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1 Introduction

In this section the introduction, a description of the background and the problem discussion of the chosen topic will be presented. It will be followed by the thesis purpose, research questions, delimitations and explanations of important definitions.

Small- and medium sized businesses (SMEs) are considered as an important source for the society and the economic growth. In the way that it is a valuable source of creating new job opportunities and introducing innovative products to the market among other factors (OECD, 2006). Small businesses represent 99 percent of all companies in Sweden and they are a provider of one third of the total employments in the Swedish labour market (Swedish Federation of Business Owners, 2011). External financing is necessary in the start up- or growing stage of a business and loans provided by commercial banks are the main source of external finance for SMEs (OECD, 2006).

The banking system and the financial institutions play a significant role in the economy, where the banks acts as intermediaries and provide the market with new capital. This new capital is provided by transforming deposits to loans, which creates an opportunity for new investments (Yanelle, 1989). By linking the actors with excess capital and the actors with need of capital, the banks reduce the transaction costs and thus stimulate an efficient market (Williamson, 1986). Spong (2000) argues that the lending process to individuals and businesses are a major activity for the banks, and they can control how large portion of credit is to be allocated across the nation. The risk that arises due to the lending process is defined as credit risk, which is the uncertainty that the borrowers cannot repay the loans (Saunders & Cornett, 2011).

During recent years we have experienced an economic slowdown in the global economy. After the economic crisis of 2008-2009 the global economy is starting to recover, but is still in a very fragile condition. Due to large credit losses experienced during the 2008-2009 crisis, a lesson to be learned is that market participants have to rethink their methods in risk management (Golub & Crum, 2010). In the process of rethinking risk management methods, credit risk has become a subject more important to shed light on.

1.1 Background

As banks around the world started to engage in international trade in the early 1970's the need for a global banking supervision rise. In order to increase the quality of banking supervision over the world the Basel Committee on Banking Supervision was founded in 1974, with its main objective to provide international banks with guidelines and recommendations (Bank for International Settlements, 2011a). The first accord published by the Basel Committee where introduced in 1988, which is also referred to as Basel I. The Accord was announced with the aim to be a help to strengthen capital positions of international bank organisations (Basel Committee for Banking Supervision, 2009). As the instruments and operations that banks use develop, simultaneously the regulations need to be restructured in order of effectiveness (Lind, 2005). The improved framework of Basel I, also referred to as Basel II, was fully implemented in Swedish law in 2007 (The Swedish

Financial Supervisory Authority, 2007). This improved accord emphasises the assessment of each credit risk that affects the banks capital, rather than just credit risk which was the focus of the Basel I accord (Basel Committee for Banking Supervision, 2009). As a consequence of the economic instability during the recent years these recommendations had to further continuously be improved. The Basel III reform was introduced in order to assess the issues that stressed the recent financial crisis. The main idea underlying Basel III is to increase the capital basis of banks (Basel Committee for Banking Supervision, 2010a).

1.2 Problem Discussion

Banks have to be careful in their credit assessment to small business customers in order to make the right decision and not misjudge a customer. This includes two possible outcomes, to approve credits to inappropriate customers or to judge potentially good borrowers as inappropriate, and reject credits (Sinkey, 1992). To avoid these problems and see if a potential customer is creditworthy, the banks have to collect necessary information in order to make a good judgement (Bruns, 2004).

Recently, receiving bank loans has become an issue of matter for small businesses, as been debating by Eurenius (2011) in her article in SvD (The Swedish Daily Newspaper). So why is it difficult for small businesses to fulfil the banks requirements to receive loans? One explanation is that small- and growing firms often operates in new unexplored business areas, which is related to higher risk (Bruns, 2004). It is further argued that SMEs have difficulties to obtain debt because of asymmetric information, which exists in a higher extent than for larger and public firms. It is difficult for the banks to receive valuable information about small businesses, due to limited and uncertain information (Binks, Ennew & Reed, 1992). Binks et al. (1992) further argues that asymmetric information may lead to two problems when providing debt finance. First, adverse selection, explained as the situation where the borrower has more information about its actual abilities and qualities of the project, than the lender. The second is moral hazard, where the degree of the riskiness of the project or business will not perform in a manner consistent with the contract. The effect of these problems might be higher interest rates to compensate for the risk, and thus may lead to low-risk borrower drop of and only the high-risk customers are left and willing to pay for the credit.

A bank is a profit-orientated company as any other, but due to the capital regulations it has become more critical and tougher for them to become profitable. This is when the banks have to adapt to the new regulation in form of Basel III and need to hold more capital in order to minimize the risks (Basel Committee for Banking Supervision, 2010a). Simultaneously, argued by Eurenius (2011) it is more difficult for small businesses to obtain loans due to difficulties regarding their ability to fulfil the strict requirements from the banks. In consequence of Basel III, it might be even stricter requirements in the future and tougher for small businesses to obtain debt finance.

1.3 Purpose

The purpose of this study is to describe how larger and smaller banks in Sweden are managing credit assessment of small businesses, and if this process differs according to the size of the bank. The authors further want to investigate how expectations of new capital regulations, in form of Basel III, affect the credit assessment and if it is affecting the ability of small businesses to receive loans.

1.4 Research Questions

Based on the problem discussion and the purpose the following research questions have been stated:

- *How do banks manage the credit assessment for small businesses in order to minimize the credit risk?*
- *How are the expectations of Basel III affecting banks credit assessment and small businesses ability to receive loan?*
- *In the previous two questions, are there any significant differences between smaller and larger banks?*

1.5 Delimitation

The thesis takes a perspective from local banks' credit assessment decisions and how the implementation of the new capital requirements rules are affecting their decisions of small businesses credit. Further, the thesis focuses on local bank offices in middle-sized cities in south and west of Sweden. The geographical location was restricted to cities in Sweden where the authors could visit the respondents at their offices.

1.6 Definitions

In order to get a better understanding about the subject of the thesis, some words are necessary to define.

Small Businesses: Is defined by EU, as businesses with less than 50 employees and whose annual turnover or total balance sheet does not exceed €10 million (European Commission, 2012).

SME: Small and medium sized enterprise, are defined by EU as business with less than 250 employees and whose annual turnover does not exceed €50 million or whose total balance sheet does not exceed €43 million (ibid).

Smaller bank: The authors define smaller bank with less than 3000 million SEK in net interest income of their Swedish operations (see appendix 1).

Larger bank: The authors define larger bank with more than 3000 million SEK in net interest income of their Swedish operations (see appendix 1).

Middle-sized city: The authors define a middle-sized city in Sweden, a city with population between 20 000-200 000 inhabitants.

1.7 Disposition

Chapter 2: Theoretical Framework

Within this chapter the reader will be given the theoretical framework for the subject. It takes it start-out with general knowledge of small businesses finance and the possible risk of lending to them. It will be followed with description of how banks are managing the risk, in form of banks credit risk assessment and the different theories within the area. The section is closed with description of the Basel Accords and the development from Basel I to Basel III in order to understand the regulations affect on banks.

Chapter 3: Method

Within this chapter the research design of the thesis will be provided. The different research approaches that are undertaken will be explained and the methods used for the data collection will be presented and motivated. Finally, a review of the research trustworthiness, reliability and validity will be given.

Chapter 4: Interview Responses

In this section the response of the six interviews will be presented. The summarised responses are divided into two subsections: smaller banks and larger banks. For an introduction of the respondents and tables that summarises the findings look at appendix 4 and 5. The six respondents will be kept anonymous due to confidentially agreement.

Chapter 5: The Economic State of the Swedish Market

In this section the economic state of the Swedish market will be will be presented and discussed. The state is of convenience to study in order to put the empirical data in context of the purpose of the thesis. This will lie as a base for the analysis section of the research.

Chapter 6: Analysis

Within this section the reader will be provided with an analysis that reflects the authors' evaluation of the findings. The interviews responses will be compared with the theoretical framework and the economic state of the Swedish market. In order to make the analysis as perspicuous as possible the section will follow the same structure as the interview chapter.

Chapter 7: Conclusion

This section will present the conclusions drawn from the analysis with the aim to answer the research questions and the purpose of the thesis.

Chapter 8: Discussion

This final section will present reflections of the research made by the authors as well as suggestions for further researches

2 Theoretical Framework

Within this chapter the reader will be given the theoretical framework for the subject. It takes it start-out with general knowledge of small businesses finance and the possible risk of lending to them. It will be followed with description of how banks are managing the risk, in form of banks credit risk assessment and the different theories within the area. The section is closed with description of the Basel Accords and the development from Basel I to Basel III in order to understand the regulations affect on banks.

2.1 Small Businesses Access to Finance

First a description of small businesses access to finance is provided to understand their need of debts finance.

In order for small businesses to grow and compete on the market, it is crucial for them to achieve an optimal financing solution and receive needed capital (Bruns, 2004; Binks et al. 1992). Small businesses can receive the required capital by either internal financing or external financing as for example debt and venture capital (Bruns, 2004; Barton & Matthews, 1989). Previous research shows that external debt financing in form of bank credits, are the most common source for small businesses finance (Barton & Matthews, 1989; Jacobson, Lindé & Roszbach, 2005; McKinsey & Company, 2005) and there are several reasons for that. Other financing opportunities might not be an option and next, the various financing methods will be explained and why it is difficult for small businesses to implement them.

Internal financing refers to internally generated capital within the firm and the major source is profit achieved by the firm (Santini & Sopta, 2008). Bruns (2004) referring to Berger and Udell (2001), argues that SMEs prefer internally generated funds, such as capital from owners, family and friends, business associates and other personal contacts, due to the relatively low issuing- and information costs. However it is not often sufficient. In a research presented by Carpenter and Petersen (2002) it is showed that growth of small firms is constrained by the accessibility of internal finance and they need to find other sources to finance their business. External equity financing is another option for small businesses to receive capital. Sources of external equity are capital invested in the firm by others than the existing owners, without any specific repayment date. This capital is obtained from the public market (issue shares), private equity makers (venture capital) or informal equity capital market (business angles) (Ou & Haynes, 2006; Bruns, 2004). Research done by Ou and Haynes (2006) showed that only a very small number of small firms acquired additional external equity capital. External equity financing is limited for small firms compared to lager firms, when most small business is privately held and cannot issue shares on the public market. Furthermore small businesses have difficulties to meet the criteria for venture capitalists, since their projects are often small in scale. Additionally, external equity sources are often related to considerable costs and disadvantages (Bruns, 2004), this due to the extended information that is required and that the outside equity holders tends to be more intrusive than lenders (Zaleski, 2011). Studies of both Barton and Mattthews (1989) and Myers and Majluf (1984), indicates that small firms prefer external debt to external equity, if internal financing is not achievable. Subsequently the external

debt financing is the main focus in this thesis and the subject will be further discussed, in form of banks' credit assessment.

2.2 The Risk of Lending to Small Businesses

Within this section the underlying risk of lending to small business will be presented. The factors that create the risk is necessary to identify in order to understand why the credit assessment is critical for banks when offering loans to small businesses. The consequences that could arise due to asymmetric information will also be explained in this section.

As stated in the former section, debt financing is considered the main source of finance for small businesses. Previous research has showed that it is harder for small business to obtain credit than for larger firms (Binks et al., 1992; Barton & Matthews, 1989). There are several reasons for that and why banks associate smaller firms with higher risk. One explanation is that small businesses often operate in new unexplored business areas, which is associated with substantial risk (Bruns, 2004). The ability for SMEs to repay a loan is clearly connected with the ability for the firm to generate cash flow. In addition they are considered more volatile in income and capital (Cressy & Olofsson, 1997). A decreased cash flow makes it more difficult for the firm to repay the loan and cover the cost of interest (Bruns, 2004). Binks et al. (1992) suggest that the size of the firm have an impact on their ability to obtain loan, since small businesses can experience debt gap caused by insufficient business collateral. Debt gap refers to feasible project that will not obtain any funding. Binks et al, (1992) further mention that rapid-growth firms may be more vulnerable for debt gaps. This is due to that small business may suffer more by delayed payments from their customers. Hence, their small size and limited market power may cause difficulties in obtaining the same conditions from their suppliers. Consequently, small businesses will have to pay supplier costs even though they have not received payments from customers. When funding this lag by increasing overdraft finance the risk of a debt gap may increase, as their potential future cash flow might not be considered in the underlying agreement.

In addition, small firms that operate in perfect competitive markets, have no or limited power to influence the market by adjusting the quantity or price of the firms' products. This makes small firms less credible to its supplier or its bank in comparison to larger firms. Consequently, banks might refuse small businesses when they are associated to be a part of a more risky group (Storey & Cressy, 1996). Barton and Matthews (1989), referring to McConnell and Petti (1984), argue that small businesses in general obtain less debt than larger firms because of three reasons. First, small firms normally have lower marginal tax rates, which generate in lower tax benefits on debt. Second, small firms may have higher bankruptcy costs, which increase the risk of debt. Finally, the cost of debt rises for small firms since it can be difficult for them to prove their business health to creditors. An earlier study presented by Gallagher and Stewart (1985) indicating that small firms employing less than 20 people were 78 percent more likely to go bankrupt than firms with over 1000 employees. Further, a report from Swedish Federation of Business Owners (2011)

shows that 99.52 percent of the total bankruptcies in Sweden 2010, was generated by businesses with less than 50 employees.

Binks et al. (1992) argues that small businesses access to finance is not only restricted by the size of the company, but is a result of problems associated with the availability of information. This is referred to as asymmetric information, where the borrowers are better informed about their own prospect than the lenders. He indicates that this problem is not only restricted to small firms, but is of more extent due to the expected higher cost of information gathering. Binks et al. (1992, p.36) further debates that "*in practise, banks and small firms operates in an uncertain world when information is not perfect and is often expensive to obtain*". Several reasons can be given why asymmetric information is an issue of higher extent for SMEs than for lager firms. First small and privately held firms do not need to expose information in the same extent as larger and publicly held firms, due to legally enforced transparency or shareholders' demand on information (Bruns, 2004). Moreover, small businesses are unlikely to be monitored by rating agencies or the financial press, which results in less available information (Ortiz-Molina & Penas, 2008). Second, Bruns (2004) referring to Macintosh (1994) claims that small businesses due to their small size are not in need of control system and control documents in same extent as larger firms. He argues that smaller firms can be managed without these formal systems and therefore reduces the amount of information available for the banks.

In additional small businesses often have less owners and a smaller organisation, where the middle management plays a limited role in the organisation. It is often the owner(s) who are likely to undertake the relationship with customer and suppliers (Storey & Cressy, 1996). Due to the small size of organisation of small firms, there is little need for monitoring the firm and consequently fewer formal contracts and documents are available (Bruns, 2004).

2.2.1 The Effect of Asymmetric Information

The provision of debt financing to small firms can be explained by a contract between two parties in which the bank act as the principal and the firm as the agency. This relationship is called agency theory, where the principal require certain information in order to enter the contract. The bank must make sure that the project is an appropriate one, and that the firm is acting in the manner of what was agreed in the contract. However, the asymmetric information that exists between the bank and the small firm can poses two problems; adverse selection and moral hazard (Bink et al., 1992).

Adverse selection is referred to the problem where the lender cannot observe ex ante information that is relevant for them to make the right decision to enter the contract or not. The borrower has more information about the actual ability and quality of the project than the lender (Binks et al, 1992). The bank can observe the applicant's behaviour, but is incapable of judging the optimality of that behaviour (Huang, Chang & Yu, 2006). The borrower can either with intent misinform the bank or actively withhold information (Bruns, 2004). The other problem is moral hazard, which refers to the reliability of the borrower, where the degree of the riskiness of the project or firm will not perform in the

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manner consistent with the contract (Binks et al, 1992; Huang et al., 2006). The borrower might produce information to obtain the loan, but afterwards use the money for other purposes than what was established in the contact. Therefore it is critical for the banks to carefully evaluate the reliability and objectiveness of all submitted information (Bruns, 2004). As a result of adverse selection and moral hazard problem, debt gap can occur (Stiglitz & Weiss, 1981), where feasible project will not obtain any funding (Binks et al, 1992) when the bank reject the loan. The effect of adverse selection arises as borrowers have different level of risks attached to their project. In consequence when interest rates rises, low-risk borrowers drop of and only the high-risk customers are left and willing to pay for the credit (Binks et al., 1992). Bink et al. is (1992) further argue that this is enhanced by the effect of the moral hazard problem, due to lenders inability to control the borrowers project that is undertaken, the low-risk projects will drop out when interest rates rises. Banks are risk-averse and would prefer to provide debt only to low-risk projects, but when firms have a natural incentive to invest the borrowed credit in riskier projects (Bruns, 2004) this causes an issue.

In order to minimize these problems, it is crucial for the banks to receive right quality and the right amount of information in order to ease the credit decision (Bruns, 2001). Even though the information is available, it might be to a high cost. Additionally the banks might meet difficulties in managing that information (Binks et al., 1992). Bruns (2001) describes the problem of the information gathering as the matter of finding the breaking point of collecting information. After this point the benefit of the reduced risk offsets additional information. Both the bank and the firm will benefit from entering a credit relationship if the investment of the firm has the right quality and capacity, and the firm is able and willing to pay for the cost of the credit.

2.3 Credit Assessment

Within this section the reader will be given the framework of banks credit assessment. Different theories within the area of interest will be provided to get a complete picture of the process. A description of the process, credit rating, the loan officers' knowledge structure and the borrow-lender relationship will be presented.

