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I Introduction

The first part of this thesis will introduce the subject from a wide perspective. The first section in the introduction is the background and it will be followed by a problem statement which narrows down the scope of the thesis. The purpose of the thesis will guide our work and will end the introduction.

I.1 Background

The credit market is a constantly changing market. It is affected by the conditions of the global economy. The credit market changes with recessions and expansions which affects interest rates. The financial crisis in Sweden during the 1990s was a financial crisis originated in the housing market (Englund, 1999). The banks' lending policies changes due to actual economic conditions. In the 1990s, the credit market faced a recession which led to a credit crunch as an effect on the decline in bank lending (Shrieves & Dahl, 1995). The global financial crisis in 2008 originated in the American subprime mortgage market (Demyanyk & Van Hemert, 2009). The important link between the housing market and financial market is due to the fact that the housing market comprises of around 50% of the total credit market in Sweden (SOU, 2000:11).

Banks are regulated in many ways. Banks operating in Sweden needs to apply to the Swedish law and regulations from the Swedish Financial Supervisory Authority (SFSA) this according to the Swedish Banking Business Act § 3. The SFSA's regulations are influenced by and make sure the banks follow international regulations such as the ones made by the Basel Committee on Banking Supervision (SCBS).

About a third of the Swedish population lives in a house or a co-operative flat (Finansinspektionen, 2010a). The indebtedness of the Swedish population has increased during the past decades. The loan-to-value ratio has also increases i.e. the mortgage amount compared to the value of the property. Since the largest part of the financial market comprises of mortgages the increased indebtedness can affect the Swedish financial stability.

85% of the mortgages in Sweden are granted by Housing Credit Institutions. The Housing credit institutions in Sweden are mainly financed by issuing bonds on the capital market (Scanlon & Whitehead, 2004).

Mortgage lenders need to fund the mortgages they grant. There are several methods used by mortgage lenders in Europe. The two most important sources for mortgage loan funding in the EU are retail deposit and mortgage bonds. Funding by mortgage bonds has been done since the 18th century. (Manning & Hardt, 2000). Sweden stands for 15% of the mortgage bond market in Europe (Hart & Lichtenberger, 2001). The mortgage bonds stands for 70% of the total funding in Sweden and are thereby the primary source of financing (Manning & Hardt, 2000).

“A mortgage bond is a security giving the holder of the bond a claim against the issuer and enjoying a degree of special security because it is backed by mortgage loans” according to Hardt and Manning (2000). The low risk in the mortgage bonds gives the bondholder a low

return on the investment (Manning & Hardt, 2000). Financing by issuing mortgage bond an economical way of funding mortgage loans for lenders, due to reduced borrowing costs (Hardt & Lichtenberger, 2001).

1.2 Problem discussion

The borrowers in the mortgage market consist of both households and companies. The main source for financing a property whether it is a private property or a real estate property is a mortgage. When granting a mortgage the bank incurs a risk. It is important for banks to minimise the risk since an unstable market can affect not only the bank and its customers but society as a whole (SOU, 2000:11). The banks have developed models and methods to obtain risk profiles of applying customers to decrease their risk (Hand & Henley, 1997).

There is a gap in previous research about mortgage granting and the banks' credit granting processes. An assessment of differences in the processes has not yet been established. Since households and companies differ in size there should be a difference in the credit granting process. The Swedish Law is regulating the, to what extent do credit granting processes differ? Will the information available about households and companies and the regulations in the market affect the credit granting process?

Establishing differences between the processes is important to be enabling evaluations of banks' credit granting processes. There might be reasons for the differences or the processes might be improved making them more similar.

1.3 Research questions

How is households and companies creditworthiness and repayment ability determined?

What are the differences in the credit granting process?

To what extent are templates used in the credit granting process?

Why is there a need of differences between the processes?

1.4 Problem

A bank failure will not only affect the bank but also its customers and therefore it is in the interest of society that banks try to minimize their credit risk (SOU, 2000:11). The questions to our problem is how the banks make sure their customers are creditworthy, if there is a difference in credit granting for households and companies and if there is a need of a difference between the processes.

1.5 Purpose

The purpose of this thesis is to define and deliberate reasons for differences in credit granting processes for mortgages for private properties and mortgages for real estate properties.

2 Methods

2.1 Choice of method

After reviewing academic articles and reports we gained an interest of the process of credit granting. Early on, it became clear that there was a difference in the financial structure of a household and a company. Therefore, we choose to further investigate the process of credit granting for households, and credit granting for companies and the differences between the two processes.

Firstly we defined our research question and field of interest. Once this was established the information gathering process started by defining search words and finding a theoretical base to form our thesis. To complete the missing parts and test if theory and reality correspond we will conduct interviews with the major banks in Sweden. Both the theoretical framework and the empirical findings are then interpreted and analysed. The results will be based on the differences and similarities between the credit granting processes regarding households and companies.

2.2 Research Method

Regarding our research we found it appropriate to use a case study format. Case studies are applicable for in-depth focus on one, or a few, objects of interests (Denscombe, 2007). As we have narrowed our field of research down to six local bank offices the format of a case study was found suitable. Further, we found that the case study theory was a useful tool when comparing the processes through which the mortgages were granted or declined, as the focal point of the research was on the processes rather than the outcome (Denscombe, 2007).

We have chosen to use a deductive approach of method for our research. This implies to originate from a theoretical standpoint resulting in empirical findings. In practise, a deductive approach is manifested by three stages. First, one obtains information on the subject through already existing theories. Secondly, collection of data from the field, using for example; interviews. Thirdly, one is to compare the collected data to the existing theories to see if they correspond (Jacobsen, 2002).

2.2.1 Qualitative and Quantitative research methods

There are two methodological approaches towards research. These are qualitative and quantitative research. Quantitative research methods are characterized by means of measurements of calculus and numeric's, which is contrasted by the worded explications of qualitative researchers. This can be portrayed by quantitative research focusing on proverbs such as "how much" or "how many" where as the qualitative research regards enquiries such as "why" or "how". The structure of the quantitative research bases on the researchers' own interests and is governed by the questions asked. Incongruently, qualitative research bases upon the actors' perspective and how they perceive the situation at hand (Gustavsson, 2003). A further characteristic of qualitative research is the desire to have a relationship with the person who is participating in the study and the researcher. The relationship is a mean by which the researcher can understand the participants' situation (Bryman, 2002).

We have chosen to use a qualitative research method as we wish to obtain a close understanding of credit granting processes. Further, we wanted to emphasise the importance of our participants' view of the use of rules and regulations regarding the credit granting process.

2.3 Data Collection

The information gathering process started with identifying key words. These words were then used as search words in databases. The databases we have used are; Google Scholar, Business Source Premier, JSTOR, ABI/Inform and encyclopaedias were used as an information retrieval tool. The primary key words we have used are; credit granting, credit granting process, Basel Accords, credit scoring, mortgage, credit risk, The Swedish Financial Supervisory Authority, real estate, commercial property. In order to obtain a grater span of information, variations and combination of the before mentioned search words has been used. In addition, key words have been translated into Swedish as the area of interest is the Swedish market. Reference lists from published theses within our field was used to find primary sources of information.

We have used face-to-face interviews in order to acquire empirical material. Usage of such interviews enabled us to ask in-depth questions as the interviewee had possibility to explain their answers in a clear manner. A further advantage of a face-to-face interview is that the interviewees' personal opinions are expressed (Denscombe, 2007).

Interviews were made with the major banks in Sweden. The banks interviewed were Nordea, SEB, Swedbank, Handelsbanken, Smålandsbanken and Länsförsäkringar bank. These banks were chosen since we wanted face-to-face interviews and these banks all have offices in Jönköping. The Banks mentioned above was all banks contacted and they all agreed on being interviewed.

We conducted face-to-face interviews with one representative from each bank. The persons interviewed were either a credit manager or a bank manager. Due to our research question we had to interview someone who had full insights in the bank's credit granting processes on both the private and corporate department.

Once we decided the position of the persons we were going to interview we started the formulation of questions for the interview. The questions were based on our theoretical framework and focused on answering our research question. The questionnaire is divided into three parts: question concerning the private market, the corporate market and a section for comparison. Due to comparability the questions regarding the private market is equivalent to the questions regarding the corporate market. The section for comparison is included to get the banks point of view and assist us in answering our research question. The different sections are divided into subsections beginning with an open ended question followed by attendant questions to make sure the question is answered in full.

After the questionnaire was completed the banks were called to set a date for the interview. By contacting the interviewees in advance, you are able to get an agreement and arrange a suitable time for the interview (Denscombe, 2007). The questionnaire was also emailed to the persons chosen for the interview beforehand so the interviewees were able to look up information required to answer the questions in full. The interviews were conducted at the banks office with both Charlotte Lilja and Camilla Petersson present. The human memory is not reliable as a research instrument (Denscombe, 2007) so all interviews were recorded by both audio recorder and written field notes. The structure of the interviews were standardised given that all interviewees got identical questions as one questionnaire was used for all interviews (Denscombe, 2007).

2.4 Data analysis

When analysing the data we firstly read through the answers and divided the questions into different section. At first we focused on the private and corporate part separately and sorted the answers which were similar and the ones that differed. We then tried to figure out why they were similar or differed. We also identified patterns and relationships between the similarities and differences from bank to bank. When the private and corporate part of the market was analysed we started on the most important analysis, the similarities and differences between the credit granting process for the private and corporate mortgage market.

2.5 Method Problems

The greatest obstacle we had to overcome was the interviewee's individual interpretations of the questions. During the interviews we found that the informants' answers differed in both structure and length, and due to the width of the questions the informants had a tendency to veer of topic. This gave us in-depth understanding of both the given answer and the opinion of the interviewee. However, due to the elaborate answers given it was difficult to structure a clear statement which could be compared to other informants answers later in the analysis.

