

Small sized Indian firms and their dynamic adjustment to their target capital structure

Banajit Changkakati¹, Pradeep Kumar Jain²

¹(Assistant Professor, Department of Business Administration, Gauhati University, India)

²(Professor, Department of Business Administration, Gauhati University, India)

Abstract: In today's changing scenario, nations across the world have shifted their focus on regional dominance through economic supremacy. To ensure this supremacy, economic activity is an integral and continuous function for all nations competing in the race to economic supremacy. A major contributor to enhance economic activity is the role of various firms in a country involved in either manufacturing or the service industry. These firms include a mixture of both Government owned and private firms. However it is interesting to note that in a country like India firms smaller in size i.e. in terms of market capitalization are more in numbers than medium sized and large sized firms. These firms have a major role in stimulating the economy, although they suffer from many teething problems such as lack of focus compared to the larger firms. Now that the whole world is going through a tough phase of pandemic having deep implications on the economy of countries, it is being observed that the whole world is under a danger of moving into a phase of recession. The major challenge in such a situation is to assess how firms will cope with the recession and fare in the post recession scenario. A similar situation of worldwide recession was also witnessed during the global meltdown of 2008. This paper as such is a research to assess how small firms performed prior to the progress of recession, during the period of recession and most importantly how they recovered post the period of recession. It is expected that this paper will throw a lot of valuable insights as to how firms can be prepared to handle the impending current recession throughout the world. The tool of analysis used in this paper involves a method named General Method of Moments (GMM), which was deduced by Lars Peter Hansen in 1982 and which won the prestigious Nobel Prize for its unique predictive power of analyzing a huge number of firms within a limited time series. In other words this method is best suited for analyzing Panel data which has the characteristics of both cross sectional as well as time series data.

Keywords: Optimal capital structure, speed of adjustment, General Methods of Moments (GMM), Endogeneity, Instruments.

I. INTRODUCTION

It is very interesting to note that the key to success of most firms lies in proper balance of its debt equity structure also known as the capital structure. In plain and simple words capital infusion either through means of debt sources or own sources of funds actually determine the survival and growth of firms. When too much of debt is availed, the risk of the firm falling into a debt trap with continuously mounting repayment liability could wipe out any potential source of earnings or profits thus creating a vicious cycle. On the other hand when too much of own funds is invested, the firm may run out of resources to meet unseen variable expenses which need to be settled immediately. Thus we see that there cannot be one simple formula or ratio of debt and equity that suits all firms universally. Another point is that given the changing dynamic scenario, the debt equity structure also keeps changing dynamically. Hence it should be a dynamic process for all firms to keep chasing this dynamic debt equity structure. This paper tries to focus on the role of small sized firms and the role of many firms specific as well as economy specific factors which guide firms to keep adjusting to their target debt equity structure dynamically. Various studies done in this regard have identified a few relevant factors that influence firms and their dynamic adjustment, such as, size of firms, growth rate, profitability, age of firms and others. Some of the significant research work already done by researchers over the world and which has inspired this research work in the context of Indian small sized firms are that of Aydin Ozkan (2001), Julian Du & Yi Dai (2005), Hyesung Kim, Almas Heshmati & Dany Aoun, (2006), and Wolfgang Drobetz and Gabrielle Wanzanreid (2006).

Although Indian economy has been faring well after its independence in 1947, industrial activity in the private sector has actually picked up pace since the policy of Liberalization, Privatization and Globalization post 1992. Hence this paper has limited its study within a period from 2005 to 2014 during which economic activity had already peaked, then slowed down due to the global recession and again picked up pace post the phase of recession.

Private firm's especially small sized firms face the biggest challenge in terms of access to capital. Since own sources of funds are limited they have high dependability on external debt. This is where the main

challenge lies as we have seen many promising firms perish due to a huge burden of loan repayment. Priority sectors still have a small support from the government but majority firms have to fend on their own as access to sources of funds is very limited.

This research work intends to analyse the various challenges faced by small sized firms in India and their preparedness to overcome these challenges in a bid to survive amidst the adversities.

This research paper has been divided into six sections. The first section begins with the need and introduction to the research work. The second section comprises of the literature review on various research work already done in this field. The third section discusses the Research Methodology in details. The fourth section discusses the analysis and findings of small sized firms using four different models and testing of the hypotheses formed. The fifth section discusses the conclusion to the research. The sixth section discusses the scope for further research arising from this current research work.

II. LITERATURE REVIEW

Literature review helps in providing many new insights which could form the basis for new research. As such the following literature reviews have been the guiding points to this current research work and have been discussed as below:

The Dynamics of Capital Structure (Saugata Banerjee, Almas Heshmati and Clas Wihlborg, 1999): This paper employs a dynamic adjustment model and the use of panel data for US and UK firms to analyze the determinants of a time changing optimal capital structure. The model is built such that at any point of time, firms' observed leverage may not necessarily be the optimal, and that firms have different speed of adjustment towards the optimal capital structure, which itself may be varying over time for the same firm. Firms usually have capital structures that are the optimal, and they adjust very slowly towards the target structure. Since the firms are not at their optimal target leverage, the paper is able to identify the determinants of capital structure rather than observing them.

Determinants of Capital Structure and Adjustment to Long Run Target (Aydin Ozkan, 2001): Some important findings of this paper are:

- a. Firms have target leverage and they adjust fast to these ratios.
- b. Immediate profitability has negative relation with target debt ratio, while past profitability has positive relation.
- c. Leverage decision of firms is also decided by non debt tax shields and growth opportunities of firms.

Ultimate Corporate Ownership Structures and Capital Structures : evidence from East Asian Economies (Julan Du & Yi Dai, 2005) : This paper is a study on the relationship between corporate structure and corporate leverage. The paper goes on to find that controlling shareholders with smaller ownerships tends to increase leverage, without diluting shareholders dominance. The paper also examines the corporate value losses suffered by Asian firms during the Asian crisis, weak corporate governance being one of the main reasons for such losses.

Determinants of the Capital Structures of European SME's (Graham C. Hall, Patrick J. Hutchinson & Nicholas Michaelas, 2004): The paper explores the less discussed Small and Medium Enterprises (SME) which do not have major benefits of listed large companies and hence the shift in patterns of capital structure of these firms are more influenced by firm specific characteristics rather than industry specific characteristics.

