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The Incentives Behind Capital Structure Decision

- A Survey of the Swedish Market -

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Abstract

The aim of this thesis is to investigate which the main determinants of capital structure in Swedish listed firms are and to identify which incentives lies behind managers choice of capital structure determinants. Further, the study investigates whether the Post Keynesian theory and theories which incorporate behavioral aspects can be used to explain the capital structure decisions or if the traditional Neoclassical theory give a better explanation. The study was conducted by using a survey which was sent to managers in Swedish firms. The findings from the survey were that the determinants which mainly affect the firms capital structure decision is maintenance of a desirable credit rating, debt repayment capability and maintain certain liquidity. The incentives behind managers choice of capital structure shows an indication of focusing on maximizing the long-term survival of the firm instead of maximizing shareholder value.

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Key Words	Capital Structure, the Neoclassical theory, the Post Keynesian theory, Behavioral finance theory, Survey
Purpose	The aim of this thesis is to investigate which the main determinants of capital structure in Swedish listed firms are and to identify which incentives lies behind managers choice of capital structure determinants. Further, the study investigates whether the Post Keynesian theory and theories which incorporate behavioral aspects can be used to explain the capital structure decisions or if the traditional Neoclassical theory give a better explanation.
Methodology	We have used a qualitative method to analyze the determinants of capital structure and the managers incentives behind capital structure decision. We conducted a survey which was sent to 83 Chief Financial Managers and financial executives in Swedish firms listed on Mid Cap or Large Cap. The questionnaire was on-line which enabled for the respondents to quickly and convenient respond.
Theoretical Perspectives	The theories used in this thesis are based on capital structure theories regarding debt, taxes, signaling, information asymmetries and agency cost. There are also theories which are based on behavioral aspects.
Empirical Foundation	Data is collected through a questionnaire.
Conclusions	Financial flexibility, long-term capacity and maintain a desirable credit rating are the major factors which affected the managers choice of capital structure. The managers show concern about the uncertainty of the future but seem to be of little concern about the firm's shareholders. The findings deviate from the Neoclassical theory and the Post Keynesian theory and behavioral finance theory seem to better explain the managers incentives.

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1 INTRODUCTION

In this introduction chapter will the background to the subject be presented, together with a problem discussion and earlier studies in the area of capital structure decisions. Further, we present the purpose and delimitation which will specify the investigated problems in this study.

1.1 Background

The theory of capital structure is one of the most researched and debated fields within corporate finance and the finance litterateur. Modern theory of capital structure began with Modigliani and Miller (1958) when they presented their article "*The Cost of Capital, Corporation Finance and the Theory of Investment*". They demonstrated that the choice between equity and debt financing and as well the value of the firm is irrelevant to its capital structure. (Myers, 2001) Furthermore, Modigliani and Miller also stated the assumptions of an ideal capital market and developed two important propositions regarding corporate finance decisions about the firm's value and risk of the firms debt and equity securities (Ogden *et al*, 2003).

Researchers have since Modigliani and Miller's article discussed how a firm's amount of debt should be determined, how new investment should be financed as well as if firms have an optimal capital structure. In response to Modigliani and Miller's article, a rich theoretical framework has emerged which attempts to model the firm's choice of capital structure. This theoretical framework gives possible and complementing explanations to the choice of capital structure of the firms. The theories which have emerged rely on factors e.g. tax shield advantages, asymmetric information, signaling, agency costs et cetera. (Bancel and Mittoo, 2004)

The finance literature has developed far away from Modigliani and Miller's efficient market theory and the traditional approach to corporate finance based on the assumptions of rational behavior, the capital asset pricing model (CAPM) and efficient markets (Shefrin, 1999). There are two opposite approaches in the field of corporate finance, more specific, the Neoclassical theory and the Post Keynesian theory. The Neoclassical theory has a strict approach when deciding rational investment decision. The superior purpose of the firm is to maximize the shareholders wealth through maximization of the firm's stock price by making rational investment decision. (Vasiliou and Daskalakis, 2006a) The Post Keynesian theory emerged as a response to the Neoclassical theory and the criticisms it was exposed to. The standpoint for the Post Keynesian theory is that it recognizes agency relationships and the firms managers are assumed to follow their own goal when managing the firm. The main purpose of the firm is maximization of the long-term survival of the firm, which in turn secure the managers own security. (ibid) Further, the Post Keynesian theory identifies a principal-agent problem within the firms, which imply owners and managers in firms might have different incentives according to how the firm should be managed.

The recent theories within corporate finance attempts to better explain the motivation behind managers and investors behavior and why they do not always act rationally. These theories are described as behavioral finance theories. The authors that support behavioral finance theories argue that psychological and social aspects interfere with the decision making, leading to some participants acting rational while others are acting irrational. (Baker *et al*, 2004) Behavioral finance is one of the most central theories today and it contradicts several aspects of Modigliani and Miller's efficient market theory. This new approach to corporate finance gives opportunities for other alternative theories to emerge within the theory of capital structure decision.

1.2 Problem discussion

There are several theories which attempt to explain the theory of capital structure, however there are none of them that reign in practice. The contradictive empirical evidence which have been found in previous studies raises questions about the validity of the findings, which have led researchers to focus on factors determining the capital

structure in practice and also trying to understand the source of financial decision making. Questions concerning if there exist a “human factor” in the firms capital structure decision have also arisen, this factor concern the different behaviors of individuals in the firms and the reasons for these behaviors. (Vasiliou and Daskalakis, 2006a) The emerge of behavioral finance which incorporate psychological aspects is an attempt to explain this “human factor”. (Baker *et al*, 2004)

Several recent studies have been conducted about the firm’s choice of capital structure and on the determinants firms and managers consider when determining the firm’s capital structure. Graham and Harvey (2001) made an attempt to explain how firms chose their capital structure through a comprehensive survey of US managers. Their study spanned over areas such as capital budgeting and capital structure. Their findings suggest US firms to be concerned about maintaining financial flexibility, credit rating and stock price appreciation when choosing the appropriate investment funding which in turn affect the capital structure. A similar study as the study by Graham and Harvey has been made by Mittoo and Bancel (2004), their survey was primarily focused on the area of capital structure, were they investigated the determinants of capital structure in European countries. Their findings suggest European managers consider financial flexibility and credit rating when determining capital structure and investment funding, which is similar to Graham and Havery’s findings on the US market. These two studies find mediate support on the European and the US market for the trade-off theory, pecking-order theory and agency framework. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997) conducted a study were they compared external finance across 49 countries based on countries on English, French, German or Scandinavian legal systems. Vasiliou and Daskalaki’s (2006a) studied the factors which determine the capital structure of Greek firms, using a qualitative approach. They examined the factors by using the Neoclassical theory, the Post Keynesian theory and behavioral finance theory. They found that Greek managers decision behavior were best explained by the Post Keynesian and behavioral finance theories. All abovementioned studies have similar findings and the authors conclude that managers express concern of financial flexibility and to maintain a long-term capacity of the firm.

Although several studies have been conducted about firms capital structure, most of these studies explain through numerical data the firm's capital structure. The above mentioned studies are recently conducted and with a relatively new approach of examining firms capital structure. There is no qualitative study to our notice which has been primarily focused on the Swedish listed firm's choice of capital structure and the incentives behind chosen capital structure. However, Bancel and Mittoo (2004) incorporated Scandinavian firms in their sample and their findings showed that Scandinavian firms are especially concerned about credit rating and financial flexibility regarding capital structure decisions. The lack of studies focusing primarily on the Swedish market, previous findings on other markets regarding the trade-off theory, pecking-order theory and agency framework and also Bancel and Mittoo's (2004) findings about Scandinavian firms gives us the motive to examine Swedish listed firms. We want to investigate what determines the firm's capital structure and what the managerial incentives might be behind the capital structure choices. We have chosen an agent theoretical perspective to identify the incentives behind capital structure choices. The agent theoretical perspective is chosen since most of the firm's decisions is made by managers, hence, making them able to influence the firm's capital structure. Our study is primarily influenced by Vasiliou and Daskalakis's (2006a) study on the Greek market, but we have also gathered inspiration from the studies conducted by Graham and Harvey (2001) and Bancel and Mittoo (2004). However, the agent theoretical perspective which will be employed in this thesis have not to our knowledge been applied to a great extent in previous studies on capital structure decisions.

1.3 Purpose

The aim of this thesis is to investigate which the main determinants of capital structure in Swedish listed firms are and to identify which incentives lies behind managers choice of capital structure determinants. Further, the study investigates whether the Post Keynesian theory and theories which incorporate behavioral aspects can be used to explain the capital structure decisions or if the traditional Neoclassical theory gives a better explanation.

1.4 Delimitation

The study will be conducted with focus on Swedish listed firms. The purpose of the study is to investigate and evaluate capital structure decisions and the factors which influence their decisions using existing capital structure theories. Therefore, no new theory will be generated. The empirical research is restricted to only consider non-financial firms listed on the Swedish Stock Exchange on Mid Cap or Large Cap and which have their headquarters in Sweden. Further, the selected firms also had to be able to influence their capital structure in terms of the ability to take on debt. The study will not differentiate between firm size, industry, capitalization, age or business cycle, this since we primarily focus on the managerial incentives behind capital structure decisions.

The thesis does not incorporate equity when investigating the choice of capital structure and managers incentives behind capital structure, instead will the focus lie on debt and the implications debt bring.

1.5 Disposition

The introduction chapter aims to give the reader a background to the problem and also present the purpose of the study and its delimitations. In the second chapter, the reader is presented with the methodology used for this thesis. This consists of the research approach, research method and a discussion about the methodological problems in terms of the validity and reliability of the study. In the third chapter, the theoretical framework on capital structure will be presented together with the Neoclassical theory, the Post Keynesian theory, the behavioral finance theories and capital structure theories. Further, a review concerning previous studies on capital structure decisions will also be presented. In chapter four are the empirical findings from the survey presented together with the analysis. The findings are analyzed and related to the theoretical framework presented in chapter three. In chapter five are the conclusions presented and the aim of the thesis is answered. In the sixth and last chapter, will recommendations for future studies be presented.

2 METHODOLOGY

In this chapter research approach and method will be presented and justified. A discussion will be held concerning the sample, data and questionnaire. Finally, possible methodological problems in terms of creditability measurements will be touched upon.