The interviews were conducted with the upmost concern for objectivity. To ensure that the interviews were depicted in an appropriate manner we used a dictaphone to record what was being said. The choice of informants' position within respective bank was to ensure

competence within the field and subsequently increase the reliability of our research. The notion of reliability is the possibility to present correct and valid information. Moreover, reliability entails that the usage of the same method by others will render the same results (Thurén, 1996). In order to increase the reliability we provided the interviewees with the questions beforehand so they could give as accurate and in-depth answers as possible.

A possible implication of the trustworthiness of the reliability is the interviewer effect which is the influence the interviewer has on the interviewee (Thurén, 1996). We are aware of this phenomenon and have tried to overcome this obstacle by the means of sending the interview format beforehand.

3 Frame of reference

3.1 Bank regulations

The bank's operations are regulated in many ways. The Basel accords are recommendations on banking regulations made by the Basel Committee on Banking Supervision (BCBS). The committee seeks to improve banking supervision by informing and cooperating with banks on key issues concerning bank supervision. Three accords have been issued so far, namely Basel I, Basel II and Basel III. These regulations' impact on the mortgage market in Sweden is through the recommendations from the Swedish Financial Supervisory Authority (SFSA), details are available on the authority's Web site <<http://www.fi.se/Regler/Kapitaltackning/>>.

The BCBS acknowledge that credit concentration in industries such as commercial real estate is a common source of credit problems for banks (Panagopoulos et al. 2009). The Basel accords were developed to stabilise the relationship between the bank's equity capital and risk-weighted assets.

3.1.1 Basel Accords

Basel I concerns recommendations about the banks minimum amount of retained capital. The target standard ratio of capital to weighted risk assets should be set at 8%, 4% should consist of core capital (Basel Committee on Banking Supervision, 1988). Basel I focus on the bank's credit risk exposure which is seen as the most important element of risk. At a later stage the market risk exposure was also taken into consideration (Panagopoulos et al. 2009).

Basel II is focused on credit risk and is a revised framework of Basel I. Basel II continues to stress the minimum capital requirement of 8% but also focuses on decreasing financial and operational risk. The recommendation is focused on three pillars, minimum capital requirements, supervisory review and market discipline (Basel Committee on Banking Supervision, 2005). The intent of the BCBS recommendation is to support and improve banks risk management. The recommendation stresses the importance of retaining enough



capital dependent on the amount of risk the bank is exposed to through its lending and investment practises.

Basel III is the latest recommendation and is the BCBS's reaction to the financial crises of 2008. The recommendation tries to improve the banking sector's ability to absorb shocks arising from financial or economic stress and strengthen the bank's transparency and disclosures (Bank for International Settlements, 2010).

3.1.2 The Swedish Financial Supervisory Authority

Swedish banks are authorised, supervised and monitored by the Swedish Financial Supervisory Authority (SFSA). The SFSA is a public authority accountable to the Swedish Ministry of Finance. The aim of SFSA is to promote stability and efficiency in the Swedish financial systems and to ensure consumers protection (FI, 2010).

The SFSA monitors all companies operating in the Swedish financial markets. It monitors, analyse trends and assess the financial health within the market as a whole, sectors of the market and individual companies. This is done by assessing the risk, control systems and the compliance with rules and regulations (FI, 2010).

Besides monitoring the market the SFSA issues regulations and general guidelines and grants permissions for companies who offer financial services to operate in the Swedish market. The regulations and general guidelines are presented in the SFSA's regulatory code (FFFS). The regulatory codes are in compliance with and based on the Swedish law, EU and international rules and regulations (FI, 2010).

The latest guideline concerning the Swedish banks are the limitation of loan-to-value ratios for mortgages on residential property (Finansinspektionen, 2010a). The guideline concerns new loans and replacing loans on previous issued loans by another credit institution with a property as collateral. These loans must not exceed 85% of the property's market value. Mortgages make up the largest part of Swedish households indebtedness. This makes households sensitive to price-changes in the property market. The purpose of the new guideline is to prevent a too high loan-to-value ratio for private persons. If a mortgage is valued higher than the current market price of the property consumer will be exposed to high risks if it cannot meet its mortgage obligations. This can happen if for example the household will be troubled with the loss of a job. If the household loses its income it might have to sell the house and will not be able to cover the whole mortgage. The highest risk is taken by first-time buyers since they usually do not have a large amount of cash contribution which leads to a high loan-to-value ratio. The new guideline was put into force on the 1st of October this year (2010).

For the mortgages of real estate properties there are no external regulations. However the SFSA have found that the four main banks in Sweden have a credit granting policy of lending maximum 70-75% of a real estate property's market value (Finansinspektionen, 2009:9).

3.1.3 The Swedish Consumer Credit Act

When granting a credit for households the banks operating in Sweden needs to conform to the Swedish law of consumer credit (Konsumentkreditlagen, 2010). The main purpose of the law is to protect the consumer and if the conditions of a contract are of disadvantage to the customer if compared to the law it becomes invalid according to the 4th paragraph. The law concerns parts which regulate the bank's general obligations, the credit granting process, the credit contract, interest rate, fees and cash contribution. These parts are regulating the bank's credit granting process for household mortgages. The referenced paragraphs in the next parts of this section refer to the Swedish Consumer Credit Act.

The banks need to apply sound credit granting procedures according to the 5th paragraph. This implies to take care of the customer and its interest into consideration. Before a mortgage can be granted the bank need to examine the consumer's financial situation and its ability to fulfil the mortgage obligations (5a§).

The 9th paragraph covers the obligation needed to be fulfilled the bank concerning the credit contract. The bank is obligated to give the borrower the information concerning the credit contract in writing. The contract needs to be signed by the borrower, either in person or if applied on-line by the use of electronic identification. The borrower should also get a copy of the contract. If the contract is not signed it is valid except for conditions that are to the consumer's disadvantage.

The 11th to 13th paragraph covers regulations about interest rates and fees concerning mortgages. The interest rate for a mortgage can be fixed or floating. The rate can only be fixed for a certain amount of time, at least three months. If it is floating it is constantly changing and if it is fixed it is determined from each fixed period to another. The rate should be set equal to the rate applied to new mortgages.

If the bank incurs costs because of the credit, the borrower might have to pay fees to cover those costs according to the 12th paragraph. Stated in the contract should be under what conditions the banks can change the fees for the credit. The fees can only be changed to the borrower's disadvantage by the amount of increased cost for the bank.

Paragraph 13 states that the bank shall notify its customer about changes in the interest rate and fee for the mortgage. The customer should be notified about changes at the latest when the new change is in place. The notification should be done directly to the customer or by advertisement in the daily press. If the notification is done via the daily press a notification should be made on the next advice or bank statement as well. The exception is for changes in interest rates that are reliant on changes in the key interest rate. When such changes occur the customer should be notified at the latest when the next advice or bank statement.

According to the 14th paragraph the cash contribution for mortgages are determined by the SFSA since they determine the regulations for mortgages.

3.1.4 The Swedish Banking Business Act

Banks operating in Sweden needs to comply with the Swedish Banking Business Act (Bankrörelselag, 2010). The Act concerns among other things the credit granting process and the supervision of the banking industry. The paragraphs in the next part of this section refer to the Swedish Banking Business Act.

The second chapter, paragraph 13-17 concerns the credit granting process. The 13 § states that a bank can only grant a mortgage if the borrower is expected to be able to fulfil the obligations of the mortgage with certainty. The mortgage also needs to have a property that acts as collateral or another kind of security according to. If a part of the collateral is seen as unnecessary the bank can refrain from the excess security (15§). The bank cannot stipulate that mortgage obligations should be paid before other liabilities (16§). The bank is according to the 17§ not allowed to take on credits on other conditions than normally offered to key people within the bank or that person's spouse/de-facto.

The seventh chapter in the Banking Business Act concerns the supervision of the banks operating in Sweden. The first paragraph in the chapter states that a bank is under the supervision of the SFSA. The bank needs to report information about their operations and the supervisory can conduct inspections of the bank at any time. The government or the SFSA (after the empowerment of the government) can communicate rules about what information the SFSA needs, how valuable document should be stored and how stock taking should be done and arrangements for preventing crimes at the bank (2§). The third paragraph declares that the SFSA should promote a sound development of the bank's operations.

3.2 Assessment of applicants

Banks have to make sure the mortgage applicants are creditworthy and able to repay their loan (Roszbach, 2004). This is assessed by the use of a credit information agency and making a credit score. The first parts of this section concerns both households and companies unless stated. The assessments concerning only households or companies are under separate headings.

3.2.1 UC – Credit Information

UC AB is Sweden's largest and leading business and credit information agency. The agency was formed in 1977 and its principal owners are the Swedish Banks Nordea, SEB, Handelsbanken and Swedbank (UC, 2010).

UC's credit information is the basis of both credit and commercial decisions each day and its services are used worldwide. The credit information is retrieved from a database consisting of all companies registered in Sweden and all Swedish citizens over the age of 16. UC's database is updated daily hence it consists of the latest information (UC, 2010).

UC also has a collection of scoring models that help calculate the viability of Swedish companies. The scoring models are used by banks and other credit institutions in their credit processes. UC has also developed a credit scoring models for consumers. These models help banks and other credit institutions in finding appropriate rejection limits and helps find the suitable interest rates and maximum amount for the loan in question (UC, 2010).

The information retrieved from UC's database is the foundation of the scoring models. All information is entered in to the model and results in a single value. The end value, the score is used to rank the observation against others. The score determines the customers risk profile (low or high risk) and is used in the credit granting process. The terms and condition of a loan will be determined by the risk profile. The scoring process help banks and other credit institutions to put a price on their credit risk (UC, 2010).

