# UNIVERSITY OF GOTHENBURG

MASTER THESIS IN
EUROPEAN STUDIES

# Beyond Access to Finance

A Micro- and macro level study of
determinants of SME growth

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# UNIVERSITY OF GOTHENBURG

## Abstract

The present study analyses the weaknesses and strengths of the "tools" used by governments to promote the Small- and Medium sized enterprise (SME) sectors as much as it aims to assess the policy responses to the evolving policy context by conducting a two-level study of both qualitative and quantitative characteristics using EU member states as well as Swedish SMEs as units of analysis. As the trade-and industry sector, in addition to scholars and policy-makers, have recognized the importance of SMEs to employment and the domestic economy, attention has been focused on the capital market imperfections that have arisen as an effect of the financial crisis. The essence of the argument that has driven SME policies is that increasing access to finance will promote the sectors contribution to the economy and employment, yet this cross-country study shows that there is no direct correlation between the improvement of access to finance and employment creation and SME contribution to the economy. In order to determine the desirability and accessibility of such programs, the micro level study examines how the level of interest rate in the public financial support loan program in Sweden responds to the growth needs of Swedish SMEs. Essentially, the argument that comes to the fore is that the public financial support program in Sweden targets SMEs successfully and that the level of the interest rate itself does not determine SMEs growth investments.

**Keywords:** SME, Almi, EU, public financial support, access to finance, growth, employment

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# 1. Introduction

## 1.1 Background and presentation of problem

Access to finance is essential for the development and growth of firms. At the same time it is often argued that there are deficiencies relating to the smaller businesses' capital, which has motivated selective government interventions.

Small- and medium sized enterprises, hereafter termed SMEs, are commonly referred to as the backbone of the European economy accounting for 99% of European enterprises, generated € 3,666 trillion in value added and employed 88,8 million people last year (Annual Report of European SMEs 2013/2014, European Commission). The SME sector has been recognized as an engine for growth (Hashi, 2001), while also enhancing competition and entrepreneurship, thus having exogenous effect on economy-wide efficiency, innovation and aggregate productivity growth (Beck et al, 2005). A thriving SME sector is not a new policy objective for national governments, but was already expressed in the 1980's (Storey, 1994). However, since the European SME sectors experienced particularly great turbulence during the global financial crisis and the following sovereign debt crisis, the issue of SME prominence was revisited and has proliferated.

> "*Opening up the public purse was seen as an antidote to the collapse in economic activity*" (Craig et al, 2011, 1).

The solution to spur economic growth was directed towards the SME sector, consisting of various government programs to increase the accessibility of finance. The most widespread government response to boost SME financing is loan guarantees, but new instruments have arisen outside the traditional schemes such as micro-loans and direct government loans (OECD Scoreboard Report, 2014).

Restoring SMEs conditions for growth has become a top issue of policy making in Europe, both at governmental and supranational level e.g. the *Small Business Act* and *Think Small First* [1]principle. The challenges facing small businesses have been the focus of numerous studies, academic paper and business and banking associations (e.g. Bain & Company Inc.

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[1] The small business Act and the Think Small First Princples are EU directives dicussed further in Chapter 2.

Paper, 2013). This thesis contributes to the literature on government interventions and SMEs financial challenges, thus adding another aspect to the policy debate about public financial support effects. The present thesis is two-fold, and approaches the issue of access to finance from an aggregated macro-economic perspective, but also from a firm-level standpoint to examine the desirability and accessibility of the support programs to SMEs. More explicitly, the thesis examines the Swedish governments financial support to SMEs by conducting a study on the Swedish SMEs' perceptions of the program offered by the public institution Almi, and its frame and structure. It further examines the relationship of *improvements of access to finance* and *employment growth* in *the SME sectors* and the *SME sectors' contributions to domestic economies*. This is tested on an aggregated national level by conducting a cross-country statistical analysis of EU member states. This research question is investigated by using two main dependent variables, namely the *employment growth in the SME sector* and *growth in SME sector contribution to the domestic economy*. Further explanations of the variables are included in the methodology section of this thesis.

The argument for conducting a two-folded study is based on the interaction of micro- and macro economic conditions that are important to investigate in order to properly understand the challenges and opportunities faced by SMEs.

> "*Underneath the smooth path of macroeconomic aggregates*
>
> *there is a very active microeconomic world*" (Acs et al, 1999, 5).

## 1.2 Problem discussion including research questions and hypotheses

Access to finance is expressed both in academic and policy debates as being a fundamental condition for a prosperous enterprise sector, particularly articulated in regards to SME sectors as it is presumed to have effects on growth (e.g. Beccetti and Trovato, 2002). Thus, most policies have been directed towards increasing access to finance for SMEs as a consequence of the financial meltdown that halted private bank loans to SMEs. Certain national programs directed at SMEs have been evaluated and effects have been estimated on a firm level with positive correlations between firm performance and public financial support (e.g. Craig et al, 2011 and Hartsenko and Sauga, 2013). However, studies on an aggregated level are still lacking that would provide a clear picture of the initiatives and their effects on macro level contexts. Many programs are primarily directed on enabling access to finance for SMEs through direct government loans or loan guarantees, and the risk the government takes is

often justified to tax payers by charging interest rates that are higher than market rates. Consequently, some arguments have been made that these interest rates are too high, and actually have opposite effects on small businesses, meaning that they are constraining growth and investments (Wiberg, 2015-05-15, foretagarna.se, The Swedish Federation of Business Owners). There seem to be wide differentiations in opinions about the programs, and therefore an examination of this kind is necessary.

The present thesis examines the motivations behind the initiatives and makes preliminary observations about their design. Since the thesis is two-tiered, the first part examines the relationship between access to finance and SME performance. Performance here does not refer to firm performance, but is intended as performance of the SME sector defined as the contribution of the national SME sectors to the economy and the sectors' employment growth. Expressed explicitly the research question is formulated as follows:

- **How does improving access to finance affect SME sector performance on employment and contribution to the domestic economy?**

The hypotheses for this paper have derived from theoretical assumptions and are formulated as follows:

$H_0$ = There is no relationship between improvement of levels of *access to finance* and *SME sector contribution to domestic economy*, or *SME employment growth*.

$H_1$ = There is a positive relationship between improvement of levels of *access to finance* and *SME sector contribution to the domestic economy*

$H_2$ = There is a positive relationship between improvement levels of *access to finance* and *SME employment growth*

The second part of this thesis will focus on one particular national public financial support program to SMEs, namely the high risk loans offered by the state owned development bank Almi in Sweden. As the program is alleged to complement the private market by offering loans to SMEs that have not successfully accessed debt financing by banks, the risk is justified with a higher interest rate that is sometimes argued to be hampering SME growth. The argument is that loans to these interest rates are not accessible for SMEs and in order to determine the actuality of this argument, Almi has requested an investigation of this matter. The research question for this part of this thesis is formulated as follows:

- **What are the effects of a higher interest rate, offered by a national public support program to SMEs, on the financial decisions concerning growth?**

The two parts of the thesis are alleged to complement each other, as one analyses the general relationship of access to finance and SME performance on an aggregated macro level, and the second constitutes a qualitative in-depth study on micro level of a particular program. The benefit of conducting a two-folded study is that the end result shows a more nuanced picture of the reality and provides an opportunity to analyze the phenomenon from two standpoints, which provides deeper knowledge on how to address the issues at hand.

## 1.3 Research aim

The general focus of this two-folded thesis is mainly to contribute to the literature and academic and policy debates about the promotion of SMEs and the provision of capital by public institutions. The first part of the study, the aggregate macro economic study, aims to determine the potential effects of the large share of governmental initiatives to increase in the access to finance for SMEs in the EU. The study seeks to investigate whether the theoretical and political arguments stated both in literature and policy documents hold for the case of the EU on an aggregated macro economic level.

As this thesis is partly conducted in cooperation with Almi Corporate Partner (Almi Företagspartner), the objective and aim of the micro economic study was established by Almi as their interest lies in the SME perceptions of the loan program that is obtainable. Here, the main objective is to determine how the interest rate charged through the public financial support program offered by Almi relates to growth in Swedish SMEs. The original question that was formulated by Almi in the discussions of the assignment was:
"*Does the interest rate charged by Almi inhibit growth in SMEs in Sweden?*".
This question has guided the research aim, however, it was amended in order to be more appropriate to the task at hand, and to suit the requirements of research conducted at a Master level. Thus, the main aim is to determine how well Almi's program framework relates to the growth needs of the SMEs in Sweden, for the purpose of determining whether the framework needs revising and what potential suggestions for improvements that can be identified.

**1.4 Disposition**

The first section of this paper outlines the problem and presents the research questions, followed by a context chapter that provides the reader with useful information about the current situation and the underlying programs that are referred to continuously. Section 3 presents the theoretical review and outlines the research gap. Section 4 is entirely dedicated to the macro economic study, where the methodological choices are also discussed along with the results of the statistical analysis. Subsequently, section 5 presents the micro economic study and its methodology and the thematic analysis of the results. The conclusions of the macro and micro economic studies are composed and presented in section 6, and ultimately section 7 discusses improvements and suggestions for further research.

# 2. SME access to finance and public financial support initiatives

This section of the thesis is intended as a context chapter, as that it provides a background to the designs of the programs' that are discussed enable the understanding of the framework in which the EU member states operate. This allows for comparisons and further analysis. The initiatives are merely briefly discussed, as the intention is to provide an overview and not an analysis of the particular programs. Special attention is given to the program provided by the Swedish development bank, Almi, as the thesis partly aims to determine effects of this particular framework and the situation of Swedish SMEs.

### 2.1 EU initiatives and programs

The EU:s different financing programs do generally not offer direct financing, as the aid is predominantly channeled through local, regional or national institutions or financial intermediaries, which are most often banks or venture capital funds. Additionally, the EU supports member state SMEs through political actions such as directives or regulations to facilitate SME sector growth and enable their financing. This section describes some of the actions taken by the EU, but due to the large variations of programs, this section will only focus on loan financing.

Aside from supporting trade and industry by facilitating administrative processes for SMEs and promoting entrepreneurship, the EU has also introduced a number of different programs to support SMEs by increasing access to financing, and support to innovation and research and development (R&D). One of these programs is the COSME (Competetiveness of Enterprises and Small and Medium sized Enterprises), where one of the principal aims is to increase the access to finance by loan guarantees to banks. Sharing the risk is expected to increase lending to SMEs (European Commission, COM/2011/0870). CIP (The Competetiveness and Innovation Framework Programme) was the predecessor to COSME and enabled financing to more than 340 000 SMEs until 2013 with a budget of over 1 billion Euro (ec.europe.eu, CIP Financial Instruments).

The significance of the EU for the European SMEs entails primarily the coordination of political initiatives to promote all member state SME sectors, but also through the financing

that is channeled through the European Investment Bank (EIB) to various national financial intermediaries. The EIB manages different funds and investment programs that focus on different projects, e.g. innovative firms and projects that relate to energy and environment (Investment Plan for Europe, The European Fund for Strategic Investments (EFSI).

The financial support to the intermediaries in the member states is mediated depended on the needs in the specific case. In Sweden, Almi recently underwent agreement with the European Investment Fund as a part of the Innovfin program (a EU financing program for innovation), that is a new financial instrument offered under the framework program for research and innovation (Horizon 2020). This agreement facilitates loans that are guaranteed by the EIF of up to 50 % (Almi.se, *1,2 billion to innovative firms)*. This enables Almi to offer a significantly lower average interest rate (5,5 %) for the "growth loan" that is guaranteed by the EIF (Almi.se, About Almi:s interest rate, role and mission).

Additionally, the EU promotes SMEs through various policies such as the Small Business Act for Europe (SBA) and the "Think Small First" principle that specifies guidelines for the member states to create more SME friendly environments. One of the main priorities for the SBA is to provide access to markets and reduce the regulatory burden for SMEs (European Commission Official website). The "Think Small First" principle requires member states to take SMEs' interest into account in policy making by for example performing a "SME test" to avoid disproportionate burdens on SMEs (European Commission, Official website).

## 2.2 National public financial support programs to SMEs

Looking at the Eurozone, overall, the borrowing cost for smaller SMEs increased around 150% from the beginning of the financial crisis to the end of 2013 (Infelise, 2014). In order to level out the playing field for SME who were hit the hardest by the credit crunch following the financial meltdown, various national programs were implemented. This section focuses on the main national public initiatives available until 2013 since that is the selected time frame for the study. Here, the main focus is likewise directed at debt financing.

Market interventions have often been directly backed by national governments or by state-owned public institutions. Cases of state-owned institutions are seen in e.g. Germany (KfW

group), Spain (Istituto de Credito Oficial) and the public company (ENISA) and Italy (Cassa Depositi e Prestiti). Here, the management of public support finance has been assigned to already existing institutions. There are also other cases, where new institutions have been created in order to manage already existing fragmented initiatives, such as France (Banque Publique d'Investissement). The execution of the programs' varies, but debt financing through bank loans are predominantly used, and most often through favorable interest rates or by providing state guarantees and subordinated loans (Infelise, 2014). Two reasons are expressed as arguments to the popularity of the programs' targeting debt financing: focusing on the demand side; bank loans are a very familiar source of financing for SMEs (and most preferred according to the European Commission SAFE report, 2014). On the other hand, focusing on the supply side: policies targeting debt finance through traditional bank loans reduce the costs and administration behind the developing and maintenance of new infrastructure as they can be delivered through already existing networks and institutions (Ibid).

## 2.3 Sweden and Almi

Almi (Almi Företagspartner) is the state owned Swedish development bank and was established in 1994. Almi offers loans and venture capital financing to SMEs when the private capital market actors consider the investments to be of high risk. The main feature of Almi's role is to be market complementary, meaning that most loans are granted together with private market actors. Almi's loans can be compared with second mortgages, where Almi takes the share of the loan where the collateral is weak and the risk of the lender is higher. Thus making the interest rate higher than most usual bank loans, at the time the interest rate that Almi charges is between 5-9 % and the average rate falls just under 7%. This can be set in contrast to one of Sweden's largest commercial banks, SEB, who charge an interest rate between 5,28-13,38% for smaller business loans [2]. Last year (2014), Almi granted loans to a total of 2,4 billion Swedish krona to 4 000 firms.

To make correct assumptions about the empirical findings of this study, a closer look on the conditions and circumstances for SMEs in Sweden is necessary. Since the business environment is not identical across the EU member states, the programs offered to SMEs are based on these specific circumstances, making an overview of the situations obligatory in enabling a later analysis of the results.