What determines the speed of adjustment to the target capital structure? (Wolfgang Drobetz and Gabrielle Wanzanreid, 2006): This paper is a significant contribution to the study of capital structure determinants and the speed of adjustment. The paper develops a model based on the BHW model (1999). The empirical results reveal that firms do seek a target debt equity ratio. Classical capital structure theories do not mention about the adjustment process towards target debt ratio.

A dynamic model of optimal capital structure (Sheridan Titman & Sergey Tsyplakov, 2006): The paper studies how firms dynamically adjust both capital structure and their investment choices. The results reveals that firms that have financial distress cost or in the absence of conflict of interest between equity holders and debt holders adjust to their target capital structure quickly.

Determinants of Adjustment Speed to Target Capital Structure: Evidence from Indian Manufacturing Firms (Jitendra Mahakud and Sulagna Mukherjee, 2011): The paper establishes the factors related to speed of adjustment of Indian manufacturing firms and their target leverage. The results shows variables like size of firm, profitability, growth opportunity, research and development and tangibility are significant determinants of target leverage ratio for Indian manufacturing firms.

Factors affecting Capital Structure Decisions: Empirical evidence from selected Indian firms (Anurag Pahuja & Ms. Anu Sahi, 2012): This paper studies the factors which influence the capital structure of Indian firms. The two major determinants of capital structure identified are growth and liquidity.

Dynamics of capital structure: The Case of Korean Listed Manufacturing Companies (Hyesung Kim, Almas Heshmati & Dany Aoun, 2006): In this paper, a wide array of observable firm specific variables of Korean firms has been taken to determine the non observable optimal capital structure. The results of this study indicate that optimal capital structure has been affected by financial crisis.

Factors affecting Capital Structure Decisions: Empirical evidence from selected Indian firms (Anurag Pahuja & Ms. Anu Sahi, 2012): This paper analyzes the factors which determine the capital structure of Indian firms. The two major determinants of capital structure as identified by this paper are growth and liquidity.

III. RESEARCH METHODOLOGY

3.1. Objectives of the research

- 1 To identify firm specific and macroeconomic factors that influence in determining the target capital structure of small sized Indian firms
- 2 To estimate the relationship of these factors with the capital structure of small sized Indian firms
- 3 To identify certain key factors that influence the speed of adjustment of small sized Indian firms to their target capital structure.
- 4 To establish the relationship of the identified factors and their influence on the speed of adjustment of small sized Indian firms.

3.2 Background and need of the study

As the entire world economy is facing the brunt of the Covid-19 pandemic, survivals of firms due to the impending global recession is going to be a major challenge. Since in recent times the world has gone through a similar global recession, exploring the performance of firms during that phase is going to throw a lot of insights as to how firms can prepare to tackle with the current impending recession.

Moreover, in the Indian context since small sized firms possess the least financial power this research paper focuses on the small sized firms within India so as to introspect on ways and means to survive the current impending recession.

Since the scope of all other research work in this areas has studied till only the interaction of one factor of determinants of capital structure with all the factors of speed of adjustment one at a time, this current research work has gone ahead of all prior research by analyzing the interaction of all factors of determinants of capital structure with all the factors of speed of adjustment simultaneously.

As the entire world went through a recession during the period 2008 to 2010, the time period of research considered for this current research work is 2005 to 2014 and has been divided into three phases viz. i) Pre-recession phase (2005-2007), ii) Recession phase (2008-2010) and iii) Post-recession or growth phase (2011-2014).

3.3 Type of research

Exploratory and deductive research.

3.4 Source of data

Secondary Panel data from Capitaline database has been used for this research.

3.5 Sampling frame

The sampling frame consists of all listed and unlisted firms in India.

3.6 Sampling procedure and size

The sampling procedure employs both judgmental and convenience sampling technique. First inputs for all the variables to be used in the analysis were fed to the capitaline database. Based on this input provided and scope of small sized Indian companies based on market capitalization, the database returned full data on 2900 small sized firms.

Table 1: Sampling of small sized Indian firms on the basis of Market Capitalization

Category	Market Capitalization (Rs. Crores)	No. of firms
Small sized Indian firms	< 500	2900

Market capitalization is defined as the product of current market price of share of a firm multiplied by the number of shares outstanding of the firm.

3.7 Analytical tools used

1. OLS regression
2. Correlation
3. Regression using GMM

3.8 Statistical software / packages

1. SPSS
2. MS-Excel
3. STATA

3.9 Methodology of analysis

The researcher has formulated the models of this research based on the BHW model. This model was proposed by Saugata Banerjee, Almas Heshmati and Clas Wihlborg (1999).

- The model is derived as follows :

$$LV^{*it} = \sum_{j=1}^L \alpha_j X_{jit}$$

J= firm specific explanatory variable, I = firm, t = time

α = co-efficient of respective explanatory variable

and LV^{*it} is the target capital structure

If LV_{it} is the observed capital structure of a firm and the firm has already attained the target capital structure then,

$$LV_{it} = LV^{*it}$$

Else,

$$(LV_{it} - LV_{it-1}) = \delta_{it} (LV^{*it} - LV_{it-1}) \dots\dots\dots (1)$$

$$\text{Where, } \delta_{it} = \beta_0 + \beta_1 Z_{it} \dots\dots\dots (2)$$

Hence equation (1) can be rewritten as follows,

$$LV_{it} = (1 - \delta_{it}) LV_{it-1} + \delta_{it} LV^{*it} + \mu_{it} \dots\dots\dots (3)$$

Replacing the values of δ_{it} in equation (3) the following equation is derived:

$$LV_{it} = (1 - \beta_0 - \beta_1 Z_{it}) LV_{it-1} + (\beta_0 + \beta_1 Z_{it}) X \left(\sum_{j=1}^L \alpha_j X_{jit} \right) + \mu_{it} \dots\dots\dots (4)$$

Thus the final form of the equation can be summarized as:

$$LV_{it} = (1 - \beta_0) LV_{it-1} - \beta_1 Z_{it} LV_{it-1} + \beta_0 \sum \alpha_j X_{jit} + \beta_1 \sum \alpha_j Z_{it} X_{jit} + d_t + \eta_i + \mu_{it} \dots\dots\dots (5)$$

In the above equation, LV_{it} is the observed debt equity ratio of firms over time and is the dependant variable.