3.2.2 Repayment ability (Risk)

When a mortgage is granted both the bank and the borrower incurs a risk of mortgage failure. A mortgage failure implies that the bank will not get their money back due to the inability of the borrower to repay. When a mortgage is granted it is based on the current ability of the borrower to repay the loan, but it is repaid with the borrower's future income (Dolin & Horsewood, 2004). With time circumstances might change, e.g. if the household's income change it might make the repayment impossible. The inability to pay puts the household in a difficult situation since the bank will need to sell the property to get their money back. The risk associated with the property which acts as a collateral is that it fluctuates in value. If the property is sold and it is valued lower than the mortgage amount it might become a problem to both the bank and the borrower. The bank might not get the full mortgage amount back and the borrower will still be in debt since the mortgage is not fully repaid (FSFA, 2010a).

According to the Basel committee (Basel Committee on Banking Supervision [BCBS], 2005) the banks need to assess the true risk profile of the borrower banks need to receive sufficient information. This is done by analysing different criteria in the credit granting process. There are many factors to take into consideration when approving a credit. The factors are dependent on the credit exposure, type of credit and the nature of the credit. The most important factors are the purpose of the credit, sources of repayment, the current risk profile of the borrower as well as the collateral's sensitivity to changes in the economy and market. The current repayment capacity and financial history of the borrower also acts as a base for the credit decision. New customers will have an unknown financial history and should be treated with extra care. Commercial credits are also based on the company's business expertise, cash flows and the state of the economic sector the company operates in. The size of borrower's own financial contribution to the object is also an affecting factor. Macroeconomic factors plays a large part in the credit granting decision both for the private and commercial market since recessions and expansions in the economy effects the financial stability of both parties. In short the analysis should consist of a comprehensive description of the borrower, what the structure and purpose of the credit is and how the credit will be repaid (BCBS, 2000).

Sound credit giving is one of the most important principle for banks to conform to which include the analysis of the borrower. Sound credit giving is also to establish credit limits as

well as develop credit granting process for approving new credits as well as renewal and re-financing of existing credits. Due to the 7:th principles in the report (BSCB, 2005) must all extensions of credit must be made on an arm's-length basis, must be authorised and monitored with care to try control and minimise the risk (BCBS, 2000).

3.2.3 Credit Scoring

The credit scores are used to support the decision of accepting or rejecting a new applicant for credit (Thomas et al. 2005). This is done for both private persons and companies. The scoring is a statistical model that evaluates the likelihood of applicants defaulting with their repayment (Roszbach, 2004). It classifies the applicants into different class of risks ranging from good to bad class of risk (Hand & Henley, 1997). The credit scoring model is based on the information given in the mortgage application, information retrieved from a credit bureau, UC and other information that can validate the information in the application such as a certificate of employment. The credit scoring model processes the information and assigns different weights dependent on importance to the different types of information. The weight adds up to a total score which is the end product of the model. The score represent the applier's creditworthiness and influences the bank's decision of accepted or rejected the application.

The credit scoring model is an important statistic method to measure creditworthiness since it decreases the amount of incorrectly classified loans and minimises default rates (Roszbach, 2004). However, the model ignore the fact that the loan is paid back over a long period, therefore it is important for banks to measure the probability of loan default.

3.2.4 Behaviour scoring

Behaviour scoring is an extension of credit scoring and the applicant's risk of default (L. C. Thomas et al. 2005). The behaviour score analysis the customer's previous payment and purchase behaviour as well as the customer's social demographic. The model is the same as for credit scoring but includes more variables to determine the credit risk.

3.2.5 Assessment of households

This part only concerns the assessment of households.

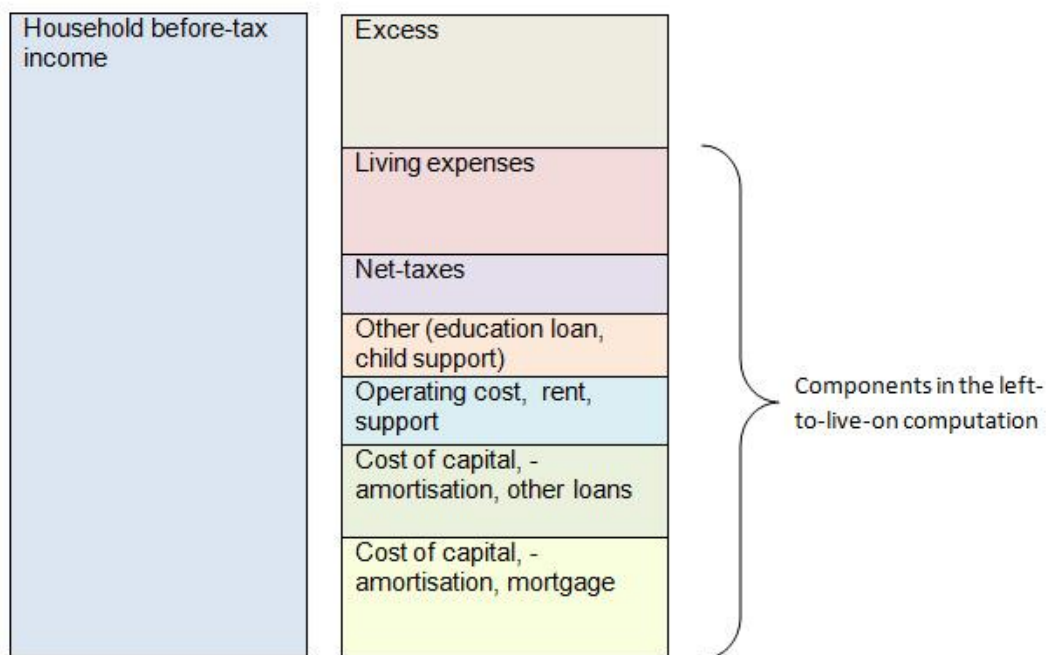
3.2.5.1 Left-to-live-on computation

When banks try to estimate borrower's repayment ability they use a left-to-live-on computation according to the SFSA's report in February 2010. The model used in the

computation consists of the household's income and expenses. The living expenses, taxes, operating and maintenance costs, interest payment, amortisation and other expenses are deducted from the household's disposable income. What remain after the expenses are deducted are the household's funds left to live on. The expenses are based on the Swedish Consumer Agency's estimations but certain banks modify some of the expenses to suit their judgements. The computation is used to try to evaluate the applicant's future repayment ability and sensitivity to changes in the interest rate. The model looks at the current disposable income and determines the household's sensitivity to a decreased disposable income. The interest rates used in the model is higher than the current interest rate. This is done to examine the household's sensitivity to higher interest rates (SFSA, 2010).

According to the SFSA's report in February 2010 the Swedish banks use an interest rate between 6.5 and 8.0 percent in their computations and an amortisation period of 40-100 years. The living expenses for an adult varies from 6 000 - 8 000 per month and children from 2 000 - 3 000 per month. A household consisting of two adults and two children are estimated to be between 15 900 - 19 000 per month. The SFSA's analysis shows that the amounts used in the banks left-to-live-on computations are higher than the ones estimated by the Swedish Consumer Agency.

Figure 1: Left-to-live-on computation



Source: Figure 2, (SFSA, 2010a) translated into English.

3.2.6 Assessment of companies

The financial statements of a company act as a basis for evaluating the company's repayment ability and financial health. To assess the company's funds coming out and in of the business a cash flows analysis is made. To analyse and interpret financial statements is

difficult but with the help of ratios it becomes easier. Important ratios for banks to use are liquidity ratios, solvency ratios and profitability ratios (Wood & Sangster, 2008)

3.2.6.1 Profitability ratios

It is very important for a company's future to remain profitable. For banks this is equally important since profitability will secure repayments of the mortgage. Profitability ratios give an indication of how good the company is on generating earnings (Wood & Sangster, 2008).

Return on capital employed is the most important profitability ratio and gives an overall picture of the company's profitability. It is also the most important for banks to look at. The ratio measures how well the company uses its capital; how much earnings (net profit) that is generated by the money invested in the company. The ratio will tell how high the percentage return is on the capital invested. The ratio can be compared to last year's ratio or competitor's ratio (Wood & Sangster, 2008).

3.2.6.2 Liquidity ratios

Without good liquidity a company will easily fail even though its profitability is high. This is of great importance to banks granting mortgages since a failure will be unable to repay the loan but also in the short-term since the company needs to be able to pay interest.

The main liquidity ratios are the current ratio and the acid test ratio. The end value of the current ratio shows the company's ability to pay off its short-term debts. The value measured is the company's current assets over its current liabilities. The higher the value of the ratio the better, it can be seen as the number of times the current liabilities can be paid with the current assets (Wood & Sangster, 2008).

The acid test ratio is similar to the current ratio but subtracts inventory from the current assets. This can be useful if the company applying for a mortgage carries a high amount of inventory with low liquidity. The importance of liquidity is to be able to turn current assets such as inventory into cash quickly. Inventory that is custom made will be hard to turn into cash. The liquidity ratio will help banks to determine if the company will be able to continue as a going concern (Wood & Sangster, 2008).

3.2.6.3 Solvency ratios

The long-term solvency is very important to the bank since it will secure the repayment of the loan. The solvency ratios most used by banks are:

Operating profit/loan interest ratio indicates the proportion of interest paid compared to the operating profit. A high ratio will indicate that the company is borrowing too much

money; a small decrease in operating profit might have devastating consequences for the company (Wood & Sangster, 2008).

Total external liabilities/shareholder's funds ratio shows the amount of funding from share capital and retained profit compared to external sources. A high ratio will indicate that the company might experience problems with solvency due to the large proportion of external liabilities (Wood & Sangster, 2008).