2.1 Research approach

This thesis will investigate capital structure determinants within Swedish listed firms with help of existing theories and also try to identify and explain managers motives and incentives behind capital structure decisions. The thesis will investigate if managers select a capital structure which is most focused on the forth going of the firm and also secures their own status or if, as the Neoclassical theory states, managers will strive for stock price maximization to enhance shareholder wealth. Several different theories will be used in order to examine capital structure determinants and managers within firms listed on Mid Cap or Large Cap. The rationale of the thesis is to investigate how well our chosen theories are applicable to our findings, hence, a deductive approach will be used.

In a deductive approach researchers start to comprehend the theories to be used and thereafter use them to investigate the collected data (Saunders *et al*, 2003). We believe the deductive approach is most suitable because we do not have the incentives to generate new theory which is consistent with an inductive research approach.

2.2 Research method

A study can have a qualitative or quantitative research method in order to investigate the chosen subject. A qualitative method refers to a smaller amount of data and a quantitative method refers to a larger portion of data. (Saunders *et al*, 2003) In this

thesis we use a qualitative research method in order to investigate factors determining capital structure and try to understand managers incentives behind the capital structure of Swedish listed firms. A questionnaire will be used to gather the required information necessary for the study. In the questionnaire managers are able to express their incentives through multiple choice alternatives but also by stating their thoughts and opinions in detail through open questions. We chose this method of gathering qualitative data in order to collect information from as many respondents as possible which makes the sample more reliable. We also believe that a qualitative approach will provide a more nuanced picture of managers influence on capital structure decisions than numerical data are able to give us.

2.3 Sample

The sample in the thesis consists of 83 firms listed on the Stockholm stock exchange (OMX), the sample only include firms listed on Mid Cap or Large Cap. We decided not to include firms listed on Small Cap, since we considered them to be too varied, too small and not as established in their respective industry as Mid Cap and Large Cap firms. Therefore, we believe that they are not representative in the sample. More precisely, 51 of the firms are listed on Mid Cap and 32 firms are listed on Large Cap. The sample firms range from firms that produce goods to firms that produce services.

We have chosen not to focus on a specific industry; instead we want to investigate the market in general. The sample is modified with regards to certain obvious issues regarding capital structures. However, we have chosen to exclude financials, bio-tech firms and firms with headquarters outside of Sweden from the sample. These firms are excluded since some of the firms have limitations in their capital structure and other firms follow different regulatory frameworks. E.g. bio-tech firms might have difficulties taking on debt which restricts them to equity financing making their capital structure limited. Firms with headquarters outside of Sweden are excluded because we only intend to survey the Swedish market.

2.4 Data

Our primary data in the thesis is data collected from the questionnaires which consists of answers the respondents provided us with. The questionnaire is based on a previous studies by Vasiliou and Daskalakis (2006a) and (2006b), but we have also been inspired by Bancel and Mittoo's (2004) and Graham and Harvey's (2001) studies.

When gathering qualitative data it is important to consider the access we as researchers are able to obtain during the data collecting. Access problems are present in both quantitative and qualitative studies. Access mainly concerns the respondent's unwillingness to participate in the study or the degree of access the authors are able to gain. (Saunders *et al*, 2003) Access problems present in our study are primarily the willingness of the respondents to respond to the questionnaire. We experienced various access problems and the reasons why some respondents did not respond were lack of time, business trips, holidays and the sensitivity of the subject. Although, we believe that we overall achieved a satisfying access. We believe this is mainly due to the anonymity of the questionnaire. Hence, we will not analyze individual managers answers.

The secondary data in this thesis is previous studies regarding capital structure. There are several studies performed in the area and we have gathered information from these studies to enhance our study. We will also use these studies in comparison to our results from the Swedish market. The purpose of this is to perform a deeper analysis of the incentives behind determinants of capital structure choices.

2.5 Questionnaire

The survey technique to collect data in this thesis is conducted by collecting data through a questionnaire. The respondents in the survey have all answered the same questions which have all been in a predetermined order. This is an efficient way to gather a large set of data from a large sample prior to qualitative analysis. It is important to keep in mind that it is difficult to create a good questionnaire that gives answers to the problem that will be investigated. The design of questions, layout of the

questionnaire, the pilot testing and administration are all important issues that determine a good response rate, reliability and validity. (Saunders *et al*, 2003).

In order to construct the questionnaire we started to investigate previous studies concerning the same subject, we looked at the questions, sample and design of their questionnaires. We also carefully studied the theories to be used in the thesis, this to construct relevant questions for the survey. The questionnaire used in this thesis is an on-line questionnaire and it was sent to the firms via e-mail. We used a service provided by Netigate in order to send the questionnaires and to administrate the answers. We had to construct the layout of the questionnaire on their web page, although, they had predetermined layouts to choose between. We sent the final version of the questionnaire to a small test group consisting of people in the business in order to receive feedback, this resulted in minor adjustments of the layout in the questionnaire and the information connected to the questionnaire.

A problem which arisen with the on-line questionnaire was when it was e-mailed to the mangers the e-mail was reported as SPAM in the managers inbox. We solved this problem by phoning the respondents in order to both remind them and inform them to look in their SPAM-mail list for the questionnaire.

Our questionnaire consists of 16 questions which are divided into four subgroups. The first subgroup consists of questions that provide general information about the participant; the second subgroup consist of questions regarding the firm's capital structure; the third subgroup consist of questions regarding the firm's investment funding decisions; and the fourth subgroup consists of questions regarding long-term debt. There are also questions which concern agency costs and information asymmetries, but these will be connected to the second, third and fourth subgroups of questions. The questions in the questionnaire are similar to the questions used in two studies by Vasiliou and Daskalakis (2006a) and (2006b) on the Greek market. The first study examines the firms capital structure through the Neoclassical theory, the Post Keynesian theory and Behavioral finance theory, the second study investigates the capital structure within Greek firms and compares the results with previous studies made on the US and European market.

We decided to use similar questions as those in both of Vasiliou and Daskalakis's studies since the questions belong to one questionnaire which they have sent to financial managers. Bancel and Mittoo's (2004) study on the European market and Graham and Harvey's (2001) study on the US market have also inspired us when constructing the questions. In the questionnaire there are questions where the respondent had several answers to choose between, questions where they only could choose one answer and there were also questions that required the respondent to write an answer. (see Appendix 2)

The questionnaire was sent to 84 financial managers in firms listed on Mid Cap or Large Cap via e-mail. Before sending out the e-mails we investigated the firms internet sites and phoned them in order to verify the managers e-mail addresses and title. The survey time reached between 2007-04-24 to 2007-05-16, we had to make an alternation in the survey time and extend it by three days due to two major public holidays occurring during the survey time. Under the survey time we sent one reminder e-mail to the respondents and finally we also phoned the participant to remind them about the survey. The response rate is 38.6 percent, which is considered to be a good response rate compared to similar studies conducted on other markets.

Managers within Large Cap had the best response rate of 61.3 percent, while the managers within Mid Cap firms had a smaller response rate. We cannot see a tendency that a certain industry within the firms listen on Mid Cap or Large Cap was better or worse in terms of participating in the survey. However, the managers in both Mid Cap and Large Cap firms answered the questions in a similar manner which made it difficult to distinguish them and also minimized any researching bias between Mid Cap and Large Cap managers. The fact that we do not distinguish between firm size, industry, capitalization, age or business cycle have to be considered, we believe that this has also minimized any researching bias.

2.6 Capital structure and financial leverage

Capital structure refers to the mix of securities (long-term debt, common stock or preferred stock) issued by a firm for finance real investment. Researchers often refer to the proportions of debt and equity when studying capital structure. A firm is unlevered when it has no debt in its capital structure, while a firm with debt is said to be leveraged. Therefore, the value of equity in an unlevered firm is the same as the total value of the firm. In contrast, the value of stock in a levered firm is equal to the value of the firm less the value of its debt. (Brealey *et al*, 2003)

There are two leverage terms concerning capital structure, operational leverage and financial leverage. Operational leverage is related to the firms fixed operating cost, while the financial leverage is related to the fixed debt cost. More specific, the operating leverage increases the operating risk or business risk and the financial leverage increases the financial risk. The total leverage for the firm is given by the use of fixed operating costs and debt costs, therefore the total risk of the firm is equal to the business risk and the financial risk. Most common measures of capital structure can be divided into two categories, those that are based on the market value of equity and those that are based on the booked value of equity. (Han-Suck Song, 2005)

Capital structure is a concept which is often perceived differently by researchers. Vasiliou and Daskalakis (2006a) give definitions on different academic concepts of capital structure. Capital structure can be a mix of long-term funds or long-term funds and debt capital incurred by the firm. The capital structure of the firm can also be defined as the firm's combination of short-term and long-term securities. Firms are often assumed to use short-term borrowing mainly for financing operating activities and long-term debt to finance their investment activities. (ibid) In this study the concept of capital structure will therefore be excluded from short-term borrowing since we are only interesting in analyzing the firm's decisions behind investment funding. Hence, we will only look upon long-term debt when analyzing the firm's capital structure decision.

2.7 Credibility measures

In all studies conducted it is important to establish credibility to ensure that the scientific development contributes to new knowledge in the field. There are two main aspects that have to be considered when evaluating the method used in the study: reliability and validity. More specifically, validity concerns the ability of the chosen method to measure what it was designed to measure. Reliability ensures that the method provides results that are trustworthy and dependable. (Saunders *et al*, 2003)

2.7.1 Validity

The validity of our conclusion is subject to the method of collecting data and whether the questionnaire measures what we intend to measure. The questionnaire and questions used in this study is similar to the questions used in previous studies which have given valid results and contributed to further knowledge within the area of capital structure. The similarities between the questions in our study to those of previous studies enables for us to believe our questionnaire is valid. The design, layout and administration of the questionnaire have been carefully considered in order to derive valid and relevant results.

2.7.2 Reliability

When performing a questionnaire it is important to consider several issues regarding the questions and respondents. Issues concerning the questions in the questionnaire are that some questions might be sensitive and thus we might not get truthful answers. The fact that the questionnaire is in English might also cause confusion among the respondents since they might not recognize the English financial terms in some of the questions. Although, we believe that the respondents do not see these issues as a greater concern. They have all high education and are aware of the theories used in the thesis; they are also highly informed about their respective firm's capital structure and thus can they properly answer the questions. The questionnaires have only been sent to financial managers because we consider them to be proper respondents to the questionnaire. We believe that our questionnaire gives accurate and relevant answers and we consider it to be reliable.

3 THEORETICAL FRAMEWORK

In this chapter the theories used in the thesis will be presented. We will discuss the Neoclassical theory, the Post Keynesian theory, behavioral finance theory and theories concerning capital structure. Previous studies regarding capital structure will also be presented.