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[2] "Simple loans to firms" (Enkla Lånet till företag), SEB

The SME sector is substantial part of the Swedish economy, accounting for 59% of the gross value added, and 66% of employment. The equivalent numbers for other large EU member states are: Germany 54,4% of gross value added, and 62,7% of employment, Netherlands 61,6 % of gross value added and 67,3 % of employment. As common with other EU member states, microenterprises are overrepresented (94,6% of all enterprises) [3].

The narratives of the state in Swedish business environment are mixed. The Swedish Agency for Growth (Tillväxtverket) presented a report in 2011 of the state of the enterprises (*Tillväxtmöjligheter och tillväxthinder för svenska små och medelstora företag,* 2011*)*, where insufficient access to finance deemed a small problem in general terms. Insufficient capital supply was stated as a large constraint for growth only for certain industries, and for enterprises led by people with foreign origin. However, The SAFE report (2014) showed that 13% of EU28 SMEs find access to finance as the most pressing problem; in Sweden this number was only slightly lower (12%). When asked to indicate on a scale 1-10 how pressing access to finance was, the mean for EU28 was 4,9 and in Sweden 3,7. According to the European Commission Access to Finance Index, Sweden is one of the top performing member states.

The LRF Consultant "profitability barometer" (LRF Konsult Lönsamhetsbarometer 2014) for 2008-2013 showed that the average profitability of small firms (0-15 employees) in Sweden has decreased with a percentage of 3,1 (from 17,5% to 14,4% of the total turnover) predominantly driven by labor costs that have been contemplating profitability. The Swedish economy has overall recovered from the crisis and firms are growing, but the inflation and GDP growth in Sweden has come to a halt. Even though firms' costs are increasing the prices are not moving accordingly, and this has negative effects on the employment (Boumediene, *Återhämtningen i svensk ekonomi dröjer ytterligare,* Svenskt Näringsliv, 2014-12-16). This can be argued to motivate increased support for the Swedish enterprise sector.

During the writing of this thesis The Swedish Federation of Business Owners (Företagarna) published a debate article regarding the very issue at hand of this master thesis – namely the interest rate that Almi charges. The core argument was that the interest rates are unreasonably high in regards to the current exceptionally low interest rates in Sweden and are counteracting

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[3] European Commission statistics, *The Small Business Act for Europe, Fact Sheet* Sweden, Germany and Netherlands, 2014.

SMEs growth ambitions by neglecting the needs of small businesses (Wiberg, 2015-05-15, foretagarna.se).


## 2.4 Private market initiatives – crowd funding

Crowd funding, also referred to as peer-to-peer funding has gained ground over the last decade. It is mainly delivered via the Internet where private individuals can provide funding to entrepreneurs' business ideas through venture capital, gifts (and rewards) or loans. In conjunction with the recent low market interest rates and the difficulties for new companies to get financing, crowd funding has exploded in the market. It allows investors to acquire yield and entrepreneurs to get funding to realize their ideas. FundedbyMe and Toborrow are two of the most well known crowd funding platforms in Sweden. FundedbyMe charges a fee of 2 % on their loan financing, beyond that it offers investors an annual fixed rate can be up to 13.33% (FundedbyMe.com). In practice this means that the investors participate in a sort of auction where they bid interest rates and the lowest rates "win". The average interest rate has been 6-10 % for investors via Fundedbyme (Fundedbyme.com, *Ny peer-to-business tjänst för svenska företag och nya investeringsmöjligheter för sparare*).

# 3. Theoretical framework

## 3.1 Literature review methodology

An issue that is frequently raised regarding studies where the aim is to understanding potential effects of certain interventions is the problem of a biased literature review. As this study aims to secure objectivity regarding government intervention programs, the traditional and often random literature review deemed inappropriate. Instead, a systematic literature review has been completed that has been guided by the steps that have been explicitly stated in Brymans (2008) book "Methods in Social Science". The process of the literature review of this study is illustrated in figure 1.

*Figure 1*. *Steps of structural literature review*

| 1. Formulate aim of the literature review: | What is known about the promotion and constraints of SMEs? | Bain (2013),<br>Botazzi and da Rin (2003),<br>Carpeter and Petersen (2002),<br>Craig et al (2007 and 2011),<br>Hashi (2001),<br>Ratnovski & Narain (2007),<br>Smallbone and Welter (2001),<br>Stiglitz (1981),<br>Storey (1994 and 1998),<br>The Swedish Agency for Growth (2011). |
| --- | --- | --- |
| 2. Desribe the critiera to guide the choices of literature: | *- In addition to previously stated critera; a performance evaluation or studies that do not include government interventions,* | Acs et al (1999)<br>Becchetti and Trovato (2002)<br>Beck (2007) and Beck et al (2005)<br>Berger and Udell (1998)<br>Bergström et al (2002)<br>Boter et al (1999)<br>Dahlberg and Forslund (1999)<br>Hartsenko and Sauga (2013)<br>Henrekson (2001)<br>Lerner (2002)<br>Lukacs (2005)<br>Lundström et al (1998)<br>Schumpeter (1942)<br>Sousa-Brown (2008)<br>Thurik and Wennekers (2004)<br>Wiberg (2015)<br>Wiklund (1998) |

The presented literature is the first literature that guided this thesis; naturally additional literature has been included.

**3.2 Why are SMEs so important?**

"*SMEs are the backbone of the economy*" (Lukacs, 2005) (Najda
and Wach, 2005).

This statement has been manifested in many SME promoting policy announcements in purpose of demonstrating the SME sectors importance to the economy.

The role of SMEs in domestic economies started growing during the end of the 20$^{th}$ century in Western Europe, particularly in Great Britain as the expansion of the SME sector took off in the 1970's (Najda and Wach, 2005). Schumpeter might have been one of the first to shed light on the importance of SMEs as he developed his theory about creative destruction. According to his thesis, capitalism cannot exist without the continuous creation of new firms, which is dependent on the downfall of others (Schumpeter, 1942).

There is a prevalent view that the disparity in economic development between Europe and the US during the recent decades can be attributed to differences in entrepreneurial activity, and the reason is suggested to be imbedded in the differences of the capital markets efficiency (Bottazzi and da Rin, 2003). This is a clear argument of the importance of entrepreneurs, and consequently SMEs, to the economy.

Following the path of previous research, the assumptions of SME contribution and importance to the economy are the stepping-stone for this study. An inescapable conclusion of recent reports of SME sector performance across Europe is that the conditions that SMEs operate under remain tough and that support for the sectors is a central argument to yield SME growth, where access to finance is expressed as one of the most crucial issues (European Commission Report, SME performance Review 2013/2014) (Schwarz, KfW Economic Resarch Report, 2013).

**3.3 Access to finance**

Access to finance, or financial access, can be understood as:

"the opportunity for firms or individuals to access financial system instruments that facilitate personal or commercial economic transactions; credit, insurance, savings and payment ect." (Ratnoviski & Narain, 2007, 3).

Ratnoviski and Narain go on to state that access to finance is always imperfect since we do not live in an ideal Modigliani-Miller world where we can obtain financing to start all profitable projects. The Modigliani-Miller theorem holds subject to a set of restrictive assumptions; perfect information, enforcing contracts is costless, markets are efficient, and transaction costs, taxes and bankruptcy costs are absent (Ratnoviski & Narain, 2007). These postulations do not hold in reality, even the utmost developed economies face market imperfections. Modigliani & Millers (1958) two prepositions have set the foundation for what is today known as the modern capital structure. The first preposition states that a firm's capital structure has no impact on a firm's value, whilst the second preposition explains that the expected yield on a firm's assets is positively related to leverage, meaning that the equity holder's risk increases with loans and therefore increases the leverage. These prepositions are subjects to certain conditions; that there are no taxes, no transaction costs, and that individuals and firms borrow at the same interest rates. Inevitably, several scholars rejected the theory due to its lack of reality perspective. In 1963 the theorem was revised to include tax effects, and the conclusion came to be that a firms value is positively related to its level of debt.

Amongst others Ratnoviski & Narain (2007) (see e.g. Beck, 2007) have concluded that SMEs experience difficulties in obtaining credit from commercial banks, due to underlying reasons such as lack of collateral or credit history and high agency-and transaction costs. This results in growth constraints as credit worthy and profitable SMEs are deprived of opportunities to accumulate collateralizable assets and increase the scale of business.

Beck and Demirguc-Kunt (2006) investigated growth constraints for SMEs and their study show that access to finance is an important growth constraint for SMEs. They argue that access to finance is essential for development of SME sectors since it facilitates entry, exit and growth of firms. The made arguments are highly valid and valuable for policy-makers, but what this thesis aims to add is that merely improving "access to finance" is not always

enough, policy makers should really think about how this is implemented, if the finance is actually "manageable" for SMEs.

Access to finance has also been underlined in Swedish empirical studies, in which the probability of being self-employed is higher among those who win the lottery or are recipients of an inheritance than for others (Henrekson, 2001). Nykvist's (2008) findings are consistent with those of Henrekson, indicating a serious problem of liquidity constraints on entrepreneurial activity. It can be interpreted that internal capital is the foremost attractive source of financing firms, and therefore the question remains if increasing the access for capital makes any real difference since you have to "pay for it".

Hartsenko and Sauga (2013) argue and demonstrate that financial support to SMEs increases productivity and thereby contributes to economic development in the case of Estonia, indicating that investing in improving the financing environment for Estonia's SME has "paid off". As the study is limited to one country, it is interesting from a research- and policy perspective to expand this perspective and examine whether the argument holds on a larger sample.

### 3.4 Market imperfections and the government's role

The subject of SMEs access to finance emerged amid the outbreak of the financial crisis in 2008, and the subsequent credit crunch. The credit market paralysis resulted in tightening of criteria to access credit and small enterprises with no credit history were hit right in the heart.

The undercurrent ideas of capitalism and neoliberalism promote the separation of state and the market where the government's role is to facilitate a satisfactory business environment in which the market can develop and flourish. However, in crisis, the market is not always suitable to allocate resources properly and the government has to intervene. In the recent global financial crisis of 2008, the private capital market experienced a credit crunch, and small businesses were amongst those that were hit the hardest (See Figure 2). Capital was difficult to access from banks and financial institutions and where credits and loans were given, the interest rates and/or collateral requirements were exceptionally higher compared to large firms. As national governments universally recognized the SME sector as a major

driving force of economic growth, government programs were seen as a universal antidote for the credit crunch. Loan guarantees and direct government lending programs were used to level out the playing field for SMEs and to correct the market imperfections (Boter et al, 1999).

**Figure 2**. *SME sector in the EU 2005-2012*



Figure 2.1 Number of SMEs, employment in SMEs and value added of SMEs (2005=100)
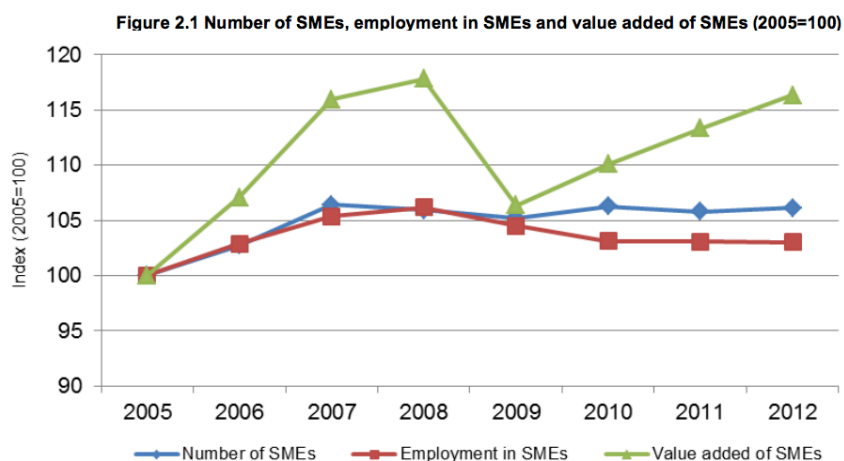
*Source:* Ecorys, *EU SMEs in 2012: at the crossroad. Annual report on small and medium-sized enterprises in the EU, 2011/2012*

It is important to state that the fact that firms identify finance as a constraint on their growth does not automatically indicate that a market failure or credit rationing exists (Storey, 1994). Given that a market failure exists, market interventions are usually motivated with neoclassical economic arguments about adverse selection, referring to the differences in the access to information between bank managers and entrepreneurs, leading to banks being unwilling to use interest rates to bring the market place into equilibrium. Adverse selection got its name because the bank has problems selecting between good and bad projects due to information asymmetry, and Stiglitz and Weiss (1981) argue that banks respond rationally by rationing credit. This means that among identical applicants, some receive a loan and others do not.

Lundström et al (1998) state that, in accordance with the theory of Schumpeter, it is not possible to "pick the winners", while under a neoclassical point of view it may be possible. The difference depends on the assumptions made about the actors' access to information.

Under the Austrian Schools assumptions, the uncertainty about the future is overly extensive to make any reliable calculations about the "winners". The neoclassical theory is on the other hand typically based on an assumption of perfect information making these assumptions possible.

In mature economies, the state is a major factor influencing the nature and pace of SME development, although more through its influence on the external environment (regulatory framework) in which business activity can develop, rather than through direct support measures or interventions (Smallbone & Welter, 2001).

An alternative to act accordingly to private market principles is for government action to be complementary to the market by having a higher risk level (Bergström et al, 2002). This is in practice how the Swedish development bank Almi works as has been discussed in the second chapter of this thesis.

Dalhberg and Forslund (1999) and Bergvall and Larsson (2000) argue that certain displacement insertion effects may occur when governments intervene in the market. This appears as governments give financial support (aid or other grants) to companies on behalf of other companies, consequently making them displaced as the aid recipient-companies grow and expand, giving respite to distortion of competition.

**3.5 Capital structures and firm growth differentiations**

*3.5.1 Capital structures*

A firm's capital structure (also called balance sheet structure) describes how the company has financed its investments. There are different ways to finance a firm: capital can be borrowed from various financial institutions, banks are most commonly used, the owner can contribute with his/her own private money, and private/public investors can contribute with capital and are then entitled to a, jointly determined, yield when the firm makes a profit. Generally concerning capital structures, there is a consensus of an optimal indebtedness that is less than 100%, as the risk of bankruptcy exceeds the tax benefits (interest rates are tax deductible) and this raises the question whether different costs have any economic consequences on the

optimal indebtedness (Michaelas et al, 1999). Several empirical studies have identified the relationship between certain capital structures and certain firm characteristics. For example, a high asset structure is related to a higher indebtedness (e.g. Titman & Wessels, 1988). Capital is used for investments, e.g. new machines or labor, in ambitions of firm growth, increased productivity or profit. The entrepreneur's access to resources is a determining factor both prior to the start of business, but it ultimately also determines the success of the business in terms of growth (Storey, 1994).