According to Swedish law, before a Swedish financial institution decides to approve a credit, it is obligated to fully investigate the possible default risk of the agreement. The financial institution can only approve the credit if it with good motives expects that the loan will be fully repaid (Swedish Statue Book, 2004:297 chapter 8 §1). The possible default risk of the loan is estimated and found through the credit process. This is one example of new regulatory developments (Basel Committee on Banking Supervision, 2006b), in combination with other various factors, banks have been required to adjust their credit assessment during the recent years. In the development of credit assessment, credit rating has become of more importance and this will be specified later in this section.

According to Andersson (2001) there are two main categories of information involved in the credit assessment: accounting and non-accounting information. The accounting information is gathered mainly from the individual client, public records and credit rating

agencies. The non-accounting information is primarily collected from the interaction with the customer but also from statistics within the bank and credit agencies. The non-accounting information should provide the loan officer with information that enables him or her to get a picture about the character of the firms' principals. This involves information such as certificates, remarks of payment and references from former employers. Accounting information concerns mainly data about the economic behaviour of the firm and financial statement of the borrower has a substantial role in the credit assessment. In addition, factors that can affect the business condition such as macro-economic factors should also be taken into account (Andersson, 2001).

Andersson (2001) describes the loan application process in six steps. First the customer applies for a loan, secondly the bank meets the firm's principals. During the third step the loan officer performs a valuation of the creditworthiness of the firm on the basis of the acquired information, at this stage the loan officer either reject the decision or takes the loan decision to the next step which is preliminary granting the loan. At the fifth step the credit committee prepares the loan proposition and as a last step the credit is granted. It is then followed up in order to see that the firm is able to meet its requirements. This process will be presented in figure 1.

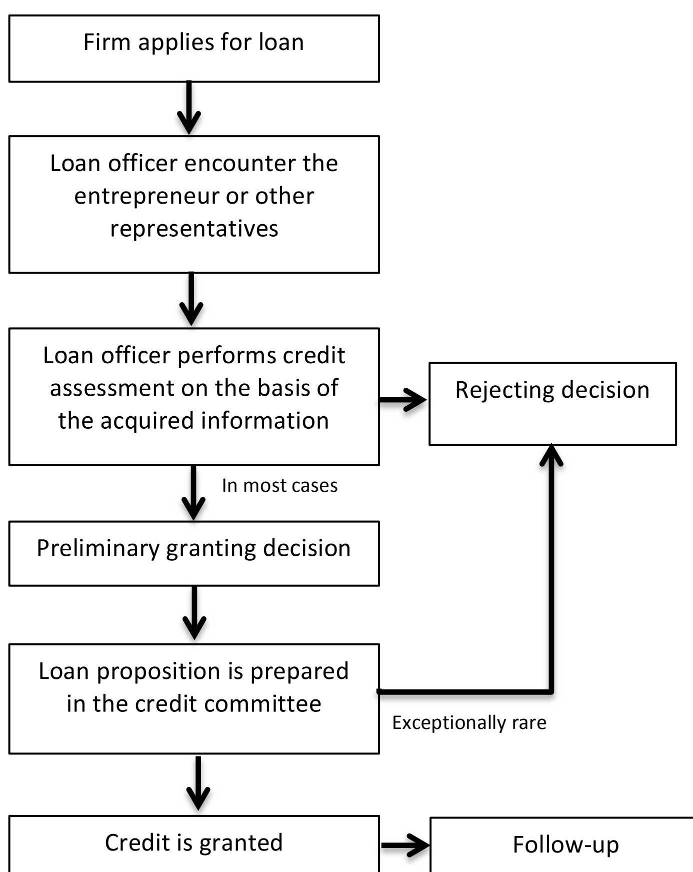

Figure 1. *Procedure for granting loan*. Source: Andersson (2001), p.19.

2.3.1 Credit Rating

In the development of credit assessment, credit rating has become an important part in the relationship between the bank and its customers. Credit rating can be described as the process of using a specific formula or set of rules to evaluate the creditworthiness of potential customers, in such way that it evaluates the future loan performance of the customer (Wallis, 2001). There are two types of credit ratings: external and internal. External ratings are ratings published by rating agencies and internal ratings are defined as ratings developed by the lender. When rating a potential customer the bank collect qualitative and quantitative information about the borrower. Examples of quantitative information are debt ratio, liquidity and profitability among others. These types of information are often collected from financial statements and annual reports. Qualitative information is information such as management quality, market situation and legal form, this information is often collected during face-to-face meetings with the borrower. In general, the qualitative information needed often depends on the size of the business and the loan, as a consequence of this qualitative information will have a greater impact on the rating of the customer if it is a larger- business or loan (European Commission, 2005). In fact, according to a survey performed by the European Commission (2005), qualitative information accounts for 60 percent of the rating.

When the rating is completed, it is used in numerous steps in the credit process and is considered the most important factor in the credit decision. As the rating is an important step in order to accept or deny loans to potential customers it can also tell how much credit the customer may need, the maturity and the price of the loan (European Commission, 2005).

2.3.2 The Five C's

In literature examining credit assessment, "the five C's of credit" (Character, Capacity, Capital, Collateral, and Conditions) is a discussed "knowledge structure" of the banks' judgments of commercial loan applications. The credit officers use the model to categorize loan information and consider relationships among different categories of information. It is claimed that the novice loan officer is in generally taught to seek and classify information based on this framework (Beaulieu, 1994; Beaulieu 1996; Jankowicz & Hisrich, 1987).

Beaulieu (1996, p.516) define the five elements of the frameworks as:

*"**Character:** Management's determination to repay debt. Concepts used to explain character are integrity, stability, and honesty.*

***Capacity:** Management's ability to operate a business capable of repaying debt. Capacity is evaluated mainly through analysis of financial statements; other factors (e.g., management's experience) are considered.*

***Capital:** The funds available to operate a business. Financial statements are primary source of information about capital.*

***Conditions:** The prevailing economic conditions (e.g., recession, growth).*

Collateral: *An alternative source of repayment, an explicit pledge required when weaknesses are seen in the other C's. Collateral alone should not be uses to justify making a loan (Ruth, 1987)."*

The use of the five C's of credit will help the loan officers to acquire data in categories, that are of importance for success or failure of given loans. It further helps the loan officers to develop own internal standards of preference points for the client information in the different categories, and make them aware of the importance of considering the relationship between the five C's.

The five C's of credit and the relationship among the loan officers' knowledge structure can be showed in figure 2 (Beaulieu, 1996).

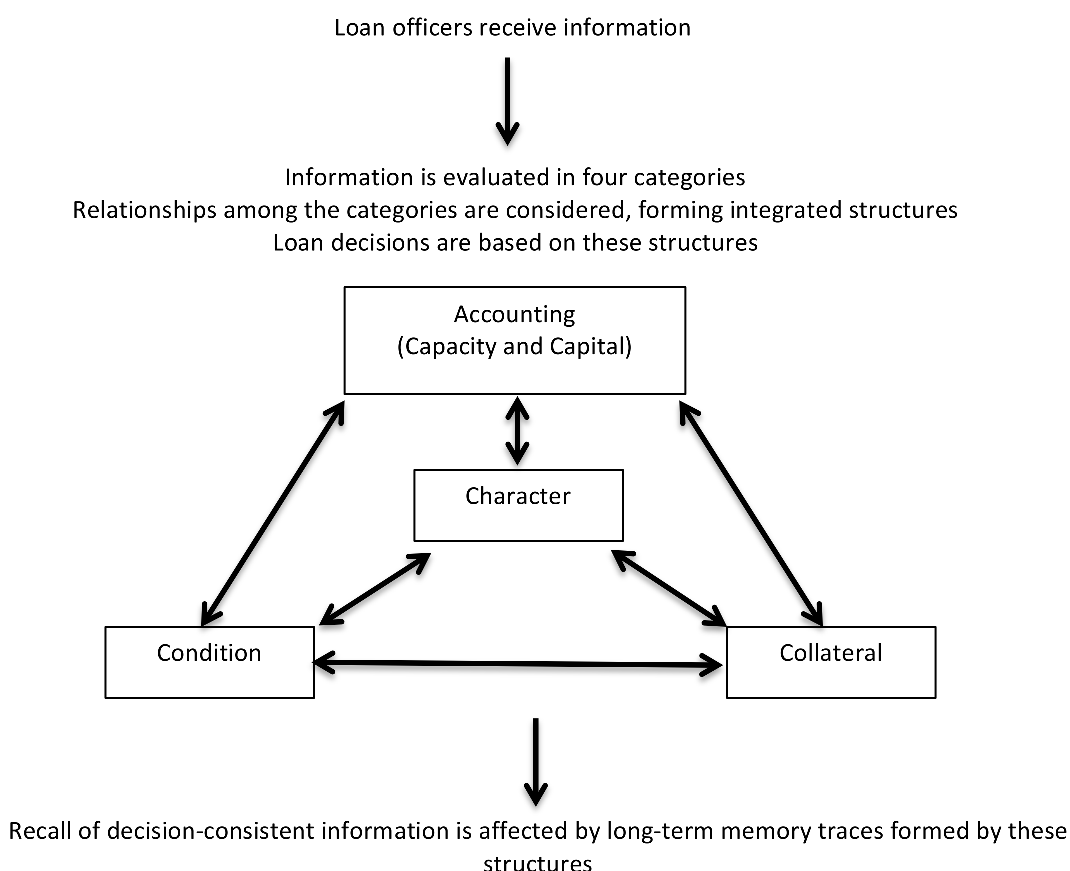

Figure 2. *Loan Knowledge Structures*. Source: Beaulieu (1996), p.517.

2.3.3 Lender-Borrower Relationship

There is a large amount of literature that is examining the lender-borrower relationship in the area of small business finance. Peltoniemi (2004) describes asymmetric information as the main issue and the reason to develop lender-borrower relationship in banking. If all information between the two parts would be symmetric, there would be no need to build

up a unique trustworthy long-term relationship between the two parts. Peltoniemi (2004) argues that in the optimal form of a lender-borrower relationship both parts benefit from a good relationship, as the borrower receives loans at a lower cost with better availability and the lender is able to offer more beneficial credit contracts. In order to achieve an optimal relationship, a great amount of mutual trust is needed.

Degryse, Kim and Ongena (2009) takes up an example of the issue associated with asymmetric information. In the process of information gathering, the bank is able to compare the information collected with the information received from the firm. In this way they are able to see the capability of the firm's principals to communicate information in a credible way to external financiers. Degryse et al. (2009) argues that during a credit process follow ups including periodic evaluation and loan renewals are important in order to build a lender-borrower relationship. Petersen and Raghuram (1994) argue that a lender-borrower relationship can be built on multiple products as the borrower may obtain more than just loans from the bank. This may lead to spreading the bank's fixed cost, of collecting information about the firm, over different products. Effects like this may reduce the cost of the credit process for the bank and thus increase the availability of funds for the firm. Whether the reduced cost for the bank lowers the interest of loan depends on the competition on the market for lending to small businesses. Petersen and Raghuram (1994) further argue that the effect on the interest of loans also depends on the length of the relationship; hence in long-term relationship the bank has attained more information about the firm and thus should be able to lower the interest. Cole (1998) provides evidence that strengthens the theory that firms that have pre-existing saving accounts and financial services at a bank are more likely to receive extended credit. Berger and Udell (2001) argue in their article that small firms that have a long-term relationship with a bank borrow at lower rates and are required to deposit less security than other small firms.

2.4 The Basel Accord

This section will give the reader a general knowledge of Basel and the development from Basel I to Basel III. An explanation of Basels' impact on the credit assessment will close the section.

The Basel Committee on Banking Supervision was founded in 1974, with its main objective to provide guidelines and recommendations and increase the quality of banking supervision over the world (Bank for International Settlements, 2011a). The Basel Committee does not hold supervisory authority and the statements made by the Basel Committee do not have legal force (Basel Committee on Banking Supervision, 2009). Even though the Basel Committee itself does not have any legal power it has a great influence on the legal framework in countries over the world.

2.4.1 Basel I

Before the 1988's accord was introduced many countries had significantly different capital adequacy requirements. As banks worldwide started to increase their business in markets across borders, the differences in capital requirements started to become a serious issue, partly explained by competitiveness issues. This created a need for an international

agreement on minimum standards for regulatory agreement and common definitions became necessary. Hence, the 1988's Basel Accord was born (Olson, 2005). This accord is also referred to as Basel I and was announced with the aim to be a help to strengthen capital positions of international banks and to reduce competitive inequalities among international operating banks. The Basel Accord was first adopted by the G-10 countries (which in fact were 11 countries: Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States), which were followed by around 100 countries worldwide. In order to reach the aim of the accord, the committee structured the accord in such a way that banks' regulatory capital should become more sensitive to risks, including off-balance-sheet exposures, and to increase the incentives to hold liquid assets. The accord suggested a requirement that international banks should hold a minimum of capital of 8 percent in order to work as a safety net for unexpected credit losses. In addition it contained some common definitions of risk-weighted assets and capital that could be applied across countries (Jackson, 1999).

Although the Basel I accord has been successful in achieving its goal it has also met some critique throughout the years. The criticism has been among other things that the framework has been too simple, the Basel I framework only focused on credit risk (Centre for European Policy Studies, 2008). In a report published by the Swedish Financial Supervisory Authority (2001) it was indicated that although these regulations have had a positive impact on international bank organisations, the regulations have been proven in need of an update.

2.4.2 Basel II

As the instruments and operations that banks use advances, the regulations need to be restructured in order of effectiveness (Lind, 2005). As a consequence the revised version of the Basel accord was announced in 2004, referred to as the Basel II accord (Basel Committee on Banking Supervision, 2009). The Swedish government included the Basel II accord in their legal framework in February 2007 (Law (2006:1372 regarding the introduction of the law (2006:1317) regarding capital adequacy and large exposures). This updated framework has taken into account the lessons learned from the financial crisis in the beginning of 1990's and has strengthened its emphasis on risk management (Tschemernjak, 2004). One of the improvements that have been made is that commercial loans are divided according to different indicators of risk instead of treating loans as they are in the same risk category (Olson, 2005).

The Basel II accord is build upon three pillars: minimum capital requirements, supervisory review and market discipline (The Basel Committee for Banking Supervision 2006a), which will be explained in more detailed in forthcoming sections.

2.4.2.1 Pillar 1

As in the case of Basel I, the Basel II accord contains a minimum capital requirement. The minimum capital required is indicated in the first pillar, which increases the risk sensitivity of the regulatory capital (Elizalde, 2006). Elizalde (2006) argues that an increase in risk sensitivity of capital regulations will reduce the incentive for banks to take on unnecessary

risks. This pillar presents minimum capital requirements for the three main risk exposures for a bank: credit risk, market risk and operational risk. There are different approaches that a bank can choose to use to calculate the minimum capital requirements, which depends on which level of advancement the bank has (Lind, 2005). For credit risk, the Basel II introduced three methods for calculating capital requirements. The first and most basic approach is the "standardised approach", which uses external ratings such as those provided by external rating agencies in order to determine risk-weights for capital charges (Van Roy, 2005). The second and more advanced approach is "internal ratings based approach", known as the IRB. This method allows the banks to some extent apply their own internal rating for risk weighting, but it has to meet some specific criteria (Van Roy, 2005). When using the IRB approach, the financial institution estimates the probability of default associated with its customers (Basel Committe on Banking Supervision, 2001). The third approach is an advanced form of IRB, where banks have even more influence on the internal rating for risk weighting (Lind, 2005).

KPMG (2009) describes market risk as risk that is due to movements in market prices. With movements in market prices they particularly refer to variations in foreign exchange rates, interest rates, and commodity and equity prices. For calculating minimum capital requirement for market risk, the preferable technique to use is "Value at Risk" (VAR). VAR is explained by all possible losses in a portfolio that is due to normal movements in the market. In order to compute the VAR it is necessary to identify the market factors, such as different market rates that affect the portfolio. Good examples of factors that affect the portfolio are those mentioned by KPMG (2009). These market factors then need to be estimated and expressed in instruments' values in the portfolio in order to quantify the market risk (Linsmeier & Pearson, 2000).

Basel Committee on Banking Supervision describes operational risk as: "*the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk*" (Basel Committee on Banking Supervision, 2006a p. 144). For operational risk the framework introduced three approaches to take: Basic indicator approach, the Standardised approach and the Advanced Measurement Approach (AMA). Banks that operate on an international level that has significant operational risk exposures are expected to use a more complex approach than the Basic Indicator approach. It should choose an approach such as the Standardised Approach or AMA depending on the bank's risk profile (Basel Committee on Banking Supervision, 2006a).

2.4.2.2 Pillar 2

The second pillar, supervisory review, outlines the demand on bank's management of risks and capital, which includes all relevant risk, that the bank are exposed to, not only those covered in the first pillar (Lind, 2005). The Basel Committee has recognised the following four key principles of supervisory review (Basel Committee on Banking Supervision, 2006b).