3.1 Modigliani and Miller

When Modigliani and Miller (1958) presented their article “*The Cost of Capital, Corporation Finance and the Theory of Investment*”, they laid ground for several studies about capital structure. Their proposition one and two are today well-known and established within the academic field of corporate finance.

The first proposition implies that managers cannot alter the market value of the firm simply by changing the firm’s capital structure; this proposition is also called the capital structure irrelevance theorem. The second proposition is derived from the first proposition, but the second proposition shows that leverage does have effect on the capital structure. The risk and expected return of a firm’s equity will be affected by increasing or decreasing leverage. (Modigliani and Miller, 1958)

Modigliani and Miller (1963) revised their propositions in order to account for corporate taxes and interest rate deductibility. By revising the two propositions they showed the effect of tax rates and interest rate deductibility on the capital structure and expected return of the firm’s shares. Firms could through interest rate deductibility shift payments from going to the government and instead direct the payments to the firm’s shareholders and creditors by increasing leverage. (Modigliani and Miller, 1963)

3.2 The Neoclassical theory

One of the most important and powerful views of Neoclassical economics is the concept of economic agents being rational. The Neoclassical theory of the firm has developed along two distinct branches, and different models have been developed for different purposes. Static models have been used to develop the combination of input-output for profit maximization and the optimum firm size. The basic determinants for the firm size are economics of scale in production and monopoly aspect in product and factors markets. Dynamic models have been used to obtain the optimal investment policies and the optimal growth rate for the firm. (Purvis, 1976)

The Neoclassical theory states that the most important factor in financial decision making is to maximize the interest of the shareholders. Thus, the theory assumes the main goal of the firm is to maximize the shareholders wealth, leading to the maximization of the firm's stock price, under the assumption that markets are efficient. Another main assumption which has evolved from maximization of shareholders wealth is capital market efficiency. It is important to note that capital market efficiency is a main assumption in the Neoclassical theory, this because the market participants are assumed to behave rationally which in turn lead to rational capital markets. (Vasiliou and Daskalakis, 2006a)

3.2.1 The Neoclassical investment theory

A firm is acting rational when it maximize the present value of future cash flow. When choosing the investments that maximize the present value, the firm is making rational investment decision (Mckenna and Zenonni, 2000;2001).

There are three main assumptions in the Neoclassical investments theory according to Crotty (1992). First, the theory assumes that maximization of the market value of the firm is the main objective for managers. Secondly, the Neoclassical theory assumes that agents always have the capability of giving numerical possibilities to all future economic events and thus create a probability distribution of expected returns. Third, the agents are assumed to have complete and correct knowledge about future outcomes and the effect of these outcomes. The liquidity of capital reflects the users cost or the

rental price for capital goods, therefore firms are according to the Neoclassical theory indifferent between owning and renting their capital. There is no uncertainty about the future in owning and renting capital goods. If the expectation about the future is dissatisfying, the firm can choose to resell the capital goods or decide not to renew the rental agreement. When investments are receivable, the financial commitments are also supposed to be receivable. Further, capital goods can always be resold to reduce the debt that financed them with no costs that load the process, leading the firm to have no sunk costs and no permanent debt burden. With liquid capital goods, the prospect of financial distress costs would be distressing for the management but according to the Neoclassical investment theory these costs are of little concern for the owners. (Crotty, 1992)

The assumption that owners and managers are identical agents and behave identically removes the problem that owners and managers can have conflicting objectives and attitude towards risk. Financial agents have within the Neoclassical approach perfect knowledge about the future and use this knowledge for optimally investment decision. Dividend policy or the firm's degree of leverage has no effect on the firm's investments decision according to Modigliani and Miller's theorem and the Neoclassical theory. (ibid)

3.3 The Post Keynesian theory

The Post Keynesian financial behavior theory recognizes agency relationships as the key financial behavior and the theory presume that managers follow their own goals when managing the firm. Thus, the main goal of the firm is the maximization of the probability of long-term survival of the firm, which in turn secure the managers own security. (Vasiliou and Daskalakis, 2006a) The theory assumes profits not to be reinvested and instead investments will depend on profit expectations based on animal spirits¹. (Stockhammar, 2005) A major constraint to the manager's decision-making is the opinions of shareholders, creditors and other market participants. These individuals often have opinions different from the manager on how the firm should be managed,

¹ Animal spirit can be referred to as a type of confidence which the manager posses, it is also referred to as a naïve optimism. (www.economist.com, 2007-05-09)

these opinions include stock price maximization, debt capacity et cetera. (Vasiliou and Daskalakis, 2006a) The fundamental aspect in the Post Keynesian theory investment funding decision is the uncertainty for the future. (Eichner and Kregel, 1975) The future for the manager and the firm is risky, but it can be stated as actuarially certain. (Davidson, 2003) The Post Keynesian theory is interested in describing and understanding the process through which investment, saving and financing decisions are determined in a firm where the future is uncertain. In a real world market economy it is difficult for firms and managers to get the adequate information they require to undertake proper commitments and actions, thus they have to make critical judgments concerning investment and financing. (Crotty, 1980) Even if managers and firms cannot know the future stream of net returns due to uncertainty, the Post Keynesian theory is not claiming that future profitability is irrelevant. (McKenna and Zannoni, 2000;2001)

Typical for the Post Keynesian theory is as written above that it recognize the principal-agent problem. The principal-agent problem possesses that managers and owners have different motives in how the firm should be managed. Within the Post Keynesian theory individuals and firms have a conventional behavior, this type of behavior is based on custom, habit, tradition, rules of thumb, instinct and other socially constituted practices (Arestis *et al*, 1993). Decision makers often rely on their previous experiences and common sense more than on calculus of statistical probability of the future when determining investment and financing strategies (Kregel, 1998). Although, rationality according to the Post Keynesian theory requires that managers take uncertainty into account when determine the appropriate investment decision. (McKenna and Zannoni, 2000:2001)

The Keynesian theory of investment is developed in response to the Neoclassical theory of investment. The Keynesian theory of investment state that the Neoclassical theory of investment ignores several major factors influencing investment decisions, these factors are principal-agent problems, conventional behavior and uncertainty. The Keynesian theory of investment incorporates these factors which enables for connecting it to the Post Keynesian theory, since they both incorporate the same assumptions. A correct theory of investment according to Keynesian theory of investment should incorporate the assumption of the firm as a semiautonomous agent with an own preference function.

More specific, it is expected that the management of the firm will practice growth in size, market share and profit – growth objective. The management will also try to avoid threats to their decision-making and the firm’s financial security – safety objective. The safety objective that the firm’s management has as a feature makes the firm and management risk-averse. To pursue the growth objective it requires capital. Financing it through debt requires legally binding cash flow commitment to creditors and internal funding and stock issues requires cash flow commitment to shareholders. Important for the management to consider when deciding upon financing alternatives is that if the commitment to shareholders can not be met out of future earnings, then the management might experience threats to their decision-making process. If the commitment to creditors is not fulfilled the firm might go bankrupt and the management safety is jeopardized. The decision-making dilemma the management faces is called the growth-safety trade-off. Consequently, the enterprise investment decision can be characterized by managerial preference for growth and safety, expected profit rates, financial strength and the degree of uncertainty. (Crotty, 1992)

3.4 Behavioral finance theory

The corporate finance theory tries to explain financial contracts and investment behavior, studies within the subject often assume that both managers and investors behave rational. The market participants are supposed to make unbiased forecasts about the future and base their decisions upon these forecasts. Although, in today’s fast changing environment is it not realistic to assume rationality. Managers and investors often act on behalf of their own incentives and interests. Thus, a new field within corporate finance has emerged; called behavioral finance. This field is concerned with trying to describe why some market participants act rational and some of them act irrational. (Baker *et al*, 2004)

Behavioral finance theory explains through psychological and sociological aspects the decision-making process of agents, groups and firms (Ricciardi and Simon, 2000). Ricciardi and Simon write “*behavioral finance attempts to explain the what, why, and how of finance and investing, from a human perspective.*” (Ricciardi and Simon, 2000, p. 2)

The main distinction between traditional corporate finance and behavioral finance is the role of psychological forces interfering with decision-making within the firm, this is incorporated in behavioral finance. The psychological phenomena prevent the managers from always acting in a rational manner, this results in behavioral costs for the firm and for the investors (Shefrin, 2001). Rationality according to the Neoclassical theory assumes agents to adequately and accurately update their beliefs when receiving new information (Crotty, 1992). Although, prospect theory which can be connected to behavioral finance has demonstrated that individuals often make irrational choices depending on optimism, overconfidence, conservatism and preferences. Individuals are often blinded by the fact that one option appears better than the other even if they are the same or sometimes is the option made by the individual less advantageous than the other option offered (Barberis and Thaler, 2002). Van deen Steen (2005) show in his article that a manager can have an important indirect influence on the firm's behavior and performance. The interest and incentives which the managers possess results in a behavioral bias within the firm.

Baker *et al*, (2004) locate two separate approaches within the theory of behavioral finance, the first approach assume investors to be less than fully rational and the second approach assume managers to be less than fully rational. These two approaches incorporate different behavioral issues and they have different impact on the decision-making process within the firm.

The first approach assumes managers to respond rationally to securities market mispricing caused by irrational investors. More specific, this approach assumes that the security market arbitrage is imperfect and thus are the prices too low or too high. Managers will notice these mispricings and make decisions which act in response to the mispricings. The managers identify these mispricings since they possess more information about the firm than the investors. The managers know more about the fundamental value of the firm, this is also known as information asymmetries. Managers which identify these mispricings can take advantages of them in order to raise capital. More specific, they can issue new stocks if they identify the firm's share price is to be overvalued. To prevent these mispricings the managers must provide more

information to the market. (Baker *et al*, 2004) The behavior of managers to identify mispricing and explore them is consistent with the market timing theory (Huang and Ritter, 2007)

The second approach assumes that irrational managers operate in efficient capital markets; meaning that the decisions managers make have behavioral biases (Baker *et al*, 2004). The bias in the decision-making arise when managers are either to optimistic and overconfidence or vice versa about the value of the firm's assets and investment opportunities, these psychological features will affect the capital structure and investment funding in both positive and negative aspects (Vasiliou and Daskalakis, 2006a). Hence, the rational investors can via corporate governance mechanisms employ constraints in order to prevent the managers to act irrational, these mechanism could be bonus schemes, compensation plans et cetera (Baker *et al*, 2004). Furthermore, Baker *et al* (2004) write that an optimistic manager would not choose to issue new equity for funding of a new investment, instead he/she would choose internal generate funds or debt and as last way out equity. This behavior arises due to the managers optimistic beliefs of the firm's assets and investment opportunities. This managerial behavior is consistent with the pecking-order theory, which assumes that managers will first choose internal generated funds, second debt and last equity when determining capital structure and investment funding (Myers, 1984).

