.37E-07	2.53E-06	0.251818	0.8015	Insignificant
Y(–1)	0.419364	0.062247	6.737061	0.0000	

It is evident from Table 3 that R-square value of 31.80% indicates that only 31.80% of the information of dependent variable is predicted by the model. However, in all, ER, TA and GR are highly significant. F test indicates the fitness of the model. From the above table, ANOVA suggests that the model is statistically significant with F value (14.19139) at a significance level of 0.00000.R^2 appears low indicating the existence of omitted variables.

4.2 Residual Diagnostics

One of the main assumptions of a regression model is that the error terms are independent of each other. In order to investigate the serial correlation phenomenon in the constructed model, B-G Serial correlation LM test has been conducted with the following hypothesis, H_0: $r = 0$ (there is no serial correlation in the distribution). It is evident from the above table that the p value is more than 5% which means that the null hypothesis cannot be rejected.

In statistics, if the variance of e_i is same for all the observations in the distribution it is said to be Homoskedasticity. However, if the error terms do not have a constant variance or equal variance, then they are said to be heteroskedastic. In a multiple regression model, it is suggested to have a Homoskedastic variance terms. Therefore, we have conducted a heteroskedasticity test with the following Null Hypothesis H_0:$\alpha = 0$ with the alternative as H_1:$\alpha \neq 0$. It is evident from the above table that there is no Heteroskedasticity in the time series data as the p value is greater than 5%.

Table 3. Regression statistics CS and collinearity statistics

Regression Statistics			Tolerance	VIF
R Square	0.318040	ER	.721	1.387
Adjusted R Square	0.185874	TA	.576	1.736
Standard Error	6.598913	GR	.455	1.198
ANOVA		BR	.597	1.674
F-statistic	14.19139	Size	.561	1.783
Prob(F-statistic)	0.000000	NDTS	.742	1.348
Durbin-Watson stat	2.017264			

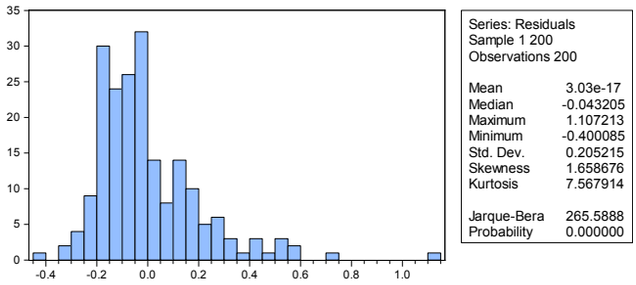
Table 4. B-G test

F-statistic	0.697135	Prob. F(2,189)	0.4993
Obs*R-squared	1.457290	Prob. Chi-Square(2)	0.4826

Table 5. Heteroskedasticity test: Breusch-Pagan-Godfrey

F-statistic	1.897523	Prob. F(7,191)	0.0719
Obs*R-squared	12.93918	Prob. Chi-Square(7)	0.0736
Scaled explained SS	68.36828	Prob. Chi-Square(7)	0.0000

Table 6. Normality test



In the current study, we ran Jarque-Beratest to investigate whether the time series data was normally distributed or not. The set Null hypothesis for this purpose was that the data is normally distributed. However, the results show that the Jarque-Bera was 265.5888 with a p value of 0.0000, which is less than the set level of 5% therefore; we can reject the null hypothesis.

The t-stats for the beta coefficients are conditional tests. t-stats analyses the significant predictive capacity that an independent variable or predictor adds to the proposed regression model when the other proposed independent predictors are already included in the regression model. The above table depicts that ER, GR, Size and NDTS are significant at 1% level and TA at 5% level of significance. However, Business risk is not statistically significant.