Shareholders' funds/total assets (excluding intangibles) ratio highlights the proportions of assets financed by the company's own funds. If this ratio is low it is an indication of problems with long-term solvency. This ratio is usually compared to ratios from other companies to get a good indication of what the ratio actually shows (Wood & Sangster, 2008).

In general the lower the solvency ratios are the greater the risk of loan default is (Wood & Sangster, 2008).

3.3 Valuation of private properties

A private property is valued to the sales price. The sales price is usually the same as the market value which is the most probable price on a sale of the object in the open property market (Lind, 2004).

3.4 Valuation of real estate properties

There exist several methods to determine the value of a real estate property (SFI/IPD Svenskt Fastighetsindex, 2007). The difficulties in the valuation are to project the future cash flow the property will generate. This section will go deeper in to net capitalisation method and the location price method.

3.4.1 Net Capitalisation Method

To calculate the market value of the real estate a net capitalisation method can be used. The method uses the property's net operating income divided by a required return. The net operating income is calculated as revenues from rent minus the properties operating and maintenance cost. The required return is based on the location of the property. When the market value is calculated it is then compared to the purchase price to determine the yield of the investment (Persson, 2003). The required return on the investment is dependent on the location of the property, anticipated market development, the property's position in its economical lifecycle and anticipated development of rental income (SFI/IPD Svenskt Fastighetsindex, 2007).

3.4.2 Location Price Method

The location price method is a valuation method where the market value of a property is based on comparing previously paid prices in the open market for similar properties in the same area/city. The access to up to date market data is essential for a valid result (SFI/IPD Svenskt Fastighetsindex, 2007).

Datscha AB is Sweden's leading supplier of web based services providing information and analysing tools for the Swedish property market (Datscha, 2010). Datscha AB retrieves its information with help of its partners: The Swedish mapping, cadastral and land registration authority, SCB-statistics Sweden and UC.

The service is divided into three functions which provides information about properties in the market, rents in different municipalities and enables analysis of the market values of different properties.

Market analysis offers the user instant information about who owns a certain property, rent and vacancy levels etc.

Location price analysis offers daily updates on registered purchases and pre-purchase information for Sweden's larger cities.

Property analysis is the most important function for banks and is an efficient tool for valuing commercial properties. Datscha AB offers a template calculation that the banks or any other customer can use and change the figures to match different needs. The service also offers access to cash flow statements, excel reports, maps and sensitivity analysis.

4 Empirical data

In this part of the thesis the results from the interviews with the banks are presented. The results are based on the questionnaire used during the interviews (see appendix I). The first part of this section will present the results for the private credit granting process, the second part the results for the corporate credit granting process and at the end of the section a comparison between the two processes. There are 6 different answers, one for each bank interviewed. In the next section a summary of the answers are given to make a comparison between the different parts of the market easier.

4.1 Private market

4.1.1 The credit granting process

Bank 1: The credit granting process starts with a mortgage application made online. The application contains information about the household's income, debt, current resident and family situation. A computation is then made to estimate the household's income after

deducting housing expenditure, the household's amount left-to-live-on. The left-to-live-on amount should be 7 000 per adult and 2 500 per child. The bank uses UC to complete and legitimate the information about the applicant.

The bank makes an individual judgement of all its customers, which the bank believes to be unique. The bank also uses a system that can grant a mortgage online. For a mortgage to be granted online it needs to satisfy the full mortgage granting conditions in the system. If a household does not fulfil all conditions the case will be handled at the bank's local office.

The model is the bank's own and the bank's local office is in charge of the process. The bank makes an individual judgement of the customer which it finds unique.

Previous relations with the customer and its financial history can increase the customer's creditworthiness. Relatives' previous relations with the bank and their financial history can also affect the evaluation of the applicant's creditworthiness.

If the applicant's income is likely to change in the near future, exceptions might be made in the credit granting decision. This can be based on for example on if the applicant is on maternity leave or has recently graduated. If the applicant have a degree it is less likely he/she will be out of work unless educated within a risky business, this might affect the customer's future income.

The credit granting process is the same for previous mortgage owners. The only difference is that the process is more profound if it concerns a new customer.

Bank 2: The customer fills in a mortgage application. The application is handled with respect to the Swedish Consumer Credit Act and sound credit giving.

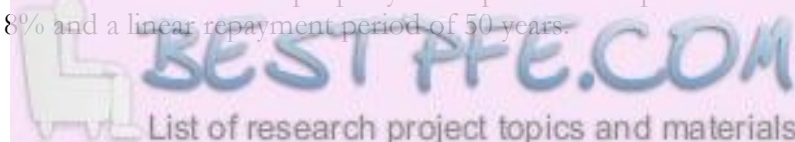
The bank uses a model based on the applicant's financial steadiness, internally and externally. The internal evaluation is based on the customer records and the external evaluation by UC. The model is internally constructed and in compliance with SFSA and Swedish laws.

The creditworthiness is determined by the use of the banks internal models which is based on internal and external information about the applicant.

The bank focuses on a stable income now and in the future. It is favourable if the applicant's employment is permanent but not a necessity. However the working future of the applicant should be secure.

The credit granting process is the same for first and existing customers, but it is usually easier for an existing customer to obtain a mortgage. When the previous property is sold the customer usually receive funds to pay the cash contribution for the new mortgage. This contributes to making the new mortgage more secure to the bank than a mortgage with a smaller cash contribution.

Bank 3: The most common procedure is that a financial advisor meets with the applicant. It is also possible to apply for a mortgage by the banks telephone service. The applicant's financial situation is then evaluated which is then the basis for the credit decision. The focus is on establishing that marginal exist for future income changes, increases in interest rates and maintenance costs for the property. The present computation is based on an interest rate of 8% and a linear repayment period of 50 years.



Before- and after mortgage calculations are used where the applicant's income and expenses are calculated with the help of the Swedish Consumer Agency's template. The mortgage expenses such as interest rates are included and other specified expenses. What is left after the calculations is the household's amount left-to-live-on. The model is internally constructed but is probably similar to other banks.

The evaluation of the applicant's creditworthiness is based on the before and after computation. The most important aspect of the computation is the remaining amount and how sensitive to applicant is to future changes in income and expenses. The information in the model is based on UC, credit rating and internal information about previous relations with the customer when possible.

The process for new customers is the same. The only difference is that the cash contribution for the existing customer's new mortgage will be higher. This due to the previous property is sold which affects the computations within the credit granting process.

Bank 4: The applicant contacts the bank's customer service, either by phone, online or visits the bank's local office. Information about the applicant is then retrieved from UC, a risk profile is determined and a risk-assessment is made. The credit decision is based on the information from UC, internal information and a credit score.

A left-to-live-on computation is made that is based on the Swedish Consumer Agency's template. However, the bank makes some adjustments to the model such as continuously changing the interest rate used and adding its own supplement charges. The model used is internally constructed but probably similar to other banks.

The creditworthiness of the applicant is determined by credit scoring and assessment of repayment ability. An assessment of the applicant's future income is usually not made unless the applicant is on maternity leave and is going to continue work shortly.

The credit granting process looks the same for new customers as for previous, the same models are used. The difference is that the bank has a history of financial steadiness of the applicant and the cash contribution is usually larger for the second mortgage than the first.

Bank 5: The customer fills in a mortgage application. The application is used as a basis for the computation made to determine the applicant's left-to-live-on amount after the housing expenditure is deducted from the household's income. Thereafter, the bank values the property.

The bank uses its own models. The models are constantly changing to reflect current conditions but are based on the Swedish Consumer Agency's template. The bank adjusts the parameters to include new sources of risk. The bank is continuously developing its parameters by evaluating factors that seems to affect a loan default or problem with the repayment. This is done by analysing previous mortgages and earlier credit granting processes. The only model used is the left-to-live-on computation which is internally constructed. New customers are evaluated more thoroughly in the process.

Bank 6: The bank makes a left-to-live-on computation, the household's income minus expenses. The household's expenses is based on the Swedish Consumer Agency's template but increased. The amount left-to-live-on should be at least 7 200 per adult, 11 000 per couple and 2 500 per child. Only the left-to-live-on- computation is used as a theoretical model. The model is internally constructed in compliance with laws and based on the Swedish Consumer Agency's template.

To determine the applicant's creditworthiness an internal and external evaluation is made which gives a score form 0-100 points. The score gives an indication of the customer's repayment ability. Other indications are previous customer relations, internal and external financial steadiness. Other important factors are the applicant's employment security, what industry the applicant works in and degree of education will affect the applicant's future income and is assessed in the credit granting process.

The bank has more information about previous customers than new customers. This gives the bank a broader foundation to base its credit decision on which affects the credit granting decision.

4.1.2 Market value of property versus repayment ability

Bank 1: The repayment ability

Bank 2: First and foremost the repayment ability, to protect the customer. After that the value of the property is looked at.

Bank 3: First and foremost the repayment ability. When the repayment ability is established the value of the property is evaluated.

Bank 4: Firstly the repayment ability, the customer needs to be able to afford to pay interest rates and amortisation. Secondly the property, the collateral is evaluated.

Bank 5: Repayment ability

Bank 6: Firstly the repayment ability then the collateral, the property.

4.1.3 Interest rate and repayment period

Bank 1: The interest rate is adjusted to be competitive and is determined locally. If the bank uses the property as collateral the interest will be lower than that of a nonrecourse loan. The interest rate is dependent on the bank's credit risk associated with the mortgage. The interest rate is also dependent on the repayment ability of the applicant and if the applicant has been a customer to the bank for a long period.

Bank 2: The bank uses recommendations for interest rates. There is an upper and lower span to these recommendations which the interest for the mortgage will lie. The final interest is determined by the bank's credit risk associated with the mortgage.

