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SCHOOL OF BUSINESS, ECONOMICS AND LAW

Master Thesis

The importance of considering risk in top-level management decisions

- An empirical study of Swedish universal banks

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ABSTRACT

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Title: The importance of considering risk in top-level management decisions – An empirical study of Swedish universal banks.

Background and Problem: The occurrence of the latest financial crisis has revealed deficiencies within risk management in banks. There is a need for improvements in external as well as internal control in order to reinforce risk management in banking and thus prevent the emergence of another financial crisis. The Basel Accord represents the external control, which has great impact on banks' risk management worldwide. A major lesson learned from the financial crisis is the importance of integrating risk management into top-level management decisions, however, problems may arise due to risk managers and decision makers having different point of reference.

Aim of Study: The aim of this thesis is mainly to investigate how risk awareness manifests itself in top-level management in the Swedish universal banks and if the risk awareness has increased in Swedish universal banks in recent years. A further aim is to investigate how integrated risk management and top-level management is in Swedish universal banks and if they perceive this integration to be sufficient. Furthermore, the aim is to investigate what opinion Swedish universal banks have regarding Basel II's current impact and Basel III's future impact on risk management. We intend to further present a discussion in which we express our reflections and assessments regarding the subject of the thesis.

Method: To answer the research question we have performed a qualitative interview study, hence conducted interviews in four Swedish universal banks. In order to gain a deeper understanding regarding the Basel Accord a major review of prior research and publications in the area of Basel has been carried out. In addition a thorough research in the area of risk management has been conducted. The empirical evidence is analyzed by means of the presented Frame of Reference.

Analysis and Conclusion: The empirical findings indicate a rather highly developed risk management in the Swedish universal banks. The main perception among the banks is that there is no need to increase the level of risk awareness and the degree of consideration of risks in the Swedish universal banks. However, there is evidence showing increasing risk awareness during the past years, which is mainly a consequence of the financial crisis. There seems to be a consistent shortsightedness among the banks regarding risk assessment. Quantification of risks seems to facilitate a greater consideration of risk in top-level management, however problems arise due to an extensive trust in absolute risk figures. There seems to be a generally positive expressed opinion regarding the Basel Accord, where the framework of Basel II appears to have affected the banks' risk management, whilst the perception is that the Basel III's impact on risk management will be less comprehensive.

Keywords: Risk management, Basel II & III, Swedish universal banks

ABBREVATIONS

G10:	Group of ten
COSO:	Committee of Sponsoring Organizations of the Treadway Commission
ERM:	Enterprise Risk Management
CFO:	Chief Financial Officer
CRO:	Chief Risk Officer
CEO:	Chief Executive Officer
RAPM:	Risk Adjusted Performance Measure
ROE:	Return on Equity
IRB:	Internal Risk Based Approach
PD:	Probability of Default
LGD:	Loss Given Default
EAD:	Exposure at Default
UL:	Unexpected Loss
EL:	Expected Loss
AMA:	Advanced Measurement Approaches
LCR:	Liquidity Coverage Ratio
NSFR:	Net Standing Funding Ratio
BIS:	Basel Committee on Banking Supervision

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1. INTRODUCTION

The aim of this chapter is to first describe the background of the problem area, clarifying the background why the Basel Accord was elaborated as well as a discussion concerning risk management. This falls into a problem discussion, a more specific problem definition and an overall aim of the thesis. Finally, we present the limitations made and concludes the chapter with a thesis disposition.

1.1 Background

In September 2008 Lehman Brothers, one of the largest investment banks in the modern age collapsed, which brought about a major surge in the banking sector worldwide and caused panic in the financial markets (Dagens Industri, 2008). The financial disorder spread rapidly across the world and resulted in a severe financial crisis, the consequences of which the society is still trying to recover from (Ingves, 2011).

The present crisis is only the latest in a series of recurrent global banking crises, which history gives evidence of. Only in the last century there have been a number of severe crises affecting the global economy (CaprioJr&Honovan, 2010) and the past forty years shows evidence of banking crises occurring in developed countries with relatively stable banking systems and advanced financial markets (The Basel Committee on Banking Supervision, 2004). As an attempt to resolve the crises and stabilize the economy, governments and central banks in the affected countries have been forced to perform major arrangements, resulting in extraordinarily low steering interest rates, capital contributions and loans with advantageous terms (Ingves, 2011).

Players within the financial sector hold important positions in society and are naturally, affected by fluctuations in the economic environment and instability in the financial sector can be a contributing factor and often the primary reason why crises arise. One of the largest players within the financial sector is the banking sector, containing a variety of different banks with differing characteristics (Riksbanken, 2010). What defines a bank, is their ability to work as credit agencies and furthermore, to serve as saving institutions and providers of credit and capital to the general public. Consequently, banks can be viewed as the core in the economic welfare. Thereby, banks have the ability and possibility to affect economic crises, both in terms of contributing and counteracting. It is therefore of extreme importance for the banking system to be reliable and controlled in terms of saving, financing, transfer of payments and risk assessment. Thus, poor banking systems would affect the society and the national welfare negatively and may also be a contributing factor to the emergence of a financial crisis. (swedishbankers.se, 2011)

In addition to the importance of external control in the banking sector, there is need for internal control in order to create stability and soundness in banks. Within banks, risk is identified as the most critical factor in banking operations, therefore it is essential for banks to maintain a stable and well-managed risk exposure. (Swedbank, Annual Report 2010) The governance of risk is nowadays referred to as risk management, which is a concept that has grown during the past decade. However, trust in risk management has been demolished several times due to a number of setbacks, such as corporate misfortunes, local systematic crises and the latest financial sub-prime crisis. Thus, risk management has been challenged and in some cases it has failed, but still the essence of risk management has persisted. Today, in the aftermath of the financial crisis, risk management is considered a crucial element in the banking sector. This has caused regulators and business leaders to call for a more comprehensive business-wide risk management, especially since the discovery of non-sufficient risk oversight in enterprises affected by the financial crisis. (Mikes, 2010)

As discussed above, it is of extreme importance that the external control of the banking sector is adequate (swedishbankers.se, 2011). Therefore, policy makers need to enforce regulatory arrangements in order to create external control and hence prevent and anticipate financial crises. This is the main objective of the Basel Accords, which has ever since the beginning of 1990's had a major impact on bank's risk management all over the world and thereby generated substantial changes in the financial sector. (The Basel Committee on Banking Supervision, 2009)

At the end of 1974 representatives from eleven developed countries (G-10[1]) set up a meeting with the intention to discuss the severe disorders in the international financial market, in particular the collapse of the West German Bankhaus Herstatt. This resulted in the foundation of *the Basel Committee on Banking Supervision* (BIS). (The Basel Committee on Banking Supervision, 2009) At the time, the world faced an increasing globalization, thus the financial sector became increasingly integrated across borders. As a consequence of the integration, the sector experienced several opportunities to reach benefits by coordinating bank capital standards. (Gordy & Heitfield, 2010) Therefore the Basel Committee's aim was to elaborate common international standards in order to coordinate the international financial market. (The Basel Committee on Banking Supervision, 2009)

Behind the development of international standards there were mainly two purposes; first, the standards were aimed at reducing the existing competitive disparities and second, they were meant to increase the level of capital held in each bank in order to stabilize the international banking system (The Basel Committee on Banking Supervision, 1999). The Basel Committee's first step was to develop a capital measurement system intended to serve as a framework to measure credit risk in banking. This resulted in the first bank capital accord, the 1988 Basel Accord, also known as Basel I. The Basel Accord was never intended to have legal force, but solely work as a guideline of best practice. (The Basel Committee on Banking Supervision, 2009) Therefore, the Committee merely relied on their ability to encourage countries to implement the guidelines, to the extent that they would be suited for their national financial system (Gordy & Heitfield, 2010). During the years, the Basel Accord has been upgraded in order to adapt to changes in banking and market conditions. Furthermore, recurring financial instabilities have revealed some shortages with the existing framework (Lind, 2005). This has resulted in the development of Basel II, which was implemented in several countries in 2007 and Basel III, which is in working progress and estimated to be implemented during a six-year period starting in 2013 (Ingves, 2011).

1.2 Problem Discussion

In order to reduce the risk of emergence of financial crises, there needs to be adequate external controls of banks as well as internal controls within banks. Before the financial sub-prime crisis the

[1] "Group of Ten" including Belgium, France, the USA, the Netherlands, Italy, Canada, Japan, Switzerland, the United Kingdom, Sweden, Germany, Luxembourg and Spain

financial economy was flourishing and the propensity of investing was high, with the result that banks took on too much risk in order to earn money, thus generated an overheated economy (Sven Tärnvik, Ernst&Young, 2010). Hence, the balance in the banking sector was not sufficient and banks had forgotten about one of their most crucial elements; risk exposure.

In order to prevent this from happening yet again, management in banks need to realize the importance of risk management, since risk management is fundamental for the internal control and also a very important question for top-level decisions (Mikes, 2009). According to Mikes it is of great importance to merge risk management with strategic management decisions and she argues that this is probably the most important lesson learned from the financial crisis. Management in some organizations today are struggling to incorporate important and in some cases crucial risk information into strategic decisions and strategic planning. However, several problems appear to arise due to the fact that risk management staff and strategic decision makers have different points of reference and a somewhat egoistic view when it comes to their field of interest. Thus, the ones involved seem to have difficulty in grasping the whole picture and understand what type of benefits that might accrue to the business if they choose to cooperate. (Mikes, 2009)

Furthermore, cultures within banks seem to be pervaded by differing attitudes towards the quantitative spirits of the Basel Accord and quantification in general. Hence, the Basel Accord might be received in different ways depending on the characteristics of the culture. (Mikes, 2010) In order to prevent a financial crisis from emerging yet again, there is obviously a need to perform preventive actions.

1.3 Problem Definition

Derived from the problem discussion above as well as the theoretical framework, it is of interest to investigate the following questions;

- *How do risk awareness manifests itself in top-level management in Swedish universal banks and has the risk awareness increased in the recent years?*
    - *What opinion do Swedish universal banks have regarding Basel II's current impact and Basel III's future impact on risk management?*
    - *How integrated are risk management and top-level management in Swedish universal banks and do Swedish universal banks consider the integration to be sufficient?*

1.4 Aim of study

The aim of this thesis is mainly to investigate how risk awareness manifests itself in top-level management in the Swedish universal banks and if the risk awareness has increased in Swedish universal banks in recent years. A further aim is to investigate how integrated risk management and top-level management is in Swedish universal banks and if they perceive this integration to be sufficient. Furthermore, the aim is to investigate what opinion Swedish universal banks have regarding Basel II's current impact and Basel III's future impact on risk management. We intend to further present a discussion in which we express our reflections and assessments regarding the subject of the thesis.

1.5 Delimitation

We will narrow this thesis into studying the Swedish banking sector. The empirical evidence will mainly be collected through interviews with well-versed interviewees and we have chosen to limit our thesis to studying the four major banks in Sweden; Handelsbanken, Swedbank, Nordea and SEB.

Further on we will focus our thesis from the management perspective of the four banks and therefore we exclude the technical part of Basel II and III. Hence, we will not discuss what techniques the banks use in order to determine their specific measures within the regulations.

1.6 Target Audience

Since the banking sector is the core in the Swedish financial system, regulations and improvements affecting its business are ought to be of interest to the general public. It could be interesting for the general public to see what actions are made in order to more successfully prevent recurring financial crises. However, a fair knowledge in business and economy will help the reader to get the most out of this thesis. The banking sector ought to have a general interest in the thesis since risk is the core in all banking activities and the thesis' overall focus lies on risk management. Furthermore, employees in the Swedish banking sector could increase their knowledge when it comes to risk management and particularly the Basel regulations. A further understanding of the importance of integrating risk in top-level decisions could be reached, and generally the banking sector could have an interest in this fundamental matter.

Finally, this thesis might attract the interest of students and provide them with relevant knowledge regarding the regulatory framework of Basel, as well as risk management in banks. The thesis can also create an understanding of which role the banking sector plays in the financial market, and further what actions can be made to prevent recurring crises.

1.7 Disposition

Method

- *In this section our aim is to explain the approach of the thesis to the reader.*

Frame of Reference

- *This section presents Risk Management in the banking sector. Further on we intend to clarify the regulatory framework Basel II and Basel III.*

Emipirical Findings

- *This section presents the collected data from interviews with relevant interviewees and additional data from reports in the four chosen banks.*

Analysis

- *In section we present the analysis referable to the results from the frame of reference and the empirical findings.*

Concluding Discussion

- *This section aims to present our reflections and assessments regarding the investigated area and results. It is then finalized by presenting potential areas for further research.*

2. METHOD

In this section we define the research method and the research process we have chosen for this thesis. The first part describes our choice of the case study approach, followed by further sections aimed at defining our selection of research philosophy and qualitative method. Furthermore, we describe the collection of data through primary and secondary sources and conclude with a discussion about the credibility of the thesis.

2.1 Interview Study

Given that the overall aim of our study is to explore the risk awareness in top-level management in Swedish universal banks is, we believe it to be crucial to perform an empirical study in addition to the literature review. In order to collect empirical evidence suited for our particular study we find it proper to perform an interview study, which enables us to gather evidence from reality, hence creating a credible perspective. To form a profound understanding of the particular question we have chosen to study four Swedish universal banks, hence four different cases constituting the whole population. In this way each case contributes to form an understanding concerning how the Swedish universal banks regard the subject of the research question. The aim of our study is not regarding an individual case in the matter of a specific organization, hence, together with our idea to make comparisons between the four banks, an interview study is more appropriate for our study. (Blumberg, Cooper & Schindler, 2005)

2.2 Research Philosophy

When conducting scientific research there are mainly two different approaches existing: deductive reasoning and inductive reasoning. The approaches differ in terms of which strategies are used to reach the conclusion and how the conclusion is presented. In the deductive reasoning the researcher develops hypothesizes based on theory and further tests these hypothesizes to reach specific conclusions, which necessarily must follow the premises. In turn the inductive reasoning derives believable conclusions from facts and empirical evidence, yet the conclusion is only a hypothesis and there might be other explanations for the empirical evidence that are equally suited. (Blumberg, Cooper & Schindler, 2005)

This thesis' main problem is focused on the Swedish banking sector and a market analysis is made within the sector, concentrating on the current situation and future outcome. The empirical evidence, derived from the case study, will be used to draw conclusions and present our own reflections on how the problem is managed in the banking sector. Hence, we will collect data through empirical research with upper-management representatives in order to examine whether the risk awareness has increased in the recent years. From the empirical data we will draw general conclusions, upon which the inductive approach is used.

2.3 Data Collection Method

When collecting data the researcher has to make a fundamental choice between two different research methods: quantitative method and qualitative method. The quantitative method is best suited for studies comprising a large amount of data, which can be analyzed or showed numerically in order to draw general conclusions. In contrast, the qualitative method is rather focused on creating a deeper understanding in a specific area or situation. (Björklund&Paulsson, 2003) Generally the inductive reasoning is often connected with the qualitative method for collecting data, whereas the deductive reasoning is more commonly used when collecting quantitative data (Halvorsen, 1992). This is also the case for our thesis, where both the qualitative and the inductive approach are adopted.

The aim of the study is what primarily defines whether the study is qualitative or quantitative (Björklund&Paulsson, 2003) and further there is a need for evaluating which method provides the most relevant data for the given problem. We are of the opinion that the qualitative method is more suitable for our study since we need to relatively deeply investigate a specific area in order to analyze the problem and to develop an understanding of the problem area. Considering the complexity of our problem, a study with quantitative data would not provide us with relevant empirical data.

Within the qualitative method, risks considering misreading and own interpretations can be identified. Hence, this can be problematic if the collected data, as the basis for the discussion, has been perceived wrongly. However, we do not regard a different research method as the solution, wherefore we have put great emphasis on presenting the data correctly.