1. *"Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels."* (p. 205)

2. *"Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process."* (p. 209)
3. *"Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum."* (p. 211)
4. *Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored."* (p. 212) (Basel Committee on Banking Supervision, 2006b)

2.4.2.3 Pillar 3

The third pillar, market discipline, aims to complement pillar 1 and pillar 2. This is done by requiring banks to public officially information about capital, risk exposures, risk assessment processes and other aspects frequently (Lind, 2005). The disclosures should be published on a semi-annual basis subject to some exceptions. These publications will allow market participants to assess information about the capital adequacy of the bank. The market discipline pillar aims to contribute to a safe and sound banking environment (Basel Committee on Banking Supervision, 2006a).

2.4.3 Basel III

The Basel III framework is described by Mr Nout Wellink, former chairman of the Basel Committee on Banking Supervision, as "*a landmark achievement that will help protect financial stability and promote sustainable economic growth. The higher levels of capital, combined with a global liquidity framework, will significantly reduce the probability and severity of banking crises in the future.*" (Basel Committee on Banking Supervision, 2010b). The reform aims to take up and handle the problems highlighted by the financial crisis that started in 2007. This is achieved by increasing the banking industry's ability to absorb financial- and economic shocks in order to reduce the affect to spread to the rest of the economy (Basel Committee on Banking Supervision, 2010a). The new improved framework aim at increase banks' capital and the quality of capital. The framework will increase the minimum capital requirement in comparison with Basel II, the regulations regarding which capital that is regarded as liquid will be stricter and the regulations regarding risk-weighted assets will be stricter.

To strengthen the framework, the committee has developed two minimum standards for liquidity funding, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The LCR aims to increase the resilience of a bank's liquidity risk profile by making sure that the banks has enough liquid assets in order to survive a 30 calendar days period of acute stress. High-quality liquid assets are for example cash and central bank reserves (Basel Committee on Banking Supervision, 2010a). The NSFR aims to increase the resilience of a bank over a longer period with a time horizon of one year. This is done by create incentives for the bank to use stable sources of funding projects (Basel Committee for Banking Supervision, 2010a). For further and more detailed explanation of Basel III look at appendix 2.

The implementation of the Basel III regulation will start in 2013 and will be gradually implemented until 2019. The timeline of the implementation is given in table 1.

Table 1. *Timeline Basel III*. Source: The Swedish Riksbank, 2012a.

	2013	2014	2015	2016	2017	2018	2019
Common Equity Capital Ratio	Gradually implem-entation 3,5%	Gradually implem-entation 4%	**Final implem-entation 4,5%**				
Tier-1 capital	Gradually implem-entation 4,5%	Gradually implem-entation 5,5%	**Final implem-entation 6%**				
Total Capital Requirements	**Final implem-entation 8%**						
Conservation Buffer				Gradually implem-entation 0,625%	Gradually implem-entation 1,25%	Gradually implem-entation 1,875%	**Final Implem-entation 2,5%**
Common Equity Capital Ratio plus Conservation Buffer	3,5%	4%	4,5%	5,125%	5,75%	6,375%	7%
Total Capital Requirements plus Conservation Buffer	8%	8%	8%	8,625%	9,125%	9,875%	10,5%
Additional Allowable Deductions From Bank Capital		Gradually implem-entation 20%	Gradually implem-entation 40%	Gradually implem-entation 60%	Gradually implem-entation 80%	**Final implem-entation 100%**	
Leverage Ratio	Observation	Observation	Official publication			**Final implem-entation 100%**	
Liquidity cover ratio (LCR)	Observation	Observation	**Final implem-entation**				
Net stable funding ration (NSFR)	Observation	Observation	Observation	Observation	Observation	**Final implem-entation**	

Further on, the Swedish Financial Supervisory Authority (2011) wants to see higher capital requirements for the larger banks operating in the Swedish market. The proposition states that the larger banks should have at least 10 percent in common equity capital ratio plus conservation buffer from the beginning of 2013 and 12 percent from 2015. The Basel III accord suggests that this requirement should be seven percent. The stricter regulation for the larger banks in the Swedish can partly be explained by that these banks are big relative to the Swedish economy. Together they have a total balance sheet that is several times larger than the Swedish' gross domestic product. In order for the proposal to be implemented it needs to be included in the Swedish law, this process is now in progress. (The Swedish Financial Supervisory Authority, 2011)

2.4.4 Basel and Credit Assessment

The Basel Committee for Banking Supervision expects that the banks' board of directors ensure that the bank has applicable credit assessment processes and that banks should have a system that consistently classifies loans according to credit risk (Basel Committee on Banking Supervision, 2006b). Further, the bank should document a "sound loan loss methodology" that describes the banks credit assessment policy, controls and identifies problem loans.

In a survey conducted by the European Commission in 2005, banks in Europe were asked to participate in a survey regarding Basel II and credit management for SMEs. In this survey banks in Europe have the opinion that they will require more information from their credit customers. A timely delivery of business plan information is of particularly importance. Further, regarding loan pricing policy, banks expect an adjustment of price that compensates risk. In addition banks expects a tighter monitoring of credit risk and creditworthiness of loan and loan costumers (European Commission, 2005).

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3 Method

Within this chapter the research design of the thesis will be provided. The different research approaches that are undertaken will be explained and the methods used for the data collection will be presented and motivated. Finally, a review of the research trustworthiness, reliability and validity will be given.

3.1 Research Design

In order to fulfil the purpose of the thesis, where the authors want to investigate how Swedish banks are managing their credit assessment to small business and the effect of Basel III, it is of importance to develop a research design that is adjusted to its object. A research design provides the activities for the research and specifies the methods for collecting and analysing the needed information (Zinkmund, Babib, Carr & Griffin, 2010). Yin (2003, p. 20) adds that "*a research design is a logical plan for getting here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions (answers) about these questions*". The plan for this research takes it starting-point with research questions, which the authors have constructed based on the underlying problem discussion and purpose. The aim is to answer these questions in the result section, where collections of relevant theories and empirical findings are needed for the specific area of interest.

3.1.1 Deductive and Inductive Approach

A research project is in need of theory and there are different research approaches that can be assigned in order to understand the use of the theory and the design of the project (Saunders, Lewis & Thornhill, 2009). The two main approaches to theory are inductive and deductive, which both are applied within this study. An inductive approach seeks to build up a theory derived from the data collection. A deductive approach is the opposite and assumes that a clear theoretical framework and research questions is developed before the empirical work, and the researcher design a strategy to test the theory (Saunders et al., 2009).

This research is primarily based on a deductive approach, where the authors first gathered a complete theoretical framework, by reviewing literature within the area of the subject. With use of Internet, databases and library catalogues, academic journals and books the authors were able to identify theories and ideas that were adapted in the research. Databases were the main source for the theoretical framework, and the authors used to a large extent ABI/Inform, Business Source Premier and Scopus. The empirical findings were as a next step derived from the theoretical framework, followed by analysis and conclusions that were composed by allocating similarities and differences between the theoretical framework and the empirical findings. Hence, the research is not completely deductive, when there have been little research with in the area of Basel IIIs' effect of the credit assessment to small businesses. Thus, theories were not easily accessible before the data collection and therefore an inductive approach were also undertaken.

3.1.2 Descriptive and Explanatory Purpose

In the research method literature, three different purpose of the research are discussed, explanatory, descriptive and exploratory. This study is of descripto-explanatory nature, where a descriptive research is a precursor to an explanatory. A purpose with descriptive nature refers to trying to identify and describe a phenomenon (Saunders et al., 2009), which can be traced to the first research question:

- *How does banks mange the credit assessment for small businesses in order to minimize the credit risk?*

The authors want to identify and describe banks' credit assessment to small businesses.

A purpose with explanatory nature is an extension of a descriptive research and further analyses and explains why or how something is happening and tries to explain relationships among variables (Saunders et al., 2009). This can be traced to the second research question:

- *How will the expectations of Basel III affect this credit assessment and small businesses ability to receive loan?*

This research further tries to explain the relationship between Basel III and the credit assessment, how the regulations affect the process and small business ability to receive loans.

The third research questions is a complementary purpose:

- *In the previous two questions, are there any significant differences between smaller and larger banks?*

Where the authors want to describe allocated differences regarding the size of the bank.

3.1.3 Qualitative and Quantitative Research

Both Zinkmund et al. (2010) and Saunders et al. (2009) are indicating that it is important to match the right type of research method with the particular research questions and purpose, in order to obtain useful results and meet the researchers objectives.

This study is applying a mixed model approach, were both qualitative and quantitative research is used and with triangulate multiple sources of data. Triangulation refers to the use of different data collection techniques in order to strengthen the research and make sure that the data that have been collected are telling you what you think they are telling you (Saunders et al., 2009). Altrichter, Feldman, Posch and Somekh (2005, p. 115) claims that triangulation "*gives a more detailed and balanced picture of the situation*", and consequently this is the main reason for using two different research approaches within this study. The main differences between the two research approaches are that quantitative research refers to data collection in form of numerical measurements, when qualitative research focus on non-numerical data that in its place refers to textual, visual or oral data gathering, with focus on discovering true inner meaning and new insights (Zinkmund et al., 2010).

To obtain a detailed understanding of how banks are acting and deliberating in the credit

assessment, it is of convince that the researcher have a close attendance to the object that will be investigated. In order to do so, a qualitative approach is suitable. This is carried out by conducting face-to-face (personal) interviews with six different banks in Sweden, with the aim to get a further insight of the research problem and meet the objective of the study. The authors believe that face-to-face interviews and the personal attendance will create a trustful situation, were the respondent feel comfortable and therefore reduce the risk of misinterpretation. To amplify that effect, the interviews took place at the respective banks' office.

Further on, to obtain a more credible research, a quantitative research approach is used as a compliment. This is carried out by collecting already computed statistics from organizations and by doing an archival research, were data in form of administrative records and documents are collected and analysed in a different context than its originally purpose (Saunders et al., 2009). This is done to get a better understanding about the field of interest, why banks' credit assessment is important to review, how the economic environment have affected the process and the consequences for the small businesses. The application and use of the different research methods will be explained in detailed in next section.

3.2 Data Collection

3.2.1 Interviews

The qualitative approach in this research is based on primary data, which refers to new data that have been collected specifically for the research project (Saunders et al., 2009). The primary data collection in this research consists of personal interviews with informed employees at Swedish banks.

In order to fulfil the purpose of the thesis, to investigate how the banks are acting in the credit assessment to small businesses, a large sample size is needed to make a trustworthy and detailed research. Out of ten allocated banks with corporation services operating in the Swedish market, six of them were chosen for interviews. The authors decided to interview three smaller and three larger banks[1] with the incentive of allocating differences and similarities between the two segments. The respondents that were interviewed were key persons within the area of credit assessment to small businesses. Their positions are corporate market manager, credit manager or business advisors. In order to obtain as much credible information as possible, the authors decided to keep the banks anonymous during the whole process, when respondents might act inhibitory if their name will be printed. When the interviews are face-to face, the geographical location was restricted to cities in Sweden where the authors could visit the respondents at their offices. All six banks are located in middle-sized cities[2] in Sweden.

[1] For definition see section 1.6

[2] For definition see section 1.6

3.2.1.1 Semi-structured Interviews

Interview is a main tool for primary data collection and is a useful instrument to gather valid and reliable data that is relevant for the research question and to fulfil the purpose of the study. There are different types of interviews that can be undertaken, and the literature refers to three main categories: structured, semi-structured and unstructured/in-depth interviews. The chosen interview outline should be based on the purpose of the research (Saunders et al., 2009). In this research where the purpose is of descriptive and explanatory nature, a semi-structured interview approach is most suitable and is undertaken as the main research tool for the study. Semi-structured interviews refer to interviews that are non-standardised and where the researchers will base their interview from a list of questions on a specific theme (Saunders et al., 2009). The semi-structured interview process is flexible; where the question may not follow the specific order that where outlined before. Hence, in general, all questions will be covered and similar wording will be used for all interviews within the research (Bryman & Bell, 2011). The interview in this research includes open-end questions, which allows the respondents to answer in their own terms and display their knowledge on certain issues (Bryman & Bell, 2011). The open-end questions allow the interviewers to explore the answers and ask additional questions to get further insight of the area of interest (Saunders et al., 2009). Since the purpose of this research requires a detailed understanding of how the banks manage their credit assessment to small businesses and the effect of Basel III, a semi-structured interview with mainly open-end question is suitable. It allows the respondents to tell the authors about their own experience and knowledge, and reasoning why the subject is of interest.

3.2.1.2 Interview Execution

In order to keep the research in line with the purpose of the thesis, the respondents were carefully chosen by the authors. After an exhaustive review of the Swedish banking sector, ten banks with corporate services were allocated. Due to time and geographical constraints[3], six banks were chosen for interviews. In order to balance the study, the authors decided to interview three banks from each size-segment. To define the size of the banks, the authors reviewed the banks annual reports and categorized the banks after their net interest income within their Swedish operations [4].

The authors decided to contact the banks in person and went to the bank offices for examine the interest of being a part of the research. There were positive responses from all banks and the best suitable respondents for the interview were assigned to fit the purpose of the study. Upon discussion with the banks, interviews were booked with key persons within the field of credit assessment to small businesses at the respectively bank.

As a next step, a structured interview guideline was established with mainly open-ended questions with the aim to create discussion and implementations of the subject. The questions were derived from the theoretical framework and were divided into three parts in

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3 See section 3.2.1 for further explanation

4 See appendix 1 and for definition see section 1.6

order to meet the purpose of the thesis. The first part contained general questions about the respondent and the bank's operations with small businesses. The second part focused on the credit assessment of small businesses and the last part concerned the Basel accord and its effect on the credit assessment. The guideline and the interview were carried out in Swedish, as all the participants were Swedish citizens. Consequently, it reduced the risk of misunderstandings and more information could be located when the respondents feel more comfortable when using their native language. The question guideline is found in appendix 3, and the same guideline was used for all interviews.

Upon request from the majority of the banks, the interview questions were sent to the respondents in advance by e-mail. This made it possible for the respondents to prepare their answers and the authors believe that it can result in more detailed and accurate information. The interviews were carried out at the respectively banks office and the duration were between 30-45 minutes. The authors decided to audio-record the interviews, in order to stay focused on the respondent and be able to bring further discussion and ask additional questions to generate as much information as possible.

3.2.1.3 Interview Challenges

One factor that is important to take into consideration is the trustworthiness of the respondent's answers during the interviews. The respondent is the bank's public face and might answer in the banks' interest, hence embellish the picture. The respondent can also act inhibited because of the audio recording and may not tell the whole story. Further, the qualitative research is the primary source of this study and mainly based upon few persons' answers. This may bias the research, when the analysis and conclusions are in consequently to large extent based upon their knowledge and understanding of the subject. How the authors manage these challenges to create a credible research will be treated in section 3.4 Quality Assessment.

3.2.2 Statistics Collection

The quantitative approach in this study is based on secondary data, which refers to data that has already been collected (Saunders et al., 2009). In order to get a deeper understanding about the problem and put the empirical data in context to the purpose of the thesis, the economic state of the Swedish market is convenient to study. Within this research two different quantitative methods were used, pure statistic collection and an archival research.

The first method, the pure statistic collection, was conducted by collecting already calculated statistics from four different organisations. The organisations used were:

Authorisation Centre (Upplysningscentralen - UC): Sweden's largest and leading business and credit information agency. UC is owned by the major Swedish banks and provides credit reports and decision support for credit ratings (Authorisation Centre, 2012). Website: www.uc.se

Statistics Sweden: A Swedish state administrative authority that is responsible for official statistics and other government statistics (Lagen.nu, 2012). Website: www.scb.se

The Swedish Financial Supervisory Authority: A Swedish public authority with the role of promoting stability and efficiency in the financial system. They authorise, supervise and monitor all companies operating in Swedish financial markets (Swedish Financial Supervisory Authority, 2012). Website: www.fi.se

The Swedish Riksbank: The Swedish central bank and has responsibility for monetary policy with the objective of maintaining price stability (The Swedish Riksbank, 2012b). Website: www.riksbank.se

The statistics that were collected to study the Swedish economic conditions were: Gross Domestic Product (GDP), bankruptcies, financial institutions' credit losses, inflation, the Swedish Riksbank' interest rates and the reporate. In order to see the development of the variables, the authors collected numbers, as far back that was accessible. All numbers were retrieved at the organisations websites and diagrams were created with use of excel.

The second method that were used in order to collect useful statistics was an archival research, where the authors computed calculations based on records from banks' annual reports. The same ten banks that were allocated before the interview selection, was used for this research. The calculation was made to get a clear picture of the credit losses that the Swedish banks with corporate services have been confronting during the past nine years. All numbers were conducted from the respectively banks operations in Sweden. The calculation was made in excel and six smaller and four larger banks were used in order to get an extensive measure. To be able to make the archival research easily comprehensible and show accurate calculation of the credit losses, the authors decided to calculate each banks' total credit losses in relation to their volume of lending to the public (see appendix 1). This when smaller banks have in general less volume of transactions than larger banks and therefore also have less credit losses, the measure might be misleading. Likewise, when not all banks report in the same currency, the calculation might have been difficult to interpret.

When both the archival research and the pure statistic were completed, one major difference was allocated between the authors' own calculation of credit losses and the one computed from Statistic Sweden. The authors investigated the reason for this difference and allocated the impact of one of the banks' credit losses in the archival research. The bank "Swedbank Sjuhärad" showed distinct different numbers during a few years and the authors decided to do exclude the bank from the research to make it more accurate. The result will be shown and further discussed in section 5, the economic state of the Swedish market.