In a regression model, R-square (the coefficient of determination), measures the amount of variation in the response of dependent variable i.e., debt equity ratio which is explained by all of the independent (predictor) variables in the regression model. It is evident from table No. 4.8 that R-square value of 0.731826 represents 73.18% of the information of dependent variable was predicted by the model. However, in all, ER, TG, GR, Size and NDTS were highly significant. F

Table 7. Regression results for FMCG sector

	Coefficients	Standard Error	t Stat	P-value	
Intercept	0.279388	0.347665	0.803613	0.4230	
ER	–1.428989	0.330321	–4.326057	0.0000	Significant**
TA	–0.759801	0.305979	–2.483176	0.0142	Significant*
GR	0.732255	0.126288	5.798301	0.0000	Significant**
BR	–0.000670	0.002150	–0.311711	0.7557	Insignificant
Size	0.492396	0.115721	4.255039	0.0000	Significant**
NDTS	–0.000689	0.000255	–2.698515	0.0078	Significant**

Table 8. Regression statistics and collinearity statistics

Regression Statistics			Tolerance	VIF
R-squared	0.731826	ER	.711	1.406
Adjusted R-squared	0.718513	TA	.863	1.159
S.E. of regression	0.546208	GR	.517	1.608
ANOVA		BR	.987	1.013
F-statistic	54.96840	Size	.341	2.157
Prob(F-statistic)	0.000000	NDTS	.619	1.617
Durbin-Watson stat	1.998457			

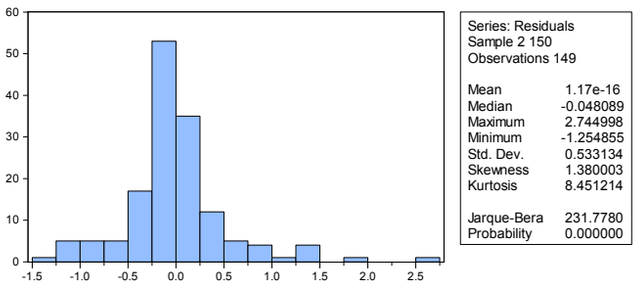
Table 9. Breusch-Godfrey serial correlation LM test

F-statistic	1.87398	Prob. F(2,141)	0.13200
Obs*R-squared	6.75273	Prob. Chi-Square(2)	0.13890

Table 10. Heteroskedasticity test

F-statistic	0.909641	Prob. F(6,143)	0.44580
Obs*R-squared	4.10379	Prob. Chi-Square(6)	0.43250
Scaled explained SS	21.76909	Prob. Chi-Square(6)	0.0091

Table 11. Normality test



test indicates the fitness of the model. ANOVA results from the above table suggest that the model is statistically significant with an F value of (54.96840) at a significance level of 0.00000.

Residual Diagnostics

In order to investigate the serial correlation in the FMCG sector's regression model, B-G Serial correlation LM test has been conducted with the following hypothesis H_0: $r = 0$ there is no serial correlation in the distribution. It is evident from the above table that the p value is more than 5% which means the null hypothesis cannot be rejected.

If the variance of e_i is same for all the observations in the distribution, is said to be Homoskedasticity. Therefore, we have conducted Breusch-Pagan-Godfrey test with the following Null Hypothesis H_0:$\alpha = 0$ with the alternative H_1:$\alpha \neq 0$. It is evident from the above table that there is no Heteroskedasticity in the time series data as the p value is greater than 5%.

Jarque-Bera test for normality has been conducted to test whether the time series data was normally distributed or not. However, the results of Jarque-Bera test results show that the Jarque-Bera value was 231.7780 with a p value of 0.0000, which is less than the set level therefore null hypothesis can be rejected.

Intercept is α in the set equation. Standard error measures the variability in approximation of the coefficient and lower standard error means coefficient is closer to the true value. The t-stats for the beta coefficients are conditional tests. That means, they analyse the predictive value that a proposed independent variable adds to the model when the other predictors or variables are already included in the proposed regression model. Results show that BR and Size are statistically significant at 1%. However, GR is significant at 5% the Infrastructure sector.