According to the theoretical model that is presented by Berger and Udell (1998) bank loans would typically not be a viable option for SMEs in the early developing stage because their balance sheets are not big enough to provide assets to post as collateral against a loan.


*3.5.2 Firm growth differentiations*

A systematic categorization of the constraints and growth patterns of small businesses has been difficult to construct due to wide variations in size and growth capacities of SMEs. Divergent organizational and management structures and strategies characterize small businesses as well as their ambitions for growth. Thus, the models and theories behind growth in large firms are not compatible with the experiences of small firms, which influenced Churchill and Lewis (1983) to revise and adjust the model.

The models and theories about growth in small firms are not to be considered as complete and factual explanations of reality. The reality is that not all small firms wish to grow as Edith Penrose stated already in the 1950s. As the vast bulk of SMEs in Europe are in fact micro enterprises, with less than 10 employees, it is far from all that wish to grow. Micro enterprises are usually firms started by individuals who wish to be self-employed and are a lot of the time home-based with no desire of growing at all, but simply to break even and provide an income for the owner.

There seem to be some general tendencies regarding growth patterns in SMEs, a few of these concern the industry affiliation and age. Storey's (1994) compilation of studies shows a relationship between industry fragments and growth. However, there are few studies carried out in a Swedish context that would be of more relevance to this thesis. Davidsson and

Delmar (2001) suggest that growth companies tend to fall under the category of professional services and high-tech companies, and are more rare in the commerce industry. Their study also found that growth companies in Sweden are increasingly located in the capital city, Stockholm, and therefore conclude that there seems to be a geographical variation and dependency. In a previous study Wiklund (1998) investigated the causation of the managers' perceptions of access to finance and growth, and found no causality. Further, he concluded that access to finance was not a central factor for understanding and explaining growth in firms. The conclusion of Wiklund's analysis is that the perception of access to external finance is rather irrelevant because most small businesses are unwilling to lose the control of their firm. The theoretical assumptions of this conclusion will be further discussed in subsequent sections.

Carpenter & Petersen (2002) estimated firms' growth rates to cash flow for different size classes suggesting that high cash flows indicate that small firms rely on internal funds to finance investments. Consequently this means that the growth of such firms is restricted by the profit generating capacity of their existing production facilities.

## 3.6 Trade-off and Pecking Order Theory

### 3.6.1 Trade-off theory

It appears in the Modigliani and Millers second theorem (with tax deductions) that the more a company borrows the more it increases its value. The trade-off theory clarifies why a firm's value does not increase at borrowing levels that are too high and aims to explain the level of debt in firms. Myers (2001) argues that companies will borrow up to the value at which the marginal increase in value (due to the tax shield[4]) of additional debt will be taken out of the potential payment difficulties [5]. Simplified it can be said that the Trade-off theory argues for moderate leverage ratios according to Myers, and advocate's of the theory suggest that there is a positive relationship between a firms profitability and its leverage ratio, meaning that companies with a high profitability have smaller payment difficulties and can therefore have higher debts as the tax shield brings greater savings (Hovakimian & Tehranian, 2004).

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[4] The tax shield is the tax rate multiplied by the value of the debt (Modigliani & Miller, 1963)

[5] Payment difficulties here refers costs for bankruptcy, reconstruction and agent costs.

However, Myers demonstrates that firms with higher profitability margins tend to have lower leverage ratios.

*3.6.2 Pecking order theory*

Myers and Majuf (1984) suggest that firms chose to finance their investments and consequently their growth by the following order of preference:

1. *Internal capital*
2. *External loans*
3. *External equity*

This order is determined by a cost efficiency strategy and Jonson (1997) came to a similar conclusion stating that benefits and costs determine a firm's debt structure which should have an immediate impact on whether firm's chose loan financing based on the interest expenditures.

**3.7 The SME sector and the macro economic nexus**

The rhetoric of political leaders frequently is frequently absorbed with terms of employment creation whilst the prime concern is rather to reduce unemployment. The utilization of SMEs as an engine for job creation can however have mixed effects in decreasing the number of unemployed people. On the one hand, SMEs are considered very likely to employ the unskilled, young and old according to Brown, Hamilton and Medoff (1990), yet on the other hand, the net job creation of SMEs is a very modest contribution to reducing unemployment. Storey (1998) argues that the reason for this is because SMEs are disproportionately likely to employ part time workers, who are most likely not registered as unemployed.

Acs et al (1999) attributes the macro economic differences between the US and Europe to the small firm sector, arguing that the American macro economic experience in the late 1990s with a steady economic growth and low unemployment should be credited to the small business formation in the decades before that.

Even though the initiatives differ in size and structure, the interventions have been based on two shared assumptions:

1. That the private sector's provision of capital is insufficient and

2. That the government can better distinguish investments that will ultimately yield high social and/or private returns than the private market, or that can encourage other financial intermediaries to do so (Lerner, 2002).

Lerner (2002) expresses that, in contrast to other government interventions, little scrutiny has been seen from economist about such initiatives.

As previously stated by Hashi (2001) SMEs may serve as an engine for growth, and even though their contribution to the domestic economy varies quite a lot, from 16% of GDP in low income countries to 51% of GDP in high income countries, this is still a substantial contribution (Edinburgh Group, 2012).

## 3.8 Outlining the research gap

There are a number of empirical studies that demonstrate the positive relationship between small businesses and local economic growth (e.g. Craig et al, 2008; Reynolds, 1994). However, on a cross-country level the relationship is deemed not as clear, as the reported empirical findings are divergent (Thurik and Wennekers, 2004; Sousa-Brown, 2008). Additionally, several studies also report that higher financing obstacles are common amongst smaller firms, as they face higher transactions costs and interest rates since they typically demand smaller loans and lack collateral. These identified financial constraints are argued to be impeding on SME growth and consequently on economic growth that has motivated government interventions such as guarantees. Craig et al (2007) found a positive and significant correlation between the average annual level of employment in the chosen local market and the level of SBA guaranteed lending[6]. Their results suggest that the intensity of effect in much larger in low-income markets. This makes it interesting to study what net effects can be attributed to the massive investments that have been made in order to increase the access to finance. If effects are studied on an aggregated national level, potential negative effects could appear that could otherwise be neglected, such as distortion effects that Dahlberg and Forslund (1999) discussed in their report (see chapter 3). The net effects can thus be unclear if an aggregated level is not analyzed. Craig et al, (2007) went on to state that

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[6] *The Small Business Administration* is a government agency that provides support to small businesses and entrepreneurs in the US.

a correlation between measures of SBA guarantees and local economic performance is only the first step towards establishing the desirability of these programs, and that further empirical evidence is needed. Opler et al (1999) study indicated that SMEs are indeed credit constrained. It cannot yet determine whether this has tangible impact on growth of SMEs and the economy as a whole This motivates further evaluations of the financial constraints that are deterring SME growth, and whether the framework provided by the public financial support programs is a desirable means to spur economic and employment growth or if it is a price too high to pay.

The European Investment Banks SME survey (2013) shows that the interest rate is the most important factor in SME financing decisions when applying for financing offered by the EIB. The same report shows that several of the EIB operations had visible impact on growth and employment. Yet, there was no correlation between successful implementation of projects and growth and job creation (European Investment Bank, Operations Evaluation, 2013). This confirms that macro and micro economic effects vary and that a two-level study is justified in order to make correct assumptions and generalizations about the financing decisions of SMEs and their impact. As the surveyed SMEs stated that the interest rate was the most important determinant in their financing decisions, this paves the way for further analysis to assure whether this finding is applicable in other circumstances as well.

# 4. Macro economic study

The macro economic study aims to determine actual effects of the various government interventions and support programs on SME performance and the macro economic nexus. Since SMEs are expected to be engines for growth, and their contribution to employment and the economy is most often articulated as critical, the chosen variables for this study are SMEs contribution to the domestic economy and SME employment growth. Being that the main objective of these government programs has been to increase the access to finance, the study examines whether variations in access to finance can explain variations in SME contribution to the domestic economy and the employment growth in the nations SME sector. Hence, the study seeks to investigate if there is a cross-country discrepancy, given that such a relationship exists, and shed light on the contextual reasons why this might be.

## 4.1 Research design

The hypotheses for this study have derived from previous research about SMEs and economic theory, thus this thesis has a deductive research design since the departure point is established on theoretical assumptions. This allows for new knowledge about a research field that has been gaining ground and serious attention in the last decade.

It is not a coincident that the most often associated method with a deductive approach is a quantitative study with statistical analysis, as it is a suitable method when the aim is to either confirm or reject certain hypotheses and consequently a theory or a part of a theory (Bryman, 2008). As most studies concerning SMEs and what circumstances and conditions that either constrain or promote their growth, this study as well will build on the quantitative approach and conduct a statistical analysis. The research design for this type of study is commonly referred to as a "cross-sectional" design as its data is collected from different cases at a certain point in time with the aim to reach a data sample with quantifiable variables in order to be able to detect certain patterns or causality. The units of analysis are countries as the study is a macro economic study on aggregate level and the data comes from secondary sources.

**4.2 Methodological choices**

*4.2.1 Selection, data collection and delimitations*

As these government initiatives aimed to target post-crisis effects on SMEs access to finance, a panel data approach would not contribute to any further understanding because the aim is not to understand pre-and post crisis variations. In addition, employment growth within small businesses is likely more difficult in times of recession compared to boom periods (Storey, 1994), which would give a skewed representation. Thus, this study consists of 28 EU member states and examines the change in "access to finance" scores in the period of 2008-2012, provided by the European Commission, and sets this in relation to the SME sectors change in contribution to the economy, and to the employment growth in years 2012 to 2013. Further operationalization of variables and the formulation of hypotheses are explained in the next section. As the study is limited to a time and resource frame, the choices are based on this framework and the analysis is somewhat restricted. However, the chosen timeframe for the variables should be sufficient in providing an indication of the relationship between the variables. Traditionally, when examining relationships between variables a bigger sample is a better sample, but due to limited access to data this study will be conducted only on the member states of the European Union. Since this thesis is conducted within the field of European Studies it still deemed appropriate. Finally, in regards to comparability it deemed more important that the observations are comparable than to endanger the comparability by expanding the sample with cases that do not have the same data sources (Field, 2009).

*4.2.2 Operationalization of variables*

This thesis uses a somewhat unconventional method, as two dependent variables are used in the analysis. In the purpose of examining what effect access to finance may have on the performance of the national SME sectors, two performance variables are formulated. The first being *employment growth in the SME sector* (hereafter denoted as **SME employment)**, as this is a frequently stated objective of both EU and national policies. The second dependent variable that is included is the *growth in SME sector contribution to the domestic economy* (hereby denoted as **SME contribution**). This is expressed as the share (%) of value-added of the SME sector in relation to gross value-added (GVA). GVA is the difference between output and intermediate consumption. As an aggregate measure of production, GDP is equal

to the sum of the GVA of all resident institutional units (i.e. industries) engaged in production (plus taxes minus subsidies) on products not included the value of their outputs (Eurostat, statistics explained). It is a measure of the value of goods and services of a sector or industry. This variable has derived from the empirical research that has showed that SMEs are important drives of economic development and economic growth. The statistical analysis of this paper examines whether variations in employment growth and variations in the growth of SME sector contribution to the domestic economy can be explained by variations in access to finance levels. Thus, the main independent variable that will be tested in both hypotheses is therefore the *levels of improvement of access to finance scores*.

Originally, the idea was to use the amount of government financial support to SMEs as the main independent variable for better complementation to the other section of the thesis. However, the government support schemes differ significantly, and comparative statistical data was only to be found for some European countries, and therefore the independent variable had to be altered for obvious reasons.

Access to finance has been a major issue for European SMEs, and a market gap has been identified in the European capital markets. By improving the access to finance through various government support schemes, the anticipation is that this will have a positive effect on the performance of Europe's SME sectors. Accordingly, this should mean that employment growth and the SME sector contribution to the economy should depend on how easy it is for SMEs to obtain financing, at least to some degree. The main independent variable, **access to finance**, is an index variable that has been developed by the European Commission in order to monitor developments in SMEs access to finance in the EU Member States. It provides an indication of changes in the conditions of SMEs' access to finance over time, and is calculated using a baseline of EU 2007=100, thus allows for comparisons. The base reference of 2007 is deliberately used in order to provide a baseline before the onset of the financial downturn. The index comprises two sub-indices:

- Access to debt finance

- Access to equity finance

The index is a weighted mean of the sub-indices. Even though Croatia was not a member in the EU until 2013, it is still included in the 2007 base reference. The index variable is calculated as the change between 2008 and 2012 to reflect either improvement or deterioration in the access to finance scores. This period has been chosen to reflect the investments of public financial support programs to SMEs as they have targeted access to finance as a consequence of the credit crunch, and many programs were in place by 2012.