Bank 3: There is more or less a set template to use. The template is affected by the market conditions. If exceptions are made the loan administrator need to discuss the application with a manager. The bank believes in setting competitive interest rates and set their interest rates accordingly.

Bank 4: There is a framework for setting the interest rate with a lower and upper bound. The amortisation period of the nonrecourse loan is short while the first mortgage loan is almost amortisation free.

Bank 5: There is a set template that the loan administrators use. However, the loan administrator can adjust the interest rate to attract the customer. The competitive interest rates are set since the market competition is high. The amortisation period for the nonrecourse loan (over 75% of the mortgage amount) is set to 10 years. The mortgage up to 75% is set to 100 years. The first mortgage loan can be amortisation free until the nonrecourse loan is repaid.

Bank 6: The bank uses an official pricelist. The interest rate is also dependent on the applicant's use of the bank's other services. If the applicant is using many services the interest rate might become lower and if the applicant is new to the bank it might even be higher.

4.1.4 Loan administration

To what extent does the administrator/s affect the decision of granting or declining of a mortgage application?

Bank 1: The bank's goal is that every loan administrator should be able to grant or decline a mortgage application for 90% of the applications. If any contingencies exist with the application it is discussed with someone else at the bank, usually a manager. Even if the applicant does not fulfil all requirements there are exceptions made due to personal relations with the bank, if parents are good customers at the bank or there are reasonable causes of the shortcomings of the application.

Bank 2: The credit granting decision is always taken by two persons, either two loan administrators or one loan administrator and the computer system. 90 % of all applications go through the computer system without problems and with its help is granted by the loan administrator. The loan administrators have different granting levels. If the application does not go through the system or the mortgage amount is higher than usual the loan administrator discusses the application with someone else at the bank, usually a manager. If an application does not fulfil all requirements exceptions can be made and the mortgage granted.

Bank 3: With the help of the before- and after computation the loan administrator makes the decision of granting or declining the mortgage application. If the amount left-to-live-on satisfies the bank standard the decision is made by the loan administrator. This is done unless the computer system rejects the application. If there is contingencies with the application an additional person, usually a manager or a more experienced colleague is involved in the decision. There are employees assigned these roles at the local offices. Income is the most important factor in the application. For other shortcomings in the application exceptions can be made and the mortgage can still be granted.

Bank 4: The application is always handled by two loan administrators, the at least four eyes principle is applied. Managers are not involved in the "decision" but acts as an independent part and have veto. The credit decision is made by the loan administrators. Exceptions can be made if the application does not meet all the bank's standards but the shortcomings have to be motivated. The decision of an exception is always made on a higher level.

Bank 5: The mortgage application and decision is handled in full by the loan administrator. If the loan administrator can make the credit decision is dependent on the

administrator's permission level, each administrator have different permission levels. When contingencies exist the loan administrators will discuss the application with managers or colleagues. Dependent on the type of problem exceptions can be made.

Bank 6: The loan administrator handles the application and makes the credit decision unless there are contingencies with the application. The degree to which the administrator can make the decision is dependent on the mortgage amount. There are different decision levels for different mortgage amounts. A loan administrator can grant or decline the application with the help of the computer system but if the mortgage concerns a large amount then additional persons will be involved in the credit decision. Exceptions can be made but the decision then needs to be taken on a higher level.

4.1.5 Recommendations regarding lending ceilings

Bank 1: The bank has not yet experienced any differences regarding to the new lending ceiling. The difference now will be a larger focus on the applicant's repayment ability. It will also increase the interest rates for the customer. A customer who does not have the full 15% cash contribution can get a nonrecourse loan, a loan with different collateral than the property or bailment. The increase in the number of nonrecourse loans will in turn affect the bank's willingness to grant nonrecourse loans to new customers.

Bank 2: The bank believes that the new lending ceiling will affect the customers more than the bank. More unfavourable credits will be given to the customers. The bank does grant mortgages over 85% of the value of the property but the remaining 15% will be a nonrecourse loan. Nonrecourse loans is an important part of the bank's business, it gives its customers alternatives. The foundation of the granting of nonrecourse loan is the customer's repayment ability.

Bank 3: The bank believes that it will be affected by the new regulations. The big difference will be that they can only have a mortgage deed for 85% of the property's value. This will increase the amount of the bank's nonrecourse loan.

Bank 4: The new regulation will affect the bank in the sense that it will grant nonrecourse loans on top of the mortgage amount with collateral. This will increase the customer's interest. It will primarily affect first time buyers. The increase in nonrecourse loans is demands stable repayment ability by its customers. The bank would have preferred to continue with its previous system.

Bank 5: The bank does not believe that it will affect the bank much but it will affect its customers. The top part of the mortgage will consist of a nonrecourse loan which will increase the interest rate paid. Another alternative for the nonrecourse loan is a loan with different collateral than the property. It is not desirable by the bank to issue nonrecourse loans compared to loans with collateral. However, as long as the customer has good repayment ability it should not be a problem for the bank.

Bank 6: The bank previously had a cash contribution minimum of 10% and still has. The bank offers its customers to borrow 5% without collateral, a nonrecourse loan. Another alternative for the nonrecourse loan is a loan with different collateral than the property or bailment. Nonrecourse loans increases the bank's credit risk and the customer is affected since their interest rates will increase and their amortisation period will be shorter. The

bank believes that a lending ceiling of 90% with collateral would be more appropriate than the current regulation.

4.1.6 Market competition and recession/expansion

Bank 1: The market competition and recessions/expansions do affect the bank. The most important thing is for the bank to apply sound credit giving and focus on the long-term.

Bank 2: The bank is more careful during a recession and more willing to grant credits in an expansion.

Bank 3: Local competition affects interest rates but not the credit granting decision. Recession and expansions affect the bank willingness to lend money. During expansions it is more willing to grant credits and during a recession it is more careful.

Bank 4: The competition affects the interest rates but the basis of the decision is still the result of the computations and the customer's repayment ability. Recessions and expansion affect the bank's willingness to pay and the market value of the properties.

Bank 5: Expansions and recessions do affect the bank, mostly during market crises.

Bank 6: The market competition affects the bank in the sense that it needs to attract customers. Recession makes the bank more careful in its credit granting decisions.

4.2 Corporate market

4.2.1 The credit granting process

Bank 1: The process starts with an analysis of the company's financial statements, its financial history and future. The company's repayment ability is determined and the collateral/s is assessed. The owner/s, board of directors and other key people within the company is evaluated as well as financial components. The property is evaluated, what kind of property it is, how the rent contracts look like and possible/existing tenants. The company is closely involved in the process since a continuous dialogue is needed. There are no theoretical models used in the process.

The bank is unique in its customer focus. There are instructions to follow for the credit granting process but it is constantly focused on the customer. The template is internally developed from the bank's head office.

Important factors in the credit granting decision is ratios, cash flow analysis, excess values and the bank's own credit rating. The larger the credit score is the larger the company's creditworthiness is.

The applying company needs to present their budget and own prognostication about the future which is then analysed by the bank.

The credit granting process is the same even if the company has previous mortgages. The important factors are each individual property and previous relations with the customer.

Bank 2: The first step in the credit granting process is to determine the applying company's repayment ability. This is done by an analysis of the company's cash flow statement and other financial statements. Budgets are also very important and interim reports. The second step is to value the property, the collateral. These two steps are done by two different persons, loan administrators. A third party might get involved if an external valuation is needed.

There are templates to follow which gives a credit rating of the company. However there is a lot of responsibility on the loan administrators than on a particular model. The model used is internally constructed and the company's profitability, solidity and liquidity are evaluated. A budget of the two years ahead should be presented by the company and then analysed by the bank. The latest annual report and interim reports are also analysed.

Bank 3: The loan administrator starts the process by analysing the company's cash flow statement for the new property. The analysis consists of revenues from rent minus the operating- and maintenance costs, the sum is the company's operating income. The information is then used in the net capitalisation model where the operating income is divided by the required return of the investment.

A valuation of the property is then made, either by an employee of the bank or an external expert. The most important aspect of the property is its location. If the property has a good location it will be easy to rent out to households and businesses.

The bank has an individual developed credit granting process that differs from the international credit market but is similar to the national. Sweden has a well developed land registry and pledge system.

If a company has previous mortgages it might be granted a mortgage more easily since previous relations with the bank exists. However, the credit granting process is the same but a company's downfall of previous mortgages might be the increased loan to value ratio. This ratio is an important factor in the bank's credit granting decision.

Bank 4: The credit granting decision is usually made by the local credit committee. The committee consists of three persons which makes the decision of granting or declining the mortgage. The loan administrators present their arguments about granting or declining the application but the decision is taken by the committee.

The size of the company matters in the credit granting decision. For smaller companies a scoring model determines the decision level. Financial statements, board of directors/managers, accountant each have different models which they are analysed in.

The bank does not use models for larger companies. The company is rated to determine its class of risk. The company's financial statements and budgets are analysed and the property valued. A cash flow analysis is also made and the type of property and its tenants is assessed. The company uses Datscha, an external system to retrieve information about properties and other useful information.

The bank uses internally developed and classified models to assess real estate concerns. The model is based on the company's financial statements, repayment ability and confidence in the company's management. A computation of 10 years ahead is made where the bank assesses the real estate concern's structure of the tenancy agreement, in example how long the term of notice is.

Previous relation with the companies plays a large part in the decision making since the bank knows the customer. But the process looks the same for every applicant.

Bank 5: The credit granting process differs depending on the type of company.

For limited companies the bank analysis financial statements, interim reports, ownership structure, board of directors, accountant and previously owned properties.

The bank makes its own valuation of the current dwelling stock and a thorough analysis of the balance sheet.