It is vital to notice the dissimilar views these two approaches have concerning the role of the managers and the different implications on the decision-making process within the firms. According to the first approach when investors are assumed to act irrational, managers need to focus on long-term value maximization and economic efficiency. This could be difficult due to pressure from investors to boost short-term share price, thus is it also important for the managers to strive after flexibility in their decision-making process because some decisions might be unpopular on the market. In the second approach where the managers are assumed to be irrational, it is important to reach efficiency through an increase of the transparency within the company and oblige the managers to respond properly to market signals e.g. changes in prices and market conditions. (Baker *et al*, 2004)

3.5 Trade-off theory of capital structure choice

The trade-off theory is an approach to determine the optimal capital structure, in literature described as the trade-off between tax benefits and the cost of financial distress. The debt ratio that managers should choose according to the trade-off theory is the ratio which maximizes the firm value (Brealey *et al*, 2003). The optimal capital structure is determined more specifically by adding taxes, the cost of financial distress and agency cost holding the assumptions of market efficiency and that information is symmetric. (Baker and Wurgler, 2002)

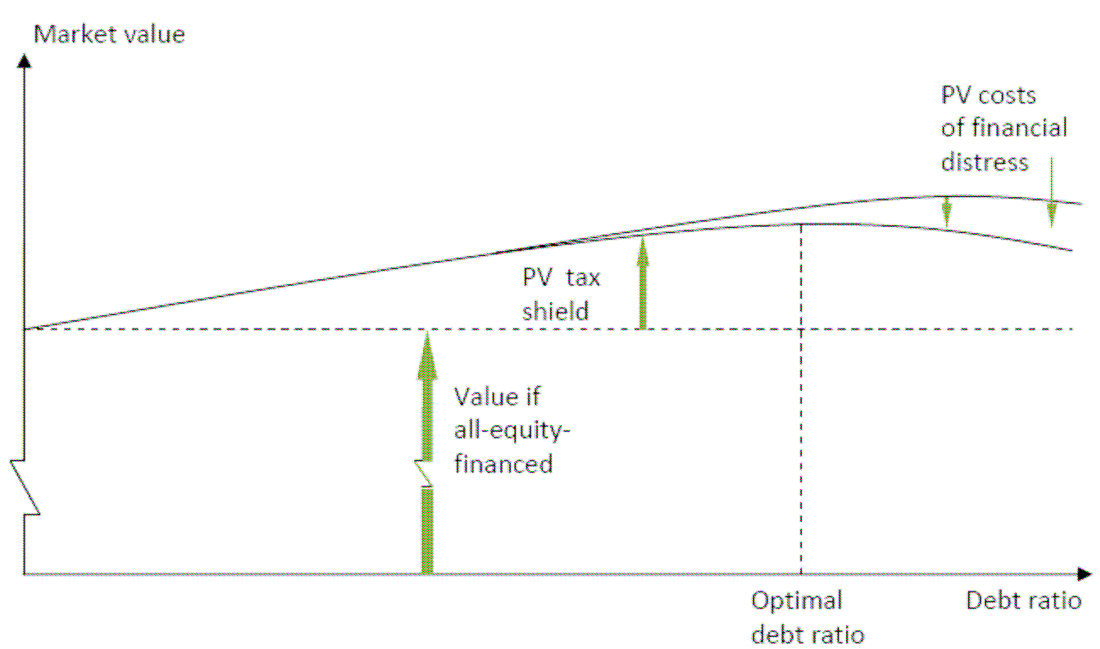


Figure 1: The static-tradeoff theory of capital structure (Source: Brealey *et al*, 2003 p. 477)

The costs of financial distress depends both on the probability of the firm entering into financial distress and the magnitude of costs if distress occur. Financial distress arises when the firm has difficulties fulfilling commitments to creditors, drawn to the extreme it can lead to bankruptcy. Financial distress can be very costly for the firm. As the firm increases its debt level, the tax shield also increases. At moderate debt levels the probability of financial distress costs are small (see Figure 1), the cost of financial distress is trivial and the tax benefits are central. The firm can use the tax shield and the

costs of financial distress for determine the optimal debt ratio, called the trade off theory of capital structure. (ibid)

Within the literature the costs of bankruptcy are categorized as direct or indirect costs and will affect the optimal capital structure. Direct costs come from the bankrupt firm or from the claimants of the firm's assets. Specifically, professionals e.g. lawyers and accountants, internal staff resources and reduced marketability contribute to the direct cost of handling bankruptcy in the firm. The costs of bankruptcy often increase as the firm gets into more serious financial difficulty. A firm near bankruptcy suffers from indirect costs in terms of losing competitiveness, market shares and that the firm is forced to focus on short-term capacity. The bankruptcy costs usually have a negative effect on the firm's capability to compete in the market because suppliers and customer are less prone to do business with the firm. Furthermore, employees and potential employees are less likely to be secure or interested working for the firm and the firm could loose valuable human capital. The firm also has to shorten its focus and preserve cash and avoid undertaking long-term responsibilities that are difficult to hold. (Branch, 2002)

When the interests of the firm's managers are in conflict with those of the firm's owner agency costs arise. Jensen and Meckling (1976) define an agency relationship as when one party (the principal) employs another party (the agent) to perform some service on the principal's behalf. The principal delegate decision-making authority to the agent, but the principal can limit the divergences in the conflict of interest between the two parties by monitor the agent. However, the choice of the firm's capital structure could lower agency costs. (Jensen and Meckling, 1976)

Baker and Wurgler (2002) stated that imperfections can lead to an optimal trade off. More specific, when taxes on dividends increase it gives an indication of the firm to take on more debt and when the costs of financial distress increases it give an indication to the firm to decrease debt levels. They also write that agency problems are an indication on the appropriate level of debt for the firm, either by taking on more or less debt in order to avoid financial slack. (Baker and Wurgler, 2002)

Agency cost can be divided into two parts, the cost of equity and the cost of debt. The agency costs of outside equity may be reduced by increased leverage, while the opposite may occur for the agency costs of debt if there is a conflict of interest between debt holders and shareholders. High leverage reduces agency cost of equity and increases firm value by encouraging the management to act more in the interest of the shareholders. When the firms amount of debt is high it increases the agency cost of debt in terms of risk shifting or the firms reduced effort to control risk resulting in higher expected cost of financial distress, bankruptcy or liquidation and thus the firm has to compensate debt holders for their expected losses, leading to higher interest expenses. (Berger and Bonaccorsi di Patti, 2004)

3.6 Pecking-order theory of financial hierarchy

In contrast to the trade off theory, the pecking order theory assumes firms to not have a target debt ratio (Graham and Harvey, 1999). Myers (1984) first described the pecking-order theory, stating that there is no optimal capital structure. If the firm increases its external finance it will be costly for the firm because managers have more information about the risks, values and the prospect of the firm than outside investors. These investors are aware of this and recognize it as information asymmetries. This lead to a pecking-order of corporate financing with the following three assumptions:

1. Firm prefer internal financing to external financing.
2. The target dividend payout is adapted to the firm's investment opportunities in order to prevent changes in the firm's dividends policy.
3. If the firm only has the choice of external financing, the firm should first issue the safest security. Starting with debt, then the hybrid i.e. convertible and at the last equity.

Information asymmetries have a profound impact on investment funding and will affect the firm's choice of internal or external financing. If the firm chose external financing then information asymmetries will affect the choice between equity securities and new issues of debt (ibid). Myers and Majluf (1984) identified outside investors to markdown the firm's stock price when managers issued equity instead of risk less debt. Hence, the

managers avoid issuing equity if there are other possible alternatives, this for avoiding the stock price to fall. If the firm lacks investment opportunities it can retain profits which can create a financial slack in order to avoid future external financing.

3.7 Signaling with capital structure

The irrelevance of capital structure in Modigliani and Miller's theorem implicitly assumes that the market have full information. If managers within a firm possess private information then their incentives will be signaled with the firm's capital structure and information will be given to the market. In a competitive market the inferences drawn from the signals will be confirmed by the market (Ross, 1977). The firm's capital structure and market value can provide a reward to the managers in form of capability when signaling their choice of capital structure. Agency costs for the firm can therefore decrease due to shareholders are provided with more information (Eldomiaty and Ismail, 2004)

A manager within a firm often have private and better information about the value of the firm than outsiders i.e. shareholders, creditors and the market as a whole. The managers often have to abstain from leaving out information in order to prevent the firm's competitors to get valuable information about the firm, which could lessen the firm's value. Signaling models, suggest that the firm's leverage can be used for signal the value of the firm. The underlying condition is information asymmetries between the firm and the market. The management can differentiate its firm by issuing debt and with this signal that the firm has the strength to make interest payments by committing to creditor. Further on, the managers are able via the firm's capital structure signal confidence in the firm's ability to generate future cash flow. (Ogden *et al*, 2003) However, Pinegar and Wilbricht, (1989) find that most managers do not explicitly signal firm value through adjustments in capital structure.

In the optimal capital structure model, debt is assumed to provide information about the firm's value to investors and at the same time function as a tool to limit management's self-interest activities. Information is provided by contractual payments to debt holders

and if the firm enters default the management has to negotiate with the firm's creditors for avoiding liquidation, which provide information to creditors. (Ogden *et al*, 2002)

3.8 Previous empirical studies

Vasiliou and Daskalakis (2006a) analyzed the capital structure determinants within Greek listed firms. They show that capital structure decisions and the financial behavior within firms appear to deviate from the Neoclassical paradigm. The theories of Behavioral Finance and the Post Keynesian give a better explanation in order to understand financial managers opinions and behavior. From their study they state that Greek managers behavior are explained by behavioral finance theory, especially the irrational investor and rational investor approach explained by Baker *et al*, (2004). Managers within Greek listed firms recognize market inefficiency caused by irrational investors and benefit from them. Vasiliou and Daskalakis (2006a) also conclude that Greek managers behavior can be explained by the Post Keynesian approach, opinions are shaped by past experience and the managerial behavior indicate on an uncertainty for the future.