It is evident from Table 13 that there is 52.83% support for the model for Infrastructure sector. R-square value of 0.528311 represents that only 52.83% of the

Table 12. Regression results for infrastructure sector

	Coefficients	Standard Error	t Stat	P-value	
Intercept	–0.222184	1.240198	–0.179152	0.8581	
ER	–2.018513	3.155928	–0.639594	0.5235	Insignificant
TA	–1.043664	2.666636	–0.391378	0.6961	Insignificant
GR	0.923681	0.451716	2.044827	0.0427	Significant*
BR	0.114607	0.031567	3.630620	0.0004	Significant**
Size	0.544469	0.206343	2.638657	0.0093	Significant**
NDTS	–0.000187	0.000282	–0.663566	0.5081	Insignificant
Y(–1)	0.024653	0.265875	0.092724	0.9263	

Table 13. Regression statistics and collinearity statistics

Regression Statistics			Tolerance	VIF
R Square	0.528311	ER	.721	1.387
Adjusted R Square	0.508519	TA	.576	1.736
Standard Error	0.528311	GR	.455	2.198
ANOVA		BR	.597	1.674
F-statistic	26.69427	Size	.561	1.783
Prob(F-statistic)	0.000000	NDTS	.742	1.348
Durbin-Watson stat	2.03890			

information of dependent variable is predicted by the model. 52.83 % of the variation in the model is explained by the dependent variables (ER, TA, GR, BR, Size and NDTS). However, in all, GR, BR and Size are highly significant. This is not a high percentage as 47.17 % is left unexplained by the model. This needs further investigation. F test indicates the fitness of the model. ANOVA results from the above table suggest that the model is statistically significant with F value (26.69427) at a significance level of 1% (0.00000).

Residual Diagnostics

In order to investigate the serial correlation in the proposed infrastructure sector regression model, the B-G Serial correlation LM test has been conducted with the following hypothesis H_0: $r = 0$ there is no serial correlation in the distribution. It is evident from the above table that the p value is more than 5% which means the null hypothesis cannot be rejected.

If the variance of e_i is same for all the observations in the distribution, it is said to be Homoskedasticity. Therefore, we have conducted that Breusch-Pagan-Godfrey test with the following Hypothesis H_0:$\alpha = 0$with the following alternativeH_1:$\alpha \neq 0$.

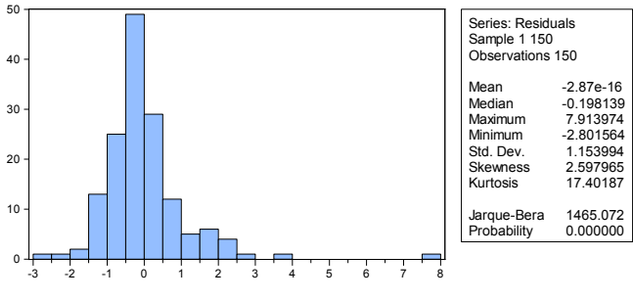
Table 14. Breusch-Godfrey serial correlation LM test

F-statistic	0.303009	Prob. F(2,190)	0.7389
Obs*R-squared	0.632705	Prob. Chi-Square(2)	0.7288

Table 15. Heteroskedasticity test

F-statistic	1.202232	Prob. F(6,192)	0.3068
Obs*R-squared	7.205665	Prob. Chi-Square(6)	0.3022
Scaled explained SS	40.71616	Prob. Chi-Square(6)	0.0000

Table 16. Normality test



It is evident from the above table that there is no Heteroskedasticity in the time series data as the p value is greater than 5%.

Jarque-Bera test has been conducted to investigate the existence of the non-normality of the data distribution. For this purpose, we have set a Null hypothesis that the data is normally distributed. However, the results show that the Jarque-Bera statistics was 1465.072 with a p value of 0.0000 which enables us to reject the null hypothesis.

It is evident from the above table that the t stats in the regression model for the beta coefficients are conditional tests. That means, they analyse the significant predictive power that an independent variable

Table 17. Regression results for IT sector

	Coefficients	Standard Error	t Stat	P-value	
Intercept	1.171239	0.214757	5.453795	0.0000	
ER	–0.904623	0.352260	–2.568056	0.0113	Significant*
TA	0.125313	0.247087	0.507162	0.6128	Insignificant
GR	–0.121353	0.066180	–1.833698	0.0688	Insignificant
BR	0.016612	0.003087	5.380463	0.0000	Significant**
Size	–0.135092	0.055775	–2.422071	0.0167	Significant*
NDTS	–2.84E-06	7.97E-06	–0.356239	0.7222	Insignificant
Y(–1)	0.423176	0.066390	6.374081	0.0000	