**Figure 3**. *SME's Access to Finance Index in EU28.*

| | | SMAF index (EU = 100, 2007) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| Austria | AT | 112 | 110,0 | 116,8 | 121,4 | 122,8 | 122 | 123 |
| Belgium | BE | 106 | 103,4 | 106,4 | 105,5 | 106,3 | 109 | 111 |
| Bulgaria | BG | 91 | 90,2 | 90,6 | 91,2 | 90,8 | 95 | 98 |
| Cyprus | CY | 106 | 105,8 | 105,5 | 105,9 | 94,9 | 95 | 82 |
| Czech Republic | CZ | 99 | 98,4 | 101,6 | 105,3 | 107,1 | 108 | 109 |
| Germany | DE | 110 | 110,4 | 113,5 | 114,9 | 114,8 | 123 | 119 |
| Denmark | DK | 105 | 103,4 | 104,5 | 105,9 | 106,4 | 107 | 110 |
| Estonia | EE | 94 | 94,5 | 97,3 | 94,6 | 99,1 | 103 | 112 |
| Greece | EL | 93 | 93,9 | 98,3 | 93,6 | 81,8 | 79 | 78 |
| Spain | ES | 86 | 83,8 | 80,8 | 89,9 | 100,3 | 96 | 101 |
| Finland | FI | 107 | 108,6 | 114,8 | 124,4 | 122,3 | 120 | 122 |
| France | FR | 110 | 110,1 | 117,1 | 124,0 | 120,7 | 121 | 126 |
| Croatia | HR | 98 | 96,5 | 99,5 | 106,9 | 112,2 | 115 | 112 |
| Hungary | HU | 81 | 78,2 | 74,6 | 86,4 | 91,4 | 95 | 95 |
| Ireland | IE | 96 | 95,5 | 103,1 | 104,3 | 106,0 | 107 | 111 |
| Italy | IT | 102 | 101,4 | 107,5 | 111,0 | 105,8 | 96 | 107 |
| Lithuania | LT | 92 | 90,4 | 92,4 | 100,2 | 103,9 | 110 | 116 |
| Luxembourg | LU | 106 | 107,5 | 111,1 | 105,7 | 105,1 | 107 | 121 |
| Latvia | LV | 83 | 84,0 | 77,3 | 97,2 | 110,3 | 111 | 109 |
| Malta | MT | 105 | 103,2 | 106,0 | 108,1 | 109,5 | 110 | 106 |
| Netherlands | NL | 103 | 101,6 | 108,6 | 112,7 | 114,1 | 117 | 117 |
| Poland | PL | 100 | 96,6 | 98,6 | 101,4 | 103,2 | 103 | 108 |
| Portugal | PT | 95 | 95,1 | 97,4 | 99,2 | 92,2 | 87 | 97 |
| Romania | RO | 90 | 87,0 | 84,5 | 92,0 | 92,9 | 95 | 85 |
| Sweden | SE | 117 | 117,9 | 119,8 | 119,5 | 112,0 | 113 | 114 |
| Slovenia | SI | 103 | 101,5 | 104,4 | 107,9 | 109,9 | 112 | 114 |
| Slovak Republic | SK | 107 | 106,7 | 111,7 | 110,1 | 105,5 | 107 | 112 |
| United Kingdom | UK | 102 | 104,7 | 112,4 | 110,9 | 107,3 | 106 | 112 |
| | | | | | | | | |
| European Union | EU | 100 | 99,3 | 102,0 | 105,4 | 105,3 | 106 | 108 |
| Euro zone | € | 103 | 102,0 | 105,9 | 107,8 | 106,5 | 107 | 109 |

The dependent variable **SME employment** has been calculated as the change in the years 2012-2013 using data from the European Commissions SBA (Small Business Act) fact sheets. This strengthens the comparability and reliability of the statistical data. The choice of the period between 2012-2013 is motivated by the fact the change of access to finance levels are assumed to have visible effects on this period's employment.

The second dependent variable, **SME contribution**, has also derived from the European Commissions SBA fact sheets. It has been calculated using statistics for SME sector value added as a share of gross value added (%). Gross value added is a valuable measure of the contribution to GDP made by an individual producer, industry or sector (OECD). The time period here is also 2012 to 2013.

The main control variable **economic growth** composes GDP growth statistics also from the World Bank and shows the change in GDP from 2009 to 2013. The growth in the economy is expected to have major implications for the SME sector, as smaller firms tend to be in conjuncture with the growth cycle relatively precisely as their ability to downsize and cut spending is very small comparably to larger firms. Therefore, the economy's growth should have immediate effect on the relative performance of the SME sector and could also be related to the level of access to finance as an economy grows so does its financial system.

The second control variable, **R&D investments**, that shows investments in Research and Development (R&D), has on the other hand been calculated using the World Bank Indicators, found on the World Bank official website (accessed on 2015-04-30), and shows the mean R&D expenditure as a share of GDP of years 2010 and 2011. This period is motivated by the fact that these investments are not expected to have immediate effects, but are delayed. R&D expenditures is motivated by the fact that many SMEs are innovative firms that depend on these investments.

A third control variable has been chosen based on the recognizable effects of the economic crisis and the following sovereign debt crisis on the SME sectors all over Europe. The level of **government deficit** here demonstrates the severity of the effects of the crisis, and is likely to have negative effects on the SME sector performance. The data has been collected and

calculated also from the World Bank and shows the average government deficit as a percentage of GDP between 2009-2012.

*4.2.3 Reliability, validity and generalization delimitations*

Measurement validity is of most relevance for quantitative studies such as this, since the variables are used to measure a notion, e.g. wealth or intelligence. Fundamentally, researchers must assure that the data reflects what is ought to be measured, and that the data is comparable amongst all cases or observations as it assures that the study can be replicated if necessary. Thus, in order to guarantee comparability in the sample, it has been limited to only 28 countries, since using external or different sources for countries outside the EU would implicate that the data would lose its comparability due to different definitions of SMEs etc.

**4.3 Statistical data analysis**

To test the formulated hypotheses a regression analysis is conducted. As the aim is to determine what effects the access to finance levels have on SME performance.

Moreover, the previously mentioned control variables are included in the regression analysis in order to assure what explains the effects, if there are any, and whether the control variables explain the variations in SME sector performance better than the original variable. To determine if the potential effects of access to finance on the dependent variables are certain and not spurious the variable of **economic growth** is included. The other control variables are used as additional independent variables, for the purpose of examining other potential effects. The expected main correlation is demonstrated on the next page in Figure 4.

**Figure 4.** *Expected main correlation*
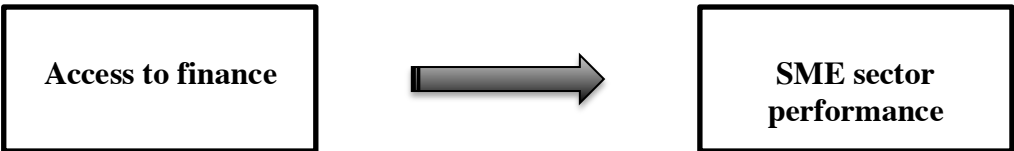


Since it is not a completely certain correlation between the variables, the variable of economic growth is added because it is plausible that economic growth is related to the level of access

to finance and higher economic growth is plausible to affect SME sector performance more than access to finance. This leads to an expected relationship between the variables' that is illustrated in Figure 5.

**Figure 5.** *Expected correlation including control variable*
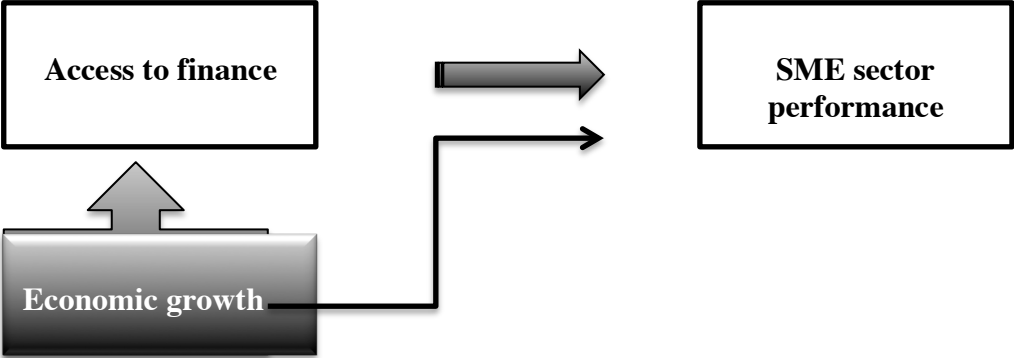


All variables have been checked for normal distributions around the mean to assure validity and reliability of the statistical tests. The government deficit variable has been log transformed due to skewed values. Because all values were negative, a logarithmic transformation was not possible, but this was remedied by multiplying all values by -1, and thus all values were transformed to the positive mirror value before taking the logarithm. The logarithmic transformation "improved" the data so that it fits the requirements and assumptions of linear regression testing better.

As all other variables have evenly distributed values, the paper proceeds to the actual regression analysis. All variables are continuous variables (interval variables) and correlations are measured by *Pearsons r*, which is the most frequently used measurement.

First, a correlation analysis is conducted to determine whether a correlation exists between the main independent variable, and the two dependent variables. This is illustrated by the graphs on the next page (Figure 6). A perfect correlation has observations that fit the equation line perfectly, and neither of the variables is close to this. The Pearsons r-values also confirm that there is no correlation as can also be seen on the next page.

**Figure 6**. *Correlation tests*
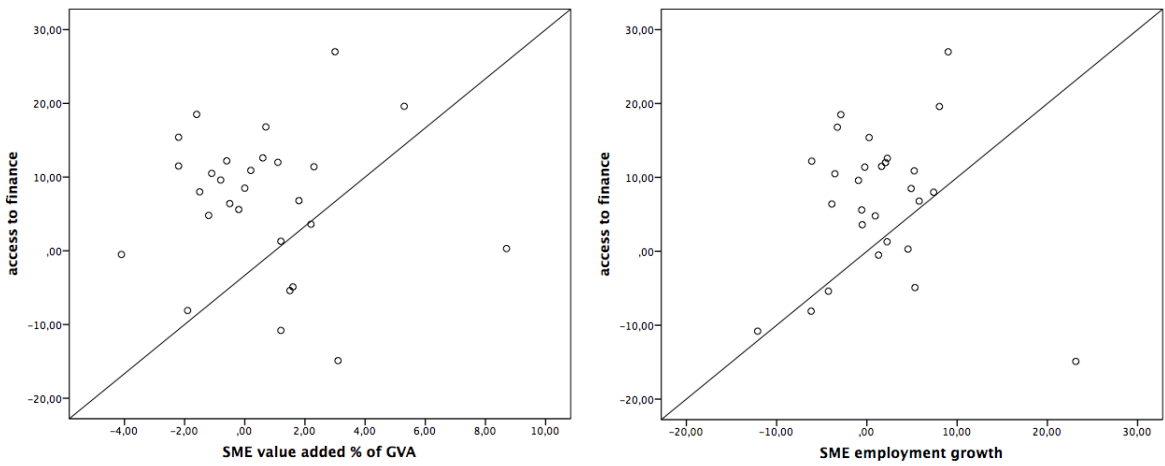


| Variables | Pearsons r | Significance |
|---|---|---|
| **SME contribution + Access to finance** | -,008 | ,967 |
| **SME employment + Access to finance** | -,056 | ,778 |

As there is no correlation between the main independent variable, *access to finance*, and the dependent variables (*SME value added* and *SME employment growth*), there is no need for regression analysis. However, the coefficients are negative which indicates that higher values in the access to finance variable are correlated with lower values of SME contribution to the domestic economy and SME employment growth. The opposite was expected by the theoretical predictions.

Nevertheless, other correlation tests confirm that there is a correlation between the main control variable (**economic growth**) and SME employment, which invites for a multivariate regression analysis, as there might be an effect of access to finance when economic growth is included in the model as Figure 5 illustrated. An ordinary least squares (OLS) regression analysis tests whether a linear relationship exists between the variables, and how strong the effects of one variable are on the other. Statistical significance is a term used to measure how reliable the effects are i.e. unlikely to have occurred due to a sampling error, and the thresholds used for this test are 0,05, 0,01 and 0,001. In practice, this can also be expressed as: the effects of one variable on another probable to be found in 99,9 % of the cases, or 99% or 95% of the cases. A multivariate regression model tests the effects two or more variables

on a third variable as the effects could be greater when another variable is included in the model. The regression analyses, displayed in table 7 and 8, shows that neither economic growth nor access to finance had a statistically significant effect, but the effect of **access to finance** increased quite a lot compared to a first bivariate regression (-.015 regressed with SME contribution, and -,005 with SME employment), which indicates that when other background variables are included the effects could be more visible. The economic growth variable was also just slightly above the .05 significance level in the second regression. Sometimes effects can be difficult to detect if the variables in the model are correlated to each other, but the tests for multicolliniarity and autocorrelation show that the correlation levels are in line with the statistical tolerance levels. Additionally, tests for heteroscedasticity have been conducted as heteroscedasticity could affect the significance level. The access to finance variable shows indications of heteroscedasticity, but is not possible to remedy this by a logarithmic transformation, as some values are negative. There has been no detection of outliers that might have affected the results of the regressions.

**Table 7.** *Regression table*

| Model fit: r²: ,051 Adjusted r²: -,025 | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| | (Constant) | 1,593 | 1,521 | | 1,047 | ,305 |
| | Economic growth | ,196 | ,170 | ,285 | 1,156 | ,258 |
| | access to finance | -,122 | ,165 | -,182 | -,740 | ,466 |
| a. Dependent Variable: SME employment | | | | | | |

**Table 8.** *Regression table*

| Model fit: r²: ,140 Adjusted r²: ,071 | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| | (Constant) | ,783 | ,571 | | 1,370 | ,183 |
| | Economic growth | ,127 | ,064 | ,467 | 1,991 | ,058 |
| | access to finance | -,090 | ,062 | -,341 | -1,456 | ,158 |
| a. Dependent Variable: SME contribution | | | | | | |

However, this means in fact that the data does not support a rejection of the null hypothesis. Therefore, the alternative hypotheses must be rejected in favor of the null hypothesis. Thus, simple improvements of access to finance do not have an effect on SME sector performance. The control variables have been included in additional multivariate regression analysis to

control for potential effects. When government deficit, economic growth and R&D investments are included in the model there are still no significant effects on SME employment. However, when the same model is applied on **SME contribution** there are some interesting effects.

**Figure 9**. *OLS regression analysis with control variables*

| DV: SME contribution | B | Std.error | Significance | Beta | |
|---|---|---|---|---|---|
| Government deficit, log. | 2,271 | 1,416 | ,086 | ,408 | |
| Access to finance | -,135 | ,066 | ,054 | -,508 | |
| R&D investments | ,415 | ,559 | ,466 | ,155 | |
| Economic growth | ,191 | ,072 | ,015* | ,742 | |
| Constant | | | | | -,994 |
| $R^2$ | | | | | ,245 |
| Adjusted $R^2$ | | | | | ,114 |
| N | | | | | 28 |

*p<,05 **p<,01 ***p<,001 (stars mark the significance level)

The only significant effect is economic growth on the SME contribution at the .05 significance level. Another interesting factor that appears is that access to finance has improved its significance, suggesting that the effects of the improvement of access of capital are very much dependent on other variables.

This suggests that the SME sector is depended on the economic situation, and it is therefore interesting to investigate the effect of the economic growth on the SME sectors contribution to the economy is conditional on the access to finance. It is thus predicted that SMEs can make more use of the economic growth when the financial market is more developed. Hence, it is expected that the effects of economic growth are larger in countries with higher improvements, and smaller in those that have minor improvements or negative changes in their access to finance scores. Now the access to finance variable is added as an interaction term to the regression analysis. In the next step the interaction term in added in the regression

analysis in the following table.