3.2.2.1 Challenges With Statistic Collection

In order to conduct a reliable calculating of the banks' credit losses during the last years in the archival research, the variables of total credit losses and volume of lending to public were used. Hence, the calculating might be biased within this research when the purpose is to investigate banks credit assessment to small businesses. Instead it would have been more accurate to use the variables narrowed to banks corporate operations. When only a few of the banks had divided the parameters between the private and corporate banking, the

authors decided to use the total amount for all banks in order to stay consistent.

Further, within the archival research, one of the banks had not released their annual report for 2011, before the research were completed. The authors decided to still include the bank in the calculation, when they did not expect this lack of one year would bias the research.

3.3 Data Analysis

After the data collection, the result and analysis part is derived as a next step. The collected data have to be prepared for the analysis, where for example the qualitative data have to be conversed in to word-processed text (Saunders et al., 2009). Since, the interviews within this research were audio-recorded, the authors transcribed a summery of each interview with use of well-developed bullet points. When the interviews were carried out in Swedish, the bullet points were immediately translated to English. The transliteration was used as means for the empirical findings constructing in the interview responses chapter.

Saunders et al. (2009) describe three main types of qualitative analysis processes that can be used for grouping the data: summarising (condensation) of meanings, categorising (grouping) of meanings and structuring (ordering) of meaning using narrative. Within this research a summarising and categorising process is undertaken. The empirical finding of the interviews were categorised into smaller and lager banks with the intention to easier allocate differences between them. These two categories were further subdivided in the three different areas, small businesses, the credit assessment of small businesses and the effects of Basel accords. The interviews were additionally summarised, which refers to compressing the meaning of large amount of text into briefer statements (Saunders et al., 2009). This is done to avoid repetition in the study, when the banks might answer similar to the questions, hence the authors decided to summarise their statements within the two given categories: smaller banks and larger banks.

The statistical section is provided as a preparation for the analysis chapter, in order to support the analysis made from the interview findings. In this section, the economic state of the Swedish market, the authors provide statistical findings in form of diagrams, followed by an interpretation of these. The pure statistic collection and the archival research were combined within this section, when the purpose of the two collection techniques is to describe the economic condition in the Swedish market.

When the result section, including interview responses and the economic state of the Swedish market, were completed the analysis section was derived as a next step. The section was structured according to the areas within the interview section in order to make it as perspicuous as possible. Starting with an interpretation of the responses concerning the category small businesses, followed by the credit assessment of small businesses and finish with the analysis of the effects of Basel accords. The interview responses were reconnected with the theoretical framework and the statistical findings in order to support the interpretation made with existing theories.

3.4 Quality Assessment

Quality assessment is an important element to consider when it comes to evaluate the quality of the research. The terms of reliability and validity are two important aspects for the assessment that can be used for both quantitative and qualitative research. For qualitative researches, Guba and Lincoln (1985) propose one other concept: trustworthiness. Trustworthiness will be applied and incorporated in the research in order to obtain a high level of reliability.

3.4.1 Trustworthiness

According to Guba and Lincoln (1985), trustworthiness is build upon four criteria: credibility, transferability, dependability and confirmability.

Bryman and Bell (2011) argue that the level of credibility refers to the level of acceptability of others. They further argue that a high level of credibility can be achieved by triangulation and respondent validation. Respondent validation refers to the process whereby the researchers provide the respondent's with an account of the findings in order to receive respondents' feedback. To be able to assure the credibility of the research, the authors audio-recorded all interviews in order to eliminate possible misunderstandings and misinterpretations. To handle the challenge when the respondent might act inhibited due to the audio-recorded, the authors explained in detailed the purpose of the recording. The authors tried to make the respondent feel calm and did not put any attention to the recording equipment during the interview. In addition, to assure credibility, the study was also sent before publishing, to all respondents for approval. Further, the authors did an external check on the research (peer debriefing), in form of a colleague with knowledge within the subject made an extensively review of the research.

Transferability refers to the capability of the context in the research to be transferred to another milieu (Bryman & Bell, 2011). Transferability is met by providing a "thick description" of the respondents' answers in order to allow someone interested in making a transfer to make a judgement concerning whether transferring can be considered as a possibility. Bryman and Bell (2011) referring to Geertz (1973), explains a "thick description" as a broad explanation of elements of a culture (Bryman & Bell, 2011). This criterion is met by giving a rich description of the empirical findings. Where also the banks answers are separated in a table to allocate the unique responses. Further, the empirical finding includes both statements and numerical figures to provide a broader picture within the subject.

Bryman and Bell (2011), referring to Guba and Lincoln (1985), find dependability similar to the evaluation criterion reliability in quantitative research[5]. According to Guba and Lincoln (1985), the preferable way of assuring dependability, is to adopt an "auditing" approach. Taking this approach ensures that all phases in the research process are held in an accessible way. The authors are meeting the criteria dependability by providing a detailed research design that is comprehensible and easy to follow.

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[5] Look at section 3.4.2 "Reliability and Validity" for explanation of Reliability

The fourth and last criterion, confirmability, is described by Bryman and Bell (2011) as the presence of thoughts of the researchers to act in a good faith. This criterion is met by that the authors where constantly aware of keeping a neutral stance and not allowing their personal beliefs influence the conduct of the research and conclusions derived from it.

3.4.2 Reliability and Validity

Since the study is of both qualitative and quantitative data, it is also important to evaluate the research based on the terms reliability and validity. According to Bryman and Bell (2011) reliability concerns the consistency and reliability of measures; in other words how consistent the research and the result is. A trustable result should yield the same result if the study is repeated under another period of time. To obtain a high level of reliability of the research, the authors made sure that the respondents were key persons within the research area and used the same question outline for all interviews. When being consistent with the questions the authors expect to receive similar answer from each of the banks. Hence, when the interviews are semi-structured this might not completely hold, due to the room of additional questions. The author believes that the additional information that was generated was of significant importance and therefore stayed with the semi-structured interview approach. To further assure the reliability of the qualitative research, the time of the interview is important to consider. All interviews took place within the same time interval in order to see the consistency. In this research all six interviews were between 30-45 minutes and the authors can say that the measure of reliability holds. To assure the reliability of the quantitative research, the authors were critical of the choice of sources. Only credible and well-known authorities were used for the pure statistic data collection. For the archival research, the data was collected from the 10 banks' financial reports. Further, no assumptions were made concerning these figures that can risk the result of the calculations.

Bryman and Bell (2011, p. 159) explains validity as it "*refers to the issue of whether or not an indicator (or set of indicators) that is devised to gauge a concept really measures that concept*". That is, if the methods that have been undertaken to conduct the data collection really examines the purpose of the study. The authors ensured the validity by designing the data collection to fit the purpose of the thesis. The interview questions were derived from the theoretical framework and designed in order to answer the research questions. The questions were carefully designed in order for the research result to generate an accurate picture of the reality.

The statistic data collection was established to get a better understanding of the research topic. All the variables used, are good measures of the economic state of a nation. The diagrams and figures were designed to fit the purpose of the thesis, where credit losses and bankruptcies were put in focus and the development of the Swedish Riksbank' interest rates were shown. The objective of the statistic data collection is to compliment the interviews, where numerical numbers are validating the research. As the respondents' answers might be biased, as argued before, the statistic collection is useful in order to describe the reality. Finally, the authors were during the entire process returning back to the purpose of the thesis, in order to make sure the all parts were relevant for the research.

4 Interview Responses

In this section the response of the six interviews will be presented. The summarised responses are divided into two subsections: smaller banks and larger banks. For an introduction of the respondents and tables that summarises the findings look at appendix 4 and 5. The six respondents will be kept anonymous due to confidentially agreement.

4.1 Smaller Banks' Interview Responses

4.1.1 Small Businesses

The three banks differ in their definition of small businesses. Two of the small banks define a small business as according to turnover, a business with a turnover up to 20 million Swedish kronor is considered as small according to one bank while the other bank sets it's definition up to 10 million Swedish kronor. The third bank defines a small business according to number of employees, a business with nine or fewer employees are defined as small. At two of the banks, small businesses represent a large part of the banks' customer stock.

The three banks consider small businesses as important customers segment. One of the banks reasons that small businesses are important for the municipal that the bank operates in, which provides job opportunities and stimulates the municipal. Additional, one of the banks says that small businesses have other existing relationships with the group that the bank belongs to. Hence, they claim that it is important to offer those customers banking services in order to deliver a good full service.

None of the banks were able to give an exact estimate of credit losses among small business customers. On local area, one bank, do not have any credit losses at the moment this is due to the short time operated in bank services to corporations. Two of the banks reason that, operations that may lead to credit losses are more among small businesses but the consequences of credit losses among large businesses are superior. One of these two banks further argues that the problem with small businesses is the lack of knowledge of running a company. Two of the three banks agree that the profitability in the small business customer segment is high with respect to credit losses. The third bank says that the profitability in respect to credit losses has to be enough to cover the banking business, but overall it is about keeping already existing customers.

4.1.2 The Credit Assessment of Small Businesses

4.1.2.1 Credit Process

The credit process to small businesses looks roughly the same for the three banks, where the business plan, the company's principals, repayment capacity, historical records, budget and securities are taken into account. These parts are together creating an overall picture of the business and the project, which lies as a base for the credit decision. At one of the banks the decision is taken at the business advisor level. The credit manager is sometimes involved depending on how complex the operation is or if it regards a new customer.

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In general, the credit process for small businesses does not differ from larger businesses. At one bank the difference lies in that the decision is closer to the business advisor for small businesses. For another of the three banks the difference lies in new started business where there is an increased risk the first three years. One bank denotes the time consumption as a factor that differs; generally larger businesses are more time consuming than smaller businesses. In addition, in some cases it can be difficult to collect the information needed as basis for the credit process for small businesses. In fact, all information may not exist.

At one of the banks the most important factor for a credit decision is the business plan and the business' principals. The latter of the two factors is of special importance since the whole business is build by and upon these persons. The two other banks base their credit decision upon the size of the credit and the main focus lies in budgets, the business plan and to some extent, external sources such as UC. The obstacle that one of the banks denotes, also mentioned above, is the problem of receiving necessary information, as budgets may not be prioritised by the business. What a second of the three banks finds particularly important is the business' cash flow. The credit manager of the same bank adds that if the credit decision regards a new customer or if there is a history of liquidity problems, extra information is needed.

When it comes to the use of external rating models, the three banks use UC, which can provide information about credit history, financial statements and profitability among other factors. All three banks use internal rating models, however at one banks the use of an internal rating model depends on the size of the credit.

The three banks have different opinions regarding if they have become more careful in their credit judgement of small businesses, with respect to the recent financial crisis. One bank thinks that it has generally become harder to receive credit nowadays, especially after 2008. A consequence of this is that the bank now focuses more on the payment capacity of the company than on historical figures and securities. The second of the three banks argues that they are not more careful in their credit judgement today in comparison with 20 years ago. The credit manager gives the bank's geographical position as a reason for that, as they have not been as widely affected by the recent financial crisis as the rest of Sweden. However, the credit manager believes that they require more information today in comparison with 20 years ago. The reason for that is, in the past the analysis of the customer where not as complex as it is today. The banking system today relies on collecting financial statement that lies as decision basis for which risk category the business should belong to. But overall, the credit manager adds, this should not affect the credit. The third bank does not believe that they are more careful in their judgement today, as they have only been active in the corporation market since 2010. He further adds, based on previous experiences, that overall the banking sector are more complex today. This has caused stricter requirements from corporations.

4.1.2.2 Information Gathering

The process of information gathering looks similar for the three banks. The banks use UC, financial statements and budgets as significant sources of information. Two of the banks denote the importance that the customer delivers underlying reports. One of the two banks uses the reports in combination with information mentioned above and compares the business with other businesses in the surroundings. The second of the two banks adds the use of internal databases, business mortgage register and land register as sources of information.

Regarding the problem of collecting credible information, all three banks agree that it is of convenience to have an auditor providing the financial figures of the business. In addition to this, one bank emphasise the importance of the person behind the business and another of the banks relies widely on the customer.

When discussing if the requirement of information for small businesses has changed over the last 20 years, all three banks agree that it has in some way. Two of the banks remember the 1990's as a century that was more focused on old financial figures and the securities that the business had. Now, the credit process is more prospectively looking and repayment capability is the most important factor. The credit manager of the third bank agrees with this, based on personal consideration from previous experience, since they only have been in business since 2010.

Regarding how the banks can ensure that the borrowed money is used for the stated purpose, all three banks are tackle the challenge similarly. One of the banks states that investments concerning e.g. vehicles or machinery are mostly financed by instalment or leasing, where the bank pay the invoice. Another of the banks adds that they put up an instalment loan or a lease agreement with the item as security. So is also the case with property investment, where one bank uses the invoices as basis for the loan payments. One bank further adds, that they have direct access to mortgages bonds on the property, which means that they can have control. Additional one of the banks states, if it concerns new construction, residential or commercial real estate, they always do regular visits to monitor the construction and thereby evaluate the payment pace.

Concerning other credits, as business loans, two of the banks agree that it can be difficult to ensure that the money uses to the stated purpose. All three banks are tackle this by putting emphasises on trust and having a good relationship with the customer. One of the banks adds that in cases where they cannot guarantee that the customer uses the money to the stated purpose, they base the credit decision on the customers' repayment capacity instead. Which means the investment itself is not crucial for the customer to repay the loan.

4.1.2.3 Price of Credit

Regarding if the credit price has changed over the past 20 years and if small businesses pay higher price, the three banks differ in their opinion. One bank believes that the price on credit for small businesses has decreased. He further clarifies that in comparison with larger corporations small businesses pay less for the credit they receive. The reason for this could be due to the competition in the market. Another bank attempts to set price according to

risk, hence credible companies receive a good price and less credible companies receive a less advantageous price. The credit manager at the same bank further adds that in the past the interest rate where more focused on the security, same security same rate, now it is more about the overall risk profile. In addition to this, he argues that the interest rate is due to volume; larger corporations often request larger credits. Since all credit processes has the same cost of preparation, larger companies with larger credits will receive better price. The third bank thinks that price on credits has increased over the years, which is due to the Basel regulations. For the bank, the cost of lending to corporations is higher than for residential customers. This is due to capital requirement announced by the Basel Committee, as the bank need to hold more equity when lending to corporations. Further, the credit manager at the same bank does not believe that small companies pay higher interest rates, which can however be the case for start-up companies.

4.1.3 Effects of Basel Accords

When discussing how the Basel requirements have affected the lending to small businesses, the three banks agree on that they have not seen a remarkable difference. As one of the banks joined the corporation market after the implementation of Basel II, the only concern that they face is to charge the right price for the right risk. One other bank agrees with the concern of charging the right price, as the bank follows the directives provided by the Basel Committee, the "standardised approach", to calculate the minimum capital requirement. In addition, as the three banks have not seen a remarkable difference from the Basel framework implementation they agree on that they have not experienced any notable problems with adapting to it.

When it comes to adapting to the Basel III requirements, the three banks have not experienced any essential difference. One bank is currently working on the LCR, that saying working on to have "*good quality liquidity for 30 days*". Another of the banks have experienced a slightly increase in the internal rate.

Further on, two of the banks do not believe that this has affected the ability of small businesses to receive credit. However, one of the two banks adds that in some case this may have affected loan agreement for new customers. The credit manager at the third bank speculates in that this might affect lending to small businesses in that price may rise and a consequence of that could be that the customer gives up an investment.

Finally, to the question if it is possible for a small business to receive credit but to a higher price the banks agrees on that the answer is no, but yes to some extent. If the credit decision is no, the price is not important and cannot compensate the risk. Hence, all three banks argue that a higher interest might be the case in some situations. For example as one bank state, if it regards a new customer or a customer who do not intend to have multiple products within the bank. Another of the banks further states that the new regulations force the banks to charge higher prices in order to offset the stricter requirements, which includes higher cost for the bank.

4.2 Larger Banks' Interview Responses

4.2.1 Small Businesses

The three banks define small businesses according to turnover, although the level of the definition differs. One bank does not have a straightforward definition but the approximately level lies on a turnover up to 50 million Swedish kronor. Further credit volumes lies approximately below five million Swedish kronor. The second of the banks defines small businesses due to a turnover below 100 million Swedish kronor. The third of the banks put their definition to a turnover up to 10 million Swedish kronor.

The three banks agree on that small businesses are important customers. Overall, small businesses account for a large share of the banks customer base. They further argue that they are important for the society and for the bank. One of the banks says that it is important to collect all bank activities that the small business has in order to provide the customer with a good full service. One other bank denotes the importance of developing a good relationship with small businesses and with the person behind the business.

The larger banks further agree upon that credit losses within this customer segment are not seen as a problem. With this in mind the profitability with respect to credit losses is good for small businesses. One bank argues that overall the profitability is superior for small businesses but the profitability per customer is higher for larger businesses. The three banks argue that the profitability of small businesses lies in transforming the customer into a "full customer". Full customer refers to adapt the costumer with all the different activities that the bank offers.