Table 18. Regression Statistics

Regression Statistics			Tolerance	VIF
R-squared	0.450077	ER	.911	1.011
Adjusted R-squared	0.426841	TA	.563	1.789
S.E. of regression	0.446961	GR	.717	1.797
ANOVA		BR	.736	1.328
F-statistic	9.966131	Size	.441	2.174
Prob(F-statistic)	0.000000	NDTS	.619	1.099
Durbin-Watson stat	2.11327			

adds to the model when the other independent variables are already included in the regression model. Financial Leverage is a dependent variable whereas PR, TG, GR, SIZE, NDTS and BR are independent variables. Result shows that independent variable BR is significant at 1% and ER and Size are statistically significant at 5%. However, TA, GR and NDTS are not significant at conventional level of 5% in the IT sector.

R-squared means the percent of movement of the dependent variable is captured by predictors. Above obtained results explain that 45.00% of the variation in leverage is captured by independent variables with Standard error of 42.68%. 45.00% of the variation in the model is explained by the dependent variables (ER, TA, GR, BR, Size and NDTS). However, in all, only independent variables ER, BR and Size are statistically significant. F test indicates the fitness of the model. ANOVA results from the above table suggests that P value for the F test statistic is less than 5% that is 0.000000, this signifies a strong evidence against the null hypothesis.

Residual Diagnostics

In order to investigate the serial correlation in the proposed infrastructure sector regression model, the B-G Serial correlation LM test has been conducted with the following hypothesis H_0: $r = 0$ there is no serial correlation in the distribution. It is evident from the above table that the p value is more than 5% which means that the null hypothesis cannot be rejected.

If the variance of e_i is same for all the observations in the distribution, is said to be Homoskedasticity. Therefore, we have conducted Breusch-Pagan-Godfrey test with the following Hypothesis H_0:$\alpha = 0$with the following alternativeH_1:$\alpha \neq 0$. It is evident from the above table that there is no Heteroskedasticity in the time series data as the p value is greater than 5%.

Jarque-Bera test for normality has been run to investigate whether the data is normally distributed or not. The set Null hypothesis for this purpose was that the data is normally distributed. However, the results show that the Jarque-Bera test statistics was 1465.072 with a p value of 0.0000, which is less than the set level which the null hypothesis can be rejected.

CUSUM test is based on the cumulative sum of the equation errors in regression. Views graphically represents the cumulative sum of errors together with critical lines of 5%. The equation parameters are not treated stable if

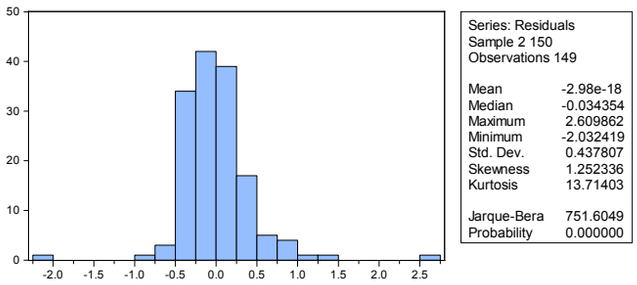
Table 19. Breusch-Godfrey serial correlation LM test

F-statistic	1.994732	Prob. F(2,140)	0.1399
Obs*R-squared	4.128289	Prob. Chi-Square(2)	0.1269

Table 20. Heteroskedasticity test

F-statistic	0.911101	Prob. F(6,143)	0.4888
Obs*R-squared	5.523066	Prob. Chi-Square(6)	0.4787
Scaled explained SS	22.91315	Prob. Chi-Square(6)	0.0008

Table 21. Normality test



the whole sum of recursive errors goes beyond the two critical bands. It is evident from the above Exhibit 2 that the stability of the regression model was good.