**Figure 10.** *Regression table with interaction term. Dependent variable: SME contribution*

| Model fit: r²: ,261 Adjusted r²: ,168 | Unstandardized coefficients B | Std. error | Standardized coefficents Beta | t | Sig. |
|---|---|---|---|---|---|
| Constant | ,433 | ,569 | | ,761 | ,454 |
| Economic growth | ,086 | ,064 | ,317 | 1,351 | ,189 |
| Access to finance | -,091 | ,059 | -,345 | -1,555 | ,133 |
| Inter_acc_gdp | ,007 | ,003 | ,380 | 1,982 | ,059 |

| 95,0% Confidence Interval for B | | |
|---|---|---|
| | Lower Bound | Upper Bound |
| Constant | -,741 | 1,606 |
| Economic growth | -,045 | ,218 |
| Access to finance | -,213 | ,030 |
| Inter_acc_gdp | ,000 | ,013 |

As the table shows the interaction term is very close to being significant at the .05 level, which still makes further interpretations interesting for future studies. Another important result is that the model with the moderating variable explains the variations a lot better than the original regression (adjusted $r^2$ in first model was .071). The coefficients now have to be interpreted differently with the interaction effect. The economic growth coefficient is now interpreted as the expected effect of economic growth when the Access to finance variable is 0. In the model without the interaction term, the economic growth variable shows what the average effect is in all countries, but now it shows that in countries without any improvements in access to finance, the effect of economic growth is smaller (as the coefficient is now 0,086 and in 0,127 in the previous). This is what the theory expected. Now it is interesting to see what the effects are in countries that have improved their access to finance scores.

Without any improvement, the expected effect of economic growth is 0,086 and is expected to increase by 0,007 for each point increase in access to finance scores. The following figure

shows how this effect changes as the improvements change, going from very negative changes to very positive. As can be seen, economic growth has most effect on SME sectors contribution to the economy when improvements of access to finance are high.

**Figure 11**. *Expected effects of economic growth for gradual increases of Access to finance.*
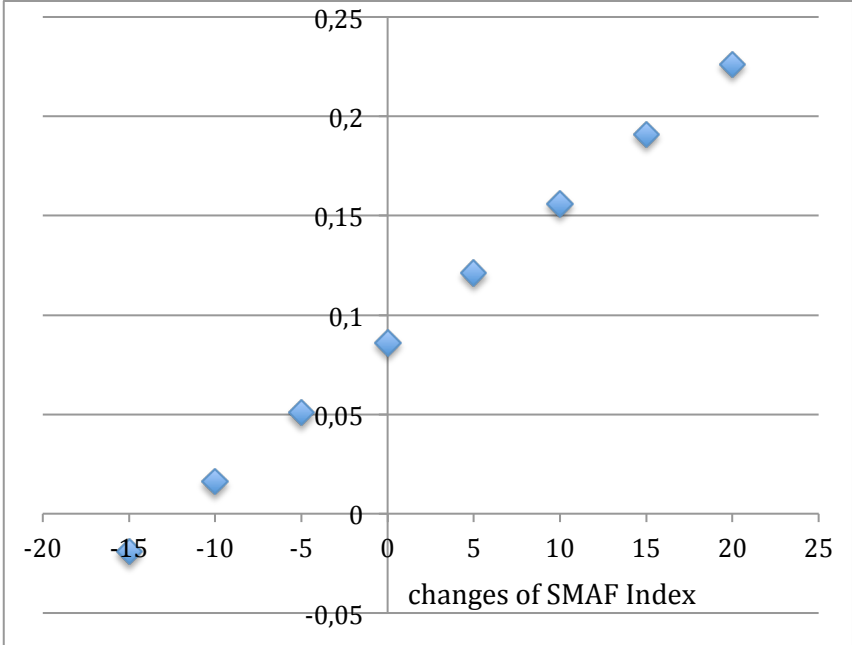


It should be noted that the confidence interval for the economic growth variable has passed through 0, with the lower bound of -0,045 to the upper bound of 0,218, which indicates that the effect is not statistically significant. However, this might be due to very a limited sample and the effects are still interesting from a political and academic point of view as they indicate a certain direction. This will be further discussed later.

As reversed causality is often an issue of statistical analysis, it is interesting to investigate whether the chosen variables might be subject to this as economic growth is a variable that is often hard to determine if it should be considered as the dependent or independent variable due to difficulties to explain what causes what. Thus, the variables were switched making economic growth the dependent variable and SME contribution to the economy moderated with the access to finance variable. This alteration improved the results, which are demonstrated on the following page in table 12.

**Figure 12.** *Regression table with interaction term, reversed variables*

| Model fit:<br>$r^2$: ,594<br>Adjusted $r^2$: ,544 | Unstandardized coefficients | | Standardized coefficients | | | 95 % Confidence interval for B | |
|---|---|---|---|---|---|---|---|
| | B | Std. error | Beta | t | Sig. | Lower bound | Upper bound |
| Constant | ,199 | 1,616 | | ,123 | ,903 | -3,135 | 3,354 |
| SME contribution | ,237 | ,564 | ,065 | ,421 | ,678 | -,927 | 1,402 |
| Access to finance | ,379 | ,151 | ,389 | 2,507 | ,019* | ,067 | ,692 |
| Inter_acc_smegva | ,157 | ,054 | ,488 | 2,822 | ,009* | ,041 | ,264 |

Compared to the first regression, without the interaction term (Figure 13 below) the results are also improved, which suggests that there is an interaction effect, which is also significant at the .05 level. The effect is positive, which tells us that the effect of SME sector contribution to the economy is higher when 'access of finance' levels are higher. We can also see that the effect of SME contribution is not significant when access of finance values are 0. As this was not the original aim nor hypothesis, no further investigation will be conducted, but it is interesting to state that when the variables are reversed the effects are greater. Meaning that access to finance and SME sector contribution to the domestic economy have greater effects on economic growth than the other way around. This is not very surprising since these variables are very interchangeable and affect each other.

**Figure 13.** *Regression table without interaction term*

| **Model fit**<br>$r^2$: ,460<br><br>Adjusted $r^2$: 416 | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | -1,458 | 1,702 | | -,857 | ,400 |
| SME contribution | 1,078 | ,542 | ,293 | 1,991 | ,058 |
| access to finance | ,612 | ,143 | ,628 | 4,265 | ,000 |
| a. Dependent Variable: economic growth | | | | | |

**4.4 Discussion of results**

As the statistical tests have shown, this data shows no credible evidence that the null hypothesis can be rejected. In other words, there is no credible evidence that improving SMEs access to finance will improve the SME sectors performance in employment growth or in the case of the SMEs contribution to the economy. This was quite surprising since improving the access to finance for SMEs has been intensely discussed in politics as well as in literature, and other statistical tests have shown contribution to economic development and growth as a consequence of financial support to SMEs on a local level. Due to this unexpected result, further investigation deemed necessary and as the correlation tests between these variables showed no correlation at all, other tests were conducted to investigate whether there might be visible effects in other contexts. As the SME sector is depended on the economic situation and the economy's growth, as was demonstrated by the effects of the financial crisis on the SME sector, it seemed interesting to investigate whether the effects of economic growth on the SME sector performance were dependent on the financial market development. This was inspired by a study conducted on the effects of FDI on economic growth that showed that FDI alone plays an ambiguous role in contribution to economic growth, but countries with well-developed financial markets gain significantly from FDI (Alfaro et al, 2006). Thus, the effects are conditional on the financial development and this was also expected in the case of the GDP growths effects on SME performance. However, there is only a slight indication of this as these results were also statistically insignificant, but only slightly. Ignoring the statistical insignificance, the research shows that economic growth leads to better performing SME sectors in countries with higher rates of access to finance, compared to lower performing countries. Nevertheless, this does invite to further investigations to determine what other variables interact with the SME sector performance. Even more interesting is that access to finance does seem to have a major impact on economic growth, given this data.

It should be stated that this does not mean that financial support to SMEs is pointless and that Europe's should stop the financial assistance to the SME sectors. It simply means that there is no direct effect of improving the access to finance on an aggregated macro level, as the SME sectors performance is dependent on other variables as well and these explain the variations better. However, it does suggests that the governments of Europe need to consider other factors aside of capital, and might need to focus further attention to structural factors, so that

SMEs can make use of the financial support better. A full analysis and discussion of the theoretical implications of these findings will be presented in the conclusion of this thesis.

# 5 Micro economic study

## 5.1 Research design and strategy

As the research question for this particular part of the thesis has been raised and formulated by Almi, a particular approach or departure point is not existent for this study. However, the postulations are partly established on grounds of previous research and individual statements about the interest rates' effects. Thus, the study is categorized as a test of the appropriateness of the theoretical framework in economic and business theories but also of existing policy responses based on hypothesis of theories concerning large enterprises. This is because there is a lack of explicitly relatable literature to the configuration of public debt financing and the particular conditions related to the recipients of such programs. As the formulation of the questions that have guided this study have derived from business theory, it is most appropriate to categorize the research design as an abductive approach, which means that the strategy fluctuates between an deductive and inductive approach since it is not a pure theory testing study as the existing theories lack the specific topic of this thesis.

Almi requested a qualitative approach for the study, and this is in line with the general assumptions of to theory testing and inductive approaches according to Bryman (2008). It fits, however, more in the distinction between quantitative and qualitative research than this narrative suggests. The study at hand will not be an attempt to generate theory, but it will neither be pure theory testing research. Substantially, the main orientation is an interpretative epistemological study that aims to test the appropriateness of the existing theoretical hypothesis and the political actions. The approach is categorized as qualitative because the purpose is to examine the conditions under which the interest rate is inhibitory, but the study also contains a necessary quantification of data collection in order to be able to make any sort of generalizations.

Most studies concentrated on government intervention programs have used firm level quantitative approaches to estimate potential effects, making this study somewhat unique by using a qualitative approach instead. Studies of this kind are essential for determining the desirability and the perceptions of these programs, since it is the targeted group's perceptions that determine whether the program can be considered as desirable. A qualitative study

delivers in-depth knowledge of how the design and stipulation of the program affect SMEs. As King (2004) argues, qualitative methods are very useful when the purpose is to gain an understanding of the participants' point of view and experience, and a qualitative research paradigm of this field of research would therefore improve our understanding of the challenges that stand before SMEs and if the program addresses this successfully. Therefore, a qualitative approach deemed more appropriate since this thesis aims to study *how* and *why* certain conditions may affect SMEs.

## 5.2 Methodological choices

### 5.2.1 Sample selection and data collection

This thesis is partly conducted in cooperation with Almi. Since it was in their interest to investigate whether the charged interest rate might be impeding on growth, they expressed that the study should be targeted towards the perceptions of "neutral" SMEs (those that have not been in contact with Almi, i.e. have not applied for a loan) to investigate whether a higher interest rate would be constraining for their investments. As this group is used as hypothetical and/or potential clients for Almi, we decided together that the most appropriate approach was to use interviews to assure that all views and opinions could be articulated. "Neutral" respondents provides the opportunity to expose problems that might not have been expressed by firms that rely on financing from Almi as these might be afraid of expressing their true opinions. Conversely this means that these firms' might not even have any pre-conceptions of Almi's interest rate, as they might not even have considered financing from Almi. Nevertheless, it is supposed that all firms should have a view on what level of interest rate that would be appropriate for their firm as the interview respondents are persons with good insight to the financial situation of the firm.

The data has been collected using semi-structured phone interviews[7], as some general questions have been required for all respondents in order to acquire a meaningful analysis of the results, but as SMEs are very heterogenic group some specific follow up questions have been necessarily included. The person interviewed in each company was a top-level executive (general manager, financial director or owner). Phone interviews are not the optimal

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[7] Appendix 2 contains the interview guide.

approach, but the time frame and the geographical allocation have required some limitations phone interviews are still the more attractive method compared to surveys for this type of research. The group consists of firms that have not applied for loan financing, and are therefore "neutral" in this manner. This group is used as a hypothetical test, where the aim is to understand how "neutral" SMEs see the offered financing and whether they would consider being financed by Almi if they could not aquire financing on the private capital market. The other aim is to find out how SMEs finance their growth and whether there are structural differences amongst them. The group consists of 13 SMEs and the sample selection has been based on certain criteria that are, on the one hand, in accordance with the EU Commissions SME definitions (turnover less than € 50 million, or a balance sheet total of less than € 43 million, and less than 250 employees) and, on the other hand, firms that are of interest to Almi. The selection criteria's were:

- **Limited company**
- **Age: 3-14 years**
- **Turnover: 10 Mkr-50 Mkr (approximately €1-5 million)**
- **Employees: 1-249**

These criteria's are also in line with the theoretical assumptions of firm growth and age as demonstrated in chapter 3. As mentioned in the theoretical framework review, micro enterprises tend to be home-based and often reluctant to grow, and as the main objective is to determine whether the interest rate is impeding on the growth ambitions of SMEs it seemed more reasonable to target small businesses rather than micro enterprises which might not have any intent to grow at all. However, in order to determine if there are any discrepancies between the segments a few micro enterprises have been included in the study as well. Another contributing factor for the sample alignment has been the research showed by the European Commissions report on SME financing (EC, SAFE report 2014), which states that firms with less than 50 employees have greater problems accessing finance than medium sized enterprises.

Since Almi finances projects all over Sweden and in all industry sectors, it was expressed that the sample should be representative of the "population" and includes therefore a geographical distribution.

Another important aspect that needs proper consideration in qualitative studies is the number of 'cases' to include. Since this study is not a case study, the number should be high enough that some generalizations are possible to make, and this has been particularly important since Almi have requested a representative industry- and geographical distribution. However, this has also meant a certain limitation and inadequacy for the study as the time frame restricts the number of possible interviews. Still, the number of cases has been discussed with Almi and it deemed appropriate for the framework of the study.

*5.2.2 Reliability, validity and generalization delimitations*
Firm growth is here defined as growth in turnover and/or employment growth, as these are the most commonly used definitions of firm growth (Barrow et al, 1995). This strengthens the reliability and replication capacity of the study.

Even though this study does not touch upon any particular sensitive subject, there is still some sensititivy linked to the topic of public financial support. Therefore, all respondents have been given the opporunity of anonimity in order to ensure that the corporate representatives' statements in no way affect their business, or any future contact with Almi. Neither firm name or private names will be included in the study. This is not considered to affect the study's reliability in any way.