4.2.2 The Credit Assessment of Small Businesses

4.2.2.1 Credit Process

Regarding the credit process to small businesses, the larger banks differ the credit process between existing customers and new customers. At one bank, for existing customers the process depends on the trust in the person behind the business, in addition to this they look at history of financial statements, budgets and the specific investment object. In the process for new customers the bank make a judgement of the business idea, business plan and budget. The most important questions for the same bank is: To whom are we lending money? How does the repayment capability look like? And what kind of safety do we need to require for this? At another of the banks the credit process starts with a request from the small business customer. If the credit regards an existing customer, the first stage of the process can be handled by phone. The first stage of the process is to request information; this includes budget forecasts, liquidity forecasts and investment calculation. The same bank emphasis that the decision is affected by how prepared the customer is when delivering needed information, as the bank stress the importance of the customer to deliver information itself. Although, they always controlling the validity of the information. When the needed information is collected the internal process starts. The internal process includes estimations regarding if the customer will become able to pay back the loan based on the customer's cash flow. The focus is in the repayment capability, the person behind the business, the business it self, the industry and securities. The third bank focus on the

steadiness of the customer, if it is an already existing customer this is particularly important. Second it is important to listen to the business idea and see the capability of the customer to contribute with equity. Further, the bank look at the repayment capacity, which is based on the customer's cash flow.

In general, the three banks do not differ in the credit process concerning small businesses in comparison to larger businesses. One bank denotes the importance of the relationship with the person behind the business, which is more important when it comes to smaller businesses. Another bank argues that there is often a more established relationship with larger businesses. The same bank further argues that the bank may operate more as an advisor in areas where the customer has lack of knowledge, which can be more time consuming.

Factors that the banks denote as particularly important are financial statements and the relationship with the person behind the business. Financial statements show how the company has been run and the repayment capability.

The three banks use internal rating models and sometimes one of the banks complements the internal model with UC. Another bank uses external rating models for larger companies but this does not occur for small businesses.

Generally the three banks agree that they have not become more careful in their judgement of small businesses today in comparison to 20 years ago. One bank argues that if is more about different businesses areas, if some business area is unstable at the moment the bank becomes more careful.

4.2.2.2 Information Gathering

In the process of information gathering, the three banks emphasis that the customer provides necessary information. The information that is needed is budgets, liquidity forecasts and investment calculations. One bank prefers that an auditor has examined the information and in addition to this if the credit application involves an investment the bank wants to see job estimations. The second of the three banks uses external sources such as Internet and papers in order to broaden the knowledge about the particular business area. The third bank collects pure financial figures from UC and the Swedish Company Registration Office. In addition to this, financial statements are gathered.

Regarding if the three banks experience that it can be difficult to receive credible information from small businesses the banks are actively working towards minimizing this risk. One bank mentions that questions may arise in situations with new customers where the bank does not have old financial statements and no history about the customer. The questions that arise are: What is the reason for them to come to us? If it is a new business but has an existing relationship with another bank? To tackle this problem the same bank follows its stomach feeling about the customer, based on the perception of the business and the person behind the business. A second bank, work against the problem in the way that they try to be clear to the customer that in order to give good service the bank needs decent material. In addition to this the bank tries to collect information about the business

area through Internet and benchmarking. The third bank tackle the problem by working on having a good relationship with the customer and also gather enough information to understand the business. The same bank further denotes the importance to always follow common sense and stomach feeling.

One of the banks believes that over the last 20 years, they have experienced an increased in the requirement of information from small businesses. The reason for this is that there exists more information today in comparison with 20 years ago. In addition, another one of the banks says that the change that they have experienced is that the bank wants to have more activities with the customer than just the credit. They are trying to develop the "full customer" concept.

If a loan is approved, the banks have to make sure that the borrowed money is used for the stated purpose. If the purpose is property or leasing, all three banks require invoices from the customer before the credit is supplied. In the case of business loans, e.g. overdraft credit, all three banks state that it is more difficult to get proves what the money is used for. Consequently, they emphasize the importance of a good relation with the customer and a mutual trust. One of the banks adds that they are always visiting the business if they have for example a garage, store or business premise.

4.2.2.3 Price of Credit

Regarding if the credit price has changed over the past 20 years and if small businesses pay higher price, the three banks agrees that it has increased. One of the banks states that it has been more expensive to obtain capital for the bank and in consequence it has been more expensive for the customer. Two of the banks claim that it in the past it was more about the credit, but now the focus lies in the overall activities at the bank. One bank explains that the banking competition has become tougher during the recent years and therefore the actual price of credit has become lower. In the past it was more about deposits and lending, now it more about all the activities that the bank offers. In general the bank earns less on the credit and have to compensate the revenue by other offers and that is why they are working with the "full customer" concept.

Two banks further argue that the price change is not specific for small businesses, and one of the two banks claim that the interest is based on the industry and how complex the business is and have nothing to do if it is a small or lager business. The same bank adds that the price is put upon two criteria: risk and other activities in the bank. If the customer has many activities in the bank they can lower the interest rate.

One of the banks claims that the volume of the credit can affect the interest rate and in usual a larger credit generates in a lower price. When larger businesses generally request larger credits and consequently they receive a lower interest rate. They further state that a small credit requires the same process and has the same initial cost as a larger credit, and therefore the price of a small credit can be higher. The same bank claim that the price is based on how healthy the business is and states that the rating model is crucial. The rating model has changed over the time and is now more detailed and includes more variables,

such as qualitative factors. These can be in form of the business principals, management and their knowledge and capacity that can affect the price.

4.2.3 Effects of Basel Accords

Regarding how Basel I and II have affected loans to small businesses two of the banks argue that the affect lies in increased cost of lending and thus the cost of borrowing for the customer. This when it becomes more expensive for the banks to obtain capital and the increased cost thus affect the price for the costumer. The third bank says that the increase in information requirement is the change and thus affects loans to small businesses.

The three banks are currently working on developing to the new regulations of Basel III. One of the banks started to prepare for Basel III regulation even before the Basel II was compulsory. One of the banks has shortened the time horizon on their credits. It is more convenient for the bank to have shorter credit period and extend them more frequently. This when the customers need to hold more equity during a longer time period if they have a longer time horizon on the credit. Thus, the bank does not believe it has affected small businesses ability to obtain credits. Two of the banks argue that it will become more expensive for banks to attain capital and therefore it will cost more for the customer. The banks argue that this was the case for the transition between Basel I and Basel II and Basel III will further emphasise this effect. They clarify that the higher price does not imply higher margins for the banks.

One of the banks develops to Basel III by regularly update their internal tools that are used for pricing credits based on risk, capital requirements among other factors. This implies increasing revenue or minimizing risk. They work towards increasing revenue by offer multiple products to the customer and by applying the "full customer" concept. In that way they compensate the lost in revenue of credits, with other activities. An alternative way is to raise the interest margin on the credit. In order to minimize the risk they devaluates credits or strengthen the securities in the commitment.

Finally, the banks state that it is still possible for small businesses to borrow money, but two of the banks state it in some cases may cost more. The credit process is still the same and as one bank mentions, they still have to understand the business and allocate how much cash-flow the bank require from the business in order to cover the capital requirements. Hence, it can be to a higher cost due to the new regulations and if the customer has no intend to adapt to their "full customer" concept, they can charge a higher interest. Two of the banks makes it clear once again, it is not about higher margins but only to cover the increased cost for the banks. One other bank further argues that it is difficult to compensate risk by price and their rating model is still crucial when pricing credits.

5 The Economic State of the Swedish Market

In this section the economic state of the Swedish market will be will be presented and discussed. The state is of convenience to study in order to put the empirical data in context of the purpose of the thesis. This will lie as a base for the analysis section of the research.

5.1 Gross Domestic Product and Bankruptcies

Economic activity can be measured by studying the development of Gross Domestic Product (GDP). The economic state in the market affects the banking sector and a radical decline in the economy can generate major credit losses for the banks, as borrowers are not able to repay their loans. GDP is therefore a suitable measure when discussing credit losses. Credit losses are in general caused by bankruptcies and there is a positive correlation between the two variables, showed in figure 3. Hence bankruptcies can be seen as an approximately variable for credit losses (Lindhe, 2000).

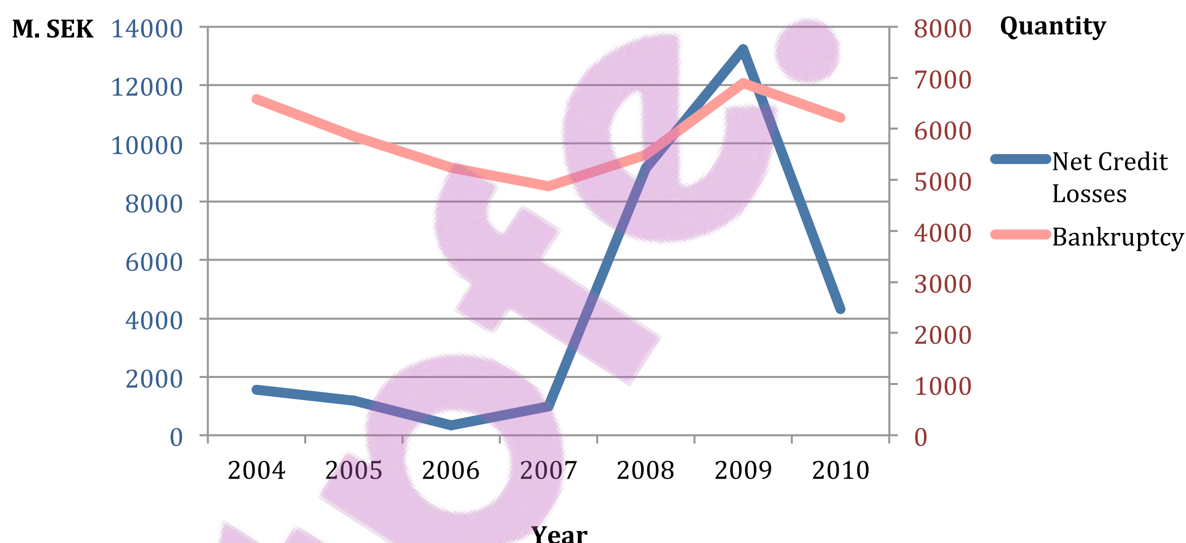

Figure 3. *Net Credit Losses and Bankruptcies in Sweden*. Source: www.scb.se

As seen in figure 3, the two variables are positive correlated. They follow roughly the same patterns with the exception from the extraordinary high degree of credit losses in 2008-2009. One drawback of using bankruptcies as a forecast of credit losses is that the number of bankruptcies does not consider the size of the business and its debts. Although, statistics show that 99.52 percent of the total bankruptcies in Sweden 2010, was generated by businesses with less than 50 employees (Swedish Federation of Business Owners, 2011). This fact highlights the importance for banks to consider the higher risk of lending to small businesses in order to minimize credit losses. An efficient way of minimizing risk of banks' credit losses is to undertake a careful credit assessment regarding small businesses.

There is a negative correlation between GDP and credit losses and consequently a negative correlation between GDP and bankruptcies, this can be seen in figure 4.

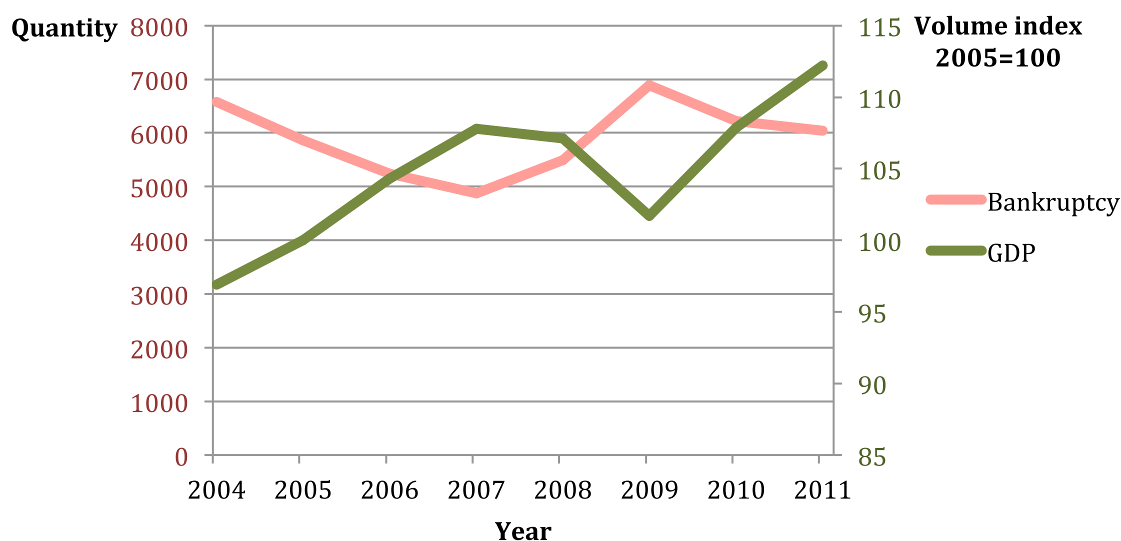

Figure 4. *Bankruptcies and GDP in Sweden*. Source: www.uc.se and www.scb.se

In an economic slowdown bankruptcies are high while GDP are low, which can clearly be seen in the years 2004 and 2009. In this relationship, the GDP and bankruptcies affect each other as when the economy experience an economic slowdown businesses' cash-flow decreases and cause difficulties in fulfilling their obligations. One obligation that is crucial for businesses to fulfil is to repay their debts, in particular bank loans. If the bank does not receive their loan repayments it will generate in credit losses and as argued by Lindhe (2000) is a major factor behind bank crises. When the economy is in a recession, it is important to stimulate the consumption in order to boost activities in the market. This will generate in a positive cash-flow for businesses and thus decrease the probability of bankruptcies and reduce banks' credit losses. The consequences of a recession show that it is important to keep the economy on a stable level in order to minimize the risk of bankruptcies and thus the risk of a bank crisis. Lindhe (2000) argues that it has historically been showed that a bank crisis is an obvious threat against this stability. To maintain stability in the financial market and prevent future bank crises, regulations are crucial and this is the reason why the Basel Accord was introduced.

5.2 Credit Losses

As mentioned before, credit losses are one of the most important concerns that banks face. Consequently, it is crucial to highlight this concern and look at the development of credit losses during the last decennium. Figure 5 shows the average credit losses from the ten banks with corporate services that were allocated for the research, where credit losses are put in relation to lending to the public. This is the archival research where numbers were computed from the banks annual reports (see appendix 1). The computed diagram is provided in order to be able to see the problem that is discussed within the research.

Figure 6 shows the net credit losses within the Swedish banking sector and is considered as a support for the archival research. When the whole Swedish banking sector is examined,

all kind of banks are included no matter if they offer only private services or both private and corporate services. Thus, it created the demand for the archival research to compute a diagram based only on data from banks operating in the corporation market in Sweden.

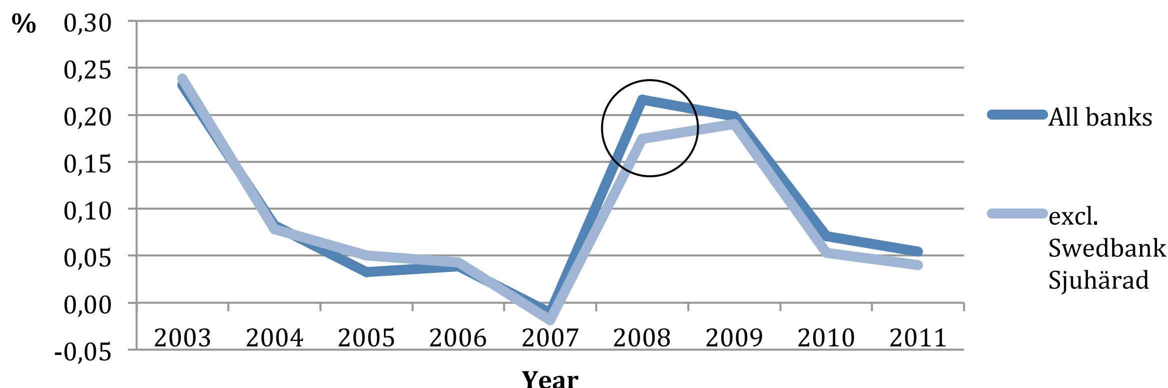

Figure 5. *Credit Losses in relation to Lending to Public.* Source: See appendix 1

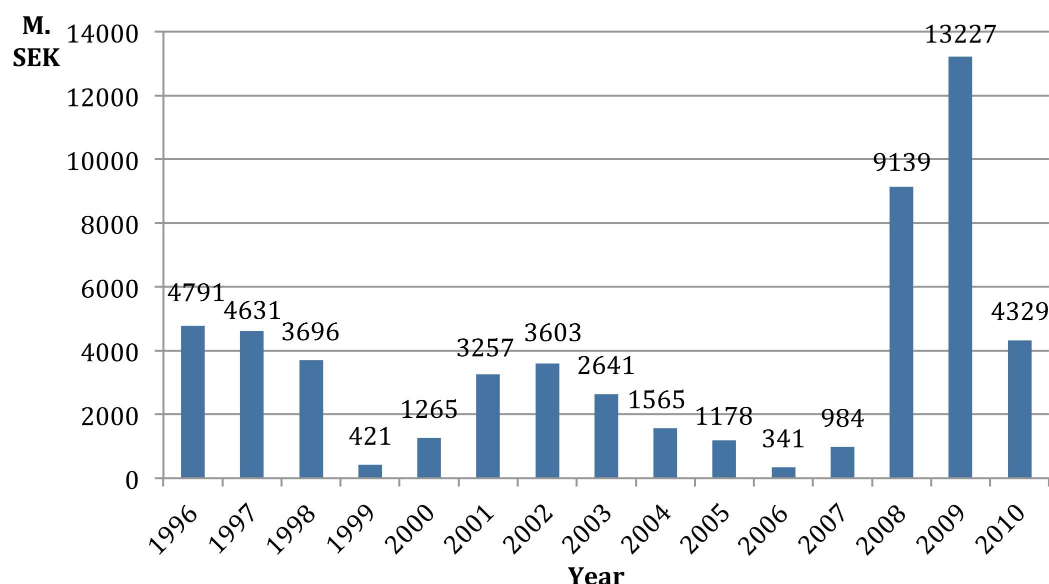

Figure 6. *Net Credit Losses within the Swedish banking sector*. Source: www.scb.se

The two diagrams follow roughly the same pattern starting in 2003. A notable detail in figure 5 is that the credit losses in 2007 are negative. One explanation for this is that the banks budgeting the risk of credit losses and reserve capital to cover possible losses. If loan are repaid without any losses, the reserved capital are reversed in the report and thus cause a decrease in credit losses. The significant difference between the diagrams is that the "all banks" line in figure 5 differs from figure 6 during the years 2008-2009. The "all bank" line show higher credit losses in 2008, whereas it is the reversed in figure 6. This phenomenon is explained by the impact of one of the banks' credit losses in the archival research, as it showed distinct different numbers. Hence the authors decided to exclude

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this bank in the research to see the difference and came up with the "excluding Swedbank Sjuhärad" line. The "excluding Swedbank Sjuhärad" line follows to more extent the same pattern as figure 6 and the differences that first were seen between the two diagrams in year 2008-2009 was smoothed out.