2.4 Primary and secondary data

Further on, when conducting scientific research there is a distinction between data sources of primary and secondary nature, where primary data refers to the data primarily collected by the researcher through one or more methods of data collection. Secondary data, on the other hand, constitutes already existing data, which is formerly collected by others, though usually with other underlying purposes. This type of information is commonly more or less accessible. (Halvorsen, 1992)

The nature of our study obliged us to begin with a secondary data review, mainly concentrating on books and scientific articles in order to gain a deeper understanding of the subject. A study of secondary data enabled us to instantly process the data in order to create an understanding of the problem area (Blumberg, Cooper & Schindler, 2005).

The choice of secondary data is partly derived from prior research made by authors with a purpose differing from the purpose of our study and furthermore, partly derived from published materials from The Basel Committee, the Swedish Riksbank and Sweden’s Finansinspektion. In addition, secondary data, in terms of Annual Reports and Pillar III Reports from each of the four banks, have been used in order to complement the data gathered through interviews in the field. The secondary data used in this thesis includes scientific articles, literature and reports, which we find relevant for our study. As these secondary sources would form the basis of knowledge in our thesis we put great emphasis on criticism of the sources in order to develop a scientific foundation.

Our analysis and concluding discussion presented in this thesis is foremost derived from primary data, which is collected through interviews with relevant interviewees in Sweden’s four largest banks; Handelsbanken, Swedbank, Nordea and SEB. In order to get the “real world picture”, interviews are superior to other data collection methods and the respondents are not influenced by a particular way of thinking (Halvorsen, 1992). By interviewing banks, the primary data can contribute to a result reaching beyond what we, by ourselves, could conclude.

2.5 Selection of Organizations

We have chosen to study Sweden’s four largest banks; Handelsbanken, Swedbank, Nordea and SEB, which constitute the core of the Swedish banking sector. We consider these four banks to be interesting organizations, in terms of their differing structure and their great importance in the financial sector in order to provide us with a relatively complete picture about how risk aware top-level management in Swedish universal banks is.

Our initial thought was to select two large banks; Handelsbanken and Swedbank and two niche banks; Avanza Bank and Skandiabanken. We believed the mix of large banks and niche banks would provide us with interesting aspects of the problem studied in terms of their differing perspectives and their differing prerequisites. However, when we started searching for relevant interviewees, the two niche banks showed no interest in participating in terms of either not responding or due to lack of time. Therefore, we decided to turn to the remaining large banks in Sweden instead, in order to gain insight into the problem and thus form an understanding of the entire population. By studying the four largest banks in Sweden we cover a major area, which in turn gives us a great opportunity to study the problem in order to present reflections and draw conclusions about how risk management is managed in Swedish universal banks.

2.6 Selection of Respondents

Since our problem is rather comprehensive our intention is to choose respondents with a deeper knowledge of the whole picture, whereof we will focus on upper-management representatives, who hold positions of responsibility. We aim to interview people with relative equivalent positions in the banks in order to analyze similarities and discrepancies between how they work with risk management and how risk awareness manifests itself. The selections will primarily be based on our estimation of the respondents' knowledge of the subject, which is foremost evaluated based on their positions. To avoid measurement fault we intend to select two respondents from each bank; one responsible for risks and one in a position of controller. This would result in a view of the problem from two different perspectives and hence, would provide us with a more realistic picture.

The selected interviewees have been contacted thorough mail and telephone with requests for an interview. Some have not responded and some have suggested more relevant persons, while a few contacted persons have turned down our request. The interview template has been sent out in advance to those respondents who have asked for it. We have informed all the interviewees about the subject for our thesis and further that the data from the interviews will be presented in our master thesis. We gave all respondents the opportunity to review the compiled empirical data to enable a revision of information that we perceived incorrectly.

Tables of the interviewees:

Banking Interviews

Name	Organization	Position	Date	Method
Rolf Marquardt	Handelsbanken	CRO	2011-04-12	Personal meeting
Hanu Saari	Handelsbanken	Chief Controller	2011-04-12	Personal meeting
Johan Poolbring	SEB	Responsible for Internal Capital Management	2011-04-13	Personalmeeting
Göran Olander	SEB	Business Controller	2011-04-19	Personal meeting
Kenth Allansson	Swedbank	Risk Manager Retail	2011-04-05	Personal meeting
Göran Bengtsson	Swedbank	Credit Manager	2011-05-04	Personal meeting
Stefan Friman	Nordea	Planning and Development manager	2011-04-28	Telephone Interview

Expert Interview

Name	Organization	Position	Date	Method
Ted Lindblom	Handelshögskolan	Professor	2011-02-15	Personal meeting

2.7 Interviews

Considering our problem we needed to receive information from banks, whereupon interviews are the most relevant approach. Since we cared for getting the employees' sense of how risk awareness manifests itself in top-level management in the four banks is, we needed to capture their individual perceptions, which is difficult to obtain by sending out questionnaires.

There are three different approaches for conducting interviews, which differ in terms of execution and control over the people's answer; unstructured interviewing, which is characterized by a minimum control, semi-structured interviewing, which controls the respondent with an interview guide and last, structured interviewing, where full control is applied. (Blumberg, Cooper & Schindler, 2005) We started with conducting an unstructured interview with Ted Lindblom concerning the Basel regulations in order to gain a deeper understanding in the area. Before conducting the interviews with the banks we decided that a semi-structured interviewing would be best suited for our investigation, whereupon we used interview guides on which we specified questions for topics needed to be covered. Using our two different interview templates we were able to control the interviews but also leave room to follow leads, which arose during the interviews.

All banking interviews were conducted individually, hence without any influence from each other. The interviews lasted approximately one hour and all interviews except for one, were recorded and then transcribed in order to use it as the basis for the section *Empirical Findings* below. All interviews except for two were conducted in the respondent's office, whereof one was conducted over telephone.

2.8 Credibility

There are mainly two measures needed to take into account when valuing a study's credibility; validity and reliability. Validity means to what extent the collected data is relevant to the approach of the problem and how well the thesis measures what is intended to measure. While reliability concerns the degree of dependability in the measures of the thesis; high reliability denotes identical results in independent measurements. Furthermore, high reliability ensures dependability of the data and in combination with high validity the thesis can reach high credibility. (Halvorsen, 1992)

We made two different templates depending on whether we interviewed a person responsible for risk or a controller and used the same two templates for all our interviews. Further, we conducted the interviews in a semi-structured way, which ensures a followed thread during the interview but also allows the respondent to come up with additional information that may shed light on the subject. In addition, the interviews were recorded in order to ensure the validity of the thesis. By choosing to interview representatives from both risk management and controlling we prevent excessive reliability of subjective empirical data and thus avoid measurement fault.

The empirical data gathered from Swedbank can face a shortage in the ambition of gathering objective material due to the fact that we interviewed two representatives for risk management. However, we selected two risk managers from different business areas in order to achieve relatively objective data from Swedbank, hence strengthening the validity of the thesis.

Due to lack of interest in participating in the study, we have a shortfall in the empirical data from Nordea, which can result in lacking validity for sections and assessments concerning Nordea. We intended to reciprocate this by thoroughly examining other internal material, such as the Pillar III-report and the Annual Report from 2010. We reviewed the data from the interview critically to provide the reader with as objective and valid information as possible.

The fact that the interviews were conducted in a semi-structured manner strengthens the reliability of the material used in this thesis because the respondent's true view with a high probability was found. There were eight interviews made with chosen representatives for this thesis, which can be a shortage in the reliability due to the fact that other respondents' views can differ. However, the process of selecting relevant representatives was carried out with accuracy, focusing on upper-management in order to receive the most reliable data.

3. FRAME OF REFERENCE

The Frame of Reference consists of a general presentation of risk management in banks, continuing with a thorough definition of the concept of Enterprise-wide Risk Management. Thereafter, we aim to discuss whether the tendency to quantify risks differs in terms of organizational cultures. Finally, we provide the reader with a description of the frameworks for Basel II as well as Basel III and concludes the section with a presentation of criticism concerning the Basel regulations.

3.1 Risk Management in Banks

Risks exist more or less in every organization and they arise due to present internal processes or future internal and external events. Risks can be defined as the potential probability that a particular chosen act in a business results in a loss. (ne.se; businessdictionary.com) Hence, controlling risks, which is referred to as risk management, is a fundamental part in every organization, especially in banking. In order to manage risks, banks need to get risk oversight to be able to control and form an overall understanding of the major risk areas. (Bessis, 2010)

During the last twenty years, the risk environment has changed dramatically, which has stimulated an increasing use of risk management in organizations and particularly in banking. The risk management has shifted away from only dealing with organizations' internal risks to taking on a wider perspective. The growing risk awareness has resulted in an increased demand for an effective risk communication. The awareness of the importance of a well-functioning risk communication in order to manage risks has grown during this time and it is important to keep this focus in order to effectively manage risks. (Nielson et. al., 2005)

3.1.1 Enterprise-wide Risk Management

As mentioned above, there is evidence of a more comprehensive risk management in organizations and in banking today. Nielson et al. describe in their article, the evolution of risk management and risk communication, which is described as three different generations with differing characteristics. The main features of the first and second generation emphasize a rather slow but steady increase in the awareness of risk communication throughout the entire organization. The purpose with an increased risk communication is to try to understand what type of risks the organization faces as a whole. However, these generations are characterized by lacking involvement of high-level management in the risk management function of the organization. Furthermore, as a result of the segregation of information in organizations, risk management are being handled in so-called "silos", which suggests that different risks are handled by different functions. The third generation is mainly featured by a more comprehensive view compared to the first and second generation. Thus, risk management is more organization-wide, in comparison to the first and second generation where risk management was handled in "silos", and its focus is on the entire organization. The approach is, furthermore, characterized by enhanced risk communication in the organization, which thereby makes it possible to communicate all risks in every corner of the organization. The approach of the third generation of risk management is called enterprise risk management, henceforth referred to as ERM. (Nielson et. al., 2005)

Through the adoption of Nielson et al.'s approach and perspective, an opportunity is created in order to identify the level of development of risk management in the organizations. Once the level of development is established, we have the possibility to increase our comprehension through further examination of the characteristics of the risk management within the organizations.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) has been one of the drivers for implementation of the ERM approach. COSO formed in 2004, a document aimed to serve as a guide to ERM and to present how ERM would best be used. According to the guidance document, ERM can be defined as follows;

"Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives." (COSO, 2004)

The ambition of ERM is, according to COSO, to merge business strategy and business-wide visions with risk management through pervading the areas of control and decision-making. However, several problem areas have been identified; Power (2009) highlights the difficulty of incorporating ERM into management decisions, hence there is a possibility that decoupling might arise. Standard and Poor's (2008) argue further the importance of ERM to pervade decision making and existent practices in the entire organization in order to earn benefits. Yet, an increasing use of ERM worldwide could be noted in the beginning of the 21st century, especially in regulations within banking capital and corporate governance (Power, 2003). The Basel Committee on Banking Supervision finds the increasing use to be utterly positive, thus continues to support and encourage investments in the approach (The Basel Committee on Banking Supervision, 2003).

Through the examination of each organization's risk management mix and hence identification of building blocks, an opportunity is created to grasp the characteristics of the risk management in each organization. Thereby, reaching a greater insight into how the assessment of risk is conducted as well as how the integration of risk management and top-level decision-making is carried out within the organization.

It has been noted that ERM takes on different roles in different organizations and the ERM approach can therefore be considered as a fluid concept with differing characteristics depending on the characteristics of the organization (Arena et al., 2010). Thus, ERM can be designed and used in different ways, which makes it possible for each organization to choose their own mix of ERM and create a risk management mix that is unique for their organization. This has in turn generated several innovations in the area of ERM techniques. Mikes states further that a pattern can be ascertained, which makes it possible to divide the innovations into different areas according to their characteristics. These areas can in turn be seen as building blocks that make up the risk management mix in the organization. Mikes presents these areas of innovation in ERM techniques as different ideal approaches to managing risks. (Mikes, 2009)

The first approach that can be identified is the *risk silo management* approach, which mainly deals with the control, aggregation and measurement of risks in different silos across the entire organization. The quantification of risks can be considered the core of this approach and controlling the risk measurement in the different risk silos is a great challenge for banks. The improvement and progress within the approach has affected the formation of the regulatory framework of Basel. This can particularly be noted in the risk calculation where the calculation of aggregated risk, according to the Basel rules, is carried out within the different risk silos. The development of the Basel rules is a significant driver of present and future risk silo management. (Mikes, 2009)

The second ideal risk management approach discovered is the *integrated risk management* approach. This approach deals as well as the *risk silo management* approach with the control, aggregation and measurement of risk in the organization but with one exception, that it takes on the Economic Capital framework when doing so. The Economic Capital framework contributes with the creation of a common denominator of quantifiable risks, which makes it possible to aggregate quantifiable risks into a total measure. The main benefit with the Economic Capital framework is that it creates a possibility to compare risks throughout the entire organization. The methodology originated from the Economic Capital framework and has been authorized by the Basel Committee on Banking Supervision and hence has become known as best practice in the financial sector. (Mikes, 2009)

The third ideal approach goes far beyond the two preceding approaches and is the outcome of the former emerging concept of the shareholder value notion. Hence, the approach adopts a distinct shareholder value perspective. This risk management approach is referred to as the *risk-based management* approach. The approach fulfills the aspiration to instate a risk-based performance measurement in order to use the risk-based internal capital allocations in control and measurements within banks. The shareholder value concept mainly handles the notion of creating shareholder value, which denotes that business corporations earn returns greater than its cost of capital. The main features of this approach are the use of models such as the Value creation model, which in one joint measurement draws mutual attention to both profitability and risk. This type of use of the Value creation model is to some extent unique to the financial sector. (Mikes, 2009)

The fourth and final approach is the *holistic risk management* approach, which takes on a more comprehensive view and aims to include the non-quantifiable risks in an organization as well as the quantifiable risks. This design of the ERM approach is proposed by e.g. the Treadway Commission (COSO), who recommends ERM to be used to seize risks integral for reaching the strategic goals stated by top level management. The non-quantifiable risks consist of, for example, environmental risks, risk of strategic failure and reputational risks, which, during the past few years, have grown in importance for organizations. (Mikes, 2009)

3.1.2 Quantitative Enthusiasts and Quantitative Sceptics

During the past few years, developments within financial economics have generated a growing aspiration for organizations to control risks. This aspiration has led to a quantificational atmosphere within organizations and among regulators, causing further innovations and developments of models and measures for control. However, the risk cultures within organizations seem to be permeated by differing beliefs when it comes to whether or not risks should be managed by quantitative measures. According to Mikes, two specific types of risk cultures can be distinguished; quantitative enthusiasm and quantitative scepticism. The risk culture of quantitative enthusiasm is characterized by a dedication and faith in the modeling and measurement of risks. The risk culture of quantitative scepticism, on the other hand, is characterized by a negative attitude towards models and measures for capturing risks and uncertainties. Depending on what characterizes the risk culture in the organization, different approaches are used in order to manage risk. Risk measurement, is the main approach used by quantitative enthusiasts, which as implied, suggests a pervasive use of models and measures.

Hence, quantitative enthusiasts strongly believe in the ability of measures and models, to provide relevant information which top-level decision makers can base their decision on. Risk envisionment, on the other hand, is the main approach used by quantitative sceptics. The aims of this approach are depicting future scenarios in the business as well as providing expertise regarding the avoidance of future risks. Mikes presents evidence of both quantitative enthusiasm as well as quantitative scepticism. In the case of quantitative sceptics, there seems to be a greater probability of making risk count in top-level decisions by providing possible approaching risk scenarios. Whilst, in the case of quantitative enthusiasts, the risk management had trouble with getting involved in the strategic decisions, hence risk management was not merged with the strategic management decisions. (Mikes, 2010)

In order to examine each organization's risk culture we use the argumentation of quantitative enthusiasts and quantitative sceptics by Mikes (2010) and hence reach a higher understanding of the risk management in the four banks. We aim to investigate the characteristics of the banks' risk management and their risk culture in order to achieve a perception of whether the integration of risk management in the organization is sufficient.

3.2 Basel II

The Swedish banking sector is regulated in accordance with the Basel regulations, which strongly influence how banks organize their risk management. Hence, managing and controlling risks is highly affected externally by the regulated framework. Providing a deeper knowledge in the area of the Basel regulations generates a greater ability to create an enhanced understanding of risk management in banking today.

