

CHAPTER – 1

INTRODUCTION

Capital structure is one of the most extensively researched areas in the field of corporate finance and various theories have attempted to explain the decisions influencing the capital structure of firms. The static trade-off theory is one of the first among these theories. It is built on the premise that the capital structure of a firm is a result of a trade-off between the benefits (tax benefit) derived by the firm and costs (bankruptcy) of debt incurred. The primary inference of such a formulation is that firms derive an optimal capital structure (target leverage) at which the value of the firm is high. An empirical investigation is done by Graham and Harvey (2001) in which 81% of the CEOs surveyed agreed that they consider target leverage during the decisions in finance influencing Capital Structure of the firm and the Firm Value. As argued, most managers cannot always maintain their leverage at the target level because of some adjustment costs¹ and also because of the dynamic nature of the target². Firms in due course of their financing decisions are always guided by the set target leverage ratio and therefore, always move towards the target leverage. Hence, optimizing the capital structure of the firm becomes one of the primary objectives of the finance manager.

¹ Adjustment costs could be in terms of cost of capital, transaction costs, lack of availability of funds etc.

² The target leverage ratio is influenced by firm specific characters as well as economic conditions prevalent in the market. Hence, it is expected to be dynamic in nature.

The speed with which the firms move toward the target capital structure is known as Speed of Adjustment (SOA)³ of capital structure. Flannery and Rangan (2006) gave a methodology to quantify the speed of adjustment, i.e. the speed of closing the gap between the target and existing capital structure of a firm. A firm having a higher speed of adjustment indicates the ability of the firm to close the gap with the target capital structure faster and has a better chance of having higher firm value as compared to a slower SOA firm. Also, higher SOA firms tend to get better attention from the rational investors, enabling the higher SOA firms raise capital (equity or debt) from the capital markets easily.

Flannery and Rangan, (2006); Byoun, (2008); Lockhart, (2010); Oztekin and Flannery, (2012); Faulkender et. al., (2012); and Mukherjee (2013) have examined SOA of firms in the developed world context, the same phenomenon has not been explored in the developing world. Such a study would be important as developing countries differ from developed world in financial, legal and tax environment (Khanna and Palepu, 2000; Khanna and Rivkin, 2001). It is observed that the phenomenon of group affiliation and family ownership, which is a major form of ownership of firms, is prevalent in developing countries in general and India in particular (Fier et. Al, 2013).

Indian Financial System has evolved from the development financial institutions supporting by extending long term finance liberally and nationalized commercial banks extending credit for the operations in the form of working capital loans with interest rate regulation to purely commercial organizations with the scrapping of the concept development financing institutions.

³*Speed of Adjustment* = $\frac{\text{Actual Gap covered}}{\text{Initial gap}}$; $SOA = \frac{MDR_{i,t+1} - MDR_{i,t}}{MDR_{i,t+1}^* - MDR_{i,t}}$; where $MDR_{i,t+1}^*$ is the target leverage, $MDR_{i,t+1}$ is the leverage in time (t+1); $MDR_{i,t}$ is the present leverage of firm (i). Let's assume a firm has its present leverage $MDR_{i,t} = 25\%$; its target leverage, $MDR_{i,t+1}^* = 50\%$ and let's say at time (t+1) the firm has its leverage $MDR_{i,t+1} = 35\%$. Then $SOA = \frac{35-25}{50-25} = \frac{10}{25} = 40\%$. This implies that the firm covers 40% of the gap with the target leverage every year.

The capital markets have evolved from The Comptroller of Capital Issues to the establishment of SEBI in the year 1991, there are the institutional differences in the capital markets. The overall industrial development of the country is predominantly lead by family owned business across the country. These features would potentially affect the speed of adjustment of Capital Structure in the firms. Understanding of these differences will be of vital use in order to understand the implications of institutional difference on the speed of adjustment.