By looking at the "excluding Swedbank Sjuhärad" line in figure 5 and compare this to figure 6, there is still a small difference during the period 2008-2009. Figure 5 has a slightly increase in credit loss during these years, while figure 6 shows a more evident increase of credit losses in 2009. An explanation can be that figure 5 includes banks that operate with both private and corporate services while figure 6 includes all type of lending in the Swedish market, hence includes more percentage of private lending. The difference can be found in the time horizon affect of credit losses. When a recession take place in an economy, bankruptcies are a fact and credit losses are large for banks with corporate services. Bankruptcies in turn leads to unemployment and then trouble private lending as well in the way that people cannot repay their loans. Hence, credit losses for business loans can be shown in an earlier stage than private lending and explain this observed difference.

5.3 Consumer Price Index and Interest Rates

Consumer Price Index (CPI) is an additional measure that is convenient to use to study the economic environment in a country. CPI measures inflation and is in general low in a recession and higher in a boom. The inflation development in Sweden over the last 20 years can be show in figure 7. The Swedish Riksbank has an inflation target of 2 percent (The Swedish Riksbank, 2012c).

Figure 7. *Consumer Price Index.* Source: www.scb.se

In order to keep the inflation at target, the Swedish Riksbank adjust its key interest rate, the repo rate (The Swedish Riksbank, 2012d). The repo rate is the rate of interest at which banks can borrow or deposit funds at the Riksbank for a period of seven days (The

Swedish Riksbank, 2012e). The adjustment of the repo rate has an effect on the overnight rate, were banks borrow and lend money to one another during the day. Both the actual and the expected repo rate have an effect on the market rates, banks' lending rates and interest rates (The Swedish Riksbank, 2012f). The change of the repo rate, the Swedish Riksbank's interest on deposits and lending interest rate over the last 18 years are shown in figure 8.

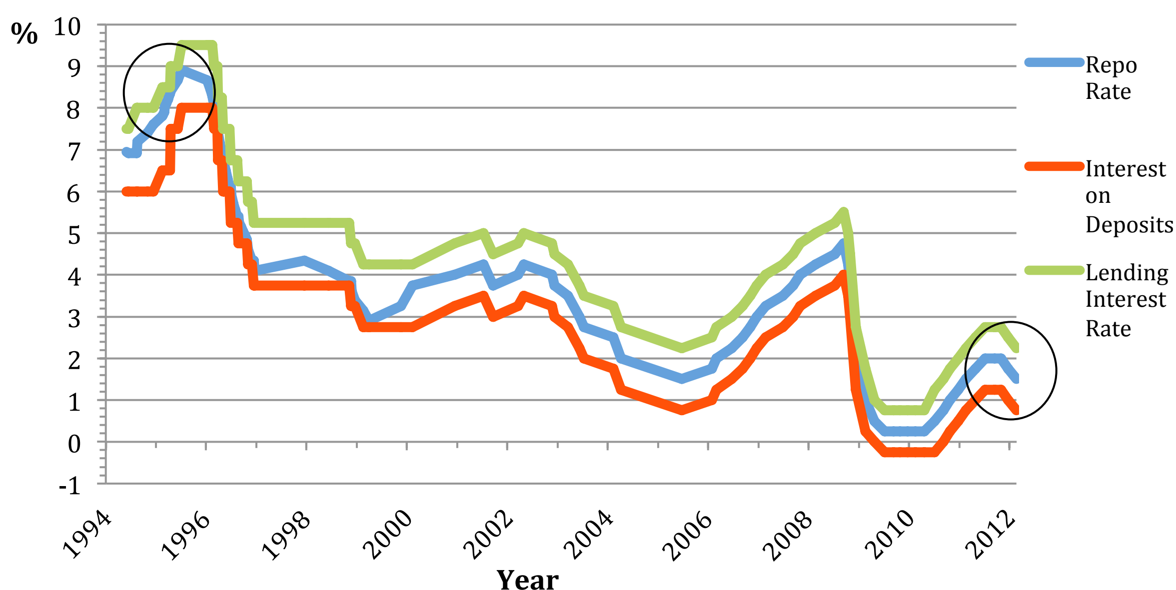

Figure 8. *The Swedish Repo Rate and The Swedish Riksbanks' interest on deposits and lending interest rate*. Source: The Swedish Riksbank, 2012e.

Figure 8 show that the overall interest rate has decreased the last decennium. It is shown that the interest rates have a positive correlation with the economic environment in the country. Based on the assumption that the interest rate that the customer face follows the repo rate, it can clearly be shown that the lending interest rate has decreased during these years. Looking at the CPI index in figure 7, the CPI is almost at the same level in 2012 as in 1995. Having this in mind when looking at figure 8, comparing the same years, the lending interest rate today is significantly lower than in 1995. If the interest rate had exactly followed the CPI pattern it would result in a substantially higher interest rate today. One factor that can explain this is the competition in the market, as borrowers have become more active in the search for the most beneficial loan agreement. This behaviour forces banks to make loan agreement that attracts the borrower, which includes lowering the interest rate. The banks' pricing of credit will be further discussed in analysis section.

However, there is at the moment an up to date debate concerning that Swedish banks' are no longer following the repo rate (Sweden's Television, 2012; The Swedish Riksbank, 2012g). When the Swedish Riksbank lowers the repo rate the banks do not follow this pattern, as argued by David Boati, reporter at Sweden's Television (2012). He states that the competition within the Swedish banking sector does no longer work and because of higher costs for the banks to access capital, the higher margin is necessary. Hence, this is a

debate concerning primarily the private lending in form of housing mortgage loans and does not affect the lending rates to businesses to a large extent (The Swedish Riksbank, 2012g). Therefore the assumption that the banks are following the repo rate still holds, when analysing banks pricing on credits to small businesses.

6 Analysis

Within this section the reader will be provided with an analysis that reflects the authors' evaluation of the findings. The interviews responses will be compared with the theoretical framework and the economic state of the Swedish market. In order to make the analysis as perspicuous as possible the section will follow the same structure as the interview chapter.

6.1 Small Businesses

The definition of small businesses differs from theory to the empirics. As the framework is based upon the EU's definition of small businesses, that is businesses with less than 50 employees and with a turnover less than 10 million euro (European Commission, 2012). All respondents, except one of the small banks, base their definitions according to turnover. The limit of the turnover varies from 10 million Swedish kronor up to 100 million Swedish kronor. It is interesting to notice that only one of the respondents follows the EU's definition. This finding shows us that in general Swedish banks have a considerably lower definition of small businesses than the average of banks in EU countries. Even though the definition differs this will not bias the research when all theories still are applicable but it can be noteworthy to have in mind when evaluating the results.

Generally, small businesses make up a large part of the client market and are highly valued and seen as important customers by the banks. It is although important to be aware of that if banks had used the EU's definition of small businesses instead, this customer segment would make up a distinct part of total customer stock. Furthermore, strengthen banks view of the importance of the small businesses segment. According to the Swedish Federation of Business Owners (2011) small businesses make up 99 percent of all companies in Sweden. As debt is the main source of funding for small business, naturally this generates in that small businesses is a large and important customer segment. With respect to the empirical finding, this reflects the reality well when you keep in mind the lower definition of small businesses that Swedish banks use.

Out of all bankruptcies that took place in Sweden in 2010, 99.52 percent were small businesses (Swedish Federation of Business Owners, 2011). Which implies that it is an increased risk of experience credit losses within this customer segment. The respondents of two smaller banks said that there are more operations that can cause credit losses among small businesses. Nevertheless the consequences of credit losses among large businesses are superior. The remaining respondents claim that they do not see any problem with credit losses for small businesses. The archival research shows that Swedish banks have generally recovered from the large credit losses of 2008-2009[6] and thus, the respondents have this tremendously increase and recovery in mind when they answered the question. It would have been interesting to see how the respondents would answer to the question of credit losses if it had been asked before the crisis in 2008. Would it be considered as a larger concern then?

[6] See section 5.2

The banks believe that small businesses are profitable with respect to credit losses. A common thing among the larger banks is the belief of making customers more valuable by turn them into "full customers".

6.2 Credit Assessment of Small Businesses

6.2.1 Credit Process

Andersson (2001) describes two main categories of information that is involved within the credit process: accounting and non-accounting. These categories can clearly be found in the responses in the interviews. All respondents mention that accounting information such as business plan, repayment capacity, historical records, budgets and securities are of great importance for the credit decision concerning small businesses. The non-accounting information that has been discussed during the interviews is the importance of a good relationship, internal rating evaluations, and perspective from other people within the bank. All banks use some kind of rating model, both external and internal. The rating model can be categorized as accounting and non-accounting information. The main external model that the banks use is UC, which works both as information source and as a rating base. One interesting disparity that should be noted is that the larger banks put emphasis on the internal model and use UC as a complement. While the smaller banks use both internal and external rating models. The internal rating model can be categorized as non-accounting information due to that the statistics within the bank that the model is based upon, are partly built upon non-financial factors.

A minor difference that can be seen between smaller and larger banks is that the respondents of the larger banks extensively analyses the person behind the business. When they are, during the complete interview, repeatedly arguing about the importance of a good relationship and to put focus on the character of the principals. This can be explained by how the person behind the credit decision has been taught to seek information, as Beaulieu (1996) discusses in the theory about the five C's of credit (see section 2.3.2). When looking at the element character within the model, all banks mention the evaluation of the business principals and their capacity and wiliness to repay a loan. Therefore, it can conclude that the character is a central part of the process and agree that the banks' information seeking in the process correspond with the model. Hence, as the larger banks to a larger extent analyses the person behind the business the model can be slightly remodelled concerning this group. The revised model for larger banks is demonstrated in figure 9. The character element is expanded in order to show the importance of the element and show that it has the same level of importance as the accounting information for the credit process.

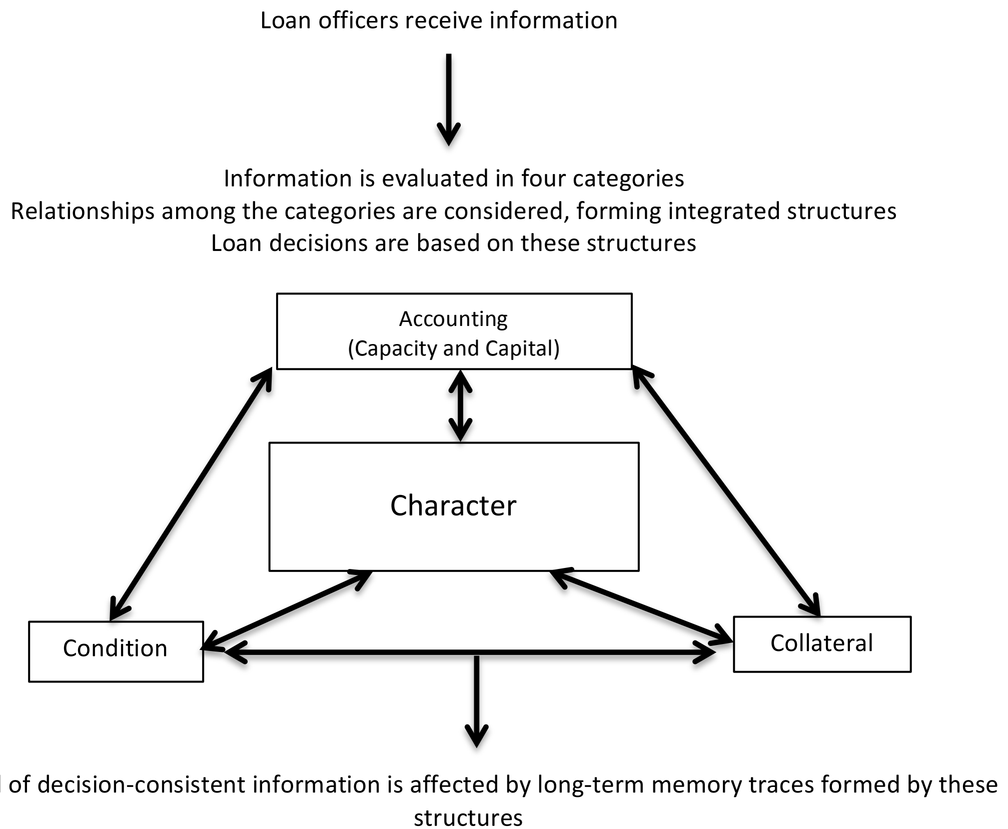

Figure 9. The *authors' reconstruction of "Loan Knowledge Structures"*. Source: Beaulieu (1996), p.517

When considering the three other elements of the five C's of credit model, it can be concluded that the model corresponds with the responses from the banks. The capacity and capital elements are clearly seen at all banks, in the form of how the banks handle the accounting information, as Andersson (2001) discussed and analysed earlier. The economic state were discussed during all interviews, as the recent financial crisis is a subject that is highly up to date. As can be seen by statistics about credit losses and the stricter regulations announced by the Basel Committee, the recent financial crisis should be a subject that all banks have in mind unconsciously when seeking information. In addition, one of the larger banks further discusses the influence that unstable business areas have on the credit process. Consequently an unsound business area generates high degree of carefulness. The final element, collateral, is included as a basis for credit decision for all banks. Some of the banks mention that today securities do not have as central part in the credit decision as in the past. Still this is an element that needs to be evaluated when gathering information for a credit decision.

Andersson (2001) describes the credit processes in six steps. During the interviews the credit process was not exactly described in these steps but overall the theory reflects the process well. The first step, the loan request, is the basis for the credit process to take start.

At this point the credit officer reflects upon if the borrower is an existing or new customer, which is especially denoted among the larger banks. The consequence of this is that the process will look different depending on which kind of potential borrower they face. For an existing customer where a good relationship exists, the process tends to be more efficient and timesaving. Step two, the meeting with the firm's principals, may not be necessary in this case since as one of the larger banks mentions that if there exists a good relationship the request and the needed information can be gathered by phone. If the potential borrower is not an existing customer, or an existing without a close relationship, step two is crucial for the credit decision. At this meeting, the credit officer has the opportunity to perceive and form an opinion of the person behind the business and this is truly important for all banks. During step 3, credit assessment, the valuation of the creditworthiness of the customer begins. At this stage the loan officer needs to collect all information necessary to make a credit decision. The information that needs to be collected can be associated with the information that Andersson (2001) discusses in the form of accounting and non-accounting. Although the collection of non-accounting information starts at step two and follows through the entire process. Since, this is build upon the interaction between the loan officer and the borrower. The necessary information for the process are estimated and evaluated during step three. This step is the step that the banks emphasis the most as the process builds upon receiving good and reliable information. During the interviews, all banks agreed on the importance of receiving good quality information in order to reach a fair credit decision and not misjudge a customer. It is also at this stage complications can occur. One of the small banks mentions that it can be difficult to collect the information that is needed from small businesses. This can be supported by one of the theories about asymmetric information among small businesses, where Bruns (2004) states that small and privately held businesses do not need to publish information to the same extent as larger publicly held firms. One of the larger banks further mentions the issue of lack of knowledge that can occur among small businesses, which can complicate the capacity of delivering required information. The effectiveness of the last three steps can differ depending on how complex the operation is. One of the small banks mentions that the credit decision is closer to the business advisor if it regards a small business.

Overall the efficiency of the process tends to differ if it regards a large or a small business. This tends also to differ between the banks. One of the smaller banks mentions that larger corporations are more time consuming. While one of the larger banks argues that small businesses may be more time consuming, as the business advisor may have to put time and effort into consulting and guiding.