The mortgage amount is determined by the bank's internal regulations and is dependent on the type of property. Real estate properties for rent are 80% of the property's value, for offices/shop 70% of the property's value and industrial real estate 60% of the property's value.

If the mortgage concerns a new housing estate a production computation is made. Computations concerning the company are also made and an analysis of the cash flow statement.

The bank's credit granting process and models is internally constructed.

The company's creditworthiness is determined by the computations, an internal rating model and analysis of cash flow statements.

If the company has previous mortgages at the bank it might increase the company's creditworthiness if it has fulfilled its previous obligations.

Bank 6: The first step is to assess the company's repayment ability. This is done by analysis the company's financial reports and budget. Step two is to secure the collateral by a mortgage deed or company chattel pledge.

The bank uses its own models and previous history about the customer. The information is legitimated and completed by information from UC. The bank also retrieves information about the board of director and accountant.

A cash flow model made by Datscha is also used to make a 10 year computation of the company's cash flows. The model is based on revenue and expenses which is increased for every year, rent increases and operating- and maintenance costs. Rent and amortisation is also added to get an end result.

Previous mortgages do not affect the process itself but it will affect the company's cash flows. Enhanced stability in the business might lead to get the mortgage granted more easily and increase the mortgage amount.

4.2.2 Market value of property versus repayment ability

Bank 1: Repayment ability and the company's sensitivity to changes in interest rates.

Bank 2: Repayment ability

Bank 3: Cash flows, repayment ability

Bank 4: Repayment ability

Bank 5: Repayment ability

Bank 6: Firstly repayment ability, secondly the collateral

4.2.3 Interest rate and repayment period

Bank 1: The interest rate is determined by the company's ratios and the repayment period is determined by the company's depreciation pace.

Bank 2: The interest rate is determined by the bank's credit risk associated with the mortgage. The amortisation plan usually follows the depreciation pace.

Bank 3: Templates do not exist as for the private part of the market. There is more room for negotiation between the loan administrator and customer. The amortisation plan is based on the depreciation pace and advance ration.

Bank 4: There are systems and aids to guide the decision of interest rates. The interest rate is determined by the company's credit risk and loan-to-value ratio. The repayment period is either based on depreciation pace or tenant agreement if the property is used for example as a fire station or other specific purpose.

Bank 5: There are templates to use as guidance but it is always a matter of negotiation so it varies.

Bank 6: A credit score of the company is made where important parameters are assessed to enable to determine the interest rate.

4.2.4 Loan administration

Bank 1: Every loan administrator has different decision levels. There are usually two loan administrators but not a requirement. If a mortgage can be granted without the company fulfilling all the requirements is subjective since it is a matter of negotiation and individual evaluation for each company.

Bank 2: Compared to the private part of the market the loan administrator can influence the credit decision to a greater extent. There is always more than one administrator involved in the process. There are decision levels and if the application exceeds the decision level the loan administrator's decision level another person will also be involved. A mortgage can be granted even if the company does not fulfil all requirements since it is a negotiation.

Bank 3: There are always at least two loan administrators. The number of administrators is dependent on the mortgage amount. The bank has different authorisation steps for employees starting with loan administrators and ending with managers. Exceptions are made concerning granting a mortgage to companies who do not fulfil all the bank's requirements.

Bank 4: The loan administrator presents arguments concerning the credit granting decision which is used as a basis for the decision. There are many parameters to consider that are weighed against each other. Therefore it is hard to establish if exceptions are made for credit granting concerning companies that do not fulfil all the bank's requirements.

Bank 5: Since mortgages for the corporate part of the market usually concerns larger mortgage amounts managers are more involved in the process. The credit granting decision is based on a collective judgement of the company and therefore it is hard to determine if exceptions are made concerning the fulfilment of requirements.

Bank 6: The individual loan administrator has decreased possibility of granting mortgages for the corporate part of the market. This is due to the fact that mortgages for companies are usually much larger than of households. Therefore the decision is usually taken by credit committees which the credit manager is a part of. The loan administrator presents the material, the basis of the decision and the committee decides whether to grant or decline the application. There is less concrete information about companies compared to household and many more parameters to consider. This makes the credit granting process for companies necessary to handle manually. An individual judgement is made of all companies.

4.2.5 Recommendations regarding lending ceilings

Bank 1: There are no recommendations from the SFSA. The bank has internal recommendations regarding lending ceilings. There are harder demands on companies compared to households as it is and therefore no external regulations are needed. The company demands a cash contribution of 25% for mortgages for rental properties and 50% for industrial properties.

Bank 2: No recommendations exist regarding lending ceilings.

Bank 3: There are no recommendations regarding lending ceilings, why the 85% rule exists for the private part of the market is due to consumer protection.

Bank 4: No recommendations exist regarding lending ceilings that the bank is aware of.

Bank 5: No recommendations exist regarding lending ceilings.

Bank 6: No recommendations exist regarding lending ceilings

4.2.6 Market competition and recession/expansion

Bank 1: The market competition and recessions/expansions affect to some degree but the focus is still on sound credit giving.

Bank 2: The bank is more careful during a recession and more willing to grant credits in an expansion.

Bank 3: The bank is triggered by the market competition to grant credits. However it never deviates from its cash flow analysis. A new crisis such as the one in the 1990's is not desirable.

Recessions like the most recent one affects the bank's credit granting process. Some of the bank's competitors had lending stop during the recent crisis, but it never went that far for the bank. The effects of a recession are larger for the corporate part of the market since the mortgage amount is significantly larger than for households. During a recession the bank is less willing to grant mortgages and in an expansion it is more willing.

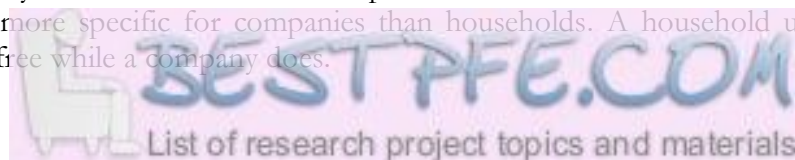
Bank 4: The bank is both affected by competition and recessions/expansions to a certain degree. Liquidity problems of some banks were discussed during the financial crisis of 2008.

Bank 5: Expansions and recessions do affect the bank, mostly during market crises. Only a few real estate mortgages are granted. The effect of recessions and expansions is larger for the corporate part of the market.

Bank 6: There is great market competition which makes the banks fight for the customers.

4.3 The bank's view on differences

Bank 1: The bank is more thorough in its analysis of companies compared to households. When a company is assessed there are more parameters to consider and the mortgage term to maturity is more specific for companies than households. A household usually never becomes debt free while a company does.



There is also the matter of juristic- and natural person. A household have a personal responsibility but the company is a juristic without personal responsibility. If the company becomes bankrupt the company might not be able to get its money back.

Differences in volume and mortgage amount are also the basis of differences in the evaluation process.

The bank believes that there should not be big differences in the processes between the two parts of the market. However the number of parameters that needs to be considered for companies affects the need of differences.

Bank 2: One of the differences is that a household in principle never becomes debt-free. This puts more pressure on the loan administrator to use sound credit giving in his/her handling of the household's application. The focus on the private part of the market is to protect the customer, since a household is lee protected than a company. If a company becomes bankrupt it usually does not affect individuals but a bankruptcy.

Bank 3: The private part of the market is more standardised and the mortgage amount differs. The assessment of a company contains more parameters, the mortgage amounts are higher and an error in the process will have larger consequences for the bank. A mortgage for a company is a larger risk to the bank.

A manufacturing company can easily adjust its expenses compared to a real estate concern. If a real estate concern is experiencing problems it will sooner become a problem to the bank compared to manufacturing company.

Bank 4: There is a difference between the valuations of the property. For private property it is the market value, the valuation of the estate agent. For real estate properties the only accepted valuation is the evaluation of the yield, the cash flows from the property is evaluated and divided by the required return. A real estate property generates money and a private property only generates expenses.

The household's mortgage is granted on a national level and the mortgage of accompany on a local level.

Bank 5: Analysis of financial statements differs, different parameters. The bank does not believe there should be large differences in the processes.

Bank 6: No large differences, the processes are similar except for the difference in information retrieval. It is easier to retrieve the same information about households for companies. There are more parameters to consider for companies. There is also a larger difference from company to company than household to household. The private part of the market is regulated to a larger extent. A company's real estate property is not for private use a private property is.

4.4 The bank's view on similarities

Bank 1: Repayment ability and collateral. The mortgage deed and complementing collateral is also similar.

Bank 2: The focus on repayment ability

Bank 3: The assessment of cash flows and the evaluation of changes in the cash flows is the same.

Bank 4: Confidentiality in the customer and repayment ability is the same.

Bank 5: Focus on repayment ability, pledge as collateral and the use of UC.

Bank 6: Primary focus on repayment ability and secondly collateral.

5 Summary of empirical data

This part of the thesis is based on the empirical findings from the interviews but with unitised answer to make the comparison between the private and corporate credit granting process easier.

5.1 Private market

5.1.1 The credit granting process

The credit granting process appears to be similar in all banks, but all banks have individually developed processes. The private mortgage market is heavily regulated and therefore the banks individual processes can only differ marginally.

The credit granting process start with an application filled in by the mortgage applicant. This is done in different manners depending on the bank; it can be done online, by telephone or by visiting the bank's local office. The application contains information about the applicant's income, debt, and living conditions. The banks need both internal and external information to evaluate the decision. Therefore, once the application is filled in the banks will complete and verify the information by retrieving information from their own database and UC. The information is then used to determine the applicant's creditworthiness and repayment ability.

The applicant's financial situation is the basis of the decision to grant or decline the mortgage. Therefore the applicant's risk profile and financial stability is calculated based on the information retrieved from the application.