The authors investigate in their article the question “*What factors affect your investment funding decisions?*” (Vasiliou and Daskalakis, 2006a, p. 22), they determined that maintenance of long-term viability, maintenance of a high competitiveness, level of forecasted flows from the investment projects, maintenance of a desirable credit rating and financial independency was the most important factors affecting the managers decisions when deciding investment funding for their respective firm. These answers are better explained by the Behavioral Finance approach and the Post Keynesian approach than by the Neoclassical approach. Stock price maximization which is consistent with the Neoclassical approach came eight in the ranking of the determining factors. To summarize, Vasiliou and Daskalakis (2006a) found throughout the whole study very little evidence for the Neoclassical approach to be valid within Greek firms.

Bancel and Mittoo (2004) studied managerial behavior and capital structure choices in Europe, they conducted their study on firms in sixteen European countries. The purpose of their study was to examine the link between theory and practice of capital structure

across European countries with different legal systems. Their findings suggest that the search for financial flexibility and credit rating are two of the most important determinants of capital structure decision within European firms, these findings are especially strong for the Scandinavian firms within the sample. Bancel and Mittoo (2004) also find evidence of market timing within European firms, European managers tried to time the window of opportunity in order to raise capital; they also find mediate support for the trade-off theory and weak support for the pecking-order theory or agency framework. The authors find the major determinants of capital structure within European firms similar to those of US firms.

The evidence of European managers taking advantages of market timing aspects when raising funds, imply they consider both interest rates and market value of equity, when choosing funding. Bancel and Mittoo (2004) also find evidence of managerial concern for weighted average cost of capital and tax advantages, but these two factors do not determine the capital structure within the firms. The authors find weak evidence for industry norms, European firms tend not to follow each other in terms of capital structure within their respective industry.

Graham and Harvey (2001) conducted an investigation about capital structure and the decisions behind capital structure within firms on the US market, via a questionnaire they examined 392 financial managers. Their findings suggest that US firms are concerned about maintaining financial flexibility, credit rating and stock price appreciation when choosing the appropriate capital structure and investment funding. They find moderate evidence for the pecking-order theory and the trade-off theory and little evidence that managers are distressed about asymmetric information, tax shield considerations, transaction costs, free cash flows or clientele taxes.

Vasiliou and Daskalakis (2006b) investigate the similarities between Greek firms capital structure decisions and the firms capital structure decisions Harvey and Graham (2001) and Bancel and Mittoo (2004) investigated. They survey financial managers in 89 listed firms on the Athens Exchange. They found that Greek firms have an own-business policy and seem to care more about the disadvantages of debt instead of exploiting debt. Financial distress considerations, market timing and competitiveness

are important factors determining Greek firms capital structures. Agency costs of equity, pecking order and the signaling theory are not applicable on the Greek firms capital structures. Although, Vasiliou and Daskalakis's (2006b) findings indicate that internal financing is the main source of funding when Greek firms finance new projects, but they do not find it to have implications on the capital structure. The authors findings are comparable to those of Graham and Harvey (2001) and Bancel and Mittoo (2004), all three studies find evidence of market timing considerations, weak evidence concerning pecking-order behavior and the difficulties to apply agency cost theory on the firms capital structure.

4 EMPIRICAL RESULTS AND ANALYSIS

In this chapter the empirical findings will be presented together with an exhaustive analysis of the findings. The chapter is divided into three different sections. The outline of the chapter follows the questionnaire's outline which is divided into capital structure, investment funding and long-term debt.

4.1 Framework for the analysis

The starting point for the analysis will derive from the theories mentioned in the previous chapter. The results will be compared with theories presented in this thesis and an identification of potential similarities and dissimilarities between theory and data will be presented, this in order to answer the aim of the thesis.

4.2 Survey

The number of years the respondent had been within the firm varied from newly employee to over 40 years, with the mean of approximately ten years. Further on all respondents have an academic degree; 37 percent hold a Bachelor Degree, 37 percent hold a Master Degree, 23 percent hold an MBA and the remaining respondents have pursued a doctoral program. The respondents had the following positions; Chief Financial Officer (60 percent), financial manager or director (24 percent), Treasurer (13 percent) or Chief Accounting Officer (3 percent).

The respondents have all higher academic education as stated previously, therefore we believe that they have the appropriate knowledge for answering the questionnaire in the survey. Moreover, the high mean of how long the respondent have been within the firm indicate that the respondents possesses valuable expertise, knowledge and information about the firm and the decisions behind capital structure and can thus answer properly

to the questions. The fact that we have managed to get the correct persons to answer the questionnaire is also beneficial for the results.

4.2.1 Capital structure

In response to factors which determines the firm's capital structure, the participating managers in the survey provided the following answers (see Figure 2):

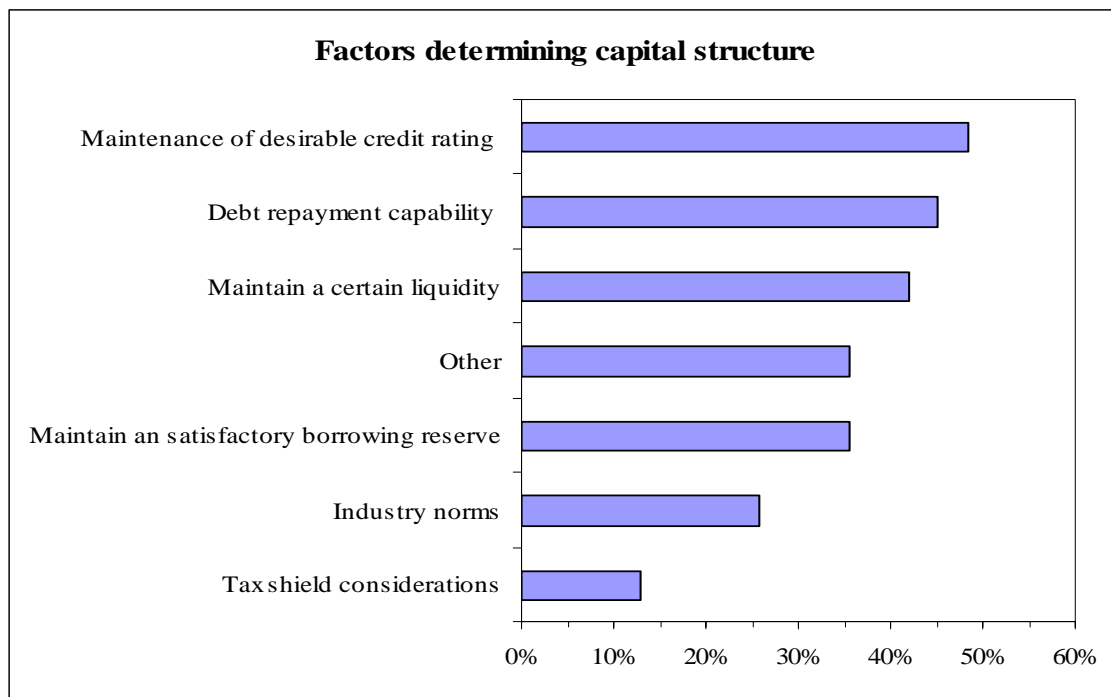


Figure 2: Capital structure determinants

As shown, *maintenance of desirable credit rating*, *debt repayment capability* and *maintain a certain liquidity* are the factors managers within the firms stated to be most important when determining the firm's capital structure. The managers also stated other important factors to incorporate when determine the capital structure of the firm, such as investment opportunities, risk exposure and future market developments. In contrast, *tax shield considerations* appear to be of little concern when determining capital structure. A possible explanation for why maintaining a desirable credit rating is important could be that the managers making the decisions in the firm are uncertain about the future and what it will bring, thus they choose the capital structure which might maintain or perhaps increase the firm's credit rating. If the firm is not able to maintain their credit

rating financial expenses will increase leading to an alteration in their financial status which could jeopardize the managers status. An altered rating will also affect the debt repayment capability and liquidity within the firm, leaving the manager with increased or decreased financial flexibility. From (Figure 2) we can see that the factors which concern credit rating, debt repayment and liquidity tend to follow each other, indicating similarities between the sample firms managers when it comes to concern about uncertainty. Managers concern about debt repayment can be explained by the obligations debt involve. They have a responsibility not only towards creditors in terms of interest payments, but also against shareholders in terms of financial distress. Debt repayment issues can be connected with the distress of lack of liquidity. Lack of liquidity could make the managers incapable to cope with the firm's debt repayments. The low support found for tax shield consideration indicates with regards to above mentioned an unwillingness to exploit debt. Although, this is reasonable due to what seems to be the managers profound concern about credit rating and financial status.

Vasiliou and Daskalakis (2006b) find similar determinants of capital structure as our findings. Greek managers consider debt repayment capability to be the most important factor determining choice of capital structure, thus should the main goal of financial managers be considerations about the ability to cope with debt. Creditability and liquidity were also major determinants of capital structure within firms on the Greek market. The authors state from their findings that firms generally avoid debt instead of taking advantage of debt, our findings indicate on a similar behavior within Swedish firms. Bancel and Mittoo (2004) state financial flexibility to be the most important consideration for European managers when deciding capital structure, this in order to be prepared for different economic outlooks. This shows that European managers are concerned about uncertainty which also Swedish managers seem to show. Further on, when Bancel and Mittoo investigated the European market they also found strong evidence of Scandinavian firms tending to focus highly on credit ratings when determining capital structure. Graham and Harvey (2001) show financial flexibility, credit rating and stock price appreciation to be determining factors of US firms capital structure.

Our results are in several aspects consistent with the Post Keynesian theory. According to Vasiliou and Daskalakis (2006a) managers main goal is to maximize the firms probability of long-term survival, which in turn protect the managers positions within the firms. We can see a similarity with Vasiliou and Daskalakis's (2006a) statement and our results, this due to the concern managers appears to have of the firm's credit ratings, debt repayment capability and the firms liquidity. More specific, by insuring a stable financial status of the firm the managers indirect secure their own status (position). Moreover, Crotty (1992) described the decision making within the firms as a trade-off between growth and safety. In our survey we find evidence for this growth-safety trade-off, the findings suggest the managers consider investment opportunities and future development (growth objectives) and risk exposure, debt capacity and liquidity (safety objectives) when determining the capital structure.

According to the Neoclassical theory the main assumption is to maximize shareholders value, by maximizing the value of the firm. Our findings from the survey seem to deviate from the Neoclassical theory in the sense that managers seem to focus on the firm's future survival. However, when looking from a Neoclassical perspective the managers contradict themselves. The survey reveal that 96.67 percent of the upper management holds shares within the firm (see Table 1), therefore they should according to the Neoclassical theory be interested in maximizing share value because this will increase their own wealth.