6.2.2 Information Gathering

As Bruns (2004) denotes the importance of collecting necessary information in order to see if the potential customer is creditworthy, all banks work towards collecting reliable and valid information. In general the process of collecting information looks the same for all banks. The banks emphasis the importance of that the customers deliver necessary information. The information that is necessary contains information that the bank find

difficult to collect themselves, such as budgets, business plans and job estimations. If the customer delivers valid and reliable information with no delay, it shows commitment and willingness to enter a business relationship. A good business relationship with mutual trust will be of convenience for both parts. The bank reduces the risk of lending and increase potential revenue while the borrower will benefit in the aspect of good service and favourable loan agreement.

Although both parts would benefit from a good relationship, there exists a subject of worriedness in this area. Binks et al. (1992) associates this problem with availability of information, denoted as asymmetric information. The effect of asymmetric information may lead to the problem of adverse selection and moral hazard. It is crucial for banks to receive right quality and amount of information, in order to minimize these problems and reach a fair credit decision. The information might be available but to a high cost and Bruns (2001) argues that the problem is in finding the breaking point of gathering information. The banks work towards this by preferring that an auditor provide financial figures of the business. The banks put much emphasis into the relationship and the perception of the person behind the business, which is especially denoted by the larger banks. Majority of the larger banks discuss the importance of following the stomach feeling. This shows how affected the credit decision is by the feelings of the loan officer. Degryse et al. (2009) further explain an approach to tackle the problem of asymmetric information, by comparing the information received from the customer with information gathered by the bank. In this way the loan officer is able to see the capability of the customer to communicate the information in a credible way. This approach is used by the banks in the way that they collect information themselves and do not base the credit decision just on the information received from the customer.

Bruns (2004) further discusses the problem of moral hazard, as the borrowers might use the credit to another purpose than what the original contract states. Majority of the banks state that this kind of problem can be seen among pure credits, when it can be difficult to obtain securities. In this situation, the problem is tackled by relying on the relationship and mutual trust. This can be perceived as slightly abstract but the approach is supported by Peltoniemi (2004), who stresses the importance of develop a good lender-borrower relationship. Regarding for example property or leasing, the securities are more substantial, as the banks require invoices and mortgage bonds on the property. Therefore, there is no room for this kind of problem.

6.2.3 Price of Credit

The price of credits is affected by the economic state, competition in the market and regulations. As discussed previous in the section 5.3 Consumer Price Index and Interest Rates, the repo rate affects banks' pricing of credit. An interesting thing to notice is that majority of the banks claim that the lending interest rate has increased. They argue that the expense of lending has increased due to stricter regulations. The statistics tell that the interest rate has decreased and the banks argue that it has increased, the reason for this can be explained by that the overall price for bank activities has become more expensive. As one of the banks explains and thus strengthens the discussion in section 5.3 Consumer

Price Index and Interest Rates, the competition on the market has increased which forces banks to charge less for the credit. Instead, the banks have to compensate this by pricing multiple products. In the past the bank business was more about deposits and lending, today it is more about the overall banking activities.

Petersen and Raghuram (1994) discuss the importance of building a relationship around multiple products in order to reduce the banks cost of lending and thus the cost of borrowing for the customer. This aspect is in particular discussed by the larger banks as they are actively working with offering different services in order to collect all bank activities that the customer has at the same bank. Petersen and Raghurams' theory is clearly identified at one of the banks where the bank bases the price of the credit on two criteria: risk and other activities in the bank. The bank argues that it is possible to lower the interest rate if the customer has many activities in the bank. In addition to this, many activities in the same bank often generates in building up a long-term mutual trusted relationship as discussed earlier. This strengthens Berger and Udells' (2001) theory where a small business that has long-term relationship with a bank should be able to borrow at lower rates and deposit less security.

According to the European Commission (2005) the rating model is an important factor for deciding the price of the credit, where both qualitative and quantitative information is included. One of the banks confirms this as they base the price based on the health of the firm and claim how crucial the rating model is. In this model they include not only quantitative but also qualitative factors such as the business' principals and the knowledge they possess. In general, risk and volume are two common factors that affect the price. When looking at the overall risk profile, a lower risk will generate a lower price. In addition, the volume of the credit and its affect on the interest rate are discussed among some of the banks. A larger credit may generate in a lower interest rate. This can be explained by that all credits have the same initial cost and require the same process thus a larger credit therefore can induce a lower price. Majority of the banks does not charge price based on the size of the company. Though, larger businesses often request larger credits and therefore can receive beneficial prices. In addition, two of the banks mention that lack of knowledge and difficulties in receiving information are two risks that are seen among small businesses. One further risk to notice is that according to the Swedish Federation of Business Owners (2011), 99.52 percent of the total bankruptcies in Sweden in 2010 was generated by businesses with less than 50 employees. A consequence of these risks can be a rise in price that banks charge for credit. An interesting aspect is that one of the smaller banks states that smaller businesses pay less for its credit, which could be explained by the competition in the market. This aspect can be supported by statistics, which shows that small businesses represent 99 percent (Swedish Federation of Business Owners, 2011) of all companies in Sweden and therefore has a great bargain power.

6.3 Effects of Basel Accord

The Basel II regulation was completely implemented in 2007, overall the banks have not seen a remarkable difference of this implementation. This can be supported by as one of the larger banks explains; they start to adapt to upcoming regulations very early. In fact,

before the capital regulation of Basel II was fully compulsory by the Swedish law, the bank started to adapt to the capital regulations of Basel III. Two of the differences that can be seen among the banks are the concern of charging the right price for the right risk and an increase cost of lending in that the banks need to hold more capital. The concern of charging the right price for the right risk can clearly be seen as a consequence of one of the main improvements of the Basel II accord, where loan has to be categorised according to credit risk. The increased demand of holding more capital is also one of the main improvements of Basel II. These consequences are further emphasised with even stricter regulation of Basel III.

Comparing the responses from the interviews with the survey conducted by the European Commission (2005), the findings almost agree with the survey. The respondents agree that they require more information from their small business customers, the customers is judged by how able they are to present credible information. In addition, to some extent the respondents adjust price that compensates risk and the respondents have a tighter credit assessment of loan and loan customers in comparison with the process before Basel II.

All banks are currently working on implementing the Basel III Accord. As mentioned in the beginning of this section, one of the banks explains that they started to adapt to Basel III before Basel II was fully implemented by the Swedish law. A consequence of the early adaption to the Accord gives the banks the opportunity to already charge their customers for the effect of the regulation that will not be 100 percent implemented until 2019. The strategies differ between the banks though and it is hard to see a significant difference between larger and smaller banks. The strategies that are used among the smaller banks is the LCR implementation and a slightly increase in the internal rate. The strategies that are used among the larger banks are the shortening in time horizons of loans, improving internal tools and constantly working on the "full customer" concept. The difference that can be seen between the smaller and larger banks is that the larger banks may have slightly more established strategies and awareness of working towards the implementation. This assumption is based on more developed responses from the larger banks. In addition, it is supported by the proposal from the Swedish Financial Supervisory Authority (2011) that the capital requirements for the larger banks in the Swedish market can be higher. The larger banks awareness of the stricter regulation for them can be an explanation of their more developed strategies to the adaption.

As two of the banks explain, adapting to the Basel III accord will cause an increased cost of accessing capital. The increased cost of accessing capital was a consequence of the transition from Basel I to Basel II, and thus the consequence will become even larger when Basel III will be fully implemented in Swedish law. This is a cost that the banks do not want to bear and thus it will increase the costs for the customers. The banks argue that this does not imply larger margins for the banks. However what can be noteworthy to keep in mind is that banks are profit-oriented businesses as any other and do not want to face a lower profit because of stricter regulation and higher costs. Even though only half of the banks announced the consequence of increased costs of adapting to the new regulations,

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indirectly this is understood as the case for the whole banking industry. When looking at the framework of the Basel accord (see section 2.4.3 Basel III), the stricter regulations clearly indicate higher costs for the banks.

The general thought about if the new Basel accord affects lending to small businesses is that the there is no significant effect at the moment. However, the banks are aware of the forthcoming consequences that can occur due to the new regulations. One small bank mentions that it can negatively affect loan agreement to new small business customers. A second small bank mentions that an increase in price of credit can lead to that small business customers may face difficulties in affording certain investments. All banks agree that the overall credit process will still look the same and small businesses are still able to obtain loans if the bank thinks the customer is creditworthy. Hence, as discussed before, it might be to a higher cost due to the stricter regulations and the increased cost for the banks.

7 Conclusion

This section will present the conclusions drawn from the analysis with the aim to answer the research questions and the purpose of the thesis.

How do banks manage the credit assessment for small businesses in order to minimize the credit risk? Are there any significant differences between smaller and larger banks?

Small businesses are an important customer segment and the credit process is essential in order to make the right decision. The banks have a well-developed credit process, which includes both internal and external rating models where all the collected information is gathered. The information that is gathered is both of accounting and non-accounting nature. What all banks put much emphasis on and the key strategy that is used to minimize the credit risk is to develop a relationship built on mutual trust. If the lender has a good relationship with the customer, it will ease the collection of credible information and thus enhance the process of making the right decision. In addition, this will lead to a more beneficial agreement between the parts.

There are only marginally differences between the credit processes for larger and smaller businesses, though the larger differences that can be seen depend on how developed the relationship is. Thus the process might instead differ regarding if it is a new or existing customer, where a good relationship will lead to a more efficient credit process. The identifiable difference for the process for small businesses in comparison with larger businesses concerns the time consumption, some lack of knowledge and difficulties in receiving necessary information.

When managing the credit assessment for small businesses the banks look at the overall risk profile of the customer. This is seen as an improvement in the process as now the credit decision is not only focused on the collateral, which was the case during the 1990's. In this overall risk profile, accounting and non-accounting information are taken into account. Among the non-accounting information, the character of the business' principals is extensively evaluated which is especially seen among the larger banks. The banks emphasis the importance of that the customers deliver necessary information. If the customer delivers valid and reliable information it shows knowledge, commitment and willingness from the customer. If these attributes are shown, it will benefit the relationship and thus result in more beneficial loan agreements. In order to decrease the risk and to see if the information is reliable, the banks compare received information with information collected by the bank. In addition to this, the banks prefer that an auditor provide financial reports.

There are no significant differences that can be identified between smaller and larger banks, though, only minor differences. One difference is that smaller banks use both external and internal rating models, while larger banks mainly use an internal model and only external models as a complement. The business' principals are significant in order to build a trustful relationship, which can to more extent be seen among the larger banks. In addition, the

larger banks put a lot of effort into the "full customer" concept in order to increase revenue and to spread the costs over multiple products.

How are the expectations of Basel III affecting banks credit assessment and small businesses ability to receive loan? Are there any significant differences between smaller and larger banks?

All banks are currently working on the implementation of the Basel III accord. Currently, the banks do not see any problems with adjusting to the new regulation and thus do not see specific effects for small businesses. There are however, some small effects on the banks' credit assessment that can be identified. Today, banks concentrate on charging the right price for the right risk. This is due to that the Basel accord demands the banks to categorise loans according to credit risk. In addition, the expectation of increased cost of lending affects the price for the customer. Explained by that the banks do not want to bear this increased cost. The increased price is shown by that the overall price for bank activities has become more expensive. When the banks are forced to charge less for the credit caused by competition in the market, a raise in price for multiple products compensates the loss in revenue. This is one of the explanations why especially the larger banks put effort into the "full customer" concept.

The expectations of Basel III generally do not today significantly affect the banks credit assessment regarding specifically small businesses and their ability to receive loans. Thus, in some cases, it can negatively affect loan agreement to new small business customers in the future, as they can face difficulties in affording certain investments.

There is both pros and cons about that the banks have coming a far way on the adjustment to Basel III. The positive aspect is that it shows that economy of Sweden is in good health and the new regulations will not cause trouble for the banks and can prevent future bank crises. However, at the same time it implies that banks can already charging customers for the effect of the regulation that will not be 100 percent implemented until 2019.

Generally when it comes to approaches that the banks take when working on the implementation of Basel III, the larger banks show slightly more established strategies and awareness of the regulation.

8 Discussion

This final section will present reflections of the research made by the authors as well as suggestions for further researches.

As the Basel III Accord will start to be officially implemented in beginning of 2013, the effect of this framework has been difficult to identify in banks' credit assessment to small businesses. This is a subject that should be examined in a few years in order to receive accurate responses, as the official implementation is in progress.

The process of implementing Basel Accord is a long-drawn process, which generates in that it has been challenging to recognize any revolutionary consequences during the research. The reason for this can be explained by lack of knowledge about the Basel III accord among the banks' employees. This resulted in that the authors received detailed explanations of the credit process and less detailed responses about the effect of the Basel accords.

The authors found only minor differences between larger and smaller banks. One possible explanation for this is that it is difficult to receive a deep complex understanding of how the process works by one interview with the respondents. The authors suggest a case study where one small and one larger bank are followed and studied during a longer period, in order to find more significant differences.

The banking sector is profit-orientated and thus do not want to admit the problems that the new regulations will cause, as this will make it even more difficult for banks to become profitable. This research has examined the effect of the implementation of Basel III from the banks' perspective and it would be interesting to study the problem from small businesses' perspective.

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Appendices

Appendix I – Archival Research

	Handelsbanken (miljSEK)	Sparbanken Syd (tkrSEK)	Nordea (milj€)	Swedbank (miljSEK)	Sparbanken Tanum (tkrSEK)	Orust Sparbank (tkrSEK)	Länsförsäkringar AB (miljSEK)	Danske Bank (miljDKK)	SEB (miljSEK)	Swedbank Sjuhärad (tkrSEK)	Avarage	Avarage without Swed. Sjuhärad
2011												
Credit Losses	47		25	332	39	733	48	202	457	17 317		
Lending to the Public	104 900		62 500	894 000	2 145 899	3 748 500 000	134 011	185 418	873 335	10 429 997		
Loan Losses/Loans to the Public	0,04%		0,04%	0,04%	0,002%	0,00%	0,04%	0,11%	0,05%	0,17%	0,0541%	0,0401%
Net interest Rate	15 827		1 039	12 340	61 645	122 275	1 728	2 440	15 541	320 523		
Net interest rate in SEK*	15 827 000 000		9 351 000 000	12 340 000 000	61 645 000	122 275 000	1 728 000 000	2 928 000 000	15 541 000 000	320 523 000		
2010												
Credit Losses	99	5 584	6	272	-2 044	9 715	42	114	362	23 685		
Lending to the Public	998 000	6 782 639	59 800	873 000	1 982 266	3 216 360	117 910	178 715	763 441	10 422 347		
Loan Losses/Loans to the Public	0,01%	0,08%	0,01%	0,03%	-0,10%	0,30%	0,04%	0,06%	0,05%	0,23%	0,0706%	0,0532%
Net interest Rate	12 993	143 344	754	10 100	49 067	113 704	1 363	2 078	13 828	248 420		
Net interest rate in SEK*	12 993 000 000	143 344 000	6 786 000 000	10 100 000 000	49 067 000	113 704 000	1 363 000 000	2 493 600 000	13 828 000 000	248 420 000		
2009												
Credit Losses	2 325	7 857	166	1 355	3 660	7 453	50	509	984	27 828		
Lending to the Public	973 000	7 421 099	63 300	952 000	1 795 845	2 777 322	99 582	167 461	732 475	10 318 870		
Loan Losses/Loans to the Public	0,24%	0,11%	0,26%	0,14%	0,20%	0,27%	0,05%	0,30%	0,13%	0,27%	0,1980%	0,1900%
Net interest Rate	12 993	143 344	754	10 100	49 067	123 619	1 363	2 078	13 828	248 420		
Net interest rate in SEK*	12 993 000 000	143 344 000	6 786 000 000	10 100 000 000	49 067 000	123 619 000	1 363 000 000	2 493 600 000	13 828 000 000	248 420 000		
2008												
Credit Losses	834	6 805	76	594	5 690	10 110	65	520	773	60 559		
Lending to the Public	930 000	7 229 310	59 041	933 000	1 766 287	2 584 455	78 564	173 732	768 737	10 313 008		
Loan Losses/Loans to the Public	0,09%	0,09%	0,13%	0,06%	0,32%	0,39%	0,08%	0,30%	0,10%	0,59%	0,2159%	0,1747%
Net interest Rate	13 412	180 174	1 123	11 840	51 507	94 411	1 211	2 120	8 567	306 931		
Net interest rate in SEK*	13 412 000 000	180 174 000	10 107 000 000	11 840 000 000	51 507 000	94 411 000	1 211 000 000	2 544 000 000	8 567 000 000	306 931 000		
2007												
Credit Losses	72	5 252	26	71	1 627	-12 337	51	69	24	5 669		
Lending to the Public	842 000	6 157 147	59 781	867 000	1 450 644	2 245 557	67 040	161 562	637 138	9 239 177		
Loan Losses/Loans to the Public	0,01%	0,09%	0,04%	0,01%	0,11%	-0,55%	0,08%	0,04%	0,00%	0,06%	-0,0108%	-0,0188%
Net interest Rate	11 462	161 716	984	11 701	45 469	80 680	1 017	1 846	6 868	269 873		
Net interest rate in SEK*	11 462 000 000	161 716 000	8 856 000 000	11 701 000 000	45 469 000	80 680 000	1 017 000 000	2 215 200 000	6 868 000 000	269 873 000		
2006												
Credit Losses	-133	2 186	1	27	-157	4 183	37	71	134	-118		
Lending to the Public	767 000	4 956 523	59 198	762 000	1 348 340	1 989 687	53 884	138 454	360 728	7 902 451		
Loan Losses/Loans to the Public	-0,02%	0,04%	0,00%	0,00%	-0,01%	0,21%	0,07%	0,05%	0,04%	0,00%	0,0386%	0,0431%
Net interest Rate	11 020	134 679	856	11 489	41 662	70 639	922	1 812	4 711	232 557		
Net interest rate in SEK*	11 020 000 000	134 679 000	7 704 000 000	11 489 000 000	41 662 000	70 639 000	922 000 000	2 174 400 000	4 711 000 000	232 557 000		