LV_{it-1} is the lagged value of LV_{it} ,

X_{jit} are firm specific variables, where j is the set of explanatory variables of firm 'i' at time 't'

Z_{it} = firm specific variable of firm 'i' at time 't'

β_1 = Coefficient on the interaction term between the determinant variable of adjustment speed, Z_{it} , and lagged leverage, LV_{it-1}

μ_{it} = statistical error term

d_t & η_i are time and firm specific effect and η_i is unobservable.

Due to the presence of lagged data, the error term gets correlated with the independent variables leading to an error known as Endogeneity. This problem of endogeneity has been overcome by the use of instruments which are exogenous variables that are correlated to the endogenous variable but remain uncorrelated to the error term.

3.10 Dependent and independent variables used in the research

Dependent variable

Debt equity ratio of small sized firms has been taken as the dependant variable.

Independent variables

After considering various earlier research works and in the context of this current research paper, nine independent variables have been identified:

Firm specific variables selected as determinants of capital structure

- i. Firm Size – defined as Log of Total assets
- ii. Non Debt Tax shields (NDTS) – Defined as ratio of depreciation / total assets
- iii. Growth rate – defined as the percentage change in total assets of previous to current year
- iv. Profitability – defined as pre-tax operating profit to total assets
- v. Trade credit – defined as total credit by creditors / total assets
- vi. Net profitability ratio – defined as Net Profit to Net Sales
- vii. Firm specific interest rate (FSIR) – defined as (tot interest paid / Long Term Debt) * 100
- viii. Age of firm – defined as number of years since incorporation of the firm
- ix. Uniqueness of the firms – defined as R&D costs / Sales

For the sake of ease, the following notations have been assigned to the variables and used for analysis of data.

Let,

- x1 = SIZE
- x2 = NDTS
- x3 = GROWTH
- x4 = PROFITABILITY
- x5 = TRADE CREDIT
- x6 = PROFITABILITY
- x7 = FSIR
- x8 = AGE
- x9 = UNIQUENESS

Firm specific variables identified for determining the speed of adjustment of firms

The following firm specific variables have been identified.

- Distance from target capital structure (defined as absolute difference between actual and optimal capital structure)
- Size of the firm
- Growth rate

Macro-economic variables identified for determining the speed of adjustment of firms

Macro economic factors identified in earlier research work and which have been used for determining the speed of firms in this research work are as follows:

- Growth rate of GDP
- Average yearly Inflation rate
- 6 monthly money market interest rates
- 3 monthly money market interest rates

Denoting the following notations for the sake of ease and better understanding,

Let,

- z1 = Distance from target
- z2 = Size of firm
- z3 = Growth
- z4 = GDP growth rate
- z5 = Average yearly inflation rate
- z6 = 6 month MM Interest Rate
- z7 = 3 month MM interest Rate

3.11 Scope of the research paper

Scope of the research

- i. The scope of this research work is limited to only small sized Indian firms.
- ii. The research is focused to identify determinants of target capital structure and speed of adjustment.
- iii. The impact of interaction between factors of determinants of capital structure and factors of speed of adjustment has been analyzed in details.
- iv. The research work has been completed taking into account the most suitable model to achieve the scope of this research work.

IV. ANALYSIS AND FINDINGS

The data on small sized Indian firms in excel sheet was fed into STATA software and after providing the coding for GMM estimation, the results obtained from the four models formulated have been presented along with the detailed interpretation of the results.

4.1. Analysis of all 2900 small sized Indian firms for the entire period of data collected (2005 to 2014)

In this model, eight determinants of capital structure and all seven determinants of the speed of adjustment have been included. Trade credit has been dropped from the analysis as the inclusion of the same was weakening the predictive power of the model.

Table 2: Regression between the determinants of capital structure and the observed capital structure

System dynamic panel-data estimation		Number of obs = 10,560				
Group variable: nc		Number of groups = 2,058				
Time variable: year		Obs per group:				
		min = 1				
		avg = 5.131195				
		max = 9				
Number of instruments = 53		Wald chi2(9) = 700.23				
		Prob > chi2 = 0.0000				
Two-step results						
	y	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
	L1.	.0007316	.0002123	3.45	0.001	.0003155 .0011477
	x1	5.472246	.9679557	5.65	0.000	3.575087 7.369404
	x2	36.86914	13.08487	2.82	0.005	11.22327 62.51501
	x3	-.3614777	.1128909	-3.20	0.001	-.5827398 -.1402155
	x4	14.03124	3.409004	4.12	0.000	7.351679 20.71081
	x5	-4.771816	.6549864	-7.29	0.000	-6.055566 -3.488066
	x6	-7.578173	.5760463	-13.16	0.000	-8.707203 -6.449143
	x7	.5152953	.1220175	4.22	0.000	.2761454 .7544452
	x8	8.576932	3.354399	2.56	0.011	2.002431 15.15143
	_cons	-48.79134	5.349833	-9.12	0.000	-59.27682 -38.30586

From the above regression it is observed that it is a highly significant model as almost all the 'p' values of the independent variables are highly significant in the range of below 1% range.