1.1. Legal, Financial and Tax framework of India

Emerging economies like India is afflicted with certain market imperfections which are not found in the developed markets (Khanna and Palepu, 1997). The financial markets in India are relatively underdeveloped and witness features like illiquid equity markets, dominated by nationalized banks, inadequate disclosure norms and weak corporate governance and control as compared to a developed economy. Further, financial intermediaries like financial analysts, mutual funds, investment bankers, venture capitalists and the financial press are emerging. The securities regulations are reactive and their enforcement is inconsistent (Khanna and Palepu, 2000).

1.2. Family ownership

Emerging markets like India have given rise to many (36% of all firms in India) family owned or group affiliated firms which is a unique institutional setup not found in the western developed markets. These firms have a main trust or a mother firm which would invest and have a controlling stake in the other smaller sister firms. Often, Group firms and Standalone firms or non- group affiliated firms compete with each other in various sectors of the country's economy. Contemporary studies have indicated that family owned firms are different than Standalone firms

in many different ways, mainly due to the support system provided by the group affiliation or the family bonding and support between the promoters (Khanna and Rivkin, 2001). Family owned or group affiliated firms have high cross ownership between their shareholders, because of which a firm, in need of capital, belonging to a group would first approach other firms in its group and then, failing which, approach the capital markets. This initial approach of the firm is known as internal capital markets (Khanna and Palepu, 2000). Therefore internal capital markets are an advantage available to firms affiliated with a group as it is observed that funds are easily available to them and the cost of capital charged for those funds are also very low compared with the (external) capital markets (Fier et. al, 2013). This makes it necessary to relook at the financial system of emerging markets with this new perspective. With more than 36%⁴ of Indian firms having ties with one or the other business group, questions can be raised about the validity of the contemporary research conducted in Indian scenario that do not consider this distinction.

1.3.Motivation

Rajan and Zingales (1995) in their paper's conclusion indicate the drivers for future research in the capital structure area. They say, "*It is necessary to strengthen the relationship between theoretical models and empirical specifications*"... "*A deeper understanding of the effects of institutional differences (on capital structure) is necessary*".

Regrettably, even after almost a decade of research, Theory has made some progress to find empirical evidence to show evidence of firms considering target leverage and trying to adjust to this target over a long term horizon. These studies are limited to the developed countries like US and UK (Flannery and Rangan, 2006; Dang et.al, 2012; Faulkender et. al., 2012, Mukherjee, 2013). Developed countries do not provide any significant institutional differences within their

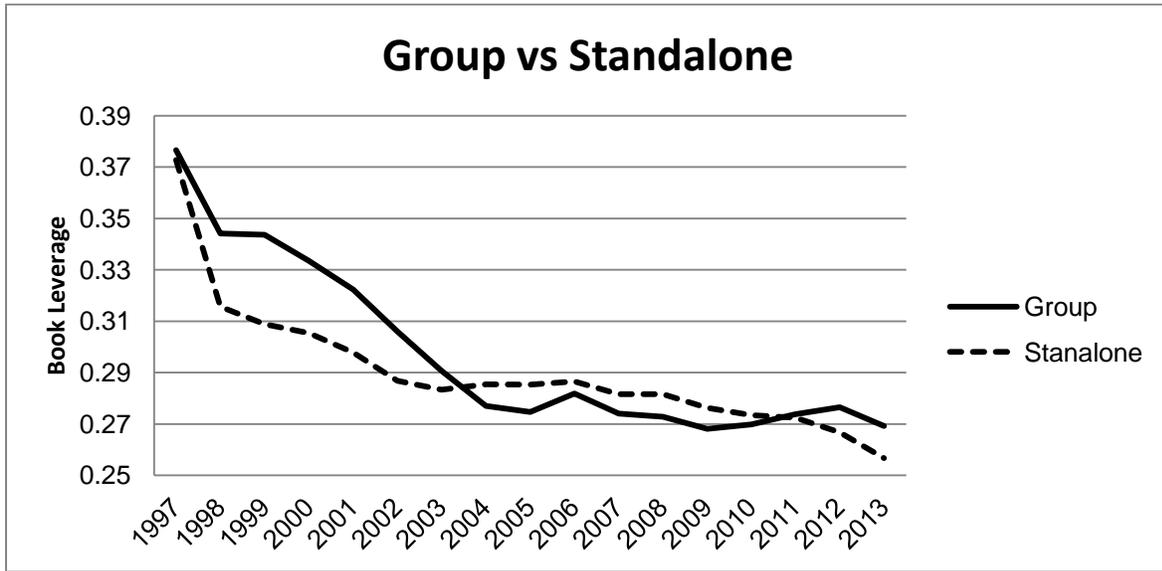
⁴ Out of a total of 26,814 (Listed and Unlisted) companies: 9,839 Group affiliated firms and 16,975 stand-alone firms. Source: CMIE database.