As the primary purpose of this study is to increase the understading of the potential effects of a higher interest rate, and to understand what affects SMEs perceptions of the interest rate charged by Almi deeper interviews were required which has limited the ability of generalizations. However, despite the limitations that arise, it is still possible to determine patterns or themes that can be used to prove the results whether the rate should be considered to have an inhibitory effect or not. This is called a thematic analysis and is commonly used in qualitative studies of this kind. The following sections will discuss this method further .

**5.3 Thematic analysis**

Since this study uses a qualitative approach to answer the research question, a qualitative analysis method is also the most suitable for reaching a result that is reliable. A thematic analysis means that the interviews are transcribed and reviewed in order to find common themes discussed and opinions shared by the respondents. This thesis analysis can be categorized as a thematic analysis but also holds the nuances of the narrative analysis method, as the purpose is to use stories as a basis for understanding people's experiences of events or of the world (Bryman, 2008). The thematic analysis provides a nuanced picture of the empirical results and gives more life to the study as it desribes real world experiences. Another advantage of the thematic analysis method is the availability to determine whether there are certain variations between the perceptions, and what determines these variations.

*5.3.1 Results*

Age, industysector and region have been used as "control variables" that could explain any differences between their perceptions, in addition, they are used to determine if there are any particular distinctive context. An example of such a context is like, discussed in the theory section, the growth enterprises are mainly located in Stockholm (Davidsson & Delmar, 2001). It is therefore reasonable to assume that there could be differences in the companies' attitudes and assumptions based on the regional variation. The study shows, however, that such distinctions do not exist, the variation in companies' view is not dependent on their age, sector or geographical location (see Figure 13). The perception of the interest rate is not dependent on the financial position or growth, as Figure 13 illustrates, but these categories are further treated in the following thematic analysis because they are of particular importance to conclusion. The theoretical framework suggests that age could be of matter when analyzing growth behaviors, indicating that younger firms are more likely to grow. As the objective of this study has not been to determine the accuracy of this statement this has not been investigated, it has simply played a thematic role in case a pattern should emerge. A potential hypothesis has been that younger firms might have difficulties with paying high interest rates, however this can be rejected, as this has not been detected. As outlined above and in the literature review, industry sectors have been known to predict growth behaviors, and have therefore also been used as a theme of analysis. This hypothesis has been found to be unjustified in this particular field. Regardless, reoccurring remarks from respondents in

"asset-heavy industries" [8] have been observed concerning loans to finance different types of investments. Further explanations and analysis will be discussed in the next section.

**Figure 13**. *Table of interview distinctions of general themes as stated by respondents*

| Interest rate inhibiting? | Age | Region | Industry sector | Financial position | Capital structure | Growth ambitions |
|---|---|---|---|---|---|---|
| **Yes** | 6 years | Köping, Västmanland | Gas station and shop | Good | Bank loan | None |
| **Yes** | 10 years | Karlskrona, Blekinge | Boat sales | Good | Bank loan + internal | Double turnover in 5 years |
| **Partly** | 8 years | JokkMokk, Norrbotten | Mining and construction | Fairly good | Bank loan | Not stated, negative |
| **Yes** | 3 years | Jönköping, Småland | Transport | Good | Internal | 2 % / year |
| **No** | 13 years | Helsingborg, Skåne | Workshop | Good | Bank loan + internal | Not stated, but growing |
| **No** | 11 years | Stockholm, Södermanland | Consult agency | Good | Internal | 15% in 3 years |
| **Partly** | 14 years | Stenkullen, Västra Götaland | Transport | Fairly good | Bank loan | Not stated, transition period |
| **Partly** | 11 years | Stockholm, Södermanland | Printing house | Good | Internal | No, negative |
| **No** | 10 years | Stockholm, Södermanland | Grocery | Needs improvement | Internal | None |
| **No** | 7 years | Helsingborg, Skåne | Advertising and printing | Bad | Bank loan + internal | No particular number |
| **No** | 3 years | Uppsala, Uppsala län | Construction | Fairly good | Bank loan | Not stated, but growing |
| **No** | 3 years | Gothenburg, Västra Götaland | Consulting agency | Good | Bank loan + internal | Not yet, planning |
| **No** | 8 years | Örebro, Värmland | Construction | Good | Bank loan | Not specified |

Firstly, it should be noted that the study confirms what most other articles have expressed; it is very difficult to make any generalizations about SMEs due to the heterogeneity that characterizes the group. However, some interesting themes and background factors have emerged in this study that are considered as important to have in mind and analyze in order to categorize the results of SME perceptions of the interest rate that Almi charges.

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[8] Firms that operate with heavy machinery, e.g. transport vehicles, and require fixed assets characterize these industries.

The thematic analysis aims to highlight the themes that have emerged from the empirical results of the current debate surrounding Almi's interest. The analysis consists of five overall themes / categories: *growth ambitions , activity type, market conditions, business factors and social factors*. The result of each category is then compared with the existing theories of business economics and specific theories concerning SMEs.

Figure 14 is a simplified diagram illustrating the categories about which factors the latter thematic analysis will address in text form. As demonstrated, the respondents' answers are divided into categories based on what factors are considered as guiding factors, whether it is internal or external factors that affect the perception of whether the interest rate is inhibitory or not. The same categorization is used in the figure below on the next page, which illustrates the respondents answers who believe that higher interest rates are inhibitory.

**Figur 14**. *Categorization of arguments stated by respondents why a high interest rate is not inhibiting on growth*
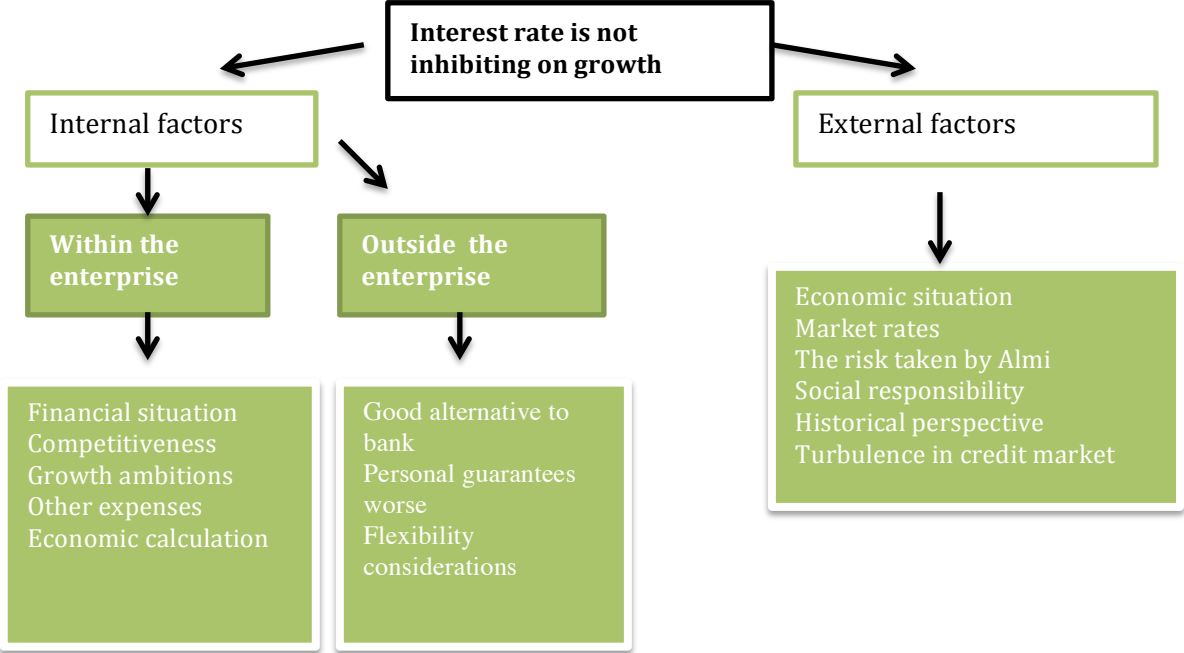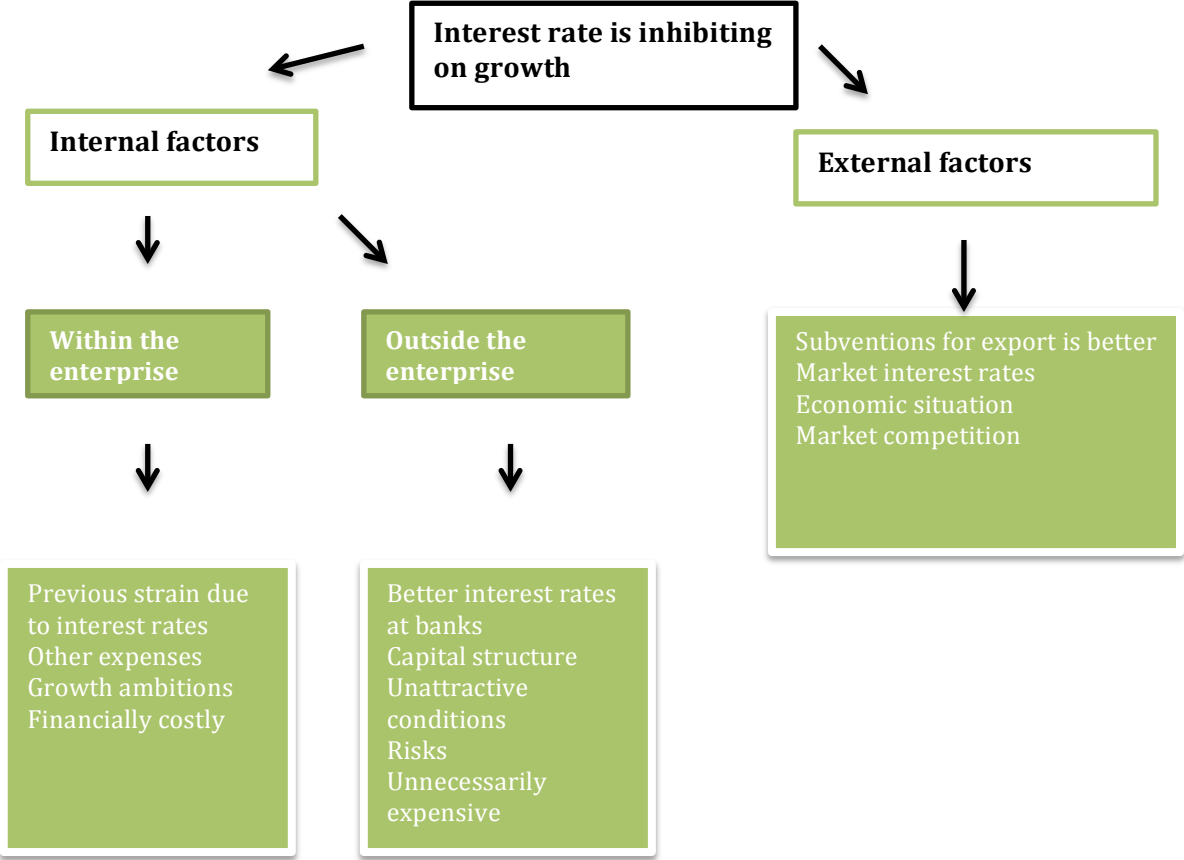


Figure 15, uses the same method to categorize the arguments stated by respondents that believe that a higher interest rate, as the one Almi charges, has an inhibitory effect on the firms' growth and ambitions for growth.

**Figure 15.** *Categorization of arguments as stated by respondents why a high interest rate is inhibiting on growth*



**Interest rate is inhibiting on growth**

**Internal factors**

**External factors**

**Within the enterprise**

**Outside the enterprise**

Subventions for export is better
Market interest rates
Economic situation
Market competition

Previous strain due to interest rates
Other expenses
Growth ambitions
Financially costly

Better interest rates at banks
Capital structure
Unattractive conditions
Risks
Unnecessarily expensive

**Figure 16**. *Arguments stated by respondents when the interest rate is partly inhibiting to growth*



Unattractive interest rate. Other expensive expenses that make internal financing difficult

But if the economic situation allows for the interest expenses and there is no other option the loan would be taken

The interest rate is OK but ...

... Only if it is a short term loan

Interest expenses stressful on profits

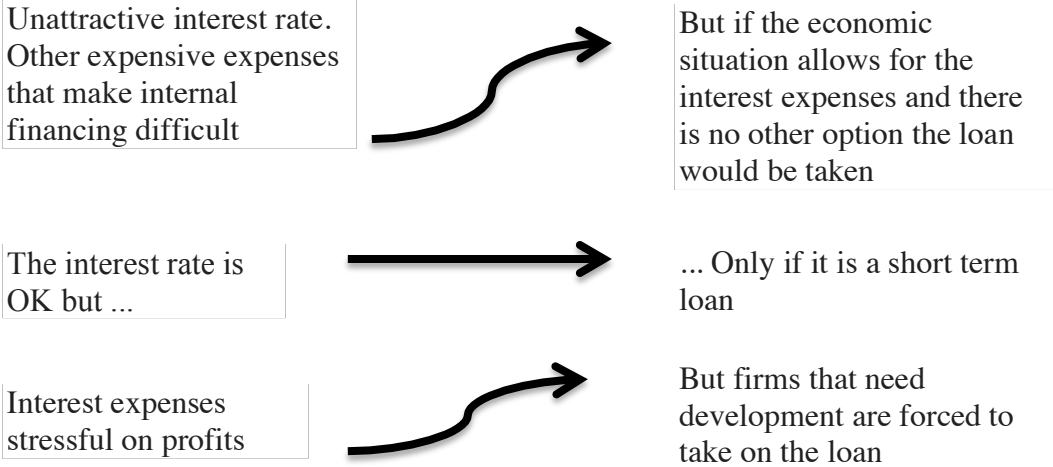But firms that need development are forced to take on the loan

Figure 16 shows the responses of the respondents who answered that the interest rate is deterrent to growth and investments to some extent, and demonstrates what the depentent factor is in this view.

The following section is the thematic analysis which lays the ground for the conclusion of this thesis, and the chosen themes have emerged during the emprirical part of the study. The thematic analysis will help to increase understanding of why companies believe that interest rates are inhibitory and why some do not. Many of the respondents' answers seem to be interchangebly categorized across both negative and positive perspectives, and sometimes both. This is due to the fact that a number of respondents expressed sentences like: *no, the interest rate is not deterring IF ...*
This makes a thematic analysis of two parts that deal with the various groups (i.e. those who think that the interest rate is inhibiting and those who do not think so) are almost impossible to implement and understand. Therefore, both groups' perceptions and opinions are categorized by common themes for both respondent group responses. Arguments from both sides will be discussed continuously and related to relevant theories and previous research as discussed in Chapter 3.