5. Discussion and Conclusion

In this epilogue, the researchers sum up the conclusion of the proposed study in short but in a comprehensive manner. Researchers, academicians and practicenors have proposed a number of theories on CS and tried to interpret the fluctuation in leverage across firms and sectors. Most of these theories concluded that normally companies prefer their optimal CSon the basis of the costs and benefits associated with equity and debt financing. The greatest challenge faced by financial managers is to select the optimum CS which gives maximum benefit to the firm by employing the optimal debt and equity while financing the business operations. In finance, the value of a firm can be determined by taking its expected stream of earnings or expected future cash flows and an appropriate rate used to discount these earnings stream. This discount rate is often referred to as firm's cost of capital. Thus, the financial leverage decision taken by the policy makers will definitely affect the value of the firm either by changing the future cash flows (expected earnings) or the cost of capital (weighted average cost of capital) or both. Therefore, the decision makers must have an idea about various factors or determinants of CS. The findings of the current empirical study contribute towards the understanding of corporate financial leverage decisions with respect to identified predictors for the purpose of study from the Indian context.

In the current study we have made an attempt to understand the various determinants (ER, TG, GR, SIZE, NDTS and BR) of leverage component and its impact on leverage decisions (Dependent variable) from the Indian context. In order to realize the pre-determined objectives, the researchers have collected data for ten financial years. The collected data was first tested for multi collinearity by running multiple correlations and multiple regression has been run thereafter. Result shows that for capital goods sector, BR, Size (contradicts POT) (Titman & Wessels (1988)) and NDTS (contradicts STO) are not statistically significant. However, ER (supports POT and contradicts STO) (Bevan & Danbolt, 2002 and Rajan & Zingales,1995; Kester, 1986 and Griner & Gordon, 1995), TA (supports STO, POT and ACT) (Rajan & Zingales, 1995 and Long & Malitz, 1985) and GR (supports POT and contradicts ACT and STO) (Drobetz & Fix, 2003 and Titman & Wessels, 1988) are significant in case of Capital goods sector.

From the above results we can claim that the capital goods sector supports POT, although we have more evidence in favour of STO and ACT.

For the FMCG sector, ER (supports POT and contradicts STO), (Shyam Sunder & Myers, 1999 and Dammon & Senbet, 1988), TA (contradicts STO, ACT and POT), GR (extends support to POT and contradicts ACT, STO) (Drobetz & Fix, 2003 and Titman & Wessels, 1988), Size (supports STO and ACT and contradict POT) (Titman & Wessels, 1988 and Rajan & Zingales, 1995) and NDTS (supports STO), (Bradley et al., 1984) are significant. However, BR (STO) (Bradley et al., 1984) was not statistically significant. Based on this discussion, we can conclude that there is a mixed bag of opinions as far as FMCG sector is concerned, though we have evidence in favour as well as contradicting against the selected theories.

For the Infrastructure sector, findings of the study show that BR (contradicts the STO) (Friend & Lang, 1988; Walsh & Ryan, 1997), Size (supports STO and ACT and contradict POT) and GR (supports POT and contradicts ACT and STO) (Drobetz & Fix, 2003 and Titman & Wessels, 1988) are statistically significant at the conventional level of significance in the case of Infrastructure sector. However, ER supports the POT (Bevan & Danbolt, 2002 and Rajan & Zingales, 1995;