In order to meet the global changes in banking operations, the Basel Committee suggested reforms to the original Basel Accord. The Committee evaluated new capital requirements for Basel II, which was considered as more modern as well as more risk-sensitive. Furthermore, Basel II includes suggestions regarding how supervisory authorities, along with the capital regulations, could prevent financial instability. (Finansinspektionen, 2002) The following section presents the three fundamental pillars of Basel II.

3.2.1 The First Pillar - Minimum Capital Requirement

In the first pillar of Basel II the principal component considers minimum capital requirements for risk exposure due to three different types of financial risk; credit, operational and market risk (The Basel Committee on Banking Supervision, 2006). The requirement of a capital ratio[2] of 8% of risk-weighted assets, defines how much capital a bank needs to hold to cover its risk exposure. (Finansinspektionen, 2001)

The capital requirement is aimed at covering the risk from unexpected losses (UL), whilst the expected credit losses (EL) in principal should be covered by the operational revenues. The rated risk weights are not supposed to express the normal loss rates in the business, but indicate when risks for losses during a certain period might be unexpectedly large. (Finansinspektionen, 2001; The Basel Committee on Banking Supervision, 2006)

Credit Risk

[2] (Tier 1 Capital+Tier 2 Capital)/Risk-weighted Assets

In general, credit risk constitutes the greatest part of banks' risk exposure and banks can choose between two alternative approaches to calculate their capital ratio for credit risk; the Standardized Approach and the Internal Ratings-based Approach (IRB) (Finansinspektionen, 2001). The Standardized Approach suggests measuring credit risk in a standardized way, besides external credit assessments, whilst the IRB-Approach allows banks to use their internal system for measuring credit risk with approval from the banking supervisory authority. (The Basel Committee on Banking Supervision, 2006) Any of these two approaches is considered adequate and can be practiced on all sorts of credit risk exposures (Finansinspektionen, 2001).

In the Standardized Approach for rating credit risk, the risk weights are based on external credit assessments or credit ratings by nationally recognized institutions. (Bessis, 2010). The capital requirement in Pillar 1 varies due to the size of the risk weights, which in turn depends on who the counterpart is and the type of risk exposure. The minimum capital requirement of 8% equals a risk weight of 100%, however the size of the risk weight is depending on the reliability of the counterpart e.g. lending to private persons or corporations with pledge in real estate results in a lower risk weight (Finansinspektionen, 2001). Credits without guiding ratings have determined risk weights in the regulatory framework (The Basel Committee on Banking Supervision, 2006).

The alternative method to the Standard Approach is the IRB. With this approach banks get an opportunity to use their internal rating systems for determining the capital requirement for a given credit exposure (Finansinspektionen, 2001). Carling et. al (2002) argues that banking operations are based on evaluating risk, wherefore these internal evaluations ought to be a sound basis for determining risk weights. However, there is a precondition for using the IRB-approach; banks' systems must meet the specified requirements and receive supervisory approval (Finansinspektionen, 2002).

When banks determine capital requirements using internal methods, a process to evaluate values for risk components affecting the credit risk needs to take place for every transaction. These risk components include measures of probability of default (PD), loss given default (LGD), and the exposure at default (EAD). (The Basel Committee on Banking Supervision, 2006) The minimum requirement is that banks must be able to determine PD but they are also permitted to estimate the values of LGD and EAD (Finansinspektionen, 2001).

Operational Risk

The Basel Committee (2006) adopted a standard definition of operational risk:

"The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events." (The Basel Committee on Banking Supervision, 2006)

According to Finansinspektionen (2001), operational risk refers to risks for inaccuracies, errors, crimes or accidents in the business, which results in both direct and indirect banking losses. The operational type of financial risk is of a different nature than credit and market risk and evidence from praxis has shown an increasing significance for operational risk in banks' internal capital allocation. (Finansinspektionen, 2001)

The Basel Committee estimates 20% of the minimum capital requirement to be related to operational risk and presents a range of three methods for calculating operational risk capital charges with increasing sophistication and risk sensitivity: (i) Basic Indicator Method, (ii) Standardized Method and (iii) Advanced Measurement Approaches (AMA). (Bessis, 2010; The Basel Committee on Banking Supervision, 2006)

The Basic Indicator Method is the simplest method where the capital charge for operational risk is based on a single aggregated indicator for the bank's overall risk exposure, e.g. gross income. Furthermore, the Standardized Method differentiates the capital charges after a number of standardized business lines. In the most sophisticated approach, AMA, banks get the opportunity to rely on their internal systems for measuring different types of operational risk. (Bessis, 2010)

Market Risk

The final part of Pillar 1 is the market risk, which considers the risk of losses when changes in market price occur. As for credit and operational risk, discussed above, there is one standardized approach for calculating capital requirement for market risk as well as an alternative approach based on internal rating systems, which must receive supervisory approval. (The Basel Committee on Banking Supervision, 2006)

3.2.2 The Second Pillar - Supervisory Review Process

In Pillar 2 there is a focus on the supervisory review process, which is intended to encourage and support banks to develop their risk management techniques in order to manage risk. Furthermore the process aims to ensure an adequate capital level to support all risks related to banking operations. (The Basel Committee on Banking Supervision, 2006) According to Finansinspektionen (2001), there are overall general rules underlying the capital requirement, which neither takes into account the individual aspects of banks, nor the internal risk management. This results in a need for customized evaluations as complements to the general capital charges. Pillar 2's main focus is thus to elaborate an interaction between the individual bank and the supervisory authority. (Finansinspektionen, 2001)

Furthermore, Pillar 2 aims to focus on missions regarding top-level managers in banks and supervisory authority and states four founding demands to inspire supervisors' policies (Finansinspektionen, 2001). Firstly, the bank should have a strategy for maintaining their level of capital and a method for assessing the capital adequacy in relation to the risk profile. Secondly, the supervisory authority should evaluate banks' capital assessment and its compliance with regulatory capital ratios and further take action if they consider it necessary. Thirdly, supervisors should expect banks to have capital ratios operating above the regulated capital level, and should further have the ability to demand that banks hold more capital than the regulated minimum. Fourthly, the supervisory authority should, at an early stage, intervene in order to prevent capital ratios from falling below the minimum requirement and should require banking actions if capital is not maintained. (The Basel Committee on Banking Supervision, 2006; Bessis, 2010)

The capital requirements in Pillar 1 operate to establish a minimum level, however banks must hold capital in excess of this level to have a buffer for unexpected occurrences. Particularly since the capital charges may change rapidly in terms of an economic recession and since the measurements turn more risk-sensitive. This results in increasing demands for competences and resources on supervisory authorities. (Finansinspektionen, 2001)

3.2.3 The Third Pillar - Market Discipline

The basis for Pillar 3 is to provide clients, investors and counterparts enough information to evaluate a bank's financial stability and its risk profile, which results in incentives for banks to operate in order to reduce financial risk. The key is to benefit from this market power to stabilize the financial market. (Finansinspektionen, 2001) According to the Basel Committee on Banking Supervision such disclosures are particularly important when the framework relies on an internal banking system, which generates more discretion in assessing capital requirement. It is, however, essential for the market discipline to be balanced with lucid and comprehensible information, without revealing business secrets (The Basel Committee on Banking Supervision, 2006).

3.3 Basel III

Basel III includes, as Basel II, global minimum requirements, which operate to strengthen banks' ability to manage losses and prevent financial crises. To accomplish this, Basel III suggests requirements for banks to hold capital of higher quality as well as new requirements in the area of liquidity. (Ingves, 2011) The Basel Committee (2010) argues that the recent financial crisis emerged largely due to poor quality of banks' capital. The following section is divided into two main areas firstly describing the reforms in Basel III related to capital requirements and secondly the new requirements referable to liquidity.

3.3.1 Capital Requirement

The requirements concerning capital in Basel III specify the amount of capital banks' need to hold in order to cover risks associated with their assets. Banks' capital base can be divided into Tier 1 capital[3] and Tier 2 capital[4], where Tier 1 capital possesses the highest quality, hence, the greatest ability to cover losses. (Riksbanken, 2010)

The reforms in Basel III mainly focus on primary capital and core capital. Ingves highlights the reform, which specifies a minimum requirement for banks to hold 4.5% of risk-weighted assets in joint stock and retained earnings. This quantitative reform is supplemented with increasing requirements regarding the quality of banks' capital and Basel III also suggests Tier 1 capital to be no lower than 6%, in contrast to today's level of 4%. (Ingves, 2011; Riksbanken, 2010) Ingves (2011) argues, since equity is relatively expensive that the stricter requirements will result in a decrease in banks' risk appetite and, at the same time, increases their ability to manage losses.

Basel III suggests a countercyclical buffer, to sit on top of the minimum capital requirement, consisting of Tier 1 capital with high quality to fully absorb losses (Riksbanken, 2010). The framework demands banks to have a greater capital base when a country's lending becomes excessively large relative to GDP. According to Wellink (2010) the buffer can be seen as a dynamic capital charge and shall act as a constraint in times of boom, and in times of stress banks can use the released capital to manage losses. (Svenskabankföreningen, 2010) The countercyclical buffer can therefore counteract situations in terms of excessively high credit exposure in economic upturns and constraints in recessions (Ingves, 2011).

[3] Composed of core capital, which primarily consists of joint stock and retained earnings.
[4] Composed of supplementary capital, which consists of lending to low credit-rated companies and unsecured lending to households.

Basel III states a minimum requirement for leverage ratio, which specifies how much capital a bank should hold in relation to total assets regardless of risk. The measure intends to function as a complement to the established risk-weighted capital charges and to further ensure banks not to underestimate their risks, hence the leverage ratio restricts banking debt. The Basel Committee suggests banks to hold capital equivalent to at least 3% of total exposures. (Riksbanken, 2010)

3.3.2 Liquidity Requirement

One of the main areas in Basel III is global minimum standards for funding liquidity in banks and is motivated due to excessively large liquidity risks in banks, which was particularly shown in the financial crisis. Foremost, critical parts were banks with non-sufficient liquidity buffers and shortage in matching maturities between assets and liabilities. The Basel Committee aims to regulate this by suggesting two quantifiable requirements for banks' liquidity. (Riksbanken, 2010)

Liquidity Coverage Ratio (LCR) is a short-term measurement, which concentrates upon a banks' assets and demands an adequate buffer consisting of financial assets, and hence is able to survive an acute stress scenario with a thirty-days horizon (The Basel Committee on Banking Supervision, 2010).

The Basel Committee's suggestion of the measurement, Net Standing Funding Ratio (NSFR), demands a part of banks' funding to be long-term, hence, according to Wellink (2010) more stable. NSFR aims to achieve a better balance between the maturities of assets and liabilities by a more long-term and sound funding. (Riksbanken, 2010)

3.4 Criticism of the Basel Regulations

Since the Basel regulations affect the society in general, the interest in the subject is vast. This has in turn caused a great deal of criticism emerging from different directions, highlighting the main shortages within the framework. It is relevant to present the criticism directed towards the Basel Accords in order to reach a greater understanding for problems related to the regulations and how this affects risk management in banking.

Wahlström, one of many authors who have criticized the framework, brings up criticism regarding the prevailing quantitative spirit in the accord and suggests that the framework might get too quantitative. Wahlström underlines the difficulty of measuring, controlling and managing risks, since the models used in previous periods might not be adequate for use in future periods. Furthermore, Wahlström, presents in his article suggestions that the models and calculations derived from the Basel Accord have generated a "generation of numbers", resulting in an over-reliance on numbers' ability to control risks. (Wahlström, 2009)

3.4.1 Basel II

During the financial crisis, as well as in the aftermath of the financial crisis, society has been trying to find answers as to why the crisis occurred and what regulators and others involved can do in order to prevent it from happening yet again. Many have reached the conclusion of blaming the Basel II framework for being a major reason as to why the crisis arose. (Cannata&Quagliariello, 2009) The Head of the Swedish Riksbank, Stefan Ingves, argues the importance of having well designed financial regulations to play by and that there seems to be a shortage within this area. Ingves states further that the present deficits in the financial regulations need to be fixed in order to create a stable financial sector. Ingves presents further the main areas of criticism, and thus the main areas for improvement. (Ingves, 2011)

First and foremost, the Basel II regulations contain capital requirements that are too remote and unclear for the purpose. This is a fundamental problem generating banks' keeping too little risk capital in comparison to what is needed, and the risk capital does often have insufficient quality. The inadequate formulation of the capital requirements has weakened banks' ability to absorb losses and has made it possible for banks to expand their balance sheets hence resulting, in some cases, in advance ratios over thirty times larger than the banks own equity, which is exceedingly troublesome and one of the reasons behind the financial crisis. (Ingves, 2011)

Furthermore, Ingves brings up criticism regarding the pro-cyclical effects of the Basel II framework, which is accused of being one of the reasons for the occurrence of the crisis. The main explanation for this is the strong connection between risk and the Basel II regulations. During years of boom, banks were able to expand their balance sheets, whilst at the same time, with relatively little capital, maintaining a sound level of capital adequacy. (Ingves, 2011)

3.4.2 Basel III

The prevailing criticism and shortages corresponding to the Basel II regulations has forced policy-makers to revise the present framework and create a new framework, which is presented in closer detail in the section above. The Basel III framework is under working progress but has yet received heavy criticism regarding the formation and we therefore aim to present the main criticisms directed towards the Basel III framework.

The introduction of a leverage ratio as well as rules regarding the liquidity risks might have the greatest impact in banking (swedishbankers.se, 2010). Hence, the Swedish Banking Association (swedishbankers.se, 2010) identifies these areas as the most troublesome. The greatest issue regarding the leverage ratio is that it does not take into account the amount of risk in lending and thus, prevents the idea of creating better control of risks. Through the introduction of a leverage ratio, policy-makers practically ruin the basic idea of the Basel II framework, which is to better control risks in banking. The introduction would also affect Swedish banks more than it would affect foreign banks due to the presence of a greater amount of loans with low risks in the Swedish banking sector. This might result in a redistribution of loans with lower risks, forcing these loans off the balance sheet through securitization. Another possible effect might be incentives to engage in higher money rent or a greater volume of credits. (swedishbankers.se, 2010)

The proposed liquidity requirement does, as well as the leverage ratio, constitute a highly criticized area. Critics argue the absurdity in the regulations, accusing them of being too harsh. The liquidity requirements are considered too narrow in the assessment of which assets should be considered liquid. Thus, some argue the importance of allowing bonds to be part of the liquidity buffer and state that, unless this becomes reality the banking sector will experience substantial and dramatic cost increases. (swedishbankers.se, 2010)

4. Empirical Findings

In this chapter of the thesis we intend to present empirical findings derived from the interviews conducted and further from the Risk Management Pillar III Group Reports and the Annual Reports published by each bank. Findings from the four universal banks are presented separately, whereupon each section starts with a brief introduction of the bank concerned.