**Growth ambitions**
For the firms where the representative expressed that firm growth is important, the interest rate does not seem to be determining in the investment decision, as it is expected that the investments ultimately pay the interest costs and the profits made are simply worth the cost of financing. However, the opposite argument is expressed in a similar context for firms that state that the interest rate is inhibiting on growth. It is here stated instead that if the investment only referes to growth of the firm and is not completely necessary or determining for the survival of the firm, they choose to waive loans with high interest rates. This follows the pattern of growth identified in the SME literature by Churchill and Lewis (1983 ), which notes that it is this kind of decision that characterizes the companies that grow into medium-sized and large companies, compared to those who stay as close corporations and settle in the small firm segment.

Furthermore, it is expressed in several cases that it is risky to finance the firm's growth with loans, and that investments that only contribute to growth and are not entirely necessary for

the firms survival are to a great extent refrained if the internal funds are not sufficient. This response occurred in five interviews, which is a significant part of the companies, but it also shows that it is not the interest itself that is negative, it is dependant on the capital structure of the firm. This is in line with the Pecking-order theory that states that enterprises prefer to fund growth and other investments with internal capital before external capital, due to the associated costs and risks. This is also expressed in several interviews, one respondent stated for example, "*We have high ambitions for growth, we should double sales in 5 years, but this will be achieved through internal work, since we have previously had loans and loans are simply not as profitable, the risks are high which reflect the costs*" (Boat dealer). As Carpeter & Petersen's study (2002) suggests, the growth of small businesses is reflected by their capacity to generate profits because it is ultimately this that finances the firm's growth. This seems to fit rather well with the picture expressed by the respondents in this study. However, far from all SMEs use only internal capital to finance their growth. Several intervies suggest that firms that took loans in the early phase experienced these as stressful for the profit, and would therefore not use this type of funding. This is also in line the theoretical assumptions regarding SME growth patterns. When the company has passed the start-up phase and begins to make a profit, the decision whether to grow or not is made by the management or owner and what is most profitable for the firm. In the case of SMEs, it is less risky to finance growth with generated profits than loans.

It should also be mentioned that, as discussed in the literature on firm growth, the desire to grow is central to investment decisions. As Figure 3 shows , it is far from all companies that have a clear desire to grow, and this is one explanatory factor in the strategies around growth and investment. Companies that have a growth oriented strategy are more inclined to take risks, and reasonably the interest rate plays a minor role in relation to growth ambitions.

**Business type**
Although there is no absolute correlation regarding industry distinctions and the perception of the interest rates role, a certain correlation emerges in the interviews. It seems that particular business type activities in some cases have impact on the percpetions on how the interest rate affects the business. Firms that are heavily investment oriented may experience negative effects on growth as the interest expenses affect the financial situation in the firm as the return might not be high enogh to reach the profit ambitions set by the firms management.

"*Since our expenses are in general very costly, it is not profitable to take loans with high interest rates because it will be extremely pressing in terms of profit*" (Gas station owner). For companies where growth investments involve the purchase of machinery, the fixed costs are very high which consequently means that the interest rate expenses are also significantly higher, which makes the interest rate more central in the firms investment decisions. The business type also seems to be determining in the countering circumstances, since several respondents also expressed that due to the costly investment, there is no other alternative than to take out a loan regardless of interest because the costs can not be covered by internal capital, partially or fully. Thus, as the arguments go in opposite directions, a conslusion on whether the business type is a determining factor for the opinion of the interest rate becomes paradoxical. Once again, the results show that there are internal factors and the company's ability to withstand competitiveness and other conditions critical for the opinion of the interest rate. However, this can be linked to the previous discussion on the growth ambitions, because Davidsson and Delmars study ( 2001) suggests that growth tends to be more common in service companies, and these are usually fairly investment-light compared to industrial firms.

A certain business type has in some cases also been linked to a certain cometetion vulnerability, which has consequently forced the firms to move forward with debt financing regardless of costs because they believe that this will in the end be better than having to shut down the business because the firm has been outcompeted.
"*In our industry it is important to grow because there is great competition, and if the investment is reasonable, the interest rate is not as determining as e.g. employment costs or the competition*" (Consulting agency) . This is in line with theoretical expectations discussed above, that growth is often something that is common in the service sector.

"*Even though the interest rate charged by Almi is considered as reasonable, and we would be able to afford the payments, investments are not something we are focusing on right now due to the fact that the industry is exposed*" (Grocery store). This indicates that other factors are relevant to take into account the growth context, not just the interest rate as they may be of greater importance in certain circumstances.

**Market situation**

One of the respondents expressed that debt financing through Almi would only be imaginable if the interest rate was lowered. The argument used for this was simply that the costs were too high compared to the interest rates offered by commercial banks. Another respondent formulated it as follows: "*In todays low market rates it is a bad investment to borrow capital to such a high rate*" (Transport firm). A third respondent stated: "*Compared to the mortgage rates offered by banks this interest rate is extremely unattractive*" (Printing house). This indicates that the current market situation is a major determining factor in firms' financial decisions, and it is unattractive to take on loans to high interest rates if it is not completely necessary. These views suggest that the respondents' answers regarding the interest rates importance might have been different in a time of "normal" market rates. Consequently, it can be stated that the individual interest rate is not the primarily determining factor in financial decision-making since it is put in relation to the interest rate at other institutions.

The market situation is overall an important factor in financial decisions regarding growth in SMEs. "*It is the market situation that determines if the interest rate is too high, and if the investment is assessed to be in line with the market situation*" (Mining and construction company). The representative of this particular firm deemed the interest rate as deterrent, but this was determined by the negative market situation for the particular industry, and it was stated that if the economic calculation was satisfying and no other financing alternative was available, they would still use the financing offered by Almi.

Another respondent expressed: "*If you view it from a historical perspective, then Almi's interest rate is not high at all, and therefore it should not be inhibiting from a general perspective either*" (Consulting agency). Many respondents from various industries expressed that the interest rate is comparatively high to the current mortgage rates offered by commercial banks, but some of these also state that this is not really equivalent to corporate loans. "*Sure, if you look at the mortgage rates the interest rate charged by Almi is really high, but considering that the conditionality's are very different the rate becomes reasonable from Almi's perspective*" (Construction firm).

The market situation and the particular market, in which the enterprises act on are directly determining for growth in SMEs and their investments. This is explained by the fact that

SMEs are considerably more affected by the economic growth cycles compared to larger enterprises, which also rationalizes the government interventions and the public financial support directed at SMEs during the financial crisis. While large enterprises often have great reserves that can be used during crisis, small firms tend to have a lot less room for reconstructuring and therefore have to adapt in terms of growth and productivity. They often experience stagnation in terms of growth and are therefore required to abstain investments. In these occurrences, the interest rate would not be as determining as the market situation because the firms would not invest regardless of the interest rate.

All three firms that unambiguously considered the interest rate as too high for them to consider this financing used the general interest rate levels in today's economy (-0,25 at the time of writing) as an argument. The matter was of principle nature, and did not concern the economic situation of the firm, explicitly: it is not a matter of whether the firm has enough money to pay a high interest rate, it is a matter of being a "bad" investment when the market rates are so low.

**Business factors**

The interest rate itself is expressed as a mere fragment of the firms' decisions concerning investments for growth as almost all respondents have stated that it is the economic calculations that are determining whether the interest rate is reasonable for the investment. This is entirely circumstantial and depends on the situation of the firm at hand. Comparing the potential profit and to the interest rate determines the investments' profitability. "*The risks of bank loans are always put it relation to the potential profit and how this stands against the costs*"(Consulting agency). Others have been substantially more negative towards Almi's rates, e.g. the Gas station's representative expressed it as follows: "*Such a high rate never makes investments profitable*". However, it is noteworthy that this might be explained by the fact that this is a very investment-heavy enterprise, which has been discussed previously. Another respondent stated that interest expenses have been very stressful in the past, when the store was newly opened, and they therefore work quickly to free capital for investments instead of taking on loans. Consequently, they would abstain investments at any rate. This argument was frequently used, since many respondents believe that interest expenses tend to have too large effects on the profitability. This fits the Pecking order accordingly, which predicts that SMEs choose financing from a hierarchical system where internal capital is the

most preferred financing alternative. This is based on what is usually referred to as *information asymmetry*; meaning that external financiers do not have enough information about the enterprise to be able to offer what the firm believes to be reasonable interest rates for the financing, because of the risk they believe is existent. Therefore, many SMEs choose to completely abstain external capital and are subsequently dependent on the own firms profit generating capacity which has been identified by amongst others, Storey (1994) and Carpetenter & Petersen (2002). Past from these arguments, no other views have been spoken regarding capital structures, even though capital structure is described in literature as a central fragment in the financial decision making and has major effects on profitability and growth.

It is however communicated in several cases that a loan at the interest rate that Almi charge, can only be considered as inhibiting on growth for firms that have financial instability and are seeking financing in order for the business to survive and not in terms of growth and expansion. "*The average interest rate does not seem discouraging in itself, but it is important for Almi to be flexible and adjust according to the conditions under which the specific firm operates so that they are able to match their profit- and growth ambitions. I think that the firms that apply for financing through Almi already have a bad economy, and therefore have less room which can mean that the interest rate might have a larger effect on the decision*" (Advertising and printing house). Again, it is the specific situation that determining the effects of the interest rate. It is also suggested that most firms can appreciate why Almi needs to charge a higher interest rate than the market rate, and if the firms have already been declined on the private capital market they are in a situation where they cannot "afford" to pass on financing. Therefore, it is suggested that the interest rate should not have any inhibiting effect on growth.

Since the term of optimal indebtedness and its relation to capital structure and growth is largely debated in business economics, it was predicted that this would have a central role in the respondents' views. Yet, comments about the level of indebtedness effects on growth were never mentioned by any of the respondents, nor was anything mentioned that indicated that firms reflect upon the debt to ratio at all. This can, to a certain extent, be explained by the fact that SMEs do not have the same ability to affect their capital structure as their larger equivalents since their turnover is considerably smaller. Subsequently, the decisions made regarding financing are primarily concerned with calculations whether the profits are

sufficient to cover the expenses of a loan. Calculations of more complex nature seem not to be very common, it is only the most basic and vital calculations that are made; *"Can we afford it or not, and what generates the most profit"* are frequent commentaries from the interviewed respondents.

Additionally, there seems to be a correlation between debt and assets. Firms that are asset heavy [9] have overall been financed more often with debt than enterprises that are not as asset heavy, e.g. consultant agencies. This is supported by theories that have derived from statistical analyses that have showed correlations between high debts and great assets. The study at hand does however not go beyond the statement that there seems to be a relationship between debt and assets, meaning that greater assets are conditioned on debt, which can be affecting the perceptions of the interest rates effect on growth. The strength of the correlation is not discussed, as the study does not investigate further whether high levels of debt are correlated to higher levels of assets. It is however enough to state that the theoretical predictions implied by Titman & Wesells study (1998) are correct regarding the SMEs included in this study.

As the literature concerning corporate borrowing mostly consists of theories of capital structure determinants and implications on firm growth, this particular theme has been of most importance. The results of this analysis show that there is no connection between the perception of inhibition of interest rates to growth and the capital structure of the firm. The distribution of firms across capital structure categories is equally allocated, meaning that the number of firms that have financed their investments with bank loans, those that have financed them with internal capital and those that have used a combination of both are the same. Somewhat unexpectedly, most of the firms that stated that the interest rate was not too high were firms that had used internal finance only. Predicted by the trade-off theory, firms tend to prioritize internal capital for investments because of the associated risk of bankruptcy with debt, and logically a high interest rate would seem as just more reason not to choose debt financing. However, since this only regards "special cases", as Almi is directed at firms that have not successfully acquired private market financing, the circumstances and perceptions may differ from how firms tend to reason in ordinary investment strategies. The responding firms have pronounced that "expensive" financing may be better than no financing in certain

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[9] In this study this constitutes transportation and construction enterprises

situations, but this certainly depends on how important and cost-effective the investment is for future business. If the investment is non-essential, firms that use internal finance would regardless of high or low interest rate use debt as financing.

**Social factors**

Past the previously discussed themes, it is expressed that the social responsibilities of Almi justify the interest rate they charge, and that the interest rate is a mere costs to pay in order to achieve something greater. The risk that Almi takes is reflected in the interest rate, and it is therefore reasonable. It is also said that it is positive that there is a decent alternative to the bank, so that entrepreneurs can achieve their ambitions despite of potential market imperfections. It should be clarified that not all respondents have stated this, but the majority have indeed expressed such opinions, which makes it possible to draw a conclusion that this is a general point of view.

The issue of personal surety[10] is a conditionality that is considered to be of more importance than the interest rate in firms' financial decisions, and this is reflected in the answers of both groups of respondents, those that are positive and those that are negative towards Almi's interest rate. Thus, regardless of the interest rate, the condition of personal surety is determining in the decision to borrow capital or not. "*If personal surety is one of the conditions, I would not have applied for the loan even if the interest rate was 0%*" (Consulting Agency owner). This is a strong indication of the entrepreneurs' fears of personal bankruptcy, and could be a possible determining factor in the perceptions of the interest rate, since Almi often does not require personal surety. As Almi is a public actor, the primary goal is not pure capital gain, but to provide entrepreneurs with the opportunity to succeed and this does in a lot of cases "validates" the higher interest rate charged for the loans, as other aspects are taken into account instead. "*It is important to have an alternative to the private market, especially as the credit market recently experienced great turbulence. It is positive that Almi acts as a financier, to assure that small firm owners are not put in difficult situations, and therefore the interest rate becomes less important*" (Consult agency).

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[10] Personal surety involves a promise by the entrepreneur in this case, to assume responsibility for the debt obligation to the bank if the firm defaults.

Even the representatives of firms that have in the past experienced difficulties with accessing finance, to a great degree feel that it is positive that Almi exists, as an alternative to the banks. The fact that the significance of Almi's role is expressed instead of focusing on the interest rate clarifies that Almi's mission goes beyond that just to serve as just another financier. The social responsibility to endorse Swedish entrepreneurs compensates the sheer business economic aspects, which supports a higher interest rate as the risk Almi takes supports it

# 6 Conclusion

The present master thesis has studied SME's perceptions' of the public financial support in Sweden provided by Almi, and to what extent the interest rate affects financial decisions regarding firm growth. The study has not aimed to determine whether a market failure exists, or to evaluate Almi's mission. The pre-defined aim has been to determine whether the interest rate that Almi charge is inhibiting in some way to SMEs growth and their ambitions. As the firms included in this study are used as hypothetical/potential clients, the research question has been investigated consequently; how do SME's perceive the loan financing offered by Almi?