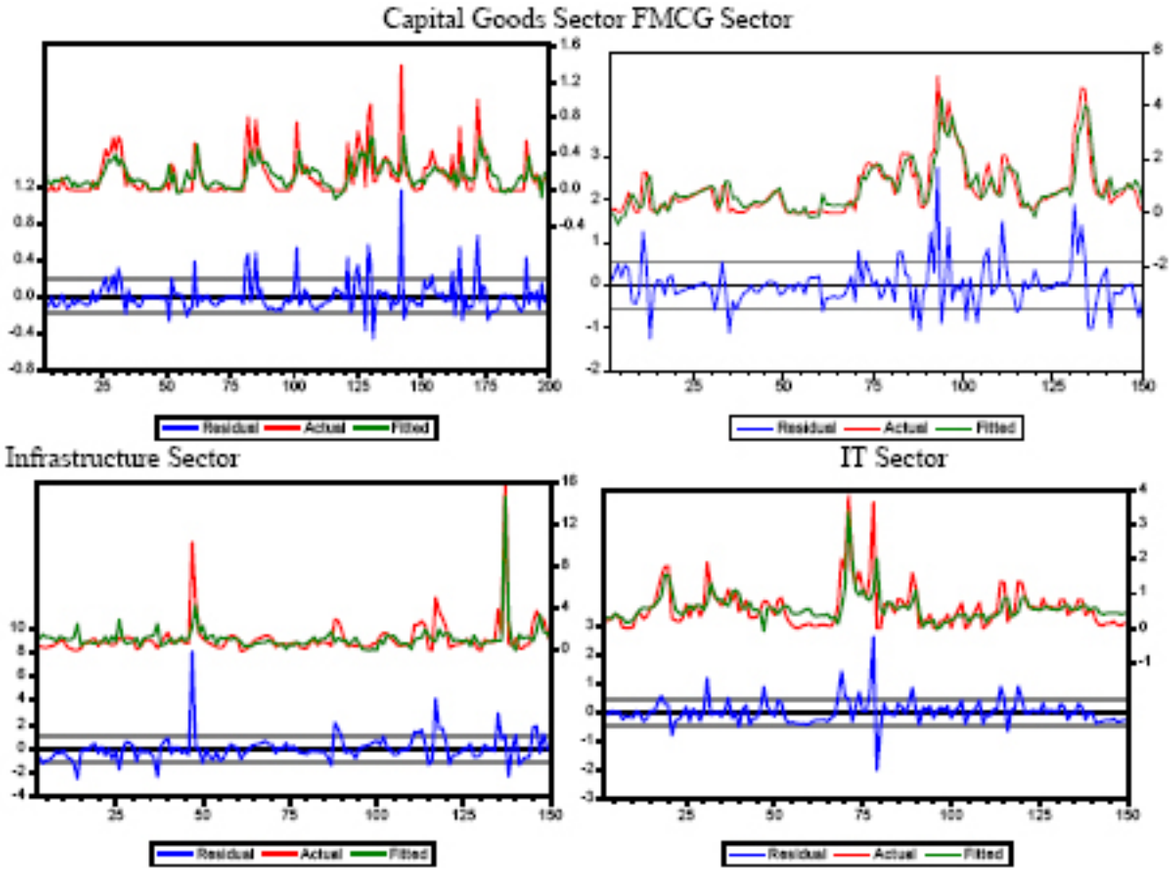


Exhibit 1. Actual and fitted residual graph for all the sectors.

Kester, 1986 and Griner & Gordon, 1995), TA (contradicts all the theories) and NDTS supports the STO.

However, for IT sector the observations made from the study show that independent variables ER (supports POT and contradicts STO), (Shyam Sunder & Myers, 1999 and Dammon & Senbet 1988), BR (contradicts the STO) (Friend & Lang 1988; Walsh & Ryan 1997) and Size (contradicts STO and ACT and supports POT) are statistically significant at conventional level. However, TA (supports all the three theories) (Rajan & Zingales, 1995 and Long & Malitz, 1985), GR (supports STO and ACT and contradicts the POT) and NDTS (supports STO) are not statistically significant. Therefore, the above discussion points out that there is less support in favor of theories taken for the purpose of the study.

5.1 Earnings (ER)

Earnings (ER) or profit is negatively associated with the leverage of the capital goods, FMCG, Infrastructure and IT sectors and it is statistically significant at 1% for Capital goods and FMCG sectors and at 5% for IT sector. However, it is not statistically significant for the Infrastructure sector. This means profitable firms in the Capital Goods, FMCG and the IT sectors maintain low debt ratios. The current study's finding supports the POT and contradicts the STT. Pecking Order Theory (POT) advocates that firms generally prefer to utilise internally generated funds on the first occasion, then the external funds.

5.2 Size (SZ)

Most of the empirical studies documented that large firms choose to issue long-term debt while small firms prefer short-term debt to finance their investment projects (Smith, 1977). In our study Capital goods, FMCG and Infrastructure sectors are positively associated with leverage. However, IT sector has a negative relationship with the leverage component. Size is statistically significant at 1% for FMCG and Infrastructure segments and at 5% for IT sector. This shows that larger firms