Table 3: Output of the GMM estimation

Dynamic panel-data estimation		Number of obs = 10,560				
Group variable: nc		Number of groups = 2,058				
Time variable: year		Obs per group:				
		min = 1				
		avg = 5.131195				
		max = 9				
Number of instruments = 226		Wald chi2(70) = 1.18e+07				
		Prob > chi2 = 0.0000				
One-step results						
	y	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
	L1.	-.4149241	.1725168	-3.56	0.000	-.7624908 -.0673573
	x1	2.223988	1.672943	1.33	0.184	-1.064919 5.502896
	x2	-22.47923	9.273486	-2.45	0.014	-40.59493 -4.503532
	x3	.4107087	3.511413	0.12	0.907	-6.471834 7.292952
	x4	.1168099	2.792999	0.04	0.967	-5.357368 5.690988
	x5	.1051656	.2896504	0.37	0.711	-.4507789 .6611102
	x6	1.10554	.21365	5.17	0.000	.6807936 1.524286
	x8	-.9058185	6.824205	-0.13	0.894	-14.28101 12.46938
	x11.1	.0175123	.0009453	18.53	0.000	.0156596 .0193549
	x11.2	-.087389	.0190738	4.80	0.000	-.0513144 -.121522
	x11.4	-.0389465	.0487451	-0.74	0.461	-.1314892 .0535921
	x11.5	-.245095	.015633	-2.88	0.004	-.0757851 -.0144548
	x11.6	-.7028709	.9383245	-0.75	0.454	-2.841953 1.136211
	x11.7	.1161527	.9956555	0.12	0.907	-1.23512 1.467925
	x12.1	1.071451	.0261625	40.95	0.000	1.020178 1.122728
	x12.2	1.417105	.6102078	2.32	0.020	.2211192 2.61309
	x12.3	-1.200875	.6211441	-1.94	0.055	-2.477094 .0753843
	x12.4	-1.198575	1.824162	-0.66	0.511	-5.078468 2.075217
	x12.5	-.3544716	.6237579	-0.58	0.559	-1.587015 .8580715
	x12.6	-94.21398	35.73854	-2.64	0.008	-164.2603 -24.17942
	x12.7	101.2405	37.91357	2.70	0.007	27.89126 176.5897
	x13.1	-.0326615	.0015384	-53.84	0.000	-.0856709 -.0196521
	x13.2	-.0302482	.0206695	-2.43	0.015	-.0907598 -.0297347
	x13.3	-.0280327	.0082073	3.05	0.002	-.0089467 -.0411886
	x13.4	-.0260384	.0483907	-1.51	0.132	-.1524366 .0193957
	x13.5	-.0308754	.0143062	-2.16	0.031	-.0589151 -.0028857
	x13.6	-2.117991	.870121	-2.55	0.011	-3.923997 -.1128952
	x13.7	2.376098	.9227214	2.58	0.010	.5675969 4.184598
	x14.1	.3064945	.0071126	43.09	0.000	.292554 .3204849
	x14.2	-.4397753	.1649795	-4.18	0.000	-1.013127 -.366433
	x14.3	-.8101612	.1847663	-2.76	0.006	-.8722964 -.448028
	x14.4	-1.071784	.5448713	-1.97	0.048	-2.138928 -.0046501
	x14.5	.233961	.1894304	1.08	0.282	-.1672906 .7825228
	x14.6	-10.32873	11.26929	-0.92	0.360	-32.41314 11.76148
	x14.7	11.46807	11.9611	0.96	0.337	-11.94607 34.87221
	x15.1	-.0899553	.0007439	-67.15	0.000	-.0514134 -.0484972
	x15.2	-.1302098	.0181276	-8.53	0.000	-.1357393 -.0646503
	x15.3	-.0145332	.02035	-0.71	0.475	-.0544185 .0253521
	x15.4	-.0563032	.0555365	-1.19	0.233	-.1751527 .0425463
	x15.5	-.0556847	.0188622	3.48	0.000	-.0297155 -.025638
	x15.6	-1.300014	1.059849	-1.65	0.100	-3.7493918 .3483908
	x15.7	1.398512	1.159959	1.72	0.085	-.2749646 4.271989
	x16.1	-.0894816	.0003841	-139.72	0.000	-.0501757 -.0487975
	x16.2	-.2207438	.0164105	-12.23	0.000	-.2329077 -.1685799
	x16.3	.1249739	.0156139	6.72	0.000	.0743713 .1355765
	x16.4	-.078105	.0419113	-0.19	0.852	-.089955 .0743941
	x16.5	.0544694	.0134891	4.04	0.000	.0280313 .0809575
	x16.6	1.585381	.7977368	2.11	0.035	.1218453 3.248916
	x16.7	-1.749181	.8469479	-2.07	0.039	-3.409168 -.0891935
	x17.1	-.001817	1.78e-06	-102.18	0.000	-.0001852 -.0001782
	x17.2	.0157082	.0004381	35.86	0.000	.0148495 .0165568
	x17.3	.0398025	.0007601	52.37	0.000	.0383128 .0412322
	x17.4	-.0262607	.0003686	-16.99	0.000	-.0068931 -.0055983
	x17.5	-.0202924	.0001119	-17.58	0.000	-.0023258 -.0018591
	x17.6	-.0731364	.0075253	-9.72	0.000	-.0878857 -.0583971
	x17.7	.0770714	.0079741	9.67	0.000	.0614425 .0927204
	x18.1	.1783309	.005132	30.68	0.000	.1669372 .1897245
	x18.2	-2.497864	1.65201	-1.51	0.131	-5.735744 .7400147
	x18.3	-.3971526	1.505793	-0.11	0.910	-7.268381 6.474376
	x18.4	.4504013	.8284448	1.56	0.120	-.1169001 1.017703
	x18.5	.1584858	.0963961	1.64	0.100	-.0304471 .3474188
	x18.6	-1.557152	1.717499	-0.27	0.785	-12.76324 9.648941
	x18.7	1.589091	1.063835	0.26	0.793	-10.29581 13.47939
	yl1.1	-.001298	.0001161	-1.16	0.245	-.0034855 .0008934
	yl1.2	.0947648	.0189368	5.00	0.000	.0576494 .1318302
	yl1.3	-.0142678	.0163435	-0.87	0.383	-.0463004 .0177549
	yl1.4	-.0772724	.0328704	-2.35	0.019	-.1416972 -.0128477
	yl1.5	.0782253	.0063832	11.41	0.000	.0603146 .085361
	yl1.6	-.6392047	.587218	-1.19	0.234	-1.850131 .4517214
	yl1.7	.8518096	.621688	1.37	0.171	-.3666764 2.070196
	_cons	-4.528187	6.658579	-0.68	0.496	-17.57876 8.522388

(Contd.)

Observations & Interpretations of GMM estimation output

- 1) Though STATA has dropped off age of the firm as determinant of capital structure, all the others included are also not significant statistically.
- 2) Only NDTs and FSIR are significant and that too only NDTs is negatively related indicating that small firms with highly valued assets enjoy benefits of non debt tax shield such as depreciation which encourages these firms to rely less on external debt.
- 3) FSIR and leverage having a positive relation indicates that firms with high rate of firm specific interest rate are least attracted to for external debt.