4.1 Handelsbanken

Svenska Handelsbanken is one of the leading banks within the Nordic countries, with affiliates and branches all over the globe. Handelsbanken is a universal bank, which means it has a complete supply of financial services. The history of Handelsbanken dates back to the year of 1871, when a group of influential individuals and corporations within the Swedish business world joined together to form Stockholm Commercial Bank. The purpose was, from the very beginning, to only engage in deposits and lending in the local market. The history of Handelsbanken is characterized by a great expansion and growth during the twentieth century. However, Handelsbanken, as well as other Swedish banks, has experienced a number of setbacks mainly due to World War I, II and the financial crises. The outcome of one of these setbacks is the reason for the features of Handelsbanken today. At the end of 1960, Handelsbanken experienced a severe crisis, which caused a resignation of top management and the appointment of a new CEO; Jan Wallander. Wallander brought with him several ideas regarding decentralization of Handelsbanken, greater focus on profitability instead of volume, abolition of budgeting and profit-sharing for employees. (handelsbanken.se, 2005)

Risk management in Handelsbanken is mainly characterized by a low-risk tolerance and an overall rigid approach towards risks. The strict approach is maintained through a strong and pervasive risk culture throughout the entire organization and on a long-term basis. The Board of Directors has the ultimate responsibility to evaluate and monitor the risks arising within the Group. In addition, there is also the Board who establish policies and instructions describing how risks should be reported and managed. In turn, the central risk division is in charge of the everyday risk assessment and reports directly to the Chief Financial Officer, CFO, who reports to the Chief Executive Officer, CEO and the Board. The division is also responsible for the identification and control of the risks and further the models for measuring these risks. The CEO is responsible for the bank's capital planning and a capital buffer, which is sufficient to the Group's supply of capital. (Handelsbanken, Capital Adequacy and Risk Management report, 2010)

4.1.1 Interviews and Internal Findings

At Handelsbanken, we have interviewed two upper-management representatives; Rolf Marquardt, Chief Risk Officer, CRO, and Hannu Sakari Saari, Chief Controlling. Rolf Marquardt is head of Group Risk Management at Handelsbanken and is ultimately responsible for presenting the bank's risk situation. The division is responsible for the central risk control in the Handelsbanken Group. Rolf Marquardt has great experience within the areas of risks and regulations and was responsible for the Basel II implementation at Handelsbanken. Hannu Sakari Saari is head of the division responsible for the overall financial control within the Handelsbanken Group. Hannu Sakari Saari has a long history in banking, starting at a bank in Finland and further on a continued career within Handelsbanken in Sweden. (Marquardt, 2011; Saari, 2011)

Risk Organization

According to Marquardt, the Group Risk Management has a global responsibility for identifying and presenting the most essential risks, what characterizes the risks as well as how they might affect Handelsbanken. The risks are then presented to the Board of Directors, the management and the market in an understandable way. Handelsbanken is furthermore divided into regional banks with separate risk functions, although, Marquardt emphasizes that risk management in the Swedish regional banks does not address all areas, instead the major parts of risk management is handled at a central level. The central risk function governs and supervises the branches in order to maintain a well-functioning local risk control. The Group Risk Management has a general responsibility to make sure that the organization has an overall functioning risk control, however the operational responsibility is on a local level. Marquardt argues the importance of identifying the essential risks in order to highlight potential value changes, hence creating risk knowledge in the organization. (Marquardt, 2011)

Marquardt states that the Group's Risk division is divided into subdivisions, differing in terms of risk focus. There are three main focus areas; credit risk, remaining financial risks and operational risk. The area dealing with operational risk is less comprehensive than the other two. There is a tendency towards a greater interaction between market risks and credit risks and hence they tend to converge. Handelsbanken has limited regional banks to only managing credit risk and not taking market risk and liquidity risk, these are instead operated at a central level. (Marquardt, 2011)

According to Marquardt, the primary control measure used is return on equity (ROE), which serves as a general measurement for Handelsbanken, however further down in the bank, at an office level the cost-income ratio is the most common measure. To measure the profitability for all offices the capital cost is deducted from the cost-income ratio, whilst their ROE determines the profitability for the regional banks. Every regional bank gets capital allocated in terms of the size of their risk-taking, resulting in the inclusion of calculations of capital adequacy in the control measurement. (Marquardt, 2011)

Handelsbanken has, furthermore, developed a model for calculating Economic Capital in the organization. The model plays a major part in enabling the risk division to conduct a comprehensive coverage of all risks in the organization. The model captures all risks in one joint measure and indicates the amount of capital needed in order to cover unexpected losses or depreciations. (Handelsbanken, Capital Adequacy and Risk Management report, 2010)

Communication Process

The communication process between the Board and the risk division works in such a way that the central risk function develops a risk profile, which is communicated to the Board of Directors. Others who also receive this risk information are the CEO, the authorities as well as investors. Marquardt asserts the communication to be relatively formal and not very affectionate. He explains that the risk profile is reported to the CFO, who in turn presents it to the Board, hence there is no direct communication between the risk division and the Board. Based upon this information the Board makes a final decision. However, when it comes to the communication process between the risk division and the CFO, Marquardt describes it as rather frequent and extensive. The central Risk Management defines how risks shall be calculated within the Group, described in documents, which serve as a basis for the Board's decisions. (Marquardt, 2011) At a more operational level, Saari states that the risk information is communicated via the division for financial control, which in turn communicates by the internal control system. The communication between the division for financial control and the risk division takes place via two different channels; either through meetings, where the focus is on how to interpret and understand, and through Excel sheets, which has its main focus on the quantitative risk information. According to Saari, they know how to read the information and translate it into the control system. (Saari, 2011)

Further on, the central risk division reports monthly a rather small risk-update to the Board, and every quarter a more comprehensive risk profile to fully present the risk situation and how Handelsbanken shall face the situation, e.g. in terms of capital. Marquardt argues;

"The Board is well versed in all levels of Handelsbanken's risk profile." (Marquardt, 2011)

He states further that there is no conflict in the importance of risk between the Board and the risk division. Marquardt argues that risk has always played a fundamental role in Handelsbanken. (Marquardt, 2011) Saari, who also opines that the risk consciousness of the Board is sufficient, shares Marquardt's view. Saari explains the processes and decisions to be well integrated with risk, particularly strategic decisions concerning development in terms of organic growth and acquisitions. In these cases a risk analysis is always evaluated, either internally by the risk division or by outsourcing. (Saari, 2011) Marquardt argues there to be rather high-risk awareness throughout the organization, and believes it is very integrated and deep-seated.

Enterprise-wide Risk Management

According to Marquardt, Handelsbanken is using a process comparable to ERM, although there is no formulated policy for it. There is a clear idea throughout the bank about which type of risk-taking we should engage in. This process fully covers all essential risk areas and is communicated to the organization through a well-functioning system in three different ways; by limits, the internal control and the capital allocation. In this way, Handelsbanken has a very comprehensive and integrated system. Marquardt highlights that the Risk Management is not only reporting to the Board and the CEO, the measurement of risks can also be identified all the way down in the business activities. This communicates the risks communicated to every corner of the bank, not necessarily through reports but through reflections in the internal price structure. (Marquardt, 2011)

Quantification

Both Marquardt and Saari support a quantification of risk. Saari emphasizes that risk measurement facilitates the internal risk monitoring and the control of the bank to engage in less risky activities. He also stresses a culturally positive attitude to risk management due to the existing risk aversion in Handelsbanken, which needs to be implemented in the internal control. (Saari, 2011) Marquardt emphasizes the importance of measuring risk in order to limit the bank's risk-taking in terms of permissible levels. To manage risk in Handelsbanken, the central risk division develops models for measuring risks and tests these models so they provide fair and valid results, thus there is always an ongoing evaluation and Handelsbanken rely heavily on measurements and models in their risk management. Basically, Handelsbanken's risk measurement has two main purposes; restrictions and limits, as well as determining an adequate capital buffer. In terms of qualitative risks, e.g. operational risk, Marquardt stresses the difficulty of measuring these but he also emphasizes the importance to have insight into the risks. Handelsbanken's risk management is basically about determining how much money the bank can lose in a given situation, and by doing this they get insight into how severe the risk is. However, Marquardt highlights that certain situations need a more qualitative report to the

Board, where an absolute risk figure may be too abstract and have difficulties in showing the underlying causes. (Marquardt, 2011)

Basel Regulations

Basically, Handelsbanken has an overall positive opinion to the Basel Regulations and finds them rather reasonable and adequate for their purpose, according to Marquardt and Saari. However, Marquardt criticizes the rules for being a bit too tight in some areas but states that;

"We find the capital requirements reasonable, but it is important with an equally global implementation of the rules." (Marquardt, 2011)

This applies to both implementation pace as well as rules and Marquardt is critical to the government's suggestion for tougher rules. Marquardt states both the capital requirements and the liquidity requirements in Basel III as reasonable and finds no problem in implementing them in spite of their decentralized structure. (Marquardt, 2011) Saari confirms this reasoning in saying that Handelsbanken would work in this manner even without the regulations, hence, this results in a more even competition on the grounds that other banks have to work as Handelsbanken. The decentralized structure only requires the central financial control to translate the rules into the organization. (Saari, 2011)

According to Marquardt it differs in terms of level of knowledge in Handelsbanken for Basel, where the parts connected to the business activities is rather well-known in contrast to more centralized parts (Marquardt, 2011). Marquardt finds no need to worry that the tougher rules in Basel III will make it more difficult for the risk division to integrate risk in business decisions, while Saari highlights a difficulty in terms of the changing process both for the banking sector and for the market as a whole. (Marquardt, 2011; Saari, 2011) The greatest conflict arises due to the long implementation pace of Basel III. The change following the new rules is a big issue for the banking sector and banks will differ in terms of how far they have come with the implementation. Marquardt states that it is essential to create a balance in this matter, in order to not lose customers to other banks operating at an earlier stage of the implementation who thus can offer a better price. (Marquardt, 2011) Saari criticizes the new requirement leverage ratio for being particularly negative for low-risk banks since the lowest risk classes will disappear, which will have great impact on both strategic and operational decisions. Saari also criticizes the leverage ratio as being an incentive for banks to engage in more risky businesses, which is the contrary to the very idea of the measure. This results in Handelsbanken postponing major strategic decisions due to the uncertainty of the final outcome of the leverage ratio. (Saari, 2011)

4.2 Swedbank

Swedbank has its historical roots in the saving banks and they operate in several respects after the saving bank's ideology; to be a locally based bank for everyone (Swedbank, 2011a). Swedbank's history dates back to 1820 when Sweden's first saving bank was founded in Gothenburg. In 1997 the merger between Sparbanken Sverige and Föreningsbanken created a broad customer base, which became the basis for Förenings Sparbanken (Swedbank, 2011a). In April 2006, the Group adopted the common name, Swedbank (Swedbank, 2011b).

Swedbank is a universal bank, where the emphasis is on traditional products and services. The main focus has always been to center the closeness to the customer and the local society, which results in Swedbank's vision to promote a healthy and sustainable economy for the many households and businesses. Further on, Swedbank aims to have a large customer base and long-term customer relationships and at the same time acquire high market shares in domestic markets. The organization is of a decentralized nature, whereupon all business operations are locally controlled with decentralized decision making as close to the customer as possible. The decentralized structure is supported by joint product systems and regulations but also places high demands on management control and follow-up, as well as frequent training of employees. (Swedbank, Annual Report 2010)

The financial crisis clarified an unsoundly high risk exposure in the industry, likewise in Swedbank which generated efforts to reduce risk and achieve a sound risk balance. Swedbank aims to maintain a long-term low level of risk, which is ensured by a well-functioning risk culture and a strong internal control of credit risk and market risk as well as operational risk. The risk division is organized under the Chief Risk Officer (CRO) with three specialized subdivisions; Risk Control, Credit and a division working with credit difficulty. (Swedbank, Annual Report 2010) A successful risk management is based on a solid risk culture and a common approach throughout the bank and it is the Board of Directors, which has the ultimate responsibility for the Group's risk taking. Further on, the Board is also responsible for determining Swedbank's overall long-term risk appetite, by formulating it in risk types to be able to better ensure and improve the level of control of risk. (Swedbank, Capital and Adequacy 2010).

4.2.1 Interviews and Internal Findings

We have conducted two interviews with representatives responsible for risk management in Swedbank. Kenth Allansson holds the position of Risk Manager, responsible for risk in the Western Region within the retail area and has had a long career in the Swedish banking sector. Göran Bengtsson is Regional Credit Manager and is also responsible for the Western Region within the retail area, who has a primary responsibility of the loan portfolio, hence the entire lending in the Western Region. He has been employed in Swedbank for three and a half years but his banking experience goes back twenty years in the saving banks having held various positions, e.g. as office manager and in the finance division. (Allansson, 2011; Bengtsson, 2011)

Risk Organization

According to Bengtsson the Group risk management is overall headed by the CRO, which is one of three representatives in the top-management in Swedbank. Subordinated to the CRO, are two Group divisions; Credit division, headed by the Group Credit Manager as well as Risk division, headed by the Group Risk Manager. Further, the Board of Directors also has a special committee, which raises specific risk issues. (Bengtsson, 2011) According to Allansson the risk management in Swedbank is divided into markets, each responsible for different financial risks. In retail, which is Allansson's province, the responsibility concerns foremost credit risk, operational risk and quality related to credit. In Swedbank, risk has three possible concepts; uncertainty, possibility and threat. The relevant risks is thus determined in terms of whether there exists a possibility for the bank to earn money, whether there is an uncertainty of losing money or if there are any external or internal threats. (Allansson, 2011)

Bengtsson stresses the credit risk to be the dominant risk in Swedbank, however this can differ in terms of business areas, as the market risk has a great role in businesses with large corporations. In turn, operational risk can be identified throughout the organization and it is foremost the risk division's responsibility to manage and report all relevant risks. Bengtsson highlights risk-adjusted return as a measure affecting the bank's total risk exposure, which is measured in accordance with the Basel regulations. The customer rating is a component within this measure in order to determine the engagement and a part of the activity must be financed by equity. This is then related to the level of return the equity generates, hence the return on the rated equity. This is a fundamental part of the internal control. (Bengtsson, 2011)

Communication Process

As mentioned above, there are two Group Managers subordinated to the CRO, which are responsible for risk as well as credit. Further down the organization there are both Risk Managers and Credit Managers for every business area, which in turn is divided into regions with separate divisions for risk and credit. The managers for the business areas report the information to the respective Group Manager, which in turn has the responsibility to further report it to the CRO. This results in a reporting from different regions to the CRO instead of having the information passing by the Regional Managers. Both the risk divisions and the credit divisions compile reports and Bengtsson emphasizes an ongoing discussion where the boundaries are. These reports are aggregated and the quarterly reports, derived from the three business areas, are discussed with the CRO. (Bengtsson, 2011) The Group Risk make a common assessment of all business areas in order to identify possible risk patterns at the various offices, hence excluding small local risks. This report is then sent to the Board. Allansson explains this process of reporting risk information as a top ten list reported to the Board of Directors and to the CEO including the ten greatest risks for credit risk, market risk and operational risk. Allansson also emphasizes the importance of finding a balance in what is being reported, there must be sufficiently large risks for the Group to even consider them. It is also important with feedback due to differing perceptions of the same information. (Allansson, 2011)

Enterprise-wide Risk Management

Allansson believes that the responsibility of risk is relatively clear in the bank and is included in policies, which pervade the bank (Allansson, 2011). In Swedbank's Annual Report from 2010 there is a statement that Swedbank has adopted a policy for Enterprise-wide Risk Management (ERM), which describes how risk management supports the business strategy and the link between risk and capital. Furthermore, the policy clarifies the risk framework and roles and responsibilities for Risk Management in the bank. The policy also constitutes guidelines for the size of the capital buffer due to the current risk-taking in order to ensure that the Group is able to maintain an adequacy level of capital that fulfills the regulatory requirements. (Swedbank, Annual Report 2010; Swedbank, Capital and Adequacy 2010)

Risk awareness

According to Bengtsson there has been a significant increase in risk focus since the new CEO was appointed two years ago. The CEO raised the risk issue to the higher position it holds today. Bengtsson emphasizes this development as also being an effect from the financial crisis and states that the crisis helped clarify the risk issues and raise them in a separate forum. Bengtsson believes that risk awareness has increased significantly to an entirely different magnitude, and states this to be pattern throughout the industry. According to Bengtsson, Swedbank is the leading edge of development, particularly due to the CRO's high authorization. This results in a frequent communication between the CRO and the CEO with a great respect for one another, and Bengtsson argues;

"Risk issues have a clear position on the Board" (Bengtsson, 2011)

Both Bengtsson and Allansson stress a need for higher risk awareness throughout the organization and claim there sometimes to be a lacking integrating of risk in the everyday thinking of the employees. (Bengtsson, 2011; Allansson, 2011) At the same time, Allansson argues that in many situations an unconscious risk awareness of what can possibly go wrong exists. Nevertheless, Allansson considers the risk awareness in the area of credit risk to be relatively high due to the recently experienced losses attributable to credit risk. However, he raises a problem in that it is easy to ignore possible risks in specific situations when they have not yet occurred, hence risks are difficult to assimilate and understand before they actually become real. (Allansson, 2011)