The results show that tax shield was the factor which had the smallest impact on capital structure decision, the manger show inconsistency with Modigliani and Millers (1963) theory which assume firms to consider the benefits from taxes in order to redirect payments to shareholders. The indication of an unwillingness to exploit debt and low consideration of tax shield show low support of the trade-off theory which assumes the optimal capital structure is chosen with respect to the tax shield and financial distress costs. A reason for this might be as stated above that the managers primarily focus on survival, and this results in as Shefrin (2001) state behavioral costs for the shareholders. These costs arise from managers not always acting rational. Graham and Harvey (2001) and Bancel and Mittoo (2004) also find modest support for the trade-off theory.

	Frequencies	Percentage	Valid percentage
Yes	29	90,63	96,67
No	1	3,13	3,33
Valid frequencies	30	93,75	100,00
Missing values	2	6,25	
Total	32	100	

Table 1: Does the upper management hold shares within the firm?

The financial managers gave the following answers to “Which method they consider when determining the firms capital structure” (see Table 2):

	Frequencies	Percentage	Valid percentage
Compare the debt ratio of the firm over time	11	34,38	36,67
Other	11	34,38	36,67
Compare the debt ratio of the firm with the industry debt ratios	5	15,63	16,67
Compare the debt ratio of the firm with debt ratios of other firms	3	9,38	10,00
Valid frequencies	30	93,77	100
Missing values	2	6,23	
Total	32	100	

Table 2: Which of the following methods do you as a manager consider when determining your firm’s capital structure?

According to the results most managers use the *debt ratio of the firm over time* as the method to determine the capital structure. The managers also gave other alternative explanations when answering the question. Some of the managers also incorporated cash flows analysis, effect of credit ratings, effect on WACC or different aspects of risks as methods to determine capital structure. Modest evidence is found of managers using the methods; *debt ratio of the firm in comparison with the industry debt ratios* and *debt ratio of the firm in comparison to debt ratios of other firms*. These findings indicate as assumed in the previous section, that financial managers to a great extent consider the firms survival and the uncertainty of the future. By using the debt ratio of the firm over time to determine the capital structure the managers have an opportunity to historically examine factors which has had an impact on the firm’s capital structure making them possibly better prepared for future events. Further, the findings suggest the

managers to rather focus on themselves than on other firms in the industry. However, managers might compare their firm's capital structure with other firms capital structure in order to examine their competitiveness on the market and establish competitive advantages. Our findings are similar to Vasiliou and Daskalakis (2006b) findings on the Greek market.

When comparing the findings to the theory, they show similarities with the Post Keynesian theory. The uncertainty for the future can be related to managers method when determining the capital structure, by determining capital structure based on historical information they show an uncertainty for the future. The Neoclassical theory presumes that all expected future events can be given a probability and therefore the firms have complete knowledge about the future (Crotty, 1992). Given this, managers should not focus on debt ratios over time because they already know the probabilities of future events.

Further on, the survey investigates *which stakeholders or third parties that are most likely to affect the firm's capital structure* (see Table 3):

	Frequencies	Percentage	Valid percentage
Opinions of shareholders	19	59,38	63,33
Opinions of commercial bankers	3	9,38 6,25	10,00 6,67
Opinions of investment bankers	2	6,25 6,25	6,67 6,67
Comparative industry ratios	2	3,13	3,33
Other	2		
Opinions of the firm's employees and analysts	1	3,13 0	3,33 0
Opinions of financial analysts	1		
Opinions of suppliers	0		
Valid frequencies	30	93,75	100
Missing values	2	6,25	
Total	32	100	

Table 3: *Which of the following stakeholders or third parties are most likely to affect your firm's capital structure decision?*

The findings in (Table 3) are apparent, 63.33 percent of the managers state that the *opinions of shareholders* is the single most likely party to affect the firm's capital structure. The other answers given by the respondents are scattered over the remaining alternatives, leaving weak evidence of other parties opinions affecting the managers when determine the capital structure. This finding does not come as a new revelation,

the reason for this finding might be managers finding the opinions of shareholders valuable since shareholders are the owners of the firm. If they are not satisfied how the firm is handled they might leave the firm, leading to a possible decrease in the market value of the firm. This has further consequences, a decrease in market value might also affect the credit rating, the debt repayment capability, liquidity and cost of financial distress. The management also holds shares within the firms, making them shareholders. Which give them a rationale to act in the shareholders interest, in other word, in their own self-interests.

Evidence is found that the managers value shareholders opinions when determining the firm's capital structure. However, the findings do not reveal to which extent the managers value the opinions of shareholders or if the managers have as their main goal to maximize shareholder value, nevertheless they seem to be aware of the importance of shareholders opinion and incorporate their opinions in the capital structure decision. Vasiliou and Daskalakis (2006) write that according to the Post Keynesian theory opinions of shareholders is a major constraint to managers decision-making process. Our findings contradict the Post Keynesian theory, the managers seem to value their shareholders opinions when determining the capital structure. The finding of managers also being shareholders can be drawn to the behavioral finance theory, the managers can take advantages of the fact that they also are shareholders and pursuit decisions that are in their self-interest and will secure their own status.

In response to the question if the firms use their *capital structure or leverage ratio for signaling purposes*, the respondents supplied the following answers (see Table 4):

	Frequencies	Percentage	Valid percentage
Yes	8	25,00	26,67
No	22	68,75	73,33
Valid frequencies	30	93,75	100
Missing values	2	6,25	
Total	32	100	

Table 4: Does your firm use their capital structure or leverage ratio for signaling purposes?

As shown, a large proportion of the managers which make the financial decisions in the firms answered they did not use the capital structure or leverage ratio of the firm for

signaling purposes. The managers whom answered *yes* to this question explained that they signal their capital structure in order to signal confidence in existing cash flows, flexibility and for having a proactive capital management. This is consistent with signaling theories, which state that the firm can use its capital structure for signaling confidence in the firm's ability to generate future cash flow (Ogden *et al*, 2003). The financial managers whom use their capital structure for signaling purposes, may signal in order to strengthen their competitiveness towards industry rivals or to attract more funding. The managers whom answered *yes* to the question give a reason to assume there exists information asymmetries between the firm and market. Nevertheless, by signaling they might reduce the information asymmetry and possibly lower agency costs for the firm. Why most of the concerned managers do not use the firm's capital structure for signaling purposes could be explained by the managers being afraid of losing competitiveness by supplying more information about their capital structure. Vasiliou and Daskalakis (2006b) and Graham and Harvey (2001) found little evidence for signaling incentives.

Signaling is not consistent with efficient markets which is a main assumption in the Neoclassical theory. Most managers respondent they did not used the capital structure for signaling, but it does not provide support for the Neoclassical approach to be valid.

4.2.2 Investment Funding

In order to find out what determines Swedish listed firms investment funding, the following question was given in the questionnaire "*Which factors affect the firms investment funding decision?*" The answers are presented in Figure 3:

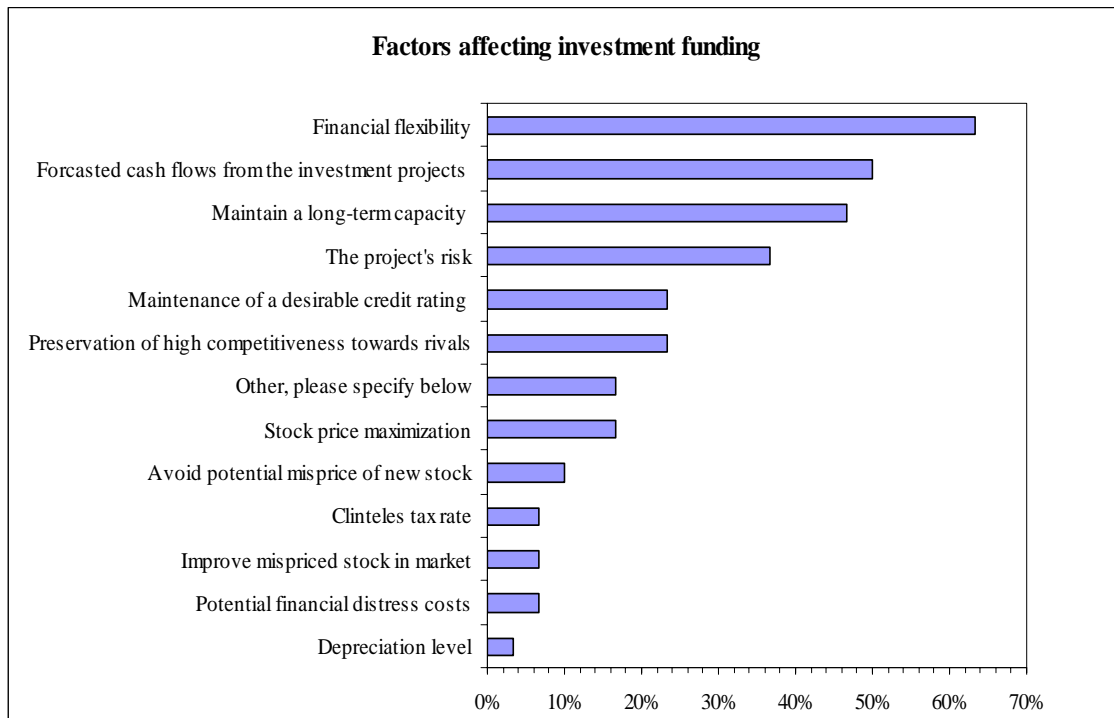


Figure 3: Investment funding determinants

The major factors affecting the firms investment funding are as shown above, *financial flexibility*, *forecasted cash flows from the investment projects*, *maintain a long-term capacity* and *the project's risk*. Interesting is that the firms value financial flexibility as the most important factor influencing the investment funding decision. The reason for this finding can possibly be explained by the managers making the investment funding decision in the firm endeavor for autonomous. Financial flexibility enables for assuming low independency of the firm against shareholders, creditor and other stakeholders which we assume to be preferred by the managers according to the consistency of previous answers with the Post Keynesian theory and what the previous findings has revealed. In (Figure 1) managers stated credit rating as a factor which determines the firm's capital structure. When the firms choose investment funding the findings indicate towards a moderate concern for credit rating, which suggest managers might incorporate credit rating within the importance of financial flexibility and vice versa when determining capital structure. The managers interest in maintaining a long-term capacity of the firm can be connected to their concern about forecasted cash flow from the investment projects, by securing future cash flows they also secure long-term capacity. The two above mentioned factors can also be linked to the managers willingness to preserve the firm's competitiveness toward rivals. The projects risk is another factor

managers incorporate when deciding upon investment funding which seems to be reasonable. When managers were asked about which party that most likely affects the firm's capital structure decision, they stated opinion of shareholders. Noticeable is the low response of stock price maximization, if the managers truly were concerned about shareholders opinion then they should presumably also value the stock price maximization factor higher. The results are very similar to the results of Vasiliou and Daskalakis (2006).