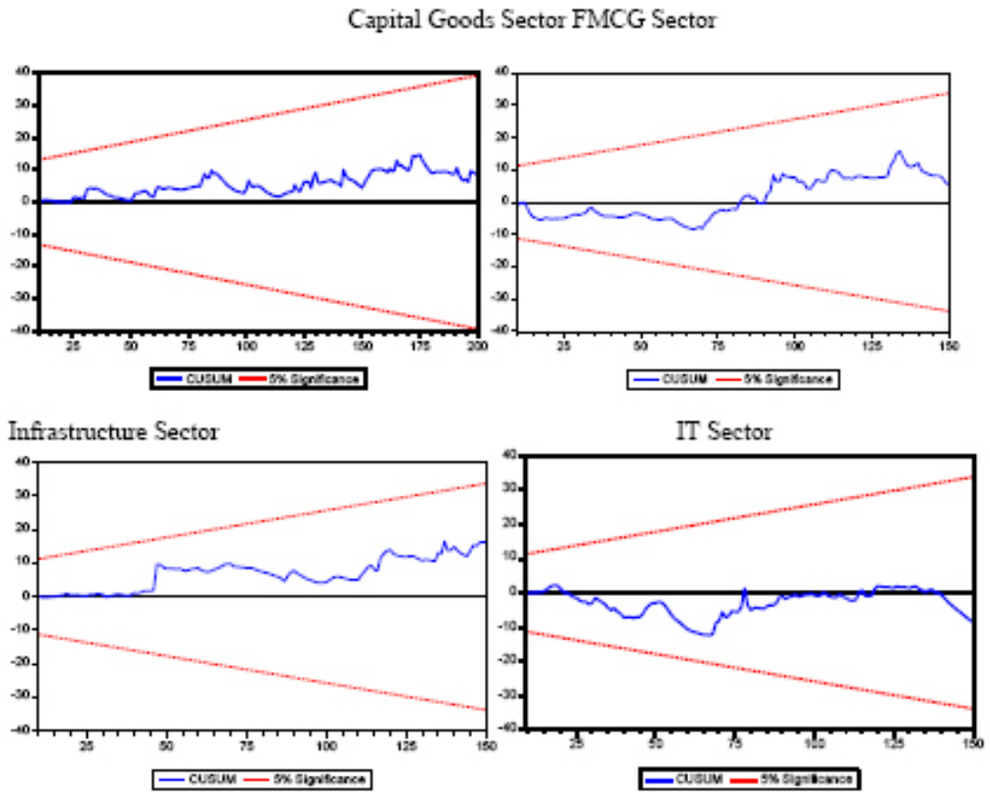


Exhibit 2. Stability diagnostics-CUSUM test.

in Capital goods, FMCG and IT sectors tend to have a higher leverage component and they tend to borrow more than smaller firms. This indicates that the results are on par with the Static-Trade Off theory (STO) and Agency Cost Theory (ACT). Static-trade off theory states that in order to reframe its CS, a firm needs to borrow heavily, which involves substantial cost for a small firm and for a larger firms it is very small and makes easy for them to go for debt funds. However, in case of IT sector, the predictor size shares a negative relationship and it is statistically significant at 5% and it supports the Peking order theory. Hence, we can conclude that size does have a major role while framing the optimal CS in case of Capital goods and FMCG firms. On the other hand, for IT companies the large firms tend to have low debt to equity ratio. This could be because of less collateralisable and they carry more intangible assets than tangible assets.

5.3 Growth (GR)

Findings from the present study show that growth shares a positive relationship with leverage for Capital goods, FMCG and Infrastructure sectors. Growth rate is found to be significant at one 1% in case of FMCG sector and at 5% in case of Capital goods and Infrastructure sectors. This result is consistent with the POT and contradicts with STO and ACT. As per Peking order theory, all firms prefer to finance their new investments through internally generated funds on the first occasion, then by borrowed funds and at the last instance by equity. This result suggests that firms with higher growth rate maintain higher debt equity ratios in Capital goods, FMCG and Infrastructure sectors. Therefore, growth is found to be a compelling factor to determine the optimal CS decisions in Capital goods, FMCG and Infrastructure sectors and firms with high growth prospects borrow more than firms with low growth rates. However, in case of IT sector, growth rate is found to be negative with debt equity ratio and not statistically significant at the conventional level of 5%. This result contradicts the Pecking order theory and supports and Static trade off theory and Agency cost theory. This outcome implies that IT firms with higher growth rate do not depend on debt and maintain low debt equity ratio.