"There are situations less likely to occur but when they do, it is questioned why no one raised the risks for it. It is almost like Catch-22." (Allansson, 2011)

In the aftermath of the financial crisis the risk awareness has significantly increased and is more integrated with decisions, according to Allansson. However, he stresses this to be a pendulum swinging in pace with cyclical fluctuations. (Allansson, 2011)

Quantification

As mentioned above the Basel regulations generate a lot of quantification of risks, which Allansson emphasizes as rather important. He finds it satisfying to assess the financial impact a risk could cause, which in turn simplifies the process of getting organizational attention for the risks presented. (Allansson, 2011) According to both Allansson and Bengtsson there are difficulties in measuring operational risk, although the aim is to price the risks by estimating the economic impact and the likelihood of it occurring. They also state it to be somewhat easier to get the quantified risks to be considered, highlighting that operational risks also generate capital. (Allansson, 2011; Bengtsson, 2011)

Further, Bengtsson stresses that the level of quantification differs depending on the counterpart. In businesses with large corporations the quantification has a lower significance in comparison to private customers and small businesses, where a 100% is quantified. This is because the latter constitutes such a large mass that it would be unmanageable without models to measure the engagement. In businesses with large corporations, the bank has a greater opportunity to review the customer carefully and thus examine parameters a system can not manage. (Bengtsson, 2011)

Basel Regulations

Allansson and Bengtsson both empathize with the fairly strict regulations of the financial sector. According to Allansson, there has to be a protection for the banks to go bankrupt and, especially from a social perspective, it is important with the Basel regulations to stabilize the banking sector. Allansson estimates the overall knowledge for the Basel regulations to be rather centralized to the Treasury division, which determines guidelines for the offices to follow. This results in a lacking understanding of the rules on a more local level. Allansson is critical of the government suggesting higher requirements apart from the Basel regulations due to an uneven competition with the Swedish banks having lower leverage, and advocates common global rules. According to Allansson, the implementation of Basel III will result in a necessary change for the Risk Management in Swedbank and in general he predicts higher risk awareness due to the new regulations. (Allansson, 2011) Whilst, Bengtsson argues that the reforms attributable to Basel III will not generate any major changes in the risk management in Swedbank, other than requirements for more long-term funding and somewhat higher capital base. However, Basel III can result in an impact on the bank’s strategy in terms of choosing not to enter a market with segments requiring heavy capital. Given the fact that the strategy is the basis of how Swedbank is controlled, Basel III could generate organizational change. (Bengtsson, 2011)

The Basel regulations have top-focus in Swedbank in order to rationalize the risk assessment and improve the existing models. According to Bengtsson, Swedbank aim to improve their models to be less blunt and better capture the risks, hence be more accurate in the risk assessment. In turn, this results in a maximum advantage of the regulatory framework and thus reduced costs. (Bengtsson, 2011)

4.3 Skandinaviska Enskilda Banken

Stockholms Enskilda Bank was founded in October 1856 as the first commercial bank in Sweden and quickly became an influential and important actor in the Swedish society. SEB became a pioneer in banking, especially due to its strong deposit business as well as freer interest rates. Due to a merger with the competitor Skandinaviska in 1972, Stockholms Enskilda Bank was renamed Skandinaviska Enskilda Banken. Today, SEB is one of the major universal banks in Sweden and also, due to its international presence, a major bank in Europe. Its main success factors are its aim for prolonged client-relationships, international presence as well as its innovative spirit. SEB views itself as a relationship bank, due to the offering of a wide range of financial products and services to its customers. (sebgroup.com, 2011)

Risk management is a fundamental part of SEB's organization in order to achieve and maintain long-term profitability and stability. Risks in SEB derive from the business activities, where the most significant risk appearing is credit risk. Hence, how well the risks are managed, controlled and priced is directly affecting the profitability. SEB argues for having independent risk control, credit analysis and credit approval functions, which results in a modern framework for its risk management. The responsibility for risk management policies and for reporting and controlling risk is assigned to the Board of Directors, with supplemented instructions from the Group Risk function. Included in the annual business plan is the Group's risk appetite, which is determined by the Board after a risk presentation by the CRO. The Board has the ultimate responsibility for the risk organization and for maintaining an adequate internal control by establishing the overall risk and capital principles and monitoring the total risk exposure. Subordinated to the Board are committees of various responsibility areas, with authority to make decisions based upon the type of risk. SEB's Group Risk function includes units responsible for credit approval, risk aggregation and risk control and is headed by the CRO, who is foremost responsible for monitoring and controlling the Group's risks. (SEB, Annual Report 2010; SEB, Capital Adequacy and Risk Management report 2010)

4.3.1 Interviews and Internal Findings

In order to achieve the perspective of SEB regarding the proposition, we have interviewed two employees with relevant positions; Johan Polbring and Göran Olander. Johan Polbring is responsible for Internal Capital Management at Group Treasury and mainly deals with profitability management and the controlling part of risk. Johan Polbring has extensive experience in the banking sector and has worked within SEB since 1997 and in the banking sector since 1982. Göran Olander is Business Controller in the branch offices of the west region as well as telephone banking. His main responsibilities are to set up goals and make up plans, which are followed up at a later date. Göran Olander is furthermore one of three business controllers in Sweden. Göran Olander's history within the banking sector is characterized by several diverse positions within SEB including Office Manager, Business Marketing manager, Deputy Regional Director and CFO of the Swedish division. (Polbring, 2011; Olander, 2011)

Risk Organization

According to Polbring, the development of risk management has grown during the last two decades. At the beginning of 1990, before the Swedish financial crisis, the phenomenon of risk management and risk controllers was rare. Banks were permeated by strong security awareness, yet no awareness of risk. Due to the Swedish financial crisis, banks discovered a lack in the risk control of the bank, hence started an introduction of risk controllers. During the early twentieth century the role of risk controllers matured, which in turn caused the emergence of capital managers in order to maximize earnings with capital. The characteristics of risk management today are the result of trial and error within the banking sector. (Polbring, 2011)

The risk management in SEB is a material part and during 2010 the Board appointed a Chief Risk Officer, in order to further highlight the importance of risk management. The CRO reports to the CEO and is ultimately responsible for the independent risk division. Through the appointment of the CRO, SEB creates a joint prioritized vision of risk. (SEB, Annual Report, 2010)

Polbring explains furthermore, that SEB is mainly focused on working with credit risk, which represents the greatest part of the risk control. (Polbring, 2011) The Capital Adequacy and Risk Management, Pillar 3 report, which states credit risk as the most important of all risks that SEB attain through providing the market with financial services, further highlight the focus on credit risk within SEB. The main risks monitored, in addition to credit risk, are; market risk, insurance risk, operational risk and liquidity risks. (SEB, Capital Adequacy and Risk Management report, 2010)

Polbring states further that risk weights are used in order to affect the level of risk in SEB. The risk weights are externally accessible and are expected to achieve the same recognition as probability of default. They will furthermore develop into some form of asset quality measure where differing segments can be compared over time. The risk weights within the Basel accord will be beneficial and will create the possibility to compare externally between banks. (Polbring, 2011) Olander stresses the risk exposure to be under constant influence, due to the usage of return on equity, where SEB measures the return on utilized capital. Return on equity is calculated for each lending in the organization and then summarized into one organization-wide return on equity measure. (Olander, 2011)

Communication Process

The communication process between the Board and the risk management division is mainly based on reports where the calculated risks are presented. The content of the reports consists mostly of the, by the risk division, rated risks as well as the aggregated risks, hence fluctuations in risks are not considered and presented. (Polbring, 2011) Olander states that the communication of risks between the risk division and the financial control mainly consists of quarterly reports, where the risk division highlights what types of risks exist and presents the current risk exposure. Olander states further, that risk and capital management is similar to business controlling and that the frequency of the communication between the departments is dependent upon the amount of capital present in the bank. During times of capital shortage, which is not the case at the moment, the risk and capital management division and the controlling division will be increasingly integrated and interfere with each other's areas. Today, when the return on capital measure is not as important, the financial control function is more focused on the cost-income ratio, thus the risk and capital management function is not as involved with the financial control. (Olander, 2011)

Risk awareness

As mentioned above, there has been an evolution in managing risks during the past two decades, hence the awareness of risk has increased. The rise of risk awareness is not only the case in the banking sector but also in society at large, where the awareness of banks' fragility is more evident today. (Polbring, 2011) Polbring highlights that there is a lack of risk adjustment in banking results and especially in the income statement before the financial crisis in the early 1990s. Thus, banks' objective was mainly to maximize earnings, hence a risk adjustment would have caused the result to deteriorate. Today, management in SEB is mainly concentrated upon what the stock market finds important and there is a natural focus on profit. However, the focus changes direction depending upon what characterizes the conjuncture at the time. During times of boom the focus is mainly on results and profit, whilst during times of depression the risk adjusted return on equity is a more frequently used measure. Today, in the aftermath of the financial crisis, the tendency is an increased stabilization and balance between these two focuses and the internal risk awareness is important also during times of boom. A further step in this direction is the increased use of the measure RAPM, Risk Adjusted Performance Measure, also referred to as return on risk, which is a performance measure explicitly designed to manage risk and performance across the organization. (Polbring, 2011; fermat.eu) Polbring states that there is a greater substantial awareness of the importance of the internal risk adjusted control within the bank, although, profitability is still most important. (Polbring, 2011) Olander as well as Polbring highlights the awareness of risk within SEB's upper-management. Olander argues the awareness to be a result of management being directly affected and ultimately responsible in case of failure. (Olander, 2011)

Olander highlights a rather substantial risk awareness regarding the strategic choice of entering the Baltic Region market. SEB's perceptive approach allowed them to spot the risk as early as 2004. Nevertheless, Olander states that SEB's reduction of the risk exposure in the Baltic region could have been more powerful and more rapid. (Olander, 2011)

Enterprise-wide Risk Management

Within SEB, every person who is involved in managing and measuring risks uses the exact same risk models and tools in the risk management and the follow-up, across the organization.

"SEB is extremely good at making risks pervade the entire organization." (Polbring, 2011)

However, a challenge lies within the collection of data and the introduction of the Basel II accord has made it possible to e.g. summarize market risk. (Polbring, 2011) Furthermore, a measure for aggregating risks across the entire SEB group is used and the aggregation is reported further up the organization to top-level management. When aggregating and allocating internally, the summation is built upon drivers that might be affected and excludes drivers beyond control. (Polbring, 2011)

Quantification

Polbring and Olander both support the idea of quantification of risks. Polbring highlights the necessity of creating an illusion that it is possible to quantify risks. Nevertheless, they both agree upon the difficulty in doing so. Olander states that making self-estimates has been one of the toughest areas in the implementation of the Basel accord. Polbring argues further that problem arises due to the usage of absolute numbers, since it is difficult to put an exact number on a risk and the corresponding confidence interval is easily forgotten. (Polbring, 2011; Olander, 2011)

"Models are not more accurate than humanity has put them together." (Polbring, 2011)

Although, the most important aspect is not the correctness in the number but the robustness as well as the stability over time, hence it is important that the numbers are intuitively reasonable. Regarding the quantification of operational risks, Polbring states that they have valid models for it and are in general good at quantifying operational risks. Olander states further that operational risk capital is distributed onto district level where incidents are closely observed and corrected. (Polbring, 2011; Olander, 2011)

Basel Regulations

There is an overall positive attitude towards the Basel regulations within SEB, according to Polbring. The opinion is that Basel II is extremely positive, especially due to the creation of general concepts, both externally as well as internally. The introduction of the Basel II Accord facilitated and made it easier to inform and educate within the risk area, mainly due to the creation of a common risk language, which made it possible to communicate risks in a more understandable and enhanced way. However, this is of less importance to top-level management since they are more focused upon the aggregated risks. Prior to the introduction of Basel II, SEB had extensive experience of the Economic Capital framework, hence the rules within Basel II were considered a competitive advantage and thus offensive to SEB. The belief within SEB was that SEB was going to handle the situation better than other competing banks, nevertheless, this turned out to be a mistake, thus making the Basel II regulations defensive for SEB. The Basel III regulations, on the other hand, are defensive and threatening from the very beginning due to the stricter requirements. (Polbring, 2011)

Polbring states that SEB is mainly using the internal method for calculating the requirements of Basel II, within retail the internal method has been approved and within non-retail activities it is on its way. (Polbring, 2011)

According to Polbring the management of capital will not change to any great extent due to the introduction of Basel III, however the liquidity requirement will cause an increasing acceptance of internal pricing. Prior to the financial sub-prime crisis, the general philosophical approach regarding capital was that it was a scarce resource, yet everyone knew this was not the truth as long as the deal was good. Liquidity is theoretically not a scarce resource, nevertheless, due to the financial sub-prime crisis banks have learnt that both capital and liquidity are scarce. Realizing that liquidity can be scarce will cause an increasing acceptance of internal pricing on liquidity. Furthermore, higher requirements on capital, due to the Basel III regulations, will lead to a scarcer management of capital, thus banks have to choose their borrowers carefully. (Polbring, 2011) The introduction of a leverage ratio will not affect SEB's perception and management of risk, risks will still be treated in the same way due to the persistence of the Basel II rules. Due to Basel II's persistence, the introduction of a leverage ratio will to a greater extent prevent banks from taking more risk than working as an incentive for taking on more risk. If Basel II were not to persist as part of the legal framework, banks would probably take on more risk due to the introduction of the leverage ratio. (Polbring, 2011) The Basel III regulations are relevant in working towards preventing future crises and the regulators' aim is to alleviate the symptoms of the former crisis. Yet, too strict and comprehensive regulations might cause banks to try and find new ways to avoid the regulations. (Olander, 2011) Olander states further that too strict and harsh liquidity requirements might cause a war on deposits, hence prices on deposits might rise to an unacceptable level. (Olander, 2011)

With regard to the criticism that the Basel III regulations make it more expensive for banks, Olander agrees to some extent and argues that it will increase their expenses, but at the same time increase their income on deposits. Olander argues further that a potential conflict with the market might arise due to the introduction of Basel III's stricter requirements and hence banks' increasing prices on loans. But, argues Olander, if the inclusion pace is the same across the market, no problems will arise. However, Olander highlights the problem of setting up rules exclusively for Sweden, which is the submitted proposal of the Minister of Finance. Olander argues this to decrease Swedish banks ability to compete against foreign banks, thus Swedish banks' might get ousted. (Olander, 2011) Furthermore, the introduction of the Basel III regulations will probably not disturb the communication and cause the emergence of a conflict, due to diverging areas of interest between the risk division and the top-level management. Olander argues this to, once again, be the result of a probable even inclusion pace across the market. Nevertheless, Olander argues;

"Banks that implement too quickly lose market shares and conflicts within the bank will arise." (Olander, 2011)

If a risk division has been too strong in the implementation, thus implements too quickly, the banks' expenses will increase, causing a conflict between top-level managers and the risk division. (Olander, 2011)

4.4 Nordea

Nordea bank has its roots in some of the oldest banks in the Nordic countries, these banks arose during the early nineteenth century, due to the need for credit providers to the emerging business industry. Several banking mergers characterize the history and it was not until 2001, that the Nordea of today was formed. (nordea.com, 2011) Today, Nordea is one of the largest banks in the Nordic countries, with a strong foothold in the Baltic Region and with branches all over the world. Nordea has a leading position within Corporate Merchant banking as well as retail and private banking and is the largest pension and life insurance company in the Nordic countries. (Nordea, Annual Report 2010) Nordea's vision is;

"To be a great European bank, acknowledged for its people, creating superior value for customers and shareholders" (nordea.com, 2011)

Nordea's foundation consists of a strong focus on profit and result, hence emphasizes a well-functioning cost management, a cautious risk control and an efficient management of capital. Nordea is a universal bank, hence offers a comprehensive set of financial services to their customers and places a high value on their work towards creating positive experiences for their customers. (nordea.com, 2011)