- 4) Amongst the determinants of the speed of adjustment only size and inflation are significant.
- 5) This indicates that the bigger sized firms amidst the small firms have more tendencies to adjust to their target capital structure. This tendency is more pronounced in a situation of inflation.
- 6) A good indication is that lots of interaction terms are highly significant and positive in their relationship with the speed of adjustment. This throws light on a lot of aspects.
- 7) The interaction of size and distance is highly significant indicating that the bigger sized firms amongst the small cap firms and which are furthest away from their target capital structure adjust more readily. Also firms with high valued assets indicate the same results as above.
- 8) High growth firms are also the ones to adjust more readily to their target capital structure.
- 9) Rising inflation is also a situation which encourages small cap firms to initiate measures to close the gap.
- 10) Low firm specific interest rate interacting with the growth of firms is significant, which means that high growth firms with low FSIR adjust quickly.
- 11) Age of the firms interacting with growth, size and 3 month money market interest rate is highly significant indicating that older and bigger firms amongst small cap firms with high growth potential adjust incrementally to their target capital structure.
- 12) Lastly the interaction term between firm uniqueness and distance is highly significant indicating that firms with unique assets and furthest away from their target tends to adjust to their target ratios faster.
- 13) All other highly significant interaction terms have a positive relation with the speed indicating that, the joint dynamics if the interaction terms, makes the firms averse to adjusting to their target capital structure.

4.2 Analysis of all the 2900 small cap firms for the period before recession in India (2005 to 2007)

In this model all the nine variables of determinants of capital structure have been retained along with all the seven determinants of speed of adjustment.

Table 4: Regression between the determinants of capital structure and the observed capital structure

Source	SS	df	MS	Number of obs	=	701
Model	223.525513	9	24.8361682	F(9, 691)	=	35.01
Residual	490.23356	691	.709455224	Prob > F	=	0.0000
				R-squared	=	0.3132
				Adj R-squared	=	0.3042
Total	713.759073	700	1.01965582	Root MSE	=	.84229

y	Coef.	Std. Err.	t	P> t	Beta
x1	.3823436	.0345296	11.07	0.000	.5065808
x2	-2.470422	1.271008	-1.94	0.052	-.0640623
x3	-.00219	.0010814	-2.03	0.043	-.0720068
x4	-1.119473	.3376789	-3.32	0.001	-.1277303
x5	.1848753	.0579231	3.19	0.001	.1073924
x6	-1.247202	.3240972	-3.85	0.000	-.1495735
x7	-.3797001	.0295605	-12.84	0.000	-.5550488
x8	9.32e-39	3.33e-39	2.80	0.005	.090495
x9	-.0776998	.0217194	-3.58	0.000	-.1256654
_cons	-.0090352	.1806526	-0.05	0.960	.

The regression attained above is significant and hence the distance variable calculated from the coefficients is valid. Only the NDTs variable is significant at over 5%, but lower than 10%.

Table 5: Output of the GMM estimation

Dynamic panel-data estimation		Number of obs	=	509		
Group variable: nc		Number of groups	=	295		
Time variable: year						
		Obs per group:				
		min	=	1		
		avg	=	1.725424		
		max	=	2		
Number of instruments = 13		Wald chi2(12)	=	536.47		
		Prob > chi2	=	0.0000		
One-step results						
	y	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
	x8	3.42e-39	7.08e-39	4.83	0.000	2.03e-38 4.81e-38
	x9	-.0328905	.0334963	-0.98	0.326	-.0985419 .032761
	xi1_1	0	(omitted)			
	xi1_2	.0252143	.006826	3.69	0.000	.0118365 .038593
	xi1_3	.0021539	.0069093	0.31	0.755	-.011388 .0156958
	xi1_4	0	(omitted)			
	xi1_6	0	(omitted)			
	xi2_1	0	(omitted)			
	xi2_2	0	(omitted)			
	xi2_3	0	(omitted)			
	xi2_4	0	(omitted)			
	xi2_6	0	(omitted)			
	xi3_1	-.1459629	.071858	-2.03	0.042	-.286802 -.0051238
	xi3_3	.000173	.0000338	5.13	0.000	.0001068 .0002391
	xi3_4	.107344	.063159	1.70	0.089	-.0164435 .2311314
	xi3_6	0	(omitted)			

xi4_1	0	(omitted)				
xi4_2	0	(omitted)				
xi4_3	0	(omitted)				
xi4_4	0	(omitted)				
xi4_6	0	(omitted)				
xi5_1	0	(omitted)				
xi5_2	.0128229	.0262144	0.49	0.625	-.0385563	.0642022
xi5_3	0	(omitted)				
xi5_4	0	(omitted)				
xi5_6	0	(omitted)				
xi6_1	0	(omitted)				
xi6_2	0	(omitted)				
xi6_3	0	(omitted)				
xi6_4	0	(omitted)				
xi6_6	0	(omitted)				
xi7_1	-.0529626	.0384268	-1.38	0.168	-.1282778	.0223527
xi7_2	0	(omitted)				
xi7_3	-.0525999	.0122349	-4.30	0.000	-.0765798	-.02862
xi7_4	0	(omitted)				
xi7_6	0	(omitted)				
yii_1	.1739965	.0323593	5.38	0.000	.1105734	.2374196
yii_2	0	(omitted)				
yii_3	.0446493	.040382	1.11	0.269	-.034498	.1237966
yii_4	-.0785391	.0560931	-1.40	0.161	-.1884797	.0314014
yii_6	0	(omitted)				
_cons	0	(omitted)				

(Contd.)

Observations Interpretations of GMM estimation output from above table

- 1) STATA has only retained the age and uniqueness variables amongst the determinants of capital structure.
- 2) Age is having a positive relation indicating that the majority of the older firms rely on external debt due to their advantage of having a proven track record which makes the firms availability of bank finance easier.
- 3) Amongst the determinants of speed of adjustment, only distance is highly significant and positive, which tells us that firms which are furthest away from their target capital structure employ more effort than the other small cap firms to adjust to their target.
- 4) Amongst the significant terms interaction X1 & Z2 which both indicates size and has a positive relation is indicative that size of firms matter when adjusting to their target capital structure. More the bigger size more is the speed of adjustment.
- 5) X3 & Z3 interaction term which both denotes growth and is having a positive relation also speeds up their adjustment on the same reasoning as size of firms.
- 6) FSIR & growth are significant but negative which means that some of the high growth firms are not able to close their gap due unattractive borrowing rates from banks and financial institutions during the period prior to setting in of recession in India.

4.3 Analysis of all the 2900 small cap firms for the period of recession in India (2008 to 2010)

In this model, NDTs and age of firms has been dropped to increase the predictive power of the model.