In the present study we found growth rate as one of the significant component for CS decision for IT sector.

5.4 Non-Debt Tax Shield (NDTS)

NDTS is found to have a negative relationship with the leverage component, especially in the case of FMCG, Infrastructure and IT firms and it is statistically significant only in case of FMCG firms at one 1%. This result is consistent with Static trade-off theory. However, in case of Capital goods sector, it is found to be positive and statistically not significant at the conventional level of 5%. Thus, NDTS does not influence the leverage component in Capital goods, Infrastructure and IT sectors in the Indian stock market. There are few studies that predict that NDTS is sharing the same relation with leverage component.

5.5 Assets Tangibility (TN)

Tangibility is also known as Collateralizable Value of Assets (CVA). All the three CS theories argue that tangibility of assets is positively associated with the leverage component. In our study, the coefficient of assets tangibility is found to be positive with leverage for Capital goods and IT sectors. This result supports the Static trade-off theory, Pecking order theory and agency cost theory and in case of Capital goods sector it is statistically significant at 5%. Tangible assets are collateralizable and are most widely accepted as a source for raising debt instruments at a lower interest rate from financial markets. In case of IT sector, the coefficient of tangibility is positive which means t the firms with less collateralizable Value of Assets (CVA) lean to finance their investments through equity. If there is no collateral security, then the lenders demand high rate of interest which reduces the wealth of the shareholders. Rajan & Zingales (1995) argue that firm's debt raising ability depends on collateralizable value of its assets. However, in case of FMCG and Infrastructure sectors, CVA was found to have a negative relationship with the leverage component and in the FMCG sector it is statistically significant at 5%. This result surprisingly contradicts all the three theories and previous research findings because, the majority of the firms are smaller in size and is therefore very difficult for them to access the financial market in terms of cost associated with rising debt funds.

5.6 Business Risk (BR)

Both STO and ACT advocate that there exists a negative relation between the financial leverage and business risk. Firms with violent fluctuations in earnings face a higher degree of business risk that earnings level drops below the debt service coverage and default while serving the debt. Thus, business risk is a substitute for the probability of failure and is expected to share an inverse relationship with leverage. In our study, the coefficient of BR is negative in case of Capital goods sector and FMCG sector and is statistically significant at 5% in case of FMCG sector. The result supports STO and ACT. However, in Infrastructure and IT sectors, the coefficient of BR is positive and for both the sectors it is statistically significant at 1%. This result contradicts the two theories. Evidence of the study contradicts both the theories with respect to business risk and leverage component.

The static trade-off theory, pecking order theory and agency cost theory have taken up for the purpose of this current study, have not been significantly proved. This could be because of the underlying fundamental assumptions of the Western debt markets which are not valid in the Indian context. Moreover, the Indian debt market is not as matured as the Western debt market. Further, our interest rates are practically very high compared to Western interest rates. Therefore, more profitable firms are expected to depend more on internally generated funds and equity financing rather than debt in their CS decision. The study also indicates that companies with more tangible assets, especially in capital goods and IT sector, tend to have debt financing. NDTS has practically no impact on the CS choices in Indian stock market. With respect to the growth rate, there exists a high degree of positive relationship which means that the growing firms are expected to use more debt funds. From the Indian perspective, implications of STO and POT are more relevant than ACT. When considered in light of previous research the current study provides consistent support to certain predictors. However, it stillcontinues to disagree with the earlier research findings that specific independent variables have a greater influence on the CS of the firm. This disagreement could be due to the specific sectors and the time periods chosen. More sectors have to be studied at various time periods that could throw more light on the determinants of CS in

the Indian business environment. This current study has laid a ground work to investigate the major predictors or determinants of CS of Indian companies upon which a more detailed investigation could be based. In future research, it is suggested to consider the following lacunas, as the current study is conducted only for four sectors. It is recommended to take an extended study for the other sectors in the Indian Stock market. The dependent variables can be classified as long term and short term debts and an extended study can be taken up to explore the major determinants and its impact on CS decisions.

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