The risk profile of the applicant is based on a credit score. The credit score is a value retrieved from the credit scoring model which is based on the information retrieved from the application. The credit score determines if the applicant is a high risk- or low risk

customer for the bank. The banks have individual scales that rank the credit scores from low to high risk.

The financial stability is determined by a left-to-live-on computation and an evaluation of the applicant's future income. The values in the computation of the left-to-live-on are based on the Swedish Consumer Agency's estimated living expenses although some values are increased to create margins. The estimated living expenses for an adult is around 7 000 per month and a child around 2 500 per month. The evaluation of the applicant's future income is based on the type of employment. Temporary employment and employment within an unstable industry may affect the credit decision negatively.

Other factors affecting the decision are whether the applicant is a new customer of the bank or have previous mortgages. If the applicant is a new customer, the bank will not have any internal financial history which makes it harder to assess the applicant. If the applicant has a previous mortgage and wants to increase the mortgage amount to buy a more expensive property will not affect the credit granting process but the bank's decision. It will affect the decision in a positive way since the bank has a repayment history and the applier will probably have a large cash contribution since the previous property is sold.

5.1.2 Market value of property versus repayment ability

All banks interviewed mainly focused on repayment ability in their credit granting decision. The repayment ability is determined by the credit rating and left-to-live-on computation. It is important for the banks to know that the borrower can afford the living expenses and still be able to pay their interest and amortisation.

The property is only used by the bank as collateral for the mortgage. The value of the property is set to the purchase price.

5.1.3 Interest rate and repayment period

The banks mainly use internal guidelines for interest rates. The guidelines act as a framework with an upper and lower span for the interest rate. The final interest rate is negotiable to the extent of the upper and lower span. The loan administrator is in charge of the negotiations and in most cases makes the final decision.

The interest rate for a mortgage is influenced by the market interest rate, the borrower's repayment ability, financial history and the collateral. The bank's competition might also affect the interest rate charged.

The repayment period differs from bank to bank, ranging from around 50-100 years. Some banks have a shorter payback period for the amount of mortgage that exceeds 75% of the property's value

5.1.4 Loan administration

The number of administrators varies between the banks. The mortgage application is handled by one or two loan administrators. The banks internal computer system guides the loan administrator/s in the decision of granting or declining the mortgage application. The computer system contains all the information retrieved during the credit granting process. If the applicant passes the requirements of repayment ability and creditworthiness the loan administrator/s are able to grant or decline the application. If the applicant does not fulfil the requirements the decision needs to be made by a more experienced employee or a manager. Although the decision is made on a higher level it is based on the loan administrator/s judgements.

5.1.5 Recommendations regarding lending ceilings

The SFSA's latest recommendation concerning the mortgage market is that only 85% of the property's value can act as collateral. This affects the credit granting process since the applicant's repayment ability will play a larger part in the decision. Applicant applying for a loan exceeding 85% will have to apply for a nonrecourse loan to cover the remaining amount. Nonrecourse loans have a higher interest rate and a shorter amortization period. The banks believe that the new recommendation will affect mainly the consumers. The previous system was built on a mortgage up to 100% of the value of the property as collateral. The previous mortgage system was divided into two parts, a first mortgage loan and a top-up loan. Today's mortgage is similar but the difference is that the top-up part is without collateral, a nonrecourse loan. This implies that the interest rate will be higher and amortisation period shorter.

5.1.6 Market competition and recession/expansion

The market competition affects the interest rate but should not affect the decision of granting or declining a mortgage application. Sound credit giving should always guide the bank in its credit granting decision i.e. repayment ability and creditworthiness.

Recessions and expansions affect the banks willingness to lend money. In a recession the banks will be more careful in its credit granting decisions and in an expansion more willing to grant a credit. This affects the credit granting process only to the extent of carefulness in the process. Since a mortgage is over a long time period the decision is still based on the creditworthiness and repayment ability of the applicant. However, the creditworthiness and repayment ability of the applicant can be affected by a recession or an expansion. If the applicant is working in an industry which is experiencing difficulties during the recession the applicant's employment might be at risk. If the bank believes that the applicant will be unable to fulfil the mortgage obligation it will not grant the mortgage.

5.2 Corporate market

5.2.1 The credit granting process

The credit granting process starts by retrieving information about the company from its financial statements and UC. There are no standardised model to assess the repayment ability and creditworthiness of a company but the banks have internally developed processes. Although all banks analyses the company's financial statements. The most important statement is the cash flow statement. Both the past, present and future state of the company is analysed by the use of financial statements and budget. Some banks try to estimate future cash flows of the company for a period of up to 10 years. In order to determine the company's repayment ability scoring models are used. The score acts as a base for the estimation of creditworthiness of the company. Along with the analysis of the financial statements it is the foundation of the decision.

After the repayment ability and creditworthiness is established the banks consider the owner/s and boards competences and management of the company.

The use of the property plays a large part in the decision as well. It is important for the bank to know the cash flows the property will generate. The property is also valued and the yield of it. Most banks use the net capitalisation method to determine the market value.

The credit granting process will look the same indifferent of the company's previous mortgage although the indebtedness will play a part in the credit decision.

5.2.2 Market value of property versus repayment ability

The repayment ability is the foundation of the credit granting decision. The property will affect the company's future cash flows by generating revenues. However, the market value of the property does not affect the final decision.

5.2.3 Interest rate and repayment period

The interest rate is determined by the company's ratios and credit rating. The interest rate is negotiable but there is to some extent internal guidelines.

The repayment period complies with the depreciation period or rent-period if it concerns properties for certain purposes such as fire-stations. One of the banks has pre-set amortisation of 2% on the first 75% of the mortgage and the remaining part should be amortised during the first 10 years.

5.2.4 Loan administration

When the granting decision is made for a company all banks have at least 2 loan administrators. The need of more than one administrator is due to the fact that the mortgage amount is high. The degree of involvement of credit managers and/or credit committees is based on the mortgage amount. The higher the amount, the more people will be involved. Throughout the credit granting process there is continuous contact and dialogue with the company. The final decision is based on the collective judgement of the company.

5.2.5 Recommendations regarding lending ceilings

There are internal recommendations about the lending ceilings for real estate properties but no market regulations. On the other hand there are regulations about how the property's value is determined. The valuation is made externally by Datscha and/or internally by the net capitalisation method.

5.2.6 Market competition and recession/expansion

The market competition can affect the credit granting decision to the extent of setting interest rates. Banks might set interest rate on a competitive level to get the most attractive companies. However, the credit decision is always based on sound credit giving.

During recessions the banks are less willing to grant a mortgage.

During an expansion most companies have high creditworthiness and therefore are attractive to banks. Since most companies are attractive customers it creates competition among the banks. The increased competition leads to an increase in the bank's willingness to grant a mortgage, if they do not another bank will.

5.3 The banks view on differences and similarities

The banks are more thorough in their credit granting process for companies compared to households. The reason is due to differences in regulations, mortgage amount and the effects of a loan default.

The private part of the market is compared to the corporate part regulated to a larger extent. The mortgage amount of the real estate loans is higher than that of private properties.

The effect of a loan default will be greater in the corporate market for the bank since it might not be able to get any money back if the company fails. On the other hand a private person is not likely to become debt-free, a company might. This affects the credit granting process for households since the loan administrator needs to be more careful when handling the application due to the Swedish consumer credit act.

There are more variables in the income and expenses for companies compared to households. This makes it hard to standardise processes for companies.

The factors which are most similar in both the private and corporate market are the importance of repayment ability and the use of the property as collateral.

6 Analysis

In this part of the thesis a comparison will be made between the results of the private and the corporate part of the market to identify and define reasons for the differences in the credit granting processes. The last part of the analysis will assess the need of a difference between the processes.

6.1 The credit granting process

The credit granting process is more standardised for the private part of the market compared to the corporate part. This is due to the fact that the private part of the market is heavily regulated by the Swedish Consumer Credit Act (Konsumentkreditlagen, 2010). The regulations focus on consumer protection which limits how the banks can act in their credit granting process. It is also less parameters to consider for households than companies. There are templates for living expenses that banks can use in the credit granting process for households (Finansinspektionen, 2010a). Companies have too many variable expenses for companies to be able to form a template to suit all companies.

6.2 Market value of property versus repayment ability

For both parts of the market the repayment ability is the most important factor. The market value of the property only acts as a collateral for both the private and corporate part of the market. However, in the credit granting process for companies there is more focus on the estimated value of the property since it generates revenues and not only expenses. This is done through evaluations made with the net capitalisation method (Persson, 2003)

6.3 Interest rate and repayment period

There are more guidelines to follow when determining the interest rate for a mortgage of a private person than a company. The interest rate of mortgages for households is more closely related to the market interest rate and what interest rate competitors use. For companies the interest rates are mostly determined by negotiations between the bank and the company.

The repayment period is quite standardised on the private part of the market. Company's repayment period is mostly determined by the depreciation period of the property.

6.4 Loan administration

Since there is a large difference in the mortgage amount for a private property and a real estate property the loan administration differs. The loan administration is usually handled by one to two loan administrators for private properties and at least two for real estate properties. The involvement of managers or credit boards is common in credit granting decisions for companies but not for households. The difference lies in the amount of parameters that need to be considered in the process. Computer systems act as a loan administrator to a greater extent for households. The private market can easily be standardised and it is easier to rely on the results from the computer system in the credit granting decision. The template used for the private part of the market is the Swedish Consumer Agency's (Finansinspektionen, 2010a).