Table 6: Regression between the determinants of capital structure and the observed capital structure

Source	SS	df	MS	Number of obs	=	573
				F(7, 565)	=	54.17
Model	186.474586	7	26.6392266	Prob > F	=	0.0000
Residual	277.834131	565	.491741825	R-squared	=	0.4016
				Adj R-squared	=	0.3942
Total	464.308717	572	.811728527	Root MSE	=	.70124

y	Coef.	Std. Err.	t	P> t	Beta
x1	.3960032	.0328519	12.05	0.000	.6085244
x2	.0842326	.0245886	3.43	0.001	.1171318
x3	-.827664	.321211	-2.58	0.010	-.1100123
x4	-.0021241	.0012205	-1.74	0.082	-.0688591
x5	-.389559	.0432528	-9.01	0.000	-.3847903
x6	-.3019613	.0279769	-10.79	0.000	-.4864775
x7	-.0316906	.0177994	-1.78	0.076	-.0611982
_cons	-.9136456	.2274517	-4.02	0.000	.

The regression attained above is significant and hence the distance variable calculated from the coefficients is valid. Only trade credit and uniqueness is significant below 10% level.

Table 7: Output of the GMM estimation

Dynamic panel-data estimation		Number of obs = 363			
Group variable: nc		Number of groups = 247			
Time variable: year		Obs per group:			
		min = 1			
		avg = 1.465636			
		max = 2			
Number of instruments = 22		Wald chi2(22) = 1.63e+06			
		Prob > chi2 = 0.0000			
One-step results					
y	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
x7	.0126691	.0099935	1.28	0.202	-.0068002 .0321384
xi1_1	.0891394	.0470137	1.90	0.058	-.0030058 .1812847
xi1_2	.0097144	.0126916	0.77	0.444	-.0151608 .0345896
xi1_4	0	(omitted)			
xi1_5	-.000362	.0061446	-0.06	0.953	-.0124053 .0116812
xi2_1	0	(omitted)			
xi2_2	-.0350441	.0096065	-3.65	0.000	-.0538725 -.0162156
xi2_3	.0073159	.0049892	1.47	0.143	-.0024627 .0170945
xi2_4	.0240479	.0307561	0.78	0.434	-.036233 .0843289
xi2_5	.0000812	.0255941	0.00	0.997	-.0500824 .0502448
xi3_1	0	(omitted)			
xi3_2	0	(omitted)			
xi3_3	0	(omitted)			
xi3_4	0	(omitted)			
xi3_5	-.117047	.0127998	-9.14	0.000	-.1421342 -.0919599
xi4_1	-.0063164	.0012145	-5.20	0.000	-.0086968 -.0039304
xi4_2	.001282	.0009067	1.41	0.157	-.0004952 .0030591
xi4_3	.0021966	.0007473	2.94	0.003	.0007319 .0036612
xi4_4	-.0043702	.0029628	-1.48	0.140	-.0101772 .0014366
xi4_5	.0036295	.002465	1.47	0.141	-.0012018 .0084601
xi5_1	0	(omitted)			
xi5_2	0	(omitted)			
xi5_3	.0128956	.0119437	1.08	0.280	-.0105136 .0363345
xi5_4	0	(omitted)			
xi5_5	-.002431	.0026321	-0.93	0.350	-.0114599 -.0009362
xi6_1	.0004128	.031204	0.01	0.989	-.0607459 .0515715
xi6_2	-.061112	.013903	-4.40	0.000	-.0833613 -.0388627
xi6_3	.0224359	.0104465	2.15	0.032	.0019608 .0429101
xi6_4	0	(omitted)			
xi6_5	.0176251	.0070421	2.50	0.012	.0038229 .0314271
yli_1	-.0823011	.0448181	-1.84	0.065	-.170143 .0055406
yli_2	0	(omitted)			
yli_3	0	(omitted)			
yli_4	0	(omitted)			
yli_5	.0529448	.0110895	4.77	0.000	.0312198 .0746795
_cons	0	(omitted)			

(Contd.)

Observations Interpretations of GMM estimation output from above table

- 1) Uniqueness though retained is statistically insignificant and distance is negatively related with a significance level below 10%. This indicates that firms further away from their target do not take any initiative to close the gap during the period of recession.
- 2) Inflation factor is positive and highly significant indicating that, firms do tend to adjust to their notional book values of target structure in a period of inflation and which is very high during times of recession. This observation is in agreement to the observation of inflation variable in the works of (Haas and Peeters, 2006).
- 3) Amongst the positively significant interaction terms X4 & Z3, X6 & Z3 and X6 & Z5 are to be noted.
- 4) It indicates that firms still maintaining growth during the recession period and having substantial creditors incrementally adjust to their target capital structure.
- 5) All the other significant interaction terms X2 & Z2, X3 & Z5, X4 & Z1X5 & Z5 AND X6 & Z2 are having a negative relation with the speed of adjustment, which means an interaction between these factors discourages the firm to adjust to its target capital structure.

4.4 Analysis of all the 2900 small sized firms for the period of post recession in India (2011 to 2014)

In the last model analyzed in this chapter NDTs and age have been excluded from the model to increase the predictive power of the model. Although not many interaction terms are significant in the post recession scenario it still gives us an idea as to how small cap firms cope up in a post recession scenario in India.

Table 8: Regression between the determinants of capital structure and the observed capital structure

Source	SS	df	MS	Number of obs	=	597
Model	178.099247	7	25.4427496	F(7, 579)	=	38.13
Residual	386.308578	579	.667199617	Prob > F	=	0.0000
				R-squared	=	0.3156
				Adj R-squared	=	0.3073
Total	564.407826	586	.963153286	Root MSE	=	.81682

y	Coef.	Std. Err.	t	P> t	Beta
x1	.3474372	.0410101	8.47	0.000	.530787
x2	-.0034441	.0019535	-1.76	0.078	-.0841742
x3	-.0022976	.0012944	-1.78	0.076	-.0823385
x4	-.4284658	.0398091	-10.76	0.000	-.4094385
x5	-.162506	.0300079	-5.42	0.000	-.2744098
x6	8.870201	1.480597	5.99	0.000	.2184743
x7	-.0958132	.0206152	-4.65	0.000	-.1779058
_cons	-11.00685	1.58286	-6.95	0.000	.

The regression attained above is significant and hence the distance variable calculated from the coefficients is valid. Only growth and profitability variables are slightly significant at above 5% level.

Growth, profitability and healthy creditors are some of the key factors that drive a firm towards resuming activity in a post recession scenario in India.