In the Capital Risk Management report from Nordea Group (2010) risk, liquidity and Capital Management are stated as the key success factors in its financial services. The organization of Nordea faces a variety of risk in its risk exposure, where credit risk is the most significant. The ultimate responsibility for the Group's risk exposure is dedicated to the Board of Directors, which limits and controls in order to maintain a sound level. The Board is also accountable for the overall risk appetite within the Group as well as for approving policies and approaches for measuring and reporting risks, which in turn are annually reviewed. Nordea's CEO accounts for ensuring effective principles and controls according to risk and further, in alliance with the top managers, reviews the Group's reports on risk exposure. The CRO is the head of the Group Risk Management, which is responsible for the processes concerning risk management framework as well as the capital adequacy framework. In turn the Group Corporate Center, headed by the CFO, is ultimately responsible for capital policy, thus the composition of the capital base. However, individual customer areas account for managing their specific risk in its operations in terms of identification, control and reporting within the stated limits and the framework. (Nordea, Capital and Risk Management (Pillar III), 2010)

4.4.1 Interviews and Internal Findings

We have conducted one interview at Nordea in order to reach their perspective of the subject. Stefan Friman is Planning and Development Manager within Group Risk Management at Nordea Group and is coordinating the development of Group Risk Management. Friman is not actively working with any directly involved with any special risk type but has an overall view of Nordea's risk management as a whole, across all risk types (i.e. credit risk, market risk and operational risk). Friman has previously been employed as management consultant at PriceWaterhouseCoopers for about ten years, before the transition to Nordea (Friman, 2011)

Risk Organization

According to Friman, the risk management in Nordea is gathered in one independent unit; the Group Risk Management function. The main ambition is to gather all risk management under the Chief Risk Officer, nevertheless liquidity risks are not processed within the Group Risk Management but in the Group Corporate Center under the Chief Financial Officer (Appendix C, figure 4, Risk, Liquidity and Capital Management governance structure). As mentioned above, the Board of Directors is ultimately responsible for the organization and the overall risk management. Within the Board a separate Board Credit Committee has been established (Appendix C, figure 4, Risk, Liquidity and Capital Management governance structure), however the committee has recently been changed to a Board Risk Committee due to a changed governance structure. The main risks processed within the Group Risk Management are credit risk, market risk and operational risk, and according to Friman, credit risks represents about 85% of total assets of Nordea. Within the Group Risk Management there is a Group Credit function, which mainly manages credit risks and credit approvals. In addition to the Group Credit function there is a Credit Control function responsible for controlling credits and credit risks. Beside the management of credit risks there is Group Operational Risk Management, responsible for managing operational risks and Group Market Risk Management, responsible for managing market risks, these are as well operating within Group Risk Management. (Appendix C, figure 4, Risk, Liquidity and Capital Management governance structure) In addition to these divisions, there is an additional division in Group Risk Management; Group Capital and Risk Modeling function, responsible for capital adequacy models and the modeling of credit risk. (Friman, 2011)

One main measure used in the organization, which has an explicit objective to influence the risk exposure in the organization, is the Economic Capital. In addition, e.g. for the credit risk area measures such as Probability of Default is followed-up. The measure is, furthermore, used at all places in the organization where credit risk is processed and managed. The Probability of Default measure is applied in the organization as a Key Performance Indicator. For market risk the Value at Risk (VaR) measure is used. (Friman, 2011)

Communication Process

According to Friman, the communication of risks in Nordea is performed at different levels. Regarding monitoring and overall risk reporting, each division within GRM actively monitors credit risk, market risk and operational risk respectively. The organizational set-up differs between the risk divisions but the overall approach is the same across the risk divisions.

Risk reporting is made by GRM and communicated by the Chief Risk Officer (CRO) to Group Executive Management (GEM) as well as to the Nordea Board of Directors. (Appendix C, figure 4, Risk, Liquidity and Capital Management governance structure)

Sub-committees is established to both GEM and Board Risk Committee, which receives risk reporting and have received a certain delegated decision mandate from GEM or the Board depending on the complexity and extent of actions needed. Some risk reporting (e.g. based on Nordea's governance model and based on regulatory requirements) are also reported to GEM and Board for final decision.

The initial discussion regarding risk management is made at GRM management meeting, which is chaired by the CRO, where all of the concerned risk division heads are present and where risks are presented and discussed together with corresponding information and experience. Normally the CRO brings the material to GEM where a further discussion is carried out and potential decision. In GEM, a diversity of managers are present; CFO, CRO, Chief Nordic Banking, Chief Corporate Merchant

Banking, Chief Product Units and CEO. Due to the mixture of responsibility areas among the members, this is where the risk division meets with the business, hence it is possible to reach a general picture of the problem area.

Friman states further that the CRO, in addition to the Board Risk Committee, has the responsibility of presenting risk reports to the Board of Directors upon which the Board takes decisions. However, if there is general hesitation among the Board, thus they find it hard to base their decision on the material presented, the reports will have to go another round until the Board is confident enough to make a decision. (Friman, 2011)

Friman highlights further that the Basel Committee and the Financial Services Authorities stipulate requirements both for the Board of Directors as well as for the risk management function in financial institutions. These regulatory requirements differ depending on what type of risk is being managed and reported. (Friman, 2011)

Risk awareness

The risk awareness of the Board at Nordea is high, according to Friman, and a trend can be discerned towards even higher risk awareness in the future. Friman states further that the risk awareness of today is higher than the risk awareness before the financial crisis. Furthermore, today's increasing risk awareness is in part a result of the on-going discussion about the new Basel regulations, as well as a result of the media coverage regarding the Boards' responsibility highlighted in the effects of the HQ bank and Carnegie cases. (Friman, 2011)

According to Friman, there is extensive risk awareness within Nordea at all levels, although everyone has their own perspective depending on their location in the organization. For example, in treatment of the Key Performance Indicators or the performance measurements, risks are taken into account in one way or another; hence risks are well-embedded in the governance of the organization. Requirements within the Basel regulations state that, the employee who works closely with the customer needs to be aware of the consequences of lending money to a customer with a specific risk profile. Thus, through the usage of the risk-weighted assets measurement, it is possible for the employees to create an understanding of the effects. (Friman, 2011)

Enterprise-wide Risk Management

According to Friman, Nordea does not have a distinct ERM policy, nevertheless, Friman points out that the risk awareness does pervade the entire organization due to the tight regulation. Risk Management within Nordea has an enterprise-wide coverage even though the ERM as a concept is not used. Nordea has an enterprise-wide risk appetite framework covering all key risks undertaken by the bank. (Friman, 2011)

Quantification

Friman states that, quantification of risks within Nordea can be divided into different areas, which are at differing stages of development. The quantification of market risk is a relatively mature area, where models have been used for a long time. The quantification of credit risks became reality in connection with the implementation of the Basel I regulations and it has become even more comprehensive and widespread due to the Basel II regulations. Today, Nordea uses internal rating based approach for both credit[5] and market risk. However, standardized models are used in other areas e.g. the quantification of operational risks. There is an on-going discussion regarding the possible transition to internal models for quantifying operational risks. According to Friman, there is a relevant aspect of quantifying operational risks and Friman stresses the fact that, through putting a price on the potential losses, it is possible to create an overall perception of what the organization might lose. The quantification makes it possible to allocate the operational risks to a specific business activity, hence the staff closest to the customers receive a measure showing the existence of operational risks. Nevertheless, consideration must be taken to the weaknesses inherent in models and modeling in particular;

"The world does not always fit into a model" (Friman, 2011)

Regarding the communication of risks to the Board, Friman states that, the quantification of operational risks enables all risks to be presented simultaneously and under the same conditions, thereby, facilitating a comparison of risks and creating a general picture. However, Friman argues that, operational risks might not be highlighted just as much as market risks and credit risks, since these risks are easier to quantify.

Basel Regulations

Friman states that Nordea has an accepting attitude towards the Basel rules and furthermore, stresses that they have to comply with the rules and prepare as far as possible before the new regulations takes effect. Friman argues that Nordea has an advantageous position for the implementation, in contrast to other competing banks, mainly because Nordea was not equally affected by the financial crisis and has a strong starting position. (Friman, 2011)

The greatest changes within the banking sector, in connection with the new Basel regulations, are the increasing need for capital and at the same time increase the return on equity, given the same profitability. The shareholders will in turn not appreciate a decrease in return on equity, hence the Board will be put under pressure. Although, Friman highlights that Nordea does not have a choice in this matter but to follow the regulations. Friman stresses further that, the increased costs will not only affect the customers but a variety of different areas and as a result, a possible shift towards less capital-intensive products. Most of the revenues was previously based on lending, which probably will be more expensive, hence, in the future, focus will have to change to other income sources to retain the same level of return.

Moreover, the leverage-ratio as well as the liquidity requirement will, according to Friman, increase the costs for capital in Nordea. Previously, many banks have earned money through the price differences in long-term lending and short-term funding. After the implementation of the Basel III regulations, the maturity will probably be matched to a larger degree than today, which may increase the cost of capital for the bank. (Friman, 2011)

Friman states further that the tighter regulations proposed by the government in Sweden, would put Nordea in a rather troublesome position, due to their presence in four different countries; Sweden, Norway, Denmark and Finland. Nordea's parent company is located in Sweden, yet the other branches operating in other countries act under their rules instead of the Swedish rules, hence Nordea act according to the minimum requirements in all four countries. Nevertheless, Nordea participates in the discussion with the Swedish Banking Association and the European Banking Association regarding the new regulations. (Friman, 2011)

The overall knowledge and comprehension regarding the Basel regulations in the organization varies. The expert knowledge varies between different business areas and group functions and there are experts in various organizational functions depending on the need. At lower positions, the knowledge is mostly based on their practical need in the business processes. (Friman, 2011)

5. ANALYSIS

In this chapter we will analyze the empirical evidence by means of the presented Frame of Reference. The four studied banks act as the basis for the analysis, which is complemented by the prior research and the literature presented in the Frame of Reference. The analysis is structured as a comparison of the banks regarding relevant areas.

5.1 Risk Management in Swedish Universal Banks

Overall, the empirical data indicates a rather highly developed risk management in all four banks and risk management is, in some banks, stated as a fundamental part of the organization since the risk is emphasized as the core in all banking activities. This has resulted in the presence of independent risk divisions in all four banks, with clear guidelines and responsibilities to review the bank's total risk profile. The development to the current risk management can be described by the three different generations presented by Nielson et al. (2005). Similar to all four banks is that none of the respondents expressed lacking involvement of upper-management in risk management. The received empirical data signals rather high risk awareness at top-level management, where no respondent expressed any need for improvements in this area. Both Swedbank and SEB referred to an extensive risk focus in top-management, whereupon SEB emphasized top-management to be highly risk-aware resulting from their ultimate responsibility in case of failures. According to Nielson et al.'s (2005) reasoning this indicates further development from generation one and generation two in all four cases. All respondents had the perception of risk management to be relatively comprehensive and organization-wide, thus, the banks broadly achieve the characteristics related to generation three. However, in the case of Swedbank, both respondents expressed the need for a process for reaching enhanced risk knowledge at the office level, which would in that case result in a further step towards generation three. This perception differs from Handelsbanken, where Marquardt refers risk awareness to be highly integrated and deep-seated throughout the entire organization, which indicates an adoption of the generation three approach in Handelsbanken.

Nielson et al. (2005) argue further on the increasing use of risk management and the comprehensive perspective regarding risks in banks. The emergence is argued to be a result of the changing global risk environment, affecting banks within the banking sector. Our empirical study has in general found evidence of the development of risk management within some banks. Several respondents highlighted the increasing risk awareness, which according to some respondents, is a consequence of the financial sub-prime crisis. Moreover, Polbring in SEB emphasized the emergence of risk management to not extend far back in time and that it was a result of the Swedish financial crisis in the early nineties. Further he argued that prior to the Swedish financial crisis the risk awareness was non-existent and due to the crisis, banks discovered the need for controlling risks within banks. This is consistent with Nielson et al.'s (2005) reasoning and it is further strengthened by the fact that SEB appointed a CRO in 2010, in order to further highlight the importance of risk. Furthermore, according to Bengtsson in Swedbank, their appointment of the new CEO two years ago, has reinforced and established a greater risk focus within Swedbank. Bengtsson claims this to be a result of the financial sub-prime crisis, which highlighted the risk issues and brought the risk awareness to a completely different level within Swedbank. A recent change in the governance structure within Nordea has resulted in the renaming of the Board Credit Committee to Board Risk Committee, suggesting a higher risk focus in the organization. Nevertheless, a slightly differing pattern can be distinguished within Handelsbanken, where Marquardt argues, as mentioned above, the risk awareness in Handelsbanken to be a fundamental part, not just after the financial sub-prime crisis but even before the crisis. In this way Handelsbanken tends to stand out in comparison to the other banks, due to their historically pervasive risk awareness. Hence, the increasing risk awareness, suggested by Nielson et al. (2005), may not be evidenced in Handelsbanken.

Further evidence regarding Nielson et al.'s (2005) reasoning of greater risk awareness in the organization, can be distinguished in the banks way of organizing itself as well as their way of delegating responsibilities. In all four banks the Board of Directors has the ultimate responsibility for all risks, as well as policies for assessing the risks. Thereby, the risk management's communication with the Board is of great importance. Furthermore, all banks have, according to the empirical data, appointed a CRO who holds the leading position in the Group Risk function and thereby highlighting the importance of risks in the organizations. However, evidence indicates that the level of authority of the CRO differs in the different banks. In Handelsbanken, the CRO does not have a direct connection to the Board, instead the risk profile is presented and handed to the CFO, who in turns makes the presentation and communicates with the board. In Swedbank the CRO appears to have a higher authorization due to the more frequent communication between the CEO and the CRO. The CRO in Nordea does as well as the CRO in Swedbank, appear to have a close relationship to the CEO in the organization. Furthermore, the CRO in Nordea presents the risk profile to the Board, hence the CRO in Nordea has a direct relation to the Board. The CRO in SEB was, as previously stated, appointed in 2010 due to the increasing risk awareness. In SEB, it is the CRO's responsibility to present the current risk profile to the Board, hence there is a direct relationship between the Board and the CRO. The empirical evidence does also appear to suggest, beyond greater risk awareness, an enhanced risk communication in some banks, particularly in SEB due to the recent appointment of the CRO. Hence, the empirical evidence appears to be consistent with Nielson et al.'s (2005) reasoning regarding the growing need for effective risk communication due to the increased risk awareness.

5.1.1 ERM Characteristics

In general, the respondents have a notion of risk management as being rather comprehensive in the organizations, which is the main characteristic of ERM. The primary ambition for ERM is to merge business strategy with risk management through pervading the areas of control and decision-making. This ambition is consistent with the empirical data, as most respondents considered risks to be highly regarded within the organization in terms of both internal control and decision-making. In turn this tends to contradict the difficulties that Power (2009) highlights concerning incorporation of ERM into management decisions. Further, the empirical evidence indicates consistency with Nielson et al.'s (2005) argumentation regarding that risk management has shifted away from only dealing with organizations' internal risks taking on a wider perspective. However, not all banks have an expressed policy for ERM, yet the empirical evidence indicates a consistency between all four banks' risk management and the policy Nielson et al. (2005) presents for ERM. Mainly due to well-reasoned risk approaches and risk practices in all banks, which permeate the entire organizations in a consistent and comprehensive manner.

The notion of ERM has different characteristics depending on the organization, which generates an opportunity for organizations to design the approach to be best suited for them. Thus, they choose their ERM mix, unique for the specific organization. As mentioned above, Mikes (2009) divides innovations of ERM into different ideal approaches to manage risks, all with enterprise-wide ambitions.

The empirical findings at Handelsbanken indicate a risk management mix including risk silo management, integrated risk management and holistic risk management. Marquardt states that the Group Risk division is organized in subdivisions, differing in terms of risk focus; foremost credit risk, market risk and operational risk, where the area dealing with operational risk is less comprehensive. This division might demonstrate one form of Mikes' (2009) risk silo management. However, there is to be seen a greater interaction between credit risk and market risk, hence they tend to converge in the risk control of Handelsbanken. Furthermore, Handelsbanken's Pillar 3-report from 2010 presents a policy of using a model for calculating Economic Capital, which plays a major part in enabling the risk division to conduct a comprehensive coverage of all risks in the organization. Since Handelsbanken is working with Economic Capital to capture all risks in a joint measure, there is an indication for also using integrated risk management in the design of their risk management mix. Empirical data indicate that Handelsbanken mainly rely on quantitative aspects, however, Marquardt highlights certain situations' need for qualitative reports to the Board. Thus, the risk management in Handelsbanken also includes qualitative aspects, which indicates a holistic risk management in accordance with Mikes' (2009) reasoning.