The factor long-term capacity fits perfectly with by the Post Keynesian theory and the fundamental aspects of uncertainty within the theory (Eichner and Kregel, 1975). If the managers focus on long-term capacity, they are in other words also focusing on a maximization of probability of long-term survival of the firm.

When the managers were asked *if they retain any part of the firm's earnings to finance future investments* (see Table 5), the majority of managers responded that the firm does retain earnings for future investment financing. More specific, some of the managers answered the major reason for why the firm retain earnings is in order to achieve financial flexibility and pay dividends. The pecking-order theory state when deciding on investment funding, the firms should first consider internal financing, then debt and as a last alternative equity (Myers, 1984). Our findings are consistent with the pecking-order theory to the extent that they retain earnings for future investments (internal financing). This also enables for flexibility which the managers within the firms appear to value highly. Baker *et al* (2004) write in their irrational manager-rational investor approach that an optimistic manager first choose internal generated funds, the debt and last equity when financing new investments. This is also consistent with the pecking-order theory written about above. It is impossible from our findings to see whether the managers in the survey are optimistic or not, an indication of managerial behavioral biases is given due to the fact that a large proportion answered yes to the question if they retain earnings to finance future investments.

The Incentives Behind Capital Structure Decision
- A Survey of the Swedish Market -

	Frequencies	Percentage	Valid percentage
Yes	17	53,13	60,71
No	11	43,38	9,29
Valid frequencies	28	87,50	00
Missing values	4	12,50	
Total	32	100	

Table 5: *Do you retain any part of your earnings to finance future investments?*

Managers main goal according to the Neoclassical theory is to act in shareholders interest, this by maximizing stock price of the firm (Vasiliou and Daskalkis, 2006). The low interest managers making the decisions in the firms show in the survey to maximize stock price is obviously the opposite from what the Neoclassical state. In contrast, the finding reveals comparability with the Post Keynesian theory. Stockhammar (2005) conclude that investments decision described by the Post Keynesian is not related to stock price maximization. The factors *forecasted cash flow* and *long-term capacity* indicate consistency with the safety objective in the Keynesian theory of investment (Crotty, 1992). The managers in the survey seem to by valuing these factors high care about the firm's financial security and survival, also proposing them to be risk-averse. When managers try to secure the survival of the firm, they also protect their own position within the firm. Imposing a principle-agent problem.

4.2.3 Long-term Debt

In response to the question *which factors affect how the firms choose the appropriate amount of long-term debt*, the managers answered as following (see Figure 4):

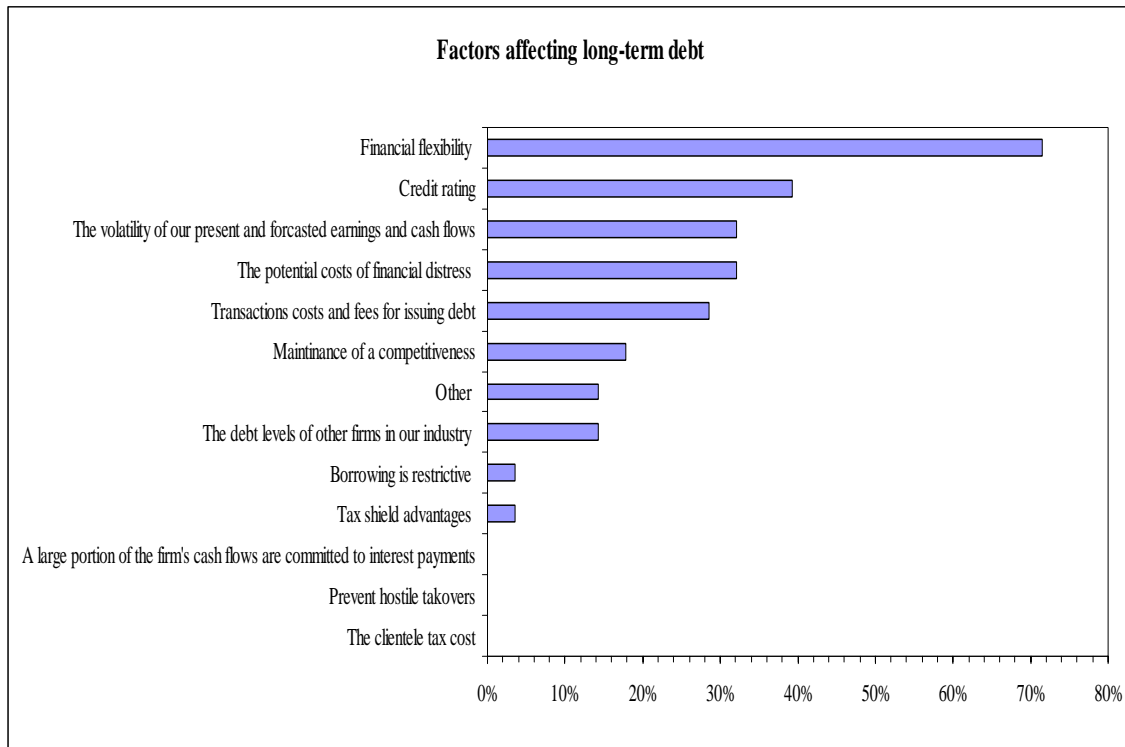


Figure 4: Long-term debt determinants

As the results show, *financial flexibility* is the major factor which affected the firm's choice of long-term debt. Other factors which also had a noteworthy impact on the firms decision were *credit rating*, *potential costs of financial distress*, *the volatility of forecasted earnings and cash flows* and *transaction costs and fees for issuing debt*. These findings are consistent with the findings of which factors determine the firms capital structure and investment funding decision. Financial flexibility and credit rating are factors the managers repeatedly stress as important. The results are similar to those found by Graham and Harvey (2001).

The managers making decision within the firms concern for potential financial distress costs can be seen in comparison to the managers willingness to maintain a long-term capacity of the firm, by reflecting over potential financial distress the managers might

enable for future long-term capacity. In order to investigate financial distress consideration within the firms more thoroughly a separate question about this subject was asked in the questionnaire. The result of this question were that the managers did not focus on short-term financial distress, instead they stressed the importance of consider financial distress in the long-run. These results suggest managers to consider financial distress in order to achieve financial flexibility, long-term capacity and a desirable credit rating for the firm.

The managers reflections over the volatility of forecasted earnings and cash flows can be linked to long-term capacity and cost of potential financial distress. Transaction cost and fees for issuing debt might affect the firms in the amount of long-term debt they raise. Some of the managers stated debt raising to be both time consuming and costly, which might possibly refrain them from choosing debt financing. Remarkable, but not surprisingly is that once more *the tax shield* factor get a low response of the respondents, the managers as assumed previously indicate an unwillingness to exploit debt and instead value flexibility and survival of the firm.

The managers view on financial flexibility, credit rating and financial distress show on an uncertainty for the future and the Post Keynesian theory seem to be applicable. The Keynesian safety objective, in terms of securing the firm's financial status, provide to some degree an explanation of why the managers in the firms consider financial distress to be important. Financial distress can potentially become severe when taking on debt, because commitments against creditors are made and if these are not fulfilled the safety of the firm and as well the managers might be jeopardized.

Optimal capital structure can according to the trade-off theory be determined by using the tax shield and the costs of financial distress (Myers, 2003). The survey findings suggest managers to not consider tax shield advantages when deciding the long-term debt of the firm, this deviate from the above mentioned statement. The managers should incorporate tax shield benefits when determine the capital structure in order to making it optimal. The weak evidence of tax shield consideration is consistent with the findings in the previous section about capital structure. However, potential cost of financial distress seems to be an important factor for managers to take into account when determine the

long-term debt. This could be seen as they according to the trade-off theory possibly use the potential cost of financial distress to determine the amount of long-term debt, which in turn affects the capital structure. Whether or not this results in an optimal capital structure is impossible to recognize in this survey.

The factors the managers weighted as most important when determining the amount of long-term debt are not consistent with the Neoclassical theory due to the uncertainty we asses the managers to show. Once again due to the low tax shield considerations the managers indicate on an inconsistency with Modigliani and Miller (1963), they state firms to benefit from increasing leverage due to interest rate deductibility and corporate tax rates. Nonetheless, the managers in the sample seem to not value the beneficial tax advantages debt incurs.

In order to investigate considerations of leverage further we asked the following question to the managers, “*Do you consider the management’s flexibility when changing the leverage ratio within your firm?*” The respondents answered as following (see Table 6):

	Frequencies	Percentage	alid percentage
Yes	14	43,75	53,85
No	12	37,50	6,15
Valid frequencies	26	81,25	00
Missing values	6	18,75	
Total	32	100	

Table 6: *Do you consider the management’s flexibility when changing the leverage ratio within your firm?*

As shown the answers are spread between *yes* and *no* with slightly higher percentage of the managers answering *yes*. It is due to the result difficult to identify a clear pattern of managerial considerations. A reason for why some of the managers answered *yes* might be to the fact that when increasing the leverage ratio they observe threats to their decision-making process making them restricted, these threats could be restrictive covenants in debt contracts and creditors interference. Another possible explanation for why the managers considered their own flexibility when changing leverage ratio could be that if costs of e.g. financial distress increases when the firm take on more debt they

might not have the capacity to handle these cost leaving the managers in a vulnerable position. By not consider managerial flexibility the managers may indicate that they believe in the firm's capacity to cope with a change in leverage ratio.

In connection to theory, the managers whom answered *yes* fit into the Post Keynesian behavioral assumptions. As mentioned earlier, according to the Post Keynesian theory managers feel commitments to creditors as constraints to their decision-making process. This behavior of the managers to consider their own flexibility when changing leverage can as well be tied to the theory of behavioral finance. There might be psychological and social aspects to why the managers consider their own flexibility when changing leverage. What these aspects might be are impossible to recognize due to all individuals possesses different characteristics influencing their behavior.

In contrast to the Post Keynesian theory, the Neoclassical theory assumes that both investors and the managers are acting rational and making rational decision in maximizing the firm value. If the managers are assumed to be influenced by psychological and social aspects, the managers are not considered to act rational according to the Neoclassical theory.