Table 9: Output of the GMM estimation

Dynamic panel-data estimation		Number of obs	=	417
Group variable: nc		Number of groups	=	194
Time variable: year		Obs per group:		
		min =	1	
		avg =	2.149485	
		max =	3	
Number of instruments = 55		Wald chi2(47)	=	5062.67
One-step results		Prob > chi2	=	0.0000

y	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
y					
LI_1	-.4543626	.4795014	-0.96	0.337	[-1.392408 .4786892]
x1	2.7589551	1.01796	2.70	0.007	.7565627 4.74454
x2	-.0074881	.1054883	0.07	0.943	[-.1591673 .2141494]
x3	-.0006603	.0084115	-0.08	0.937	[-.0171466 .0158246]
x4	-.269852	.1945314	-1.39	0.175	[-.6448264 .1177228]
x5	.1000536	.0876997	1.14	0.254	[-.0718346 .2719418]
x6	13.82782	3.746004	3.64	0.000	6.28879 20.36986
x7	-.0702473	.0864614	-1.24	0.213	[-.1809095 .040418]
xi1_1	-.1915912	.0866613	-2.79	0.005	[-.3261654 -.0570171]
xi1_2	-.0384788	.0276923	-1.22	0.224	[-.0879559 .0205983]
xi1_3	-.0054489	.0030287	-1.33	0.054	[-.0001015 .0119994]
xi1_4	-.0067182	.0157344	-0.43	0.669	[-.037557 .0241206]
xi1_5	-.0013753	.0087113	-0.16	0.875	[-.0184492 .0156985]
xi2_1	-.0054487	.0093162	-0.64	0.520	[-.0216482 .0109509]
xi2_3	-.0001133	.0000396	-2.86	0.004	[-.000191 -.0000357]
xi2_4	-.0002625	.0007586	-0.35	0.729	[-.0017494 .0012243]
xi2_5	.0002089	.0004025	0.52	0.604	[-.00058 .0009977]
xi3_1	.0028927	.0020706	1.40	0.162	[-.0011656 .0069509]
xi3_2	-.0003293	.0008543	-0.39	0.700	[-.0020037 .0013451]
xi3_3	.0000354	.0000473	0.75	0.451	[-.0000571 .0001234]
xi3_4	.0001014	.0004912	0.21	0.836	[-.0008613 .0010641]
xi3_5	-.0000665	.0002836	-0.23	0.815	[-.0006222 .0004893]

xi4_1	.1234612	.0329282	3.75	0.000	.0589232 .1879992
xi4_2	.0423711	.0386898	1.26	0.208	[-.0236586 .1084008]
xi4_3	+.0007148	.0029332	+0.24	0.807	[-.0064638 .0050342]
xi4_4	-.0164297	.023703	-0.69	0.488	[-.0628866 .0300273]
xi4_5	-.0155095	.007395	-2.10	0.036	[-.0300036 -.0010155]
xi5_1	-.0179375	.0183355	-0.98	0.328	[-.0538744 .0179993]
xi5_2	-.0264272	.0095077	-2.67	0.007	[-.0440621 -.0067924]
xi5_3	.0016806	.0012778	1.28	0.202	[-.0008737 .0041338]
xi5_4	.0031086	.009889	0.31	0.753	[-.0162853 .0225602]
xi5_5	-.0113078	.0049644	-2.28	0.023	[-.0210379 -.0015777]
xi6_1	.5386152	.4263258	1.25	0.211	[-.301968 .1369196]
xi6_2	-1.832946	.7099081	-2.58	0.010	[-3.22434 -.4415517]
xi6_3	-.0584448	.1007858	-0.53	0.595	[-.2511813 .1438917]
xi6_4	-.0561494	.0828655	-0.68	0.498	[-.2186628 .106254]
xi6_5	.0365443	.0374765	0.95	0.342	[-.0378096 .1090956]
xi7_1	-.0953088	.0155801	-6.12	0.000	[-.1268451 -.0647724]
xi7_2	.027314	.0092273	2.96	0.003	.0092288 .0453991
xi7_3	-.0006751	.0006325	-1.07	0.286	[-.0019147 .0005645]
xi7_4	-.013634	.0067442	-2.02	0.043	[-.0268524 -.0004156]
xi7_5	.0002454	.003202	0.08	0.939	[-.0060304 .0065213]
yi1_1	.2161915	.019355	11.17	0.000	.1782505 .2541324
yi1_2	.1933724	.0912199	2.12	0.034	.0148548 .3721601
yi1_3	-.0061195	.0080027	-0.76	0.444	[-.0218045 .0095656]
yi1_4	-.0153987	.0345551	-0.45	0.656	[-.0891254 .0523228]
yi1_5	-.0140659	.0089361	-1.57	0.115	[-.0315802 .0034495]
_cons	-16.93992	4.451099	-3.81	0.000	[-25.66391 -8.215928]

(Contd.)

Observations Interpretations of GMM estimation output from above table

- 1) Most of the determinants of capital structure are insignificant and hence not much information can be extracted from them.
- 2) Although size and FSIR are significant they yield a positive sign meaning that even though immaterial of the firm size firms rely on external debt. Also internal firm specific interest rate is not an impediment for firms not to avail bank loans.
- 2) Amongst the determinants of speed of adjustment distance and size are significant and positive in relation indicating that firms furthest away from their target capital structure and bigger sized firms are the prime movers towards their capital structure amongst all the other small cap firms.
- 3) The interaction terms having a positive significant relation are X1 & Z3, X4 & Z1 and X7 & Z2 which is an indication that bigger sized firms maintaining good profitability and healthy creditors and furthest away from their target capital structure will be amongst the first few to adjust to their target in a post recession scenario in India and FSIR doesn't seem to be an impediment in slowing down the objective of closing the gap.

- 5) Other interaction terms with a negative relation are X1 & Z1, X2 & Z3, X5 & Z2, X5 & Z5, X6 & Z2, X7 & Z1 and X7 & Z4. From these terms we gather that big sized firms furthest away from the target but not very profitable, high growth profitable firms in a inflationary environment, high FSIR of bigger size firms, unique firms further away from their target even inspite of a reviving economy are some of the categories of firms which are sluggish in their approach to adjust to their target capital structure.