In Swedbank our empirical findings mainly indicate a risk management mix comprised of risk silo management as well as holistic risk management. Allansson explains the financial risks to be divided into different markets, primarily concerning credit risk, market risk and operational risk. The dominant risk in Swedbank is the credit risk. The design of dividing risks into different markets suggests a use of risk silo management according to the reasoning in Mikes' article from 2009. Furthermore, Bengtsson stresses that the level of quantification can differ depending on the counterpart. Swedbank includes qualitative aspects in specific businesses with large corporations in order to be able to more accurately examine the customer and hence manage the risks attributable to the current business. This indicates an adoption of Mikes' (2009) fourth risk management approach, holistic risk management, in the risk management mix, unique to Swedbank.

According to the reasoning of Mikes (2009), risk silo management, integrated risk management and holistic risk management can be visible in SEB's risk management mix. The empirical evidence related to SEB indicates a focus on primary credit risk, market risk and operational risk, where credit risk represents the greatest part in the risk control. Thus, the risk control is organized in silos, which according to Mikes (2009) signal a use of risk silo management in SEB. SEB has long since worked with an aggregation of risks, and there is a major focus from top-level management on a common denominator for all risks. Hence, SEB has extensive experience of the policy of the Economic Capital framework, which is according to Mikes (2009) included in the approach of integrated risk management. The empirical data shows that SEB regards qualitative risks in terms of operational risks as well, which is consistent with the holistic risk management approach. However, SEB generally relies on quantitative elements and the respondents express SEB to be good at quantifying operational risks, which indicates a step away from the approach.

Visible in Nordea's risk management mix are risk silo management, integrated risk management and holistic risk management. Within the Group Risk Management there are different subdivisions, ultimately responsible for credit risk, market risk or operational risk, where the credit risk can be identified as most significant. Likewise the other studied banks, this division of risk silos indicate an adoption of the risk silo management approach. Nordea uses the measure Economic Capital in order to aggregate risks to a common measure in the organization. Mikes (2009) stresses the Economic Capital framework to be a part of integrated risk management so this approach could be included in Nordea's risk management mix. Nordea consider operational risk in their activities, hence consider qualitative risks as well. Including qualitative elements in the risk control indicates, as mentioned above, the use of holistic risk management. However, the Planning and Development Manager argues the relevant aspects of quantifying operational risk, which facilitates a comparison of risks and creates a total risk picture in the bank. As in SEB, this could suggest a step away from pure holistic risk management.

The empirical material regarding the banks, signals an adoption of risk silo management in all four universal banks, which partly might be viewed as a result of the Basel regulations' division of risks. This structure of risk management is consistent with Mikes' argumentation in her article from 2009. Further on, there are also findings indicating moves towards including qualitative aspects in the risk control. Nevertheless, there is a difference in the degree of qualitative elements among the four banks. Hence, this development of including qualitative risks into the risk control could suggest a move from pure risk silo management towards a holistic risk management. The differing risk management mixes in the banks above indicate a consistency with the argumentation of Arena et al. (2010), who argues that organizations' ERM approach can differ in terms of the characteristics of the organization.

5.1.2 Quantitative Risk Cultures

According to the empirical findings, there is an indication of an overall positive attitude towards quantification of risks in Swedish universal banks. This view is consistent with Mikes' (2009) argumentation that the development has generated a greater aspiration to control risks, hence a quantificational atmosphere within both organizations and regulators. Handelsbanken rely heavily on measures and models in their risk management and the interviewees support a general quantification of risks to facilitate the internal control of the bank to engage in less risky business within the permitted rules of the Basel regulations. However, Marquardt in Handelsbanken emphasizes the difficulty of measuring operational risk, yet he highlights the importance of getting a fair insight in operational risk in terms of potential loss. In turn, Allansson in Swedbank highlights the importance of measuring in order to assess the financial impact a specific risk could cause. Allansson also stresses quantification of risks important in terms of receiving organizational attention, and thus gets the risk considered in the top-management. Both respondents in Swedbank expressed difficulties in measuring operational risk, however, there is an aim to price these risks as well in order to examine the economic impact. Within SEB, both respondents overall support the idea of quantification of risks and believe themselves to be relatively good in quantifying operational risk. Nevertheless, Polbring emphasizes certain problems with absolute numbers and highlights that the corresponding confidence interval is easily forgotten. According to Friman in Nordea, the quantification of all risks, including operational risk, generate an elementary control of risks in terms of a simultaneous reporting of risks under equal conditions. This facilitates a comparison of the risks and creates a general picture. Nonetheless, the respondent argues that there is a weakness in models and measures, as all possible scenarios can not be taken into consideration in a single model.

Regarding the reasoning in Mikes' article from 2010 all four banks tend to be quantitative enthusiasts with dedication and faith in modeling and measurement of risk. According to the presented empirical findings above, the main approach used in the four universal banks could be related to risk measurement, hence there is a tendency towards believing in the ability of measures to provide relevant data for top-level decisions. However, Swedbank diverges from the quantitative focus in businesses with large corporations, where qualitative parameters, which systems are unable to manage, are reviewed. Mikes' (2010) argues that a risk culture with more qualitative elements generates a greater probability in making risk count in top-level decisions by providing possible approaching risk scenarios. Nevertheless, our empirical findings indicate that, in practice, there is no perception of lack of qualitative elements in risk management, and hence the respondents expressed the integration of risk management in top-level decisions as sufficient. Thus, in this way our findings may indicate a step away from the findings that Mikes (2010) presents in her article.

Furthermore, the positive attitude towards quantification of risks indicates a contradiction of what Wahlström (2009) presents as criticism of Basel being to quantitative. However, respondents in Nordea and SEB highlight some difficulty in measuring risks, which might be coherent with Wahlström's (2009) argumentation of an over-reliance in numbers' ability to control risks.

5.2 Basel Regulations in Swedish Universal Banks

According to the empirical data and hence the respondents in the study, the overall expressed opinion regarding the Basel regulations, appears to be positive in general. The respondents from Handelsbanken argued the regulations to be adequate for their purpose and Bengtsson in Swedbank highlighted the Basel regulations' importance for stability in the banking sector as well as the increasing risk awareness due to the regulations. Polbring in SEB stated furthermore, that the Basel II regulations were extremely positive for SEB, however the Basel III regulations are not as positive. Friman in Nordea had a slightly different, more reserved, accepting attitude towards the regulations and states that the bank does not have an option but to accept the regulations, hence expressed neither a positive opinion nor a negative opinion.

Due to the fact that elements in the Basel II regulations are statutory, the banks are forced to comply with the regulations, hence their risk management is in one way shaped and affected by the Basel regulations. Friman in Nordea highlighted this circumstance in particular and argued that Nordea did not have a choice but to accept the regulations and carry out preparatory work in order to be prepared for the implementation. Hence, the respondent in Nordea does not suggest an emergency of conflict in the risk management regarding what is statutory and what is desired.

The criticism presented above, regarding the more expensive elements in Basel III, mainly concerning the tougher requirements on capital and liquidity, is in general agreed upon in the four banks. Nevertheless, it is overall stressed that the customers are the ones who will be most affected by the tougher regulations and thus the increasing costs. However, Olander in SEB argued that the customers do receive higher costs, but in the same time they increase their income due to higher return on deposits. Furthermore, respondents in SEB as well as Handelsbanken stated that the higher prices on loans will probably result in an emerging conflict with the market. Friman in Nordea argued the increasing costs to result in lower return on equity given the same profitability, which in turn has a negative effect on shareholders, thus putting pressure on the Board. Nevertheless, the respondent stated that it would not result in any greater impact on the Board's risk awareness due to the requirement to comply with the Basel regulations. According to respondents in Swedbank and Handelsbanken, the tougher regulations in Basel III will not generate any greater changes in the risk management and they will not increase the difficulty for the risk division to integrate risk in decision - making. Further on, the respondents in Swedbank and Nordea highlight that the tougher regulations in Basel III will probably generate a shift from capital-intensive areas and products to areas, which are not as capital-intensive.

The leverage ratio is, as mentioned above, one of several elements responsible for the increasing costs. Saari in Handelsbanken specifically addressed criticism of the measure and stated the leverage ratio to be negative for low-risk banks, which is consistent with the criticism in terms of the disappearance of lower risk classes that the Swedish Banking Association argues. The respondent argued further that this in turn would have a great impact on both operational as well as strategic decisions. The Swedish Banking Association further address the leverage ratio to give incentives to engage in more risky businesses, which Polbring in SEB opposes. The respondent stated that the presence of a leverage ratio would not give rise to increased risk taking in the top-level decisions, mainly due to the persistence of the Basel II regulations.

The empirical data indicates further need for an even implementation pace of the Basel III regulations in the market. Within SEB and Handelsbanken, the respondents' views are consistent and they argue that an uneven implementation will result in unequal competition due to differing conditions. Olander in SEB highlights in particular that if the risk division is too powerful and hence implemented too quickly, the costs will increase, generating a conflict between the top-level decision makers and the risk management division.

6. CONCLUDING DISCUSSION

The aim of this chapter is to present our main findings derived from the study and to answer the research questions stated in the introduction. Furthermore we intend to discuss the answers to the research questions and main findings from our own assessment and our own perspective. Thus, our own perception regarding the subject and problem area will be presented.

6.1 Conclusion

How integrated are risk management and top-level management in Swedish universal banks and do Swedish universal banks consider the integration to be sufficient?

One observation we have been able to make is that the Swedish universal banks are, characterized by risk management, which pervades the organizations from top to bottom. This is foremost evidenced by the comprehensive usage of ERM in all banks, which are displayed in slightly different ways in the banks due to differing organizational characteristics. We have also found evidence of extensive risk communication between top-level management and risk management. Furthermore, the perception among the banks is that the quantitative measures provide relevant data for top-level decisions. Hence, the quantitative measures facilitate the integration through the clarification and illumination of risks. We can thereby conclude that risk management and top-level management in Swedish universal banks seem to be rather integrated. Furthermore, the main perception and the experience among the risk managers, as well as other high-ranking employees, is characterized by sufficient integration of risk management in the top-level management as well as in the Board. The view of the risk managers is furthermore characterized by a satisfaction when it comes to reaching out and influencing decisions. Thereby, there is no perceived need to increase the level of consideration of risks in top-level management in the Swedish universal banks.

What opinion do Swedish universal banks have regarding Basel II's current impact and Basel III's future impact on risk management?

The empirical findings from the four Swedish universal banks indicate a rather positive attitude towards the Basel Accord and the respondents' perceptions is that the regulations are adequate for its purpose. Derived from the empirical findings we can conclude that Basel II has highly affected the risk management in Swedish universal banks. This is mainly a consequence of the statutory elements in Basel II, hence banks are forced to comply with the regulations and they have formed their risk management within the regulatory framework. In contrast to Basel II's impact on the banks' risk management, respondents have argued that Basel III will not generate any major changes in Swedish universal banks' current risk management. There is also evidence indicating that some of the Swedish universal banks already started to partly adapt to the more stringent requirements in Basel III.

How do risk awareness manifest itself in top-level management in Swedish universal banks and has the risk awareness increased in the recent years?

Our empirical study has found evidence of pervasive risk awareness in the top-level management in Swedish universal banks, as risks are emphasized as the core in all banking activities. This has resulted in the presence of independent risk divisions in all four banks, with clear guidelines and responsibilities to review the bank's total risk profile. The fact that all banks are pervaded by a comprehensive usage of ERM further expresses awareness of risks in the top-level management. The risk awareness does as well manifests itself in the banks way of organizing itself, where the Board of Directors has the ultimate responsibility for all risks as well as policies for assessing the risks. The presence of a CRO in each bank further highlights the importance of risks in the organizations. Furthermore, it can be noted that the risk awareness a few years ago was not as comprehensive and prevalent as the risk awareness is today. An increased risk focus in top-level management has been observed in three out of four banks, where the changes in some of the banks are of great character.

6.2 Reflections and Assessments

The empirically observed increase in risk awareness in Swedish universal banks is, in our opinion, a result of the empirical study being performed in the aftermath of the financial crisis. All universal banks in Sweden have been affected by the financial crisis in one way or another and hence experienced the importance of well-managed risks. As mentioned above, an increasing risk focus has in particular been observed in Swedbank, SEB and Nordea, which we believe to partly be a direct consequence of their losses in the Baltic region. The establishment in the Baltic region turned out too risky and some of the banks lost large amounts of money. Olander in SEB claimed SEB to have control of the risks in the Baltic region and to have discovered the risks at an early stage. However, the respondent argued that the risks were not taken seriously enough; hence SEB did not pull out quick enough and not with such determination, which was justified in the situation. We believe this to be a result of SEB not wanting to loose market shares to competitors, thus there was a priority of profitability above risks. Resulting from the losses, Swedbank in particular, has changed its approach of assessing risks in the organization and SEB has put risk issues higher up the agenda.

When addressing this area it raises the question of whether the present risk management observed within the banks and the present rearrangements, would have existed if the financial crisis and the consequential losses following from the financial crisis had not occurred. Our perception is that the risk management in banks today would not have the same characteristics if the financial crisis had not taken place and the banks would probably not be as risk aware as they are at the moment. Particularly, the major changes within Swedbank performed by the CEO would probably not have taken place as well as SEB's appointment of the CRO. We can therefore argue that the characteristics of risk management in banks are highly dependent on historical events, hence not very dependent on expected future events. In order to prevent banks from being harmed by future events, a greater focus on modeling and visioning possible future events needs to be created.

A further reason for the increasing risk awareness in Swedish universal banks, beyond the financial crisis, is according to some respondents the scandals within HQ bank and Carnegie. The scandals, which in part involved lacking risk awareness within the Board, received great deal of attention from the media. Hence, we believe this to have highlighted and increased the attention within the banks regarding this matter and thus created greater risk awareness in the organizations. In addition, we believe as well the Basel regulations to be responsible for and contribute to increased risk awareness. This is mainly due to the statutory elements as well as the ongoing discussion regarding the regulations, which raises important questions regarding risks in the banking sector. However, it should not be forgotten that the present discussion and the development of the Basel regulations are in itself a consequence of the financial crisis.

The empirical study has been able to observe and highlight the increasing risk focus in the organizations and we believe the result to be partly dependent on the previous financial crisis. Therefore, we do wish to question whether the results would have turned out differently if they were asked further ahead, thus if they were asked during times of boom. Polbring in SEB pointed out the presence of the cyclical pendulum. The respondent argued that during times of boom the focus within the organization is mainly on profit and results, hence there is a strong focus on the cost-income ratio. Whilst, during times of recession the focus is shifted to become more set to risk adjusted return on equity. Furthermore, the respondent argued and believed in an increasing balance between these two focuses at the time. The question is whether this is the actual truth, thus have the banks actually been able to learn the lesson this time or are they in fact highly affected by the time spirit. The history gives evidence of banks, as well as other profit-making organizations, being affected by the fluctuations in the economic activity and not being able to resist in either rise or fall. The employees of today do have the financial crisis fresh in mind, however new generations of employees who did not experience the financial crisis close up, will enter the organizations and old lessons are easily forgotten. We therefore argue that the proposed illumination, which is alleged to be present in banks today, will probably be challenged further ahead in the future. However, experienced employees, who have witnessed several crises during the years, are more likely to identify and discern the indications of a declining market. We therefore find it important to listen to employees with great experience, due to their ability to share important knowledge about the past. Furthermore, it is important that the risk adjusted return on equity is not forgotten in times of boom and thus the balance between the measure and the cost-income ratio must be maintained.

Consequently, our perception is that some of the Swedish universal banks are permeated by shortsightedness, mainly due to the humanity's inability to see situations in a longer perspective. We believe one of the main reasons for this shortsightedness to be the demands of shareholders, which puts pressure on the Board to engage in more risky business with higher returns in order to fulfill their demands. Thus, the top-managers subconsciously ignore the warning signals.