4.3 Agency costs and information asymmetries

We investigated if the managers recognize principal-agent problems and information asymmetries which might arise due to their incentives behind decision-making regarding the firm's capital structure, investment funding and long-term debt. We asked the managers how they treat possible agency cost and asymmetric information and how important they are for them. The answers to these two questions are very vague, the managers consistently answered that they did not considered it to be a problem or any vast importance. Harvey and Graham (2001) also find that executives are of little concern about asymmetric information. Vasiliou and Daskalakis (2006b) find that agency costs are of little importance within Greek firms.

4.3.1 Agency costs

The limited answers given by the managers complicate the analysis of the questions. A possible reason for why they do not consider agency costs as a problem can be that the firms value the opinions of the shareholders when determine capital structure. Another explanation might be the interference of behavioral aspects in the managers decisions and therefore they do not recognize possible agency costs they impose on the firm.

The Post Keynesian theory recognizes agency relationships as the key financial behavior and presumes that managers follow their own goals when managing the firm (Vasiliou and Daskalakis, 2006). Since the Post Keynesian theory is very applicable on previous findings it is reasonable to assume although the managers do not recognize agency costs there are present within the firms. The findings indicate that managers are concern of the survival of the firm and thus adapt their decision-making towards this concern, imposing agency costs for the shareholders. The weak support for the Neoclassical approach within the survey also support the assumption of agency costs. According to the Neoclassical theory owners and managers are identical agents and behave identically which remove the problem of agency costs (Crotty, 1992). Our analysis suggest the opposite, since the Post Keynesian theory is applicable on most of the findings it indicate an underlying principal-agent problem within the firms.

4.3.2 Information asymmetries

An explanation why the managers did not recognized information asymmetries and consequently did not see upon it as a problem might be due to policies within the firms to continuously update their shareholders with new information, requirements of transparency from the market et cetera. A more controversial explanation can be that the managers have own incentives to keep information within the firm in order to pursuit advantageous investment funding or they might refrain from leaving out information to shareholders to avoid interference in their decision making. Although, the weak support for the signaling theory indicate information asymmetries within Swedish firms.

If the firm is assumed to remain certain information within the firm in order to prevent outsiders to interfere with the decisions regarding the firm, it can be explained by the

Post Keynesian theory. The psychological phenomena explained by Shefrin (2001) prevent the managers from acting in a rational manner, this can explain why the managers did not distinguish information asymmetries and therefore they did not see it as a problem.

5 CONCLUSIONS

In this final chapter are the conclusions presented from the empirical findings. First is the aim of this thesis presented in order to remind the reader.

The aim of this thesis is to investigate which the main determinants of capital structure in Swedish listed firms are and to identify which incentives lies behind managers choice of capital structure determinants. Further, the study investigates whether the Post Keynesian theory and theories which incorporate behavioral aspects can be used to explain the capital structure decisions or if the traditional Neoclassical theory give a better explanation.

Our thesis show that several theories are necessary to explain the results and one single theory is not able to alone explain the incentives behind capital structure decision. This has also been concluded by other authors, e.g. Graham and Harvey (2001), Bancel and Mittoo (2004) and Vasiliou and Daskalakis (2006a) and (2006b).

The empirical findings of the survey reveal the main factors which determine the capital structure in Swedish listed firms. These factors are maintenance of a desirable credit rating, debt repayment capability and maintain a certain liquidity. Other factors such as investment opportunities, risk exposure and future market developments were factors the managers also stated as determinants of capital structure. The method of comparing the debt ratio of the firm over time is used mainly by the managers in order to determine capital structure. Furthermore, most likely to affect the firm's capital structure are the opinions of shareholders. The findings further suggest that the majority of Swedish firms do not use their capital structure for signaling purposes.

The factors which primarily affect the Swedish firms investment funding are financial flexibility, forecasted cash flows from the investments projects, maintain a long-term

capacity and the projects risk. In addition, the majority of Swedish firms retain earnings for future investments.

In order to choose the appropriate amount of long-term debt for the firm, Swedish managers consider financial flexibility as the major determinant. However, other important factors are credit rating, potential cost of financial distress, the volatility of forecasted earnings and cash flows and transaction costs and fees for issuing debt. We further investigated financial distress and its importance for managers in Swedish firms. They considered it to be important to focus on financial distress in a long-term perspective. The findings indicate that Swedish managers have different opinions regarding their own flexibility when changing the amount of leverage in the firm.

Managers within Swedish firms do not consider agency cost and information asymmetries to be important and therefore they do not treat them in any special way.

Managers in Swedish firms show incentives which appear to focus on the future survival of the firm consistent with the Post Keynesian theory of maximize the long-term survival, which in turn strengthens the manager's position within the firm. The major findings in the survey show consistency with the Post Keynesian theory imposing a principal-agent problem within Swedish firms. Support is found for the growth-safety trade-off, the growth objectives are the investment opportunities and future development while the safety objectives are risk exposure and liquidity. Managerial incentives behind decision regarding capital structure, investment funding and long-term debt deviate from the Neoclassical theory and the major reason is due to the uncertainty about the future managers in Swedish firms show.

We find low support for the trade-off theory since the managers considerations about tax shield was low and they show an unwillingness to exploit debt. Further, we also find low support for the Pecking-order theory.

The managers incentives behind financial decision in Swedish firms indicate on unwillingness to maximize stock price. When managers described which factors determine the firm's investment funding decision they ranked stock price maximization

low. This deviate highly from the Neoclassical theory, since the main assumption of the theory is to maximize shareholders wealth.

The theoretical framework which has been used in this thesis cannot fully explain all the findings, indicating that the existing theories in the academic field need to evolve in order to fully capture the complex situation of determining capital structure.

6 RECOMMENDATIONS FOR FUTURE STUDIES

A recommendation for future studies is to investigate more thoroughly Swedish managers incentives behind capital structure decisions, this by incorporating more describing questions in the questionnaire and use other different theories than used in our and previous studies regarding capital structure. An idea is also to incorporate questions regarding equity and have separate question concerning short-term and long-term debt.

Another alternative of study is to use both a regression and a survey in order to investigate what determines Swedish firms capital structure. The regression will then consist of accounting data and the survey should be sent to managers in the firms, this to get a broad picture.

The uncertainty of Swedish managers is also a interesting subject to further investigate, e.g. it would be interesting to see a study which further investigate why the managers consider credit rating to be an important factor when determining capital structure.

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APPENDICES

Appendix 1. Cover letter for the questionnaire

Dear Sir/Madame,

We are two master students at the School of Management and Economics at Lund University. This semester we are writing our master thesis in finance. The purpose of our thesis is to investigate Swedish listed firms capital structure and the incentives and decisions behind the chosen capital structure. We have thus selected to send out a questionnaire to Swedish listed firms, we believe that this method of investigating our selected topic will be more time effective for you as a manager.

The questions concern motives and decisions behind chosen capital structure (long-term debt towards equity), investment funding and long-term debt. There are also questions regarding information asymmetries and agency costs within the firm. The questions are in English; however it is optional to answer in Swedish or English. This questionnaire consists of 16 questions and will take approximately 8 minutes to fill in.

We want to point out that this questionnaire is of great importance for the thesis and we are utterly grateful for your participation in this survey.

Kind Regards

Erika Grundströmer & Jennie Gustafsson

The thesis will be distributed to all participants in the survey in June.

Press the link below to start the questionnaire.

Appendix 2. The outline of the questionnaire

1. Name of your company?
2. Your title?
3. Number of years that you have been within the company
4. Your education?
 - Bachelor Degree
 - Master Degree
 - MBA
 - Other:
5. Does the upper management hold shares within the firm?
6. Which of the factor below determine the capital structure of your firm?

Multiple choice available

- Debt repayment capability
- Maintenance of desirable credit rating
- Maintain a certain liquidity
- Maintain an satisfactory borrowing reserve
- Tax shield considerations
- Industry norms
- Other:

7. Which of the following methods do you as a manager consider when determining your firm's capital structure?

- Compare the debt ratio of the firm over time
- Compare the debt ratio of the firm with the industry debt ratios
- Compare the debt ratio of the firm with the debt ratios of other firms
- Other:

8. Which of the following stakeholders or third parties are most likely to affect your firm's capital structure decisions?

- Opinions of shareholders
- Opinions of the firm's employees and analyst
- Opinion of investment bankers
- Comparative industry ratios
- Opinions of financial analysts
- Opinions of commercial bankers
- Opinions of suppliers
- Other:

9. Does your firm use their capital structure or leverage ratio for signaling purposes?

- No
- Yes, Specify below
.....

10. Which of the following factors underneath affect your firm's investment funding decision?

Multiple choice available

- Maintain a long-term capacity
- Preservation of a high competitiveness towards rivals
- Forecasted cash flows from the investment projects
- Maintenance of a desirable credit rating
- The project's risk
- Financial flexibility
- Stock price maximization
- Corporate tax rate
- Depreciation level
- Control considerations
- Potential financial distress costs
- Avoid potential misprice of new stock issue
- Improve mispriced stock in market
- Clienteles tax rate
- Other:

11. Do you retain any part of your earnings to finance future investments?

- No
- Yes, specify below
.....

12. Which factors below affect how you choose the appropriate amount of lone-term debt for your firm?

Multiple choice available

- Tax shield advantages
- The potential costs of financial distress
- The debt levels of other firms in our industry
- Credit rating
- Transactions costs and fees for issuing debt
- The clientele tax cost
- Financial flexibility
- The volatility of our present and forecasted earnings and cash flows
- Prevent hostile takeovers
- Maintenance of a competitiveness towards industry rivals
- A large portion of the firm's cash flows are committed to interest payments to ensure that upper management works hard and efficiently
- Borrowing is restrictive so that profits from new projects can be captured fully by shareholders and not as interest to debt holders

13. How important are financial distress considerations for your firm? Please specify how these considerations affect your firm.

14. Do you consider the management's flexibility when changing the leverage ratio within your firm?

- Yes
- No

15. How do you treat information asymmetries within your firm and how important are they for your firm?

Information: Information asymmetries arise when one participant in a transaction has more information compared to another. The participant that has superior information can potentially take advantage over the other participant in the transaction.

.....

16. How do you treat agency costs within your firm and how important are they?

Information, Agency cost: A cost that occurs when an agent (management) is acting on behalf of a principal (shareholder). Agency costs take place due to problems such as conflicts of interest between shareholders and management. Examples of agency costs are stock options, performance bonuses et cetera.