4.5 Major Findings

- 1) It is found that small firms exhibit their own unique behavior when it comes to availing capital structure or when it comes to the speed adjusting to their target capital structure.
- 2) One good thing to notice is that firms which are furthest away from their target capital structure are more eager to adjust. This could be due to two reasons, one that the cost of adjustment is not very high and second is that the firms adjust incrementally rather than at one time. The second reasoning seems most likely to be the cause.
- 3) Overall from the analysis of all firms it is seen that bigger firms with strong creditors or profitability or promising growth potential are the most vibrant category of small cap firms when it comes to leveraging and increasing their speed to adjustment of their target capital structure.
- 4) It is also found that firms with high growth potential and lower FSIR are comparatively faster in adapting to their target capital structure.
- 5) In the overall analysis of firms the age of firms also plays a crucial role especially for underleveraged firms whose target is to leverage itself and come near to their target capital structure. This task is much easier for firms with proven track record which helps them in availing bank finance more easily.
- 6) In the pre recession period in India it is noticed that age of firms once again plays an important role in attaining bank credit. It also tells us that big sized firms with good growth potential and very far from their target capital structure are the first amongst others to close the gap.
- 7) During the period of recession firms are less vocal in their activities and hence not much effort is seen for firms to close their gap.
- 8) However firms which are still maintaining steady growth rate are seen to undertake some activity to close the gap. The high inflation during the recession period is also seen to be an incentive for closing the notional gap.
- 9) In the post recession scenario it is seen that underleveraged small cap firms once again resumes their borrowing habits to try and come nearer to their target capital structure.
- 10) In this period bigger sized firms furthest away from their target, are keener to close up the gap compared to others. Added to this firm profitability and healthy creditors also speed up the process.
- 11) It is also noticed that bigger not very profitable firms, high FSIR, unique firms are amongst the sluggish firms in not catching up to their target capital structure in a reviving economy like India.

V. CONCLUSION

This research paper has a very rich scope for both academicians and industry alike. Academicians can carry out many other aspects related to this research in the Indian context and try to analyse many other ways in which small sized industries could bolster our economy. For industry this paper has all the necessary indications and findings which they could use to improve their preparedness for a similar kind of recession through which most firms across the world are expected to go through. This preparedness will save firms a lot of trouble of doing research into how they could bounce back to normalcy within a very short period of time.

Since the entire world is reeling under the effects of the pandemic, industrial resurgence will be the key to try and salvage the economy of the country. As such this research work presents itself as a very potential insight for even country leaders to reflect upon and implement measures for brining the country back to its normal track ahead of other countries and benefit from the prime mover advantage.

This research work although has been undertaken with a lot of focus to proficiency and proper adherence to all academic norms, it is subject to constructive criticism from established academicians and esteemed fellow researchers from all over the world.

VI. SCOPE FOR FURTHER RESEARCH

The scopes for further research are identified as below:

- 1) Research on small sized Indian firms post Covid – 19 pandemic and recession
- 2) Include all categories of firms for the future research.
- 3) Scope for comparative study of firms in toher countries in response to the impending recession.

4) Similar study for Micro sized firms can also be taken up by other researchers.

REFERENCES:

- [1] Anurag Pahuja & Ms. Anu Sahi (2012). "Factors Affecting Capital Structure Decisions: Empirical Evidence from Selected Indian Firms", *International Journal of Marketing, Financial Services and Management Research*, 3, 76-86
- [2] Armen Hovakimian, Tim Opler and Sheridan Titman (2001). "The Debt-Equity Choice", *The Journal of Financial and Quantitative Analysis*, 36, 1-24
- [3] Aydin Ozkan (2001). "Determinants of Capital Structure and Adjustment to Long Run Target : Evidence from UK Company Panel Data", *Journal of Business Finance & Accounting*, 28(1) & (2), 175-198
- [4] Christopher F Baum (2013). "Dynamic Panel Data Estimators", *Applied Econometrics, Boston College, Spring*, 1-50
- [5] Christopher F. Baum, Mark E. Schaffer & Steven Stillman (2003). "Instrumental variables and GMM: Estimation and testing", *The Stata Journal*, 3, 1-31
- [6] Gavin Cassar, Scott Holmes (2003). "Capital structure and financing of SMEs: Australian evidence", *Accounting and Finance*, 43, 123-147
- [7] Hans Lööf (2003). "Dynamic Optimal Capital Structure and Technological Change", *ZEW Discussion Papers*, 03-06, 1-32
- [8] Hans_Jug Buttler (1999). "The optimal capital structure of a liquidity-insuring bank", *Econometrics Journal*, 2, 268-291
- [9] Hyesung Kim, Almas Heshmati & Dany Aoun (2006) "Dynamics of capital structure : The Case of Korean Listed Manufacturing Companies", *Asian Economic Journal*, 20(3), 275-302
- [10] Jitendra Mahakud, Sulagna Mukherjee (2011) "Determinants of Adjustment Speed to Target Capital Structure: Evidence from Indian Manufacturing Firms", *International Conference on Economics and Finance Research*, 4, 67-71
- [11] Julan Du & Yi Dai (2005). "Ultimate Corporate Ownership Structures and Capital Structures : evidence from East Asian Economies", *Blackwell Publishers Ltd.*, 13, 60-71
- [12] Malcolm Baker & Jeffrey Wurgle (2002). "Market Timing and Capital Structure", *The journal of finance*, 57, 1-32
- [13] Oded H. Sarig (1998). "The effect of leverage on bargaining with a corporation", *The Financial Review*, 33, 1-16
- [14] Ralph de Haas & Marga Peeters (2006). "The dynamic adjustment towards target capital structure of firms in transition economies", *Economics of Transition*, 14, 133-169
- [15] Saugata Banerjee, Almas Heshmati and Clas Wihlborg (1999). "The Dynamics of Capital Structure", *Economics and Finance*, 333, 1-20
- [16] Sreedhar T. Bharath, Paolo Pasquariello & Guojun Wu (2009). "Does Asymmetric Information Drive Capital Structure Decisions?", *The Review of Financial Studies*, 22, 3211-3243
- [17] Sumitra N. Bhaduri(2002). "Determinants of capital Structure choice : A study of the Indian Corporate Sector", *Applied Financial Economics*, 12 (9), 655-65
- [18] Titman, Sheridan (1984). "The effect of capital structure on a firm's liquidation decision", *Journal of Financial Economics, Elsevier*, 13, 137-151
- [19] Wolfgang Drobetz and Gabrielle Wanzanreid (2006), "What determines the speed of adjustment to the target capital structure?", *Applied Financial Economics*, 16, 941-958