Since the aim has not been to investigate the existence of a market failure or the prevalence of access to finance difficulties, nothing can be stated regarding this. However, what should be mentioned is that almost all respondents have pronounced the importance of Almi's mission in society and for the firms that need support, even though a majority of the respondents stated that they were not applicable for support by Almi. Still, a mere implementation of a support program does not automatically constitute a success nor does it mean that it is accessible or desirable. Hence, studies of this sort are vital to provide an insight of the perceptions' of the recipients. This particular question whether Almi's interest rate is appropriate for SMEs has been debated, and the presented arguments have been negative towards Almi's execution with the argument that the loans are unattainable. The results from this study show however that this view is not entirely correct as the majority of respondents' state that the interest rate is appropriate, and is not discouraging for financing growth opportunities. It becomes even more apparent as the results show that the interest rate it self is not central in the growth decisions at all, but just a fragment. The thematic analysis shows that there are several central and determining factors that affect the firms' perceptions about the interest rate and its effects, and that these factors interact. This is clarified by the fact that the respondents that have negative perceptions of Almi's interest rate still express similar arguments to those that have positive attitudes. Clear examples are respondents' who state that the firms' growth ambitions determinate whether to proceed with a high interest loan. The ones who perceive the interest rate as too high state that if the investment is not completely necessary for the business they would refrain, while the counter argument is that the investment will finance it self, and the generated growth from the investment is larger

than the interest expenses. Thus, the strongest result of this study is that the perceptions about the interest rate and its effects is that it is determined by firm specific conditions and that it is the particular situation that determines the effects. This is confirmed as the thematic analysis shows arguments that are in a lot of cases counterintuitive and paradoxical.

Certain theoretical predictions have guided the sample selection, and therefore also the interview questions, included here are issues of e.g. age, region and industry section. The results show however that there are no such discrepancies. It should however be mentioned that some industries are more prone to competition or are asset-heavier than others, making them consequently more affected by the interest rate from a profitability aspect.

As theory has suggested, there are more important determining factors of growth financing in SMEs than the cost of financing. As mentioned, competition, growth ambitions and the market situation are factors that are more determining, and these are also the factors that explain the particular perceptions of the respondents.

The literature on SMEs still balances amid pure theory and empiric-realistic research because of is heterogenic units of analysis. The analysis and subsequently its conclusion illustrate precisely this trade-off, as the empirical research points in a certain direction but fails to make undeniable and absolute statements that can be generalized on the entire SME sector because of the samples great variance. Yet, this conclusion is a strong confirmation of the distinctiveness that exemplifies the SME sector, which puts forward the argumentation that policy needs to aim towards flexibility in order to serve its purpose of promoting SMEs.

To a certain extent, this thesis contributes to the understanding of Almi's interest rate, role and mission by the evaluation-like approach of Almi's framework and the level of satisfaction. Since the main objective was to determine whether the interest rate should be considered as reasonable or inhibiting to growth, the results of this study point to that the interest rate should be considered as reasonable from a general point of view.

It is difficult for policy makers to construct frameworks for public programs that have the ability to target all SMEs equally well. The world of SMEs is unquestionably not black and white, and the challenges that SMEs face vary across the sector. Therefore, the statement that

the chief economist at Företagarna (the Swedish Federation of Business owners) made that Almi's interest rate is completely inhibiting and too high for all SMEs can be rejected as a result of this study because it shows that not all SMEs find the interest rate to be a determining factor. As expected, firm context showed to be strongest predictor of perception of the interest rate and its impact on growth. The Pecking-order theory is one of the most prominent theories in business economics, but its applicability on SMEs has been questioned. This study does not answer this, but it does confirm that the Pecking-order theory's predictions of capital source preferences does affect the perceptions about Almi's interest rate, as firms that do not use external finance would not take loans at whichever cost. It also predicts that the cost efficiency determines whether firms borrow capital or not and at which cost. Thus, the results conclude that the Pecking-order theory, can to a greater extent than the Trade-off theory explain firms perceptions of the effects of Almis interest rate.

A parallel that surfaced during the study is that peer-to-peer lending is expanding on the private market as it is considered a win-win situation, and recently even loans have been issued by private investors for new firms were the interest rate has been in similar range as the interest charged by Almi. Based on this observation, a concluding remark can be made and should be given appropriate consideration: would peer-to-peer market for lending be as prosperous if the interest rates were unattractive?

The traditional economic growth theories fail to take account of the complexity that characterizes the SME sector, and thus neglects a number of important factors that facilitates and promotes the current expansion of SMEs such as the instability and paradoxality of the behavior of enterpreneurs and small firms, which tends to contradict the concept of equilibriums in conventional economic theories (Julien, 1993).

Even though the Swedish financial support program for SMEs differ somewhat from those seen around Europe in the sense that most offer rates that are lower than the private market, it is certain to state that in the subject of the loan framework, considering interest rates, the availability is satisfying as these results show no, or very little support, that there might be an inhibiting effect of charging interest at these rates. However, generalizations of this kind are not to be taken as absolute, since the study only constitutes of Swedish SMEs and the SMEs in Sweden might not be comparable to other member state SMEs as the situations may very

well differ since Sweden is in the top of high performing countries. It does still however indicate that the subject of personal surety for SME loans might need revising, as this condition is determining factor for investments. Mostly, the attitude towards Almi is very positive which is a potential explanation for there not being a substantial negative perception of the interest rate, as many of the respondents distinctively stated that the work Almi does is important from a social perspective. This is expected to be imbedded in Sweden's prolonged history of Social-Democratic governments and the extensive trend of a large welfare state. As the debate about EU is heating up in the presence of the writing of this thesis, this study sheds light on the importance of the EU as a facilitator of improving the access to finance in Europe, as many of the public financial support programs to SMEs are EU iniatitves or are funded by the EIF. In the case of Sweden, their newly signed agreement will allow innovative firms to borrow capital for lower rates than offered by Almi now. The OECD Economic Survey (Sweden, 2015) suggests that a large banking sector entails risks of difficulties for SMEs to access low interest rate debt in the near future, which supports the presented argument of the importance of institutions such as Almi. Additionally, countries that are experiencing downturns in economic growth and have cut growth predictions might be even more inclined to strengthen the access to finance as the SME sector is dependent on the economic situation. This also opens up for new channels of financing, such as the growing phenomenon of crowd funding. The separation of the public and private sector calls for serious revising, as SMEs and private investors could benefit largely from EU level coordination for a cross-boarder crowd funding market with appropriate regulations.

The conclusions for this two-level thesis are that public financial support for SMEs is a fundamental fragment of the success and growth of the SME sector, however on a macro level the effects are not visible as other variables are more dominant in the sectors performance and contribution to the domestic economy. Looking beyond the surface, these programs are very appreciated and the overall design is achieving its primary objective of promoting and supporting SMEs.

The net effects of the financial support programs that have been implemented to improve the access to finance for SMEs are thus to considered as unclear. However, this might be due to effects of displacement as firms that are now able to receive funding and invest in growth might be doing so at the expense of other firms and these might now be outcompeted on the

market, which might consequently be erasing some of the effect. Such effects have not been taken into account in this study.

Given this data, there is no support that increasing lending and financial support for SMEs automatically improves the SME sectors performance in terms of employment growth or its contribution to the economy. This might be explained by the fact that far from all SMEs use financing for growth purposes, but instead invest in productivity to gain more profit. The micro economic study showed that the most determining factor of the attitude towards the interest rate is the own firms economics and how the interest rate affects the profit. Therefore, the conclusion is that firms may not invest in growth if it is not certain to generate larger profits in the near future, thus the increase of access to finance does not have any direct impact on the SME sectors performance. Yet, access to finance seemed to be important as a moderating variable for the effects of economic growth on the SME sectors performance in terms of its contribution to the economy. This suggests that growth in the economy has more effects on the SMEs sectors contribution to the domestic economy when capital is accessible for SMEs as they can make better use of the economic improvement.

# 7 Suggestions for further research

Access to finance is implied to be an important contributing factor, but the results suggest that is only has an effect an as contextual variable which opens up for further investigations, where it might have larger effects. Another factor to consider is the possible implication of displacement effects on an aggregated level.

Cognitive mapping would be an interesting method to use in a one-on-one setting, whereas it would be possible to trace the evolution of individual intentions of growth and how barriers are perceived to influence past or current growth ambitions and consequentially the behavior of managers. This could also improve our understanding of barriers to growth, how they are managed or overcome, or are likely to be.

In a Swedish context, it would also be interesting to conduct a second study that includes SMEs that have applied for a loan with Almi, and been approved but declined to see whether the interest rate has been a determing factor for this decision as this was not possible due to the resource and time constraints of the present study.

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# Appendix 1.

## Macro economic study variables and coefficients

**The SMAF index**

| | | SMAF index (EU = 100, 2007) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| **Austria** | **AT** | 112 | 110,0 | 116,8 | 121,4 | 122,8 | 122 | 123 |
| **Belgium** | **BE** | 106 | 103,4 | 106,4 | 105,5 | 106,3 | 109 | 111 |
| **Bulgaria** | **BG** | 91 | 90,2 | 90,6 | 91,2 | 90,8 | 95 | 98 |
| **Cyprus** | **CY** | 106 | 105,8 | 105,5 | 105,9 | 94,9 | 95 | 82 |
| **Czech Republic** | **CZ** | 99 | 98,4 | 101,6 | 105,3 | 107,1 | 108 | 109 |
| **Germany** | **DE** | 110 | 110,4 | 113,5 | 114,9 | 114,8 | 123 | 119 |
| **Denmark** | **DK** | 105 | 103,4 | 104,5 | 105,9 | 106,4 | 107 | 110 |
| **Estonia** | **EE** | 94 | 94,5 | 97,3 | 94,6 | 99,1 | 103 | 112 |
| **Greece** | **EL** | 93 | 93,9 | 98,3 | 93,6 | 81,8 | 79 | 78 |
| **Spain** | **ES** | 86 | 83,8 | 80,8 | 89,9 | 100,3 | 96 | 101 |
| **Finland** | **FI** | 107 | 108,6 | 114,8 | 124,4 | 122,3 | 120 | 122 |
| **France** | **FR** | 110 | 110,1 | 117,1 | 124,0 | 120,7 | 121 | 126 |
| **Croatia** | **HR** | 98 | 96,5 | 99,5 | 106,9 | 112,2 | 115 | 112 |
| **Hungary** | **HU** | 81 | 78,2 | 74,6 | 86,4 | 91,4 | 95 | 95 |
| **Ireland** | **IE** | 96 | 95,5 | 103,1 | 104,3 | 106,0 | 107 | 111 |
| **Italy** | **IT** | 102 | 101,4 | 107,5 | 111,0 | 105,8 | 96 | 107 |
| **Lithuania** | **LT** | 92 | 90,4 | 92,4 | 100,2 | 103,9 | 110 | 116 |
| **Luxembourg** | **LU** | 106 | 107,5 | 111,1 | 105,7 | 105,1 | 107 | 121 |
| **Latvia** | **LV** | 83 | 84,0 | 77,3 | 97,2 | 110,3 | 111 | 109 |
| **Malta** | **MT** | 105 | 103,2 | 106,0 | 108,1 | 109,5 | 110 | 106 |
| **Netherlands** | **NL** | 103 | 101,6 | 108,6 | 112,7 | 114,1 | 117 | 117 |
| **Poland** | **PL** | 100 | 96,6 | 98,6 | 101,4 | 103,2 | 103 | 108 |
| **Portugal** | **PT** | 95 | 95,1 | 97,4 | 99,2 | 92,2 | 87 | 97 |
| **Romania** | **RO** | 90 | 87,0 | 84,5 | 92,0 | 92,9 | 95 | 85 |
| **Sweden** | **SE** | 117 | 117,9 | 119,8 | 119,5 | 112,0 | 113 | 114 |
| **Slovenia** | **SI** | 103 | 101,5 | 104,4 | 107,9 | 109,9 | 112 | 114 |
| **Slovak Republic** | **SK** | 107 | 106,7 | 111,7 | 110,1 | 105,5 | 107 | 112 |
| **United Kingdom** | **UK** | 102 | 104,7 | 112,4 | 110,9 | 107,3 | 106 | 112 |
| | | | | | | | | |
| **European Union** | **EU** | 100 | 99,3 | 102,0 | 105,4 | 105,3 | 106 | 108 |
| **Euro zone** | **€** | 103 | 102,0 | 105,9 | 107,8 | 106,5 | 107 | 109 |

The sub-indices of the access to finance index themselves are weighted means of the indicators that comprise them. In general the index largely reflects the importance of debt finance in the area of access to finance as the debt finance sub-index was set to represent 85% of the SMAF weighting. The equity finance sub-index was set to represent 15% of the SMAF weighting.

The overall SMAF index and the individual sub-indices present scores for each country, and the EU and Euro-zone averages. In interpreting the scores, it is important to bear in mind the following:

- the reference point in the index corresponds to the EU average in 2007 (100 = EU 2007)

- low values in the overall Index and individual sub-indices indicate poor performance against the access to finance indicators relative to the EU level in 2007, and vice versa for high values

- year-on-year increases indicate a relative improvement over time for that particular sub-index or the overall index

Retrieved from European Commission official websibe (2015-04-30).

# Appendix 2.

## Guide for interviews in micro economic study

*Growth is here defined as the increase in turnover and/or employment.*

**Industry sector:**
**Region:**
**Age:**
**Turnover:**
**Number of employees:**

General information
- Is the firm satisfied with profitability and the general financial situation?
- What is good, what is bad, what needs improvement?

Growth
- Does the firm have a pronounced ambition for growth?
- Has the firm had to change its growth ambitions or strategies due to financial limitations or expenses?

Funding
- How does the firm finance its investments – loan or generated profit?
- Why?
- If loan: what kind of impact does the interest rate have?
- If internal: if the internal capital were not enough, would the firm abstain the investment? Why?

Almi
- What does the firm know about Almi?
- Has a loan been needed via Almi?
- What are the perceptions about Almi, and the interest rate?
- If the interest rate is too high, what would a reasonable rate be?
- Would the firm take on a loan with Almi if the private market were insufficient? Why, why not?