country to study the impact of institutional differences on SOA. Some studies have looked at the macroeconomic impact on SOA or look at institutional differences between countries' impact of SOA (Cook and Tang, 2010; Oztekin and Flannery 2012). All these studies have been limited to the US, and the inter-country studies have been plagued with data issues (like data sufficiency, data reliability, etc.) or the countries under study did not have significant institutional differences to support a theoretical conclusion.

India being an emerging market has certain institutional differences, in terms of legal, financial, and regulatory mechanisms, as compared to western countries, which give rise to certain market imperfections affecting the business practices in the country. Literature has shown that these institutional differences have forced firms to form business groups to overcome these imperfections and improve the ease of doing business (Khanna and Palepu, 2000; Khanna and Rivkin, 2001).

The above observations intrigued us to conduct a preliminary examination on the Indian firms. We collected a sample of listed firms and divided them into Group affiliated and standalone firms and observed their mean leverage over a period of time, we find that there is difference in the book leverages of group and standalone firms (Refer Graph 1). The observed difference in the mean value plotted in Graph 1 was also found to be statistically significant in a two sample t-test.

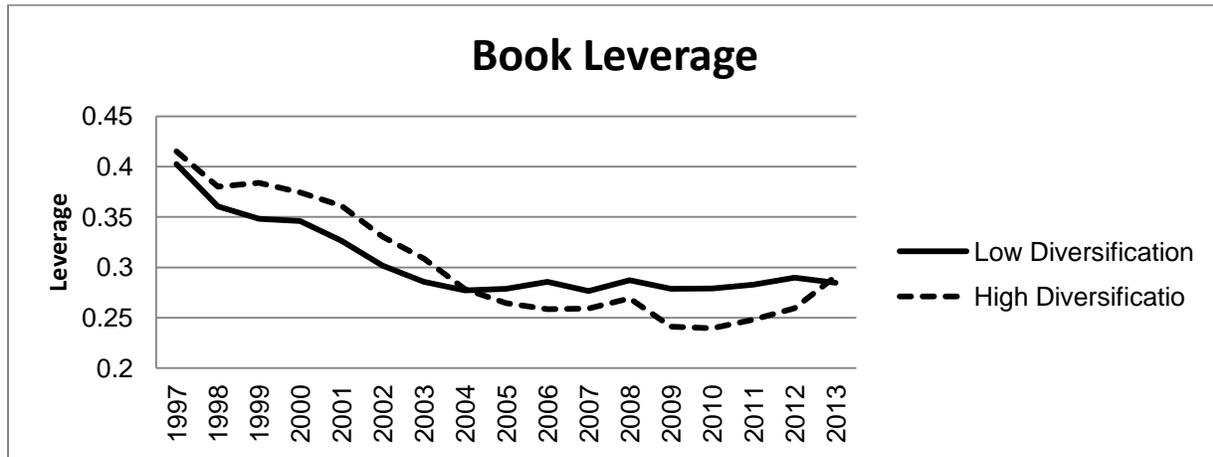
Graph 1: Trend of yearly book leverage of group affiliated firms' vs. standalone firms



Source: Calculated from CMIE data

On further analysis of the sample, we find that many groups differ from one another on the basis of level of diversification. We divide the sample of group affiliated companies based on the number of sectors the group has firms operating into highly diversified firms and less diversified firms. We plot the mean value over a period of time (Refer Graph 2). The graph indicates differences in leverages between high and low diversified firms. It was also found that the differences in means between High and low diversified group firms are statistically significant.