However, Basel III includes a countercyclical buffer aimed at counteract the cyclical effects by encourage banks to enhance their capital buffer in times of boom, which can be used to manage losses in times of recession. Hence, regulators seem to have identified the problem, which we believe is a step in the right direction. However, whether the countercyclical buffer will achieve the desired effect remains to be seen.

Nevertheless, not all banks seem to be highly affected by the time spirit. In the aftermath of the financial crisis, Handelsbanken seems to have managed to avoid most pitfalls and managed to stay safe and sound during the crisis. We can therefore conclude Handelsbanken to have the most successful model of risk management during the previous financial crisis. However, there is to be discussed whether this model is profitable during times of boom. Handelsbanken's more risk averse model results in high-risk business becoming more expensive in relative terms and generates higher prices on their products compared to their competitors, which causes reduced market shares during times of boom. Some may perceive the loosing of market shares as unwise, however we believe that it is not negative to be expensive when it comes to risks. The person making that assessment is too shortsighted in his or her way of thinking. In order for Handelsbanken to escape the somewhat distorted comparison between the Swedish universal banks during times of boom, the comparison should either be based on return over several economic cycles or based on the risk-adjusted return on equity. In this way, there might be a possibility to discern the bank with the most profitable model.

Although, the risk management model used within Handelsbanken has been found most successful among Swedish universal banks during the financial crisis, there is to be discussed whether Handelsbanken's model is ideal. In order to answer to that question, a further question should be raised regarding what would happen if all Swedish universal banks were to apply the risk averse model of Handelsbanken. A consistent implementation of the model among the banks would probably result in a more uniform banking sector, however the question is whether this would generate a stable banking sector. We believe that if every universal bank in Sweden were to adopt the risk averse model of Handelsbanken, the high-risk clients will be rejected, paving the way for foreign banks as well as other banks in Sweden to gain market shares. Thus, there seems to be a need for different models to be present in the banking sector in order to capture all aspects of the market, however it is of great importance that risks are considered in the long-term.

From the empirical findings we have also been able to identify that the risk management in the four studied banks overall characterizes of basically the same building blocks. However, we can identify some differences mainly according to the structure of each bank's risk management as well as the organizational cultures. In this regard, Handelsbanken distinguishes itself from the other banks, primarily due to their deep-seated risk aversion, which pervades throughout the bank.

Furthermore, we note an overall positive attitude towards quantification of risks in the four studied banks. All banks' emphasize that the quantification allows greater attention and deeper understanding of relevant risks in the bank, which in turn shows that the quantification is truly successful in having the risks in the bank considered. We believe the method, which most successfully results in increased risk awareness within different levels of the organization, foremost concerning top-management, is the best model for the risk management. However, we identify a risk with banking employees, who exclusively are concentrating on the absolute risk figure, and sometimes too easily forgets two fundamental problems; the difficulty of capturing the whole world into a single model and the fact that each risk figure is followed by a confidence interval. Respondents from both Nordea and SEB as well confirm these two problems areas. We raise the questions of what this figure really contains and to what degree top-managers are aware of the context of the figure as well as how it has been evaluated.

In some situations it is more relevant with a qualitative description, where there is threat for the risk picture to partly disappear behind an absolute figure. A question we ask ourselves is whether risk managers are satisfied with becoming heard, even if the quantification is not always the ultimate solution. Meanwhile, there are also situations when quantification of risks is essential and where it can be adequate to present potential losses associated with the risk. In particular, this is attributable to credit risks, where a qualitative assessment of each single customer would be prohibitively expensive and too time-consuming, as it concerns such a large quantity. We do not intend to denigrate the quantification of risks, but rather highlight the problems regarding excessively relying in absolute figures as well as the lack of consideration of possible deficiencies is the underlying models, which basically are developed by humans with their own flaws.

In the chapter of analysis a rather positive attitude towards the Basel regulations is presented, whereupon we believe this positive opinion to be facilitating for the implementation of the new rules of Basel III in Swedish universal banks. The banks positive attitude is derived from an empathizing with the requirements in Basel and perceptions of the rules to be adequate for their purpose, hence the four banks are generally accepting the implementation instead of opposing the framework. In contrast to Basel II's effect on risk management, some respondents argue that Basel III will not generate any major changes in their current risk management. Saari in Handelsbanken argues that the risk division would work in the same manner even without the new requirements in Basel III. However, both Swedbank and SEB emphasize some minor necessary reforms, but overall there will be no dramatically changes of their risk management. We believe these findings to be coherent with the fact that Handelsbanken performed best during the financial crisis. Furthermore, the fact that the banks will not improve their risk management to any great extent raises a question whether Swedish universal banks are at the edging front of the development, or if the improvements within Basel III are not sufficient for developing bank's risk management in order for them to be better prepared for times of recession.

In the case of Handelsbanken our empirical findings indicate Handelsbanken to be at the edging front, and has thus already partly adapted to the more stringent requirements in Basel III. Presented above, the three other banks have implemented reforms to strengthen their risk management, whereupon a conclusion can be drawn that the banks reach the requirement for a more solid financial sector. According to the degree of severeness of the financial crisis there is a global need for reforms and since foremost Swedbank, SEB and Nordea experienced a rather comprehensive decline in profitability there is an indication of a need to improve their risk management. Derived from the argumentation above, there is to be discussed whether Basel III will succeed in stabilizing the financial sector, since the framework will not result in any improvements for the banks' risk management. If Basel III fails to improve risk management, the purpose of the regulations is not fulfilled. Hence, we identify an ambiguity in what Basel III contributes to and further a lack of clarity of the actual problem of why the banking sector can not guard against times of recession.

A fundamental risk to consider regarding the new Basel rules is the risk for over-regulation in the banking sector. There is a tendency towards improving the Basel regulations by stating additional restricting rules rather than improved rules to cover the shortcomings of Basel II. We stress this to be a less effective solution. According Olander in SEB, too strict and harsh regulations could generate initiatives for circumventing the regulations. This inflation of rules would in turn result in a lacking framework, thus a step backwards in terms of preventing another financial crisis. An example, which the Swedish banks raise as excessively harsh, is the leverage ratio. In a global perspective, the Swedish universal banks are relatively low-risk banks, which in particular apply to Handelsbanken. The leverage ratio is criticized for excluding the lower risk classes, which disproportionately affects the Swedish universal banks with high proportion of low-risk businesses. If the leverage ratio would result in a tendency towards engaging in riskier businesses, in order to meet the higher amount of capital required by the leverage ratio, the Basel Committee has failed with its purpose.

We consider it essential that Basel III generates global competitive neutrality concerning both rules and implementation pace. The implementation pace is currently fixed at six years, which results in opportunity for banks to relatively independently determine when they want to place great emphasis on the implementation. This generates a playing field for banks, where they can acquire market shares from other banks by postponing the implementation of Basel III and thus maintain a lower price to customers. In turn, this might result in a hesitation among banks when to fully adopt the new requirements. However, there is also a risk to be identified regarding late implementation, where banks are likely to lag behind in the development in the sector and thus have difficulty keeping in pace with other banks. Derived from the discussion above, we believe this to pose a major challenge for the Swedish universal banks.

Basel enables banks to select internal methods for calculating risk, which are approved by the Swedish supervisory authority. This results in poor transparency, which generates a difficulty for external actors to understand the background to a presented risk figure when there is no knowledge about the calculation or the model in comparison to other models. Derived from this, a question could be raised whether it is reasonable with great differences in risk figures among the banks. We believe a weakness in Basel is the lacking transparency and the accompanying scepticism of the banking sector and the market.

6.3 Suggestions for further research

During the creation of this thesis, we have encountered several interesting aspects and areas as well as interesting approaches regarding our study, outside our field of investigation. We therefore aim to present some relevant areas for further research;

- To remake the exact same study during times of boom, in order to unravel whether Swedish universal banks actually are affected by the time spirit.
- To further perform an investigation with main focus on the effects of the process of how the four universal banks manage risks as well as the process of how the universal banks integrate risks in top-level strategic decisions.
- To perform a similar investigation on a group of niche banks, hence facilitating a comparison of risk management in the universal banks and the niche banks in Sweden.
- To perform a similar investigation in a foreign country, thereby making it possible to spot differences and similarities in the risk management in the countries and discover how developed the risk management in Swedish banks is in comparison.

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APPENDIX

Appendix A - Interview Guide: Risk Management

Introductory Questions

- What is your position and which are your main areas of responsibility?
- How long is your experience within the banking sector? How long is your experience within the bank?

Organization

- What structure does your risk organization have?
- How is the organization divided into working with different risks?
- Who are the main decision-makers, who have a decisive impact on the governance of the bank and manages the strategic planning process within your organization?
- What characterizes the communication of risk calculations to top-level decision-makers?
- What trade-offs are made in the governance process between the dimensions that are specifically intended to influence the risk exposure within the bank and other important control measures?
- What is your opinion on risk management's influence on controlling and top-level decisions?

Risk Management

- How comprehensive is the risk awareness in the entire organization?
- What characterizes the flow of risk information in the organization?
- Does the organization have a pronounced policy for Enterprise Risk Management?
- Do you think it would be easier to integrate risk in top-level decisions if more qualitative risks were taken into consideration? Why/Why not?
- Can you provide examples of measurements used in the organization in which risks are taken into account or measurements with the main objective to influence the level of risk in the bank?

Basel II

- What is the overall opinion of the Basel regulations in the bank?

- What is your perception regarding the receipt of the Basel rules by top-level decision-makers?

- Is there any comprehension of the Basel regulations in the organization? What is your perception regarding how extensive the knowledge is about the Basel regulations in the organization?

- Are you using standard methods or internal methods in calculating the requirements of Basel II?

- How great is the emphasis on models and measures for calculating risks?

- What is your opinion regarding the quantitative measures of Basel II? E.g. the quantification of operational risk?

Basel III

- Do you believe the introduction of Basel III will result in any major reformations in the risk management area of your bank? Why/why not?

- Do you believe that the introduction of Basel III will affect the profitability of the bank?
  - Do you believe this to be a problem in the integration of risk in top-level decisions?

- Do you believe it will be easier or more difficult to integrate risk assessment in top-level decisions due to the Basel III regulations? In what way?

Appendix B - Interview Guide Controlling

Introductory Questions

- What is your position and which are your main areas of responsibility?
- How long is your experience within the banking sector? How long is your experience within the bank?

General Questions

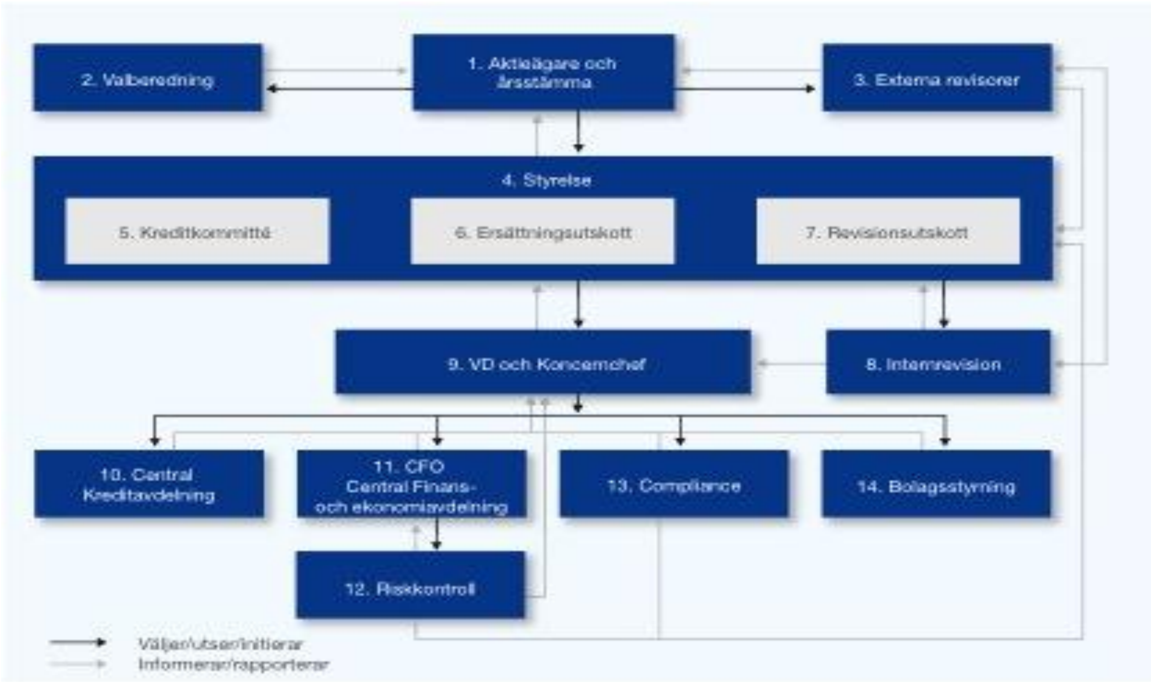
- Can you describe the overall governance process in the bank, mainly regarding important measures?
- Can you specify what main risks you take into account in the governance process?
- Which measures are meant to specifically influence the risk exposure in the bank?
- What characterizes the communication process between you and the risk management function?
  - What characterizes the communication of risk assessments and risk calculations between you and the risk management function?
- How much attention is, according to you, drawn to risk in comparison with other important control measures in top-level decisions?
  - Do you consider this to be sufficient? Why/why not?
  - Has it changed during the last couple of years?

The Basel regulations

- The requirements within the Basel regulations are largely quantitative, do you think this makes it easier or more difficult to integrate risks in top-level decisions?
- How does top-level management receive the stricter requirements in Basel III?
- In what way, do you think, will the Basel III regulations influence the top-level decisions?

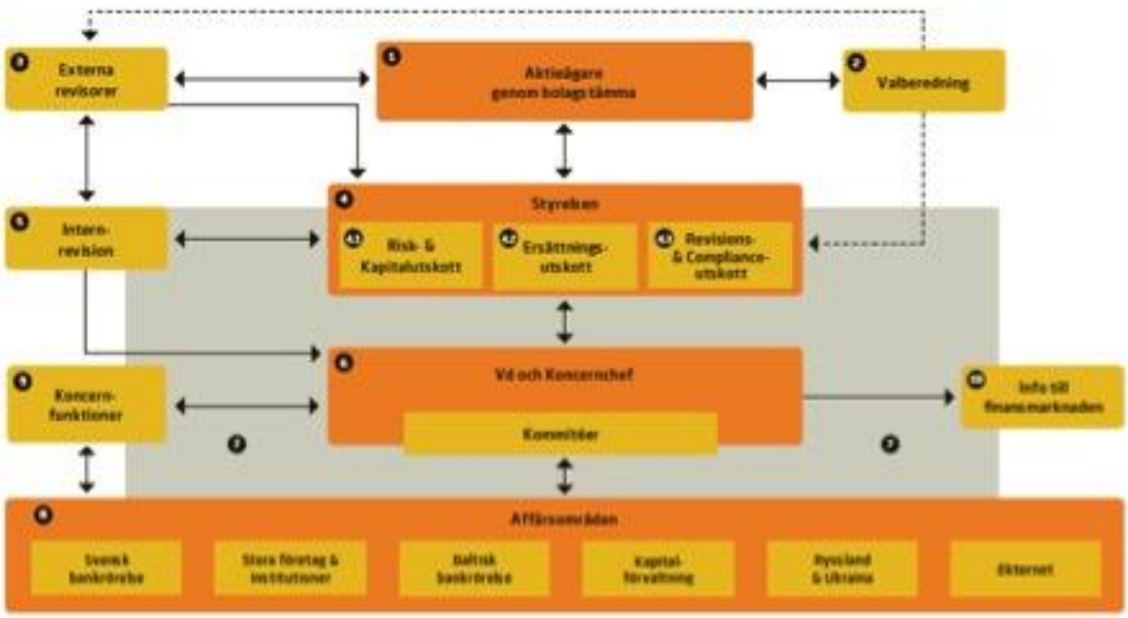