6.5 Recommendations regarding lending ceilings

There are market regulations concerning lending ceilings for the private properties (Finansinspektionen, 2010c) but only internal regulations for real estate properties (Finansinspektionen, 2009:9). This limits the banks' lending decisions for private properties since they cannot decide what is appropriate but need to follow the recommendations. On the other hand there are more regulations regarding the valuation of real estates. Private properties are valued at the market price (Lind, 2004) and since real estate properties will generate revenues they are valued at the yield of the investment and are therefore valued with the net capitalisation method (Persson, 2003).

6.6 Market competition and recession/expansion

The market competition affects the credit granting process to a greater extent for the corporate part of the market. Many companies are seen as attractive customers and the banks will offer competitive interest rates to attract those companies. However, sound credit giving guides the credit granting decision for both part of the market.

During a recession banks are generally less willing to lend out money. The bank is more careful in their credit granting process. The banks' lending declined during the recession in the 1990s due to Shrieves and Dahl (2005). For households the bank will look more closely on the stability of the employment, if the applicant might lose their job. A company's future cash flow is usually more influenced by the recession than the income of a private person. Therefore the assessment of a company's creditworthiness and repayment ability will be more thorough.

In an expansion most companies are seen as attractive customers and therefore the competition between banks increases and the bank will try to attract the company. If one bank does not supply the company with a mortgage another will. There is not that much difference in the mortgage market for private property during an expansion since the basis for the applicant's creditworthiness and repayment ability does not change. To conclude

what happens during an expansion is that the future estimation of cash flows increases for companies but are unchanged for households.

6.7 The need of differences

The analysis of the interviews clarifies the need of a difference in the credit granting process. Since households and companies “cash flows” differ by the number of parameters included in the assessment of creditworthiness and repayment ability the credit granting process cannot be identical. The income and expenses of a company is hard to standardise. This makes the banks evaluation of each company individual. If there would be a way to standardise the process for companies differences between the different parts of the market is not needed.

7 Conclusions

How is households and companies creditworthiness and repayment ability determined?

Banks make sure their customers are creditworthy by analysing the creditworthiness and repayment ability of the applicant. This is done by firstly retrieving information from the customer and its own computer system. The information is then validated and completed by retrieving information from UC. If necessary, additional information such as a certificate of employment is added to complete the information. Models and other analysing tools are then used to determine the creditworthiness and repayment ability of the applicant based on the retrieved information. Models used are credit scoring models and left-to-live-on computations. For the credit granting process for companies, analysis of financial statements is also added.

What are the differences in the credit granting process?

There are differences in the credit granting processes between households and companies. The largest difference is due to the large extent the private market is regulated. The banks are limited in developing their credit granting process and mortgage terms for households due to the extent the private part of the market is regulated. There are not that many regulations concerning mortgages for companies, however since a mortgage for a company is a larger credit risk for the bank it needs to be more thorough in its credit granting process. The focus on the private part of the market is consumer protection and on the corporate part the banks credit risk.

Another major difference is due to the number of parameters that needs to be considered when assessing the creditworthiness and repayment ability of the applicant/s.



To what extent are templates used in the credit granting process?

Templates are used in for the private part of the market. This is due to the possibility of forming templates for a private person's income and expenses. Why there are not any templates for the corporate part of the market is due to the difficulty in establishing templates for a company's expenses. Households usually have similar expenses and there are measures to use such as the Swedish Consumer Agency's. This makes the evaluating process easier for households but since the expenses for companies differ to a greater extent it becomes more difficult to evaluate companies on the same basis.

Why is there a need of differences between the processes?

Differences between the processes are needed for the bank to be able to assess the creditworthiness and repayment ability for both households and companies in debt to decrease their credit risk. This based on the fact that there are too many parameters to consider when assessing a company's creditworthiness and repayment ability compared to a private person.

8 Reflections

The shortcoming of this thesis is that the majority of the information the thesis is based on is written in Swedish. It might be possible that some information is lost in translation. However, the information retrieval could not have been done in a different way since the mortgage market in Sweden differs from other mortgage markets. If information in English had been used instead it could have been misleading. We believe that the result of this thesis is correct and the language barrier has not made a large impact.

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Appendix I: Interview questions (translated into english)

Private market:

How do banks handle a household's mortgage application?

Does the bank use any theoretical models?

Is the bank's credit granting processes internally constructed or does the bank use national/international praxis?

Does the bank mainly focus on to the value of the property or the household's repayment ability as the basis of the credit granting decision?

How does the bank determine the creditworthiness of the household?

Does the bank make a forecast of the household's future income?

Is the credit granting process the same for persons who already have a mortgage (persons who wants to sell their current property and buy a more expensive one) compared those who are applying for the first time?

How does the bank determine the interest rate and repayment period of the mortgage? Are there any set templates or does the loan administrator/s decide what is appropriate?

To what extent does the administrator/s affect the decision of granting or declining of a mortgage application?

Does the administrator/s discuss the mortgage application with someone else within the bank before a final decision is made?

Does the household have to fulfil all the requirements for the granting of the mortgage or are exceptions made? (E.g. the administrator/s finds household desirable borrower anyway)

How will the Swedish Financial Supervisory Authority's 85% rule affect the bank's business?

Does the bank offer any alternatives for those customers without the 15% cash contribution?

What is the bank's view on nonrecourse loans from the banks perspective?

Does/to what extent does the market situation affect the decision of mortgage granting?

Corporate market:

How do banks handle a company's real estate loan application?

Do banks use any theoretical models?

Are banks credit rating processes internally constructed or do banks use national/international praxis?

How do banks determine the creditworthiness of the company?

Appendices

Do banks mainly focus on to the value of the property or the company's repayment ability when credit rating?

Do banks make a forecast of the applier/appliers future income?

Is the credit rating process the same for companies who already have previous real estate loan/loans?

How do banks determine the interest rate and repayment period of the mortgage? Are there any set templates or does the administrator decide what is appropriate?

To what extent does the administrator affect the decision of granting or declining of a mortgage application?

Does the administrator discuss the mortgage application with someone else within the bank before a final decision is made?

Does the company have to fulfil all the requirements for the granting of the real estate loan or are exceptions made? (E.g. the administrator finds the applier/appliers desirable borrower anyway)

Is there any rule resembling the Swedish Financial Supervisory Authority's 85% rule on the private market for the corporate market?

Do/to what extent does the market situation affect the decision of real estate loan granting?

Comparison:

Differences

What do banks find to be the major difference in credit rating between the private and the corporate market?

What do banks base the differences in judgement of credit rating between the private and the corporate market?

Do banks believe there should be small or large differences between credit rating between the private and the corporate market?

Similarities

What do banks find to be the major similarity in credit rating between the private and the corporate market?

Appendix 2: Interview questions (original)

Privatpersoner:

Hur går ni till väga när ni handlägger en privatpersons ansökning om bolån?

Använder ni några teoretiska modeller?

Har er bank en egenutvecklad kreditgivningsprocess eller är det någon nationell/internationell praxis som följs?

Ser ni främst till bostadens värde, eller tittar ni främst på de ansökandes betalningsförmåga vid kreditbedömningen?

Hur bedöms en ansökandes kreditvärdighet?

Gör ni någon form av framtida inkomstprognos av den/de som ansöker?

Är kreditgivningsprocessen densamma för de personer som redan har ett bolån (de som vill sälja sitt nuvarande hus och köpa ett dyrare hus) gentemot de som tar bolån för första gången?

Hur bestäms ränta och återbetalningstid? Finns det färdigställda mallar eller är det upp till handläggaren att avgöra vad som är passande?

Hur stor påverkan har lånehandläggaren på beslutet att acceptera eller avslå ansökan om lån?

Diskuterar handläggaren låneansökan med någon annan på banken innan beslut fattas?

Måste de ansökande uppfylla alla krav som ställs för beviljandet av lån eller kan det ske undantag om t.ex. handläggaren anses att de som söker ändå är önskvärda låntagare?

Hur kommer Finansinspektionens nya maxtak påverka er verksamhet?

Vad för lösning kan ni erbjuda de kunder som inte har kontantinsatsen på 15 %?

Hur ser ni på blanco lån utifrån bankens perspektiv?

Påverkar/i vilken utsträckning påverkar marknadssituationen om låneansökan beviljas eller inte?

Företag:

Hur går ni till väga när ni handlägger ett företags ansökning om fastighetslån?

Använder ni några teoretiska modeller?

Har er bank en egen utvecklad kreditgivningsprocess eller är det någon nationell/internationell praxis som följs?

Hur bedöms ett företags kreditvärdighet?

Ser ni främst till värdet på fastigheten, eller tittar ni främst på företaget betalningsförmåga vid kreditbedömningen?

Gör ni någon form av framtida inkomstprognos av företagen?

Gör ni någon skillnad på företag utifrån hur många fastighetslån de har sedan tidigare?

Hur bestäms vilken ränta och hur lång återbetalningstiden är? Finns det färdigställda mallar eller är det upp till handläggaren att avgöra vad som är passande?

Hur stor påverkan har lånehandläggaren på beslutet att acceptera eller avslå ansökan om lån?

Diskuterar handläggaren låneansökan med någon annan på banken innan beslut fattas?

Måste det ansökande företaget uppfylla alla krav som ställs för beviljandet av lån eller kan det ske undantag om t.ex. handläggaren anses att företaget ändå är en önskvärd låntagare?

Finns det liknande regler som finansinspektionens 85 % regel för företag?

Påverkar/i vilken utsträckning påverkar marknadssituationen om låneansökan beviljas eller inte?

Jämförelse:

Skillnader

Vad ser du som största skillnad i kreditgivningsprocessen mellan privatpersoner och företag?

Vad grundar banken skillnaden i bedömning av privatpersoner och företag på?

Anser du att det ska vara stora eller små skillnader i bedömning av privatpersoner jämfört med företag?

Likheter

Vad ser du som största likheten i kreditgivningsprocessen mellan privatpersoner och företag?