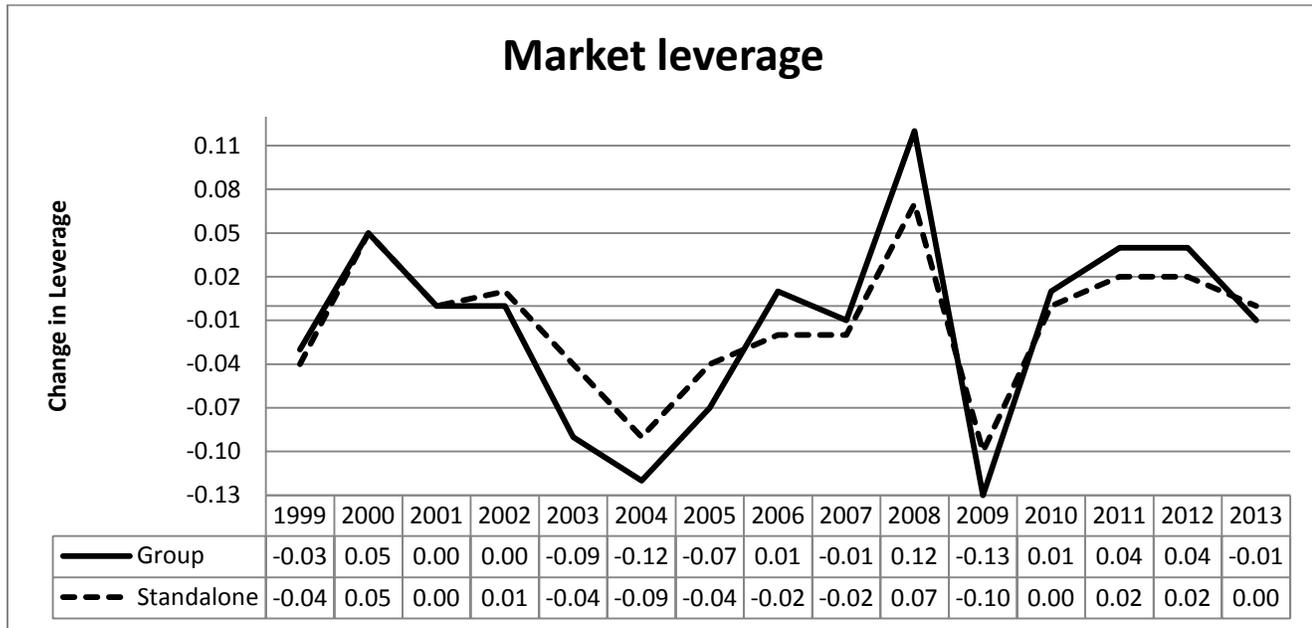
Graph 2: Trend of yearly book leverage of low diversified vs. high diversified group affiliated firms



Source: Calculated from CMIE data

To substantiate the leverage adjustment differences between group and standalone firms, we find the mean annual change in leverage across group affiliated and standalone firms and plot over time (refer graph 3). On observation of the graph there appears to be a clear difference in the leverage changes made by group affiliated firms and standalone firms. This indicates a possibility that their adjustment speeds could also be different. The differences were tested through a t test and were found significant.

Graph 3: Trend of yearly mean market leverage adjustments of Group affiliated firms vs. Standalone firms



Source: Calculated from CMIE data

With such varied institutional differences in terms of firm affiliation, level of group diversification etc., Indian firms provide a unique opportunity to study the impact of institutional differences on Speed of Adjustment. Our motivation is to understand the influence of differences in the institutions on the Speed of Adjustment of Capital Structure.

The thesis is organized into seven chapters. Chapter two discusses a detailed and critical review of literature of Capital structure, Group affiliation and its impact on firms and Speed of Adjustment of capital structure; ending with the gaps in the literature that this study is intending to fill. The objectives and formulation of hypotheses are discussed in Chapter three. Chapter four portrays in detail the methodology and variables construction for the analysis of the data. Chapter five is dedicated to data description. The results of our empirical examination is

presented in Chapter six. Finally, Chapter seven summarizes the major findings of the thesis and concludes with the implications of the study and highlighting the avenues of future research in the area.