	Handelsbanken (miljSEK)	Sparbanken Syd (tkrSEK)	Nordea (milj€)	Swedbank (miljSEK)	Sparbanken Tanum (tkrSEK)	Orust Sparbank (tkrSEK)	Länsförsäkringar AB (miljSEK)	Danske Bank (miljDKK)	SEB (miljSEK)	Swedbank Sjuhärad (tkrSEK)	Avarage	Avarage without Swed. Sjuhärad
2005												
Credit Losses	-188	4 164	18	-499	-134	6 013	49	-34	88	-8 479		
Lending to the Public	755 000	4 112 289	52 831	688 000	1 222 666	1 848 310	47 094	113 964	331 451	6 603 587		
Loan Losses/Loans to the Public	-0,02%	0,10%	0,03%	-0,07%	-0,01%	0,33%	0,10%	-0,03%	0,03%	-0,13%	0,03246%	0,0503%
Net interest Rate	14 655	130 897	836	12 315	43 712	72 286	873	1 474	4 885	219 756		
Net interest rate in SEK*	14 655 000 000	130 897 000	7 524 000 000	12 315 000 000	43 712 000	72 286 000	873 000 000	1 768 800 000	4 885 000 000	219 756 000		
2004												
Credit Losses	16	-794	-21	289	1 359	6 351	45	45	42	7 289		
Lending to the Public	690 000	3 496 687	42 100	629 000	1 121 496	1 486 262	39 000	90 813	290 448	5 875 931		
Loan Losses/Loans to the Public	0,00%	-0,02%	-0,05%	0,05%	0,12%	0,43%	0,11%	0,05%	0,01%	0,12%	0,0827%	0,0781%
Net interest Rate	14 471	137 593	826	12 438	45 667	73 651	830	1 385	5 047	231 969		
Net interest rate in SEK*	14 471 000 000	137 593 000	7 434 000 000	12 438 000 000	45 667 000	73 651 000	830 000 000	1 662 000 000	5 047 000 000	231 969 000		
2003												
Credit Losses	151	12 544	109	826	1 905	9 048	39	111	121	9 425		
Lending to the Public	674 000	3 082 152	42 337	602 000	907 906	1 155 274	30 000	75 262	219 643	5 524 054		
Loan Losses/Loans to the Public	0,02%	0,41%	0,26%	0,14%	0,21%	0,78%	0,13%	0,15%	0,06%	0,17%	0,2321%	0,2389%
Net interest Rate	11 749	140 891	941	12 288	46 896	72 667	701	1 340	5 790	222 650		
Net interest rate in SEK*	11 749 000 000	140 891 000	8 469 000 000	12 288 000 000	46 896 000	72 667 000	701 000 000	1 608 000 000	5 790 000 000	222 650 000		

*Currency converter used for Nordea 9 EUR/SEK and for Danske Bank 1,2 DKK/SEK

Definition of 'Size of bank'	**Avarage Net interest income (2003-2011)**
Handelsbanken	13 175 777 778
Swedbank	11 623 444 444
SEB	8 785 000 000
Nordea	8 113 000 000
Danske Bank	2 209 733 333
Länsföräkringar AB	1 112 000 000
Swedbank Sjuhärad	255 677 667
Sparbanken Syd	146 579 750
Orust Sparbank	91 548 000
Sparbanken Tanum	48 299 111
Larger Bank	> 3 000 000 000 SEK
Smaller Bank	< 3 000 000 000 SEK

Swedish Banks' Credit losses/Loan to Public

year	**Avarage**	**Avarage without Swed. Sjuhärad**
2003	0,232	0,239
2004	0,083	0,078
2005	0,032	0,05
2006	0,039	0,043
2007	-0,011	-0,019
2008	0,216	0,175
2009	0,198	0,190
2010	0,071	0,053
2011	0,054	0,040

Source: The banks' annual reports, see subsection Archival Research in List of References

Appendix 2 – Basel III

All Banks	Capital				
	Pillar 1			Pillar 2	Pillar 3
	Capital	Risk coverage	Containing leverage	Risk management and supervision	Market discipline
	Quality and level of capital: Greater focus on common equity. The minimum will be raised to 4.5% of risk weighted assets, after deductions. **Capital loss absorption at the point of non-viability:** Contractual terms of capital instruments will include a clause that allows at the discretion of the relevant authority-write-off or conversion to common shares in the bank is judged to be non-viable. This principle increases the contribution of the private sector to resolving future banking crises and thereby reduces moral hazard. **Capital conservation buffer**: Comprising common equity of 2.5% of risk-weighted assets, bringing the total common equity standard to 7%. Constraint on a bank's discretionary distributions will be imposed when banks fall into the buffer range **Countercyclical buffer:** Imposed within a range of 0-2.5% comprising common equity, when autho-rities judge growth is resulting in an unacceptable build up of systematic risk.	**Securitisations:** Strengthens the capital treatment for certain complex securitisations. Requires banks to conduct more rigorous credit analyses of externally rated securitisation exposures. **Trading book:** Significantly activities, as well as complex securitisations held in the trading book. Introduction of a stressed value-at-risk framework to help mitigate procyclicality. A capital charge for incremental risk that estimates the default and migration risks of unsecuritised credit products and takes liquidity into account. **Counterparty credit risk:** Substantial strengthening of the counterparty credit risk framework. Includes: more stringent requirements for measuring exposure; capital incentives for banks to use central counterparties for derivatives; and higher capital for inter-financial sector exposures. **Bank exposures to central counterparties (CCPs):** The Committee has proposed that trade exposures to a qualifying CCP will receive a 2% risk weight and default fund exposures to a qualifying CCP will be capitalised according to a risk-based method that consistently and simply estimates risk arising from such default fund.	**Leverage ratio:** A non-risk-based leverage ratio that includes off-balance sheet exposures will serve as a backstop to the risk-based capital requirement. Also helps contain system wide build up of leverage.	**Supplemental Pillar 2 requirements:** Address firm-wide governance and risk management; capturing the risk of off-balance sheet exposures and securitisation activities; managing risk concentrations; providing incentives for banks to better manage risk and returns over the long term; sound compensation practises; valuation practises; valuation practices; stress testing; accounting standards for financial instruments; corporate governance; and supervisory colleges.	**Revised Pillar 3 disclosures requirements:** The requirements introduced relate to securitisation exposures and sponsorship of off-balance sheet vehicles. Enhanced disclosures on the detail of the components of regulatory capital and their reconciliation to the reported accounts will be required, including a comprehensive explanation of how a bank calculates its regulatory capital ratios.

Source: Basel Committee on Banking Supervision. (2012).

Appendix 3 - Interview Questions

General About Small Businesses

- What is your position? For how long have you been on this position?
- How many employees do you have? On the corporation department and towards small businesses?
- How do you define a "small business"?
- How many "small business" customers do you have? How large part is this of your total customers stock?
- Do you see small businesses as an important customer segment and why?
- How much credit losses do you have in this customer segment?
- How big is your profit of your services around small businesses with respect to credit losses?

Credit Assessment of Small Businesses

- How does the your credit assessment towards small businesses look like?
- Does it differ from the process towards larger businesses?
- What kind of decision basis is needed in the credit process? Any particular factors that are of more importance?
- In the process of judging the creditworthiness of small businesses, do you use internal- or external rating models?
- How do you collect necessary information for the credit process?
- Do you see any difficulties about gathering trustworthy and enough information about the business? If the answer is yes, how do you solve these problems?
- Do you see any change in the information required from the businesses? In what way? Will it change in the coming years?
- How can you ensure that the customer uses the borrowed money to the stated purpose?
- Do you see any change in price on credit for small businesses over the past 20 years? How and who benefits from it?
- On average, does small businesses pay higher interest rate than larger companies in the same business area? If the answer is yes, how much approximately?
- Have you become stricter or more careful in the judgement of small businesses with respect to any possible impact from the recent financial crisis?
- Do you have stricter requirements from small business today in comparison to 20 years ago?

The Basel Accord

- How have the implementation of Basel I and II affected the lending to small businesses?
- Did you experience any difficulties when adapting to Basel II?
- How are you working toward adapting to Basel III?
- Have this affect the lending towards small businesses?
- Can a small businesses still receive credits but for a higher price?

Appendix 4 – Presentation of the respondents

Smaller Banks

Bank 1 is a commercial bank operating in Sweden. The interview took place at a local office in a middle size city in Sweden. The office has seven employees working towards the corporation market. There is no subdivision among the employees between working towards larger or smaller businesses. The respondent is the "credit manager" of the office and has been on that position for three years.

Bank 2 is a commercial bank operating within a limited area in the west of Sweden. The office has eight employees working towards the corporation market. Four out of the eight employees are focusing on services to smaller businesses. The interview took place at the head office with the "credit manager" and the corporate market manager of the bank.

Bank 3 is a "niche" bank operating in Sweden and has been active in the corporate market since 2010. The corporate market department of the local office has four employees working towards businesses plus six employees working towards the agricultural sector. The respondent is the "credit manager" of the office and has been on that position for three years.

Larger Banks

Bank 4 is a commercial bank operating in Sweden. The interview took place at a local office in a middle size city in Sweden. The office has six employees working towards the corporation market. There is no subdivision among the employees between working towards larger or smaller businesses. The respondent is the head of the corporation department.

Bank 5 is a commercial bank operating in Sweden. The interview took place at a local office in a middle size city in Sweden. The office has 15 employees working towards the corporation market. The two respondents are the head of corporation market and credit analyst.

Bank 6 is a commercial bank operating in Sweden. The interview took place at a local office in a middle size city in Sweden. The office has seven employees working towards the corporation market, out of theses seven employees three work towards small businesses. The respondent is a corporation advisor and has been on that position for two and a half year.

Appendix 5 – Summery Tables

Smaller Banks

Question area	Bank 1	Bank 2	Bank 3
Definition of small business	Turnover < 20''	Turnover < 10''	< 9 Employees
Size of costumer stock	Approximately 30% of total customer stock	61% of business customers	5% of total customer stock
Credit losses within this customer area	Operations that can cause credit losses are more among small businesses but the consequences of credit losses among large businesses are superior	Same opinion as bank 1	No, at the moment
Credit process	The business plan, company's principals, repayment capacity, historical records, budget and securities work as a decision basis	Same as bank A, the decision is, most of the times, taken at the business advisor level	Same as bank 1
Difference from larger corporations	Larger corporations are more time consuming.It can be difficult to collect information needed from small businesses	The decision lies closer to the business advisor for small businesses	The difference lies in new started business where there is an increased risk the first three years
Important factors for the decision basis	The business plan and the person behind the business	The business' cash flow.	Budgets and business plan
Credit models External/Internal	External:UC.Internal: Larger Credits	External:UC. Internal model:categorize due to risk	External: UC and an Internal model
Change of requirement of information from small businesses	Before more focus on old financial figures and securities. Now, more prospectively looking, repayment capability is the most important factor	Same as bank 1	Have only been operating on the corporate market since 2010
Ways of ensuring that the credit is used for the stated purpose	Leasing, the investment is the security. Property, direct access to mortage bonds. Other credit, relationship is important.	Properties, regular visits. Other credits the business advisor works close to the customers.	Leasing, they pay the invoice. Properties, invoice works as security. Other credits repayment capability is important
Change of price of credit for small businesses, do they pay a higher price	Believes that price of credit for small businesses has decreased. In comparison with larger corporations small businesses pay less for the credit they receive	Before:more focus on security, same security same rate, now:more about the overall risk profile. Interest rate is due to volume; larger corporations request larger credits. All credit processes has the same cost of preparation, larger credits will result in better price	Price on credits has increased over the years due to Basel regulations. Cost of lending to corporations is higher than to residential clients, due to that the bank need to hold more equity when lending to corporations. Do not believe that small companies pay higher interest rates, can however be the case for start-up companies
Carefulness in judgement of small businesses w.r.t financial crisis	Believes that it has generally become harder to receive credit nowadays, especially after 2008. now, focus more on the payment capacity of the company than on historical figures and securities	Not more careful in their credit judgement today. Require more information today than 20 years ago. 20 years ago the analysis of the customer where not as complex as it is today. The banking system today relies on collecting financial statement that lies as decision basis for which risk category the company should belong to. This should not affect the credit.	Does not believe that they are more careful in their judgement today (as they have only been active in the corporation market since 2010). Based on previous experiences, the credit manager thinks that overall the banking sector are more complex today, which has lead to stricter requirements from corporations.
Basel II framework affecting lending to small businesses	Not seen a remarkable difference	Not seen a remarkable difference. Follows the directives provided by the Basel Committee, the "standardised approach", to calculate the minimum capital requirement	Not seen a remarkable difference. As they joined the corporation market after the implementation of Basel II, the only concern that they face is to charge the right price for the right risk
The start of implementing Basel III and the effect on lending to small businesses	Not experienced any essential difference. Do not believe that this has affected the ability of small businesses to receive credit	Currently working on the LCR, that saying working on having "good quality liquidity for 30 days". Do not believe that this has affected the ability of small businesses to receive credit. In some case this may have affected loan agreement with new customers	Not experienced any difference more than a slightly increase in the internal rate. Speculates in that it might affect lending to small businesses in that price may rise and a consequence of that could be that the customer gives up an investment
Possibility for small business to recieve credit but to a higher price	Yes and no. Does not believe that a rise in price is a compensation. The price of credit are rising and this could be due to Basel III.	If the decision is no, the price is not relevant. But in some cases, the price can work as a compensation when it comes to a new customer	To some part, it is possible to compensate with a higher price but the bank can not approve a "bad credit".

Larger Banks

Question area	Bank 4	Bank 5	Bank 6
Definition of small business	No straightforwad definition but approximately a turnover of < 50 '' and credit volumes < 5''	Turnover < 100''	Turnover <10''
Size of costumer stock	80% of corporate customer base	24 % of the market share	68,8 % of corporate customer base
Credit losses within this customer area	Generally no big amount of losses. It is not a problem	Not considered as a problem	Seldom creditlosses in this customer area
Credit process	For exisiting customer it is about the trust in the person behind the business. For new customers: Same as Bank A	Information needed: budget forecast, liquidity forecast and investment proposal. After collecting of information the internal process begins (credit analyst judge the information.)	Look at the steadiness of the company. Look at how much icapital the customer can contribute, it's important to see the capability to run the project. Look at the repayment capability.
Difference from larger corporations	The relation with the person behind the business is more important as larger companies replace the management from time to time	Same process for all segments. The requirements can differ though.	The difference lies in the relationship. Often the bank has a closer relationship with larger businesses. The knowledge differ aswell, the bank may act as an advisor for small companies as well.
Important factors for the decision basis	The relation with the person behind the business. Budgets and earlier financial statements	Budgets and financial statements, how prepared the customer is and the repayment capacity	The company's own contribution.The person behind the business is important.
Credit models External/Internal	External: sometimes UC.One internal model	External model: may be used in larger segment. Internal model: build upon standards from the Swedish Financial Supervisory Authority.	Internal model only
Change of requirement of information from small businesses	Over the years it has changed as before less information were available.		Can not see a difference.
Ways of ensuring that the credit is used for the stated purpose	Leasing and properties, require invoices. Other credits, relationship and mutual trust is important	Same as bank 4	Same as bank 4, adds that they visit the business
Change of price of credit for small businesses, do they pay a higher price	It has increased, as a consequence of new regulations. Not specific for small businesses though.	20 years ago we only charged our customers on loans. Now it is more a business package.	Agrees with bank 4. Credits has become more expensive, for the bank as well. Now, customers are comparing banks to a more extent. The price is set due to risk and other businesses in the bank, same for all businesses.
Carefulness in judgement of small businesses w.r.t financial crisis	Generally it has not changed. We work basically as we always have.	Generally it has not changed. But we require more documentation	Same requirements.
Basel II framework effect on lending to small businesses	The cost of lending over longer period has increased which yields higher price on credit. In addition it costs more for the bank to hold businesses' unused overdraft facilities.	The increase in required documentation is the change	It has become more expensive to access capital due to the regulations. This generates a higher rate for the customer.
The start of implementing Basel III and the effect on lending to small businesses	Has started to decreased the time horizon on loans. This has not affect the way of accessing credit.	Working on adapt to the new capital requirements. This can complicate the capability of small businesses to deliver necessary equity that a credit demands.	Not specific for small businesses but lendings will require more capital and it will become expensive to access that. To meet this the bank are trying to make all customer "full customers".
Possibility for small business to recieve credit but to a higher price	It is still possible to borrow but it will cost more. This does not mean that the bank has higher margins, it has become more expensive for banks too.	It is difficult to compensate by price	Still the same credit process, But the bank are trying to make the customer into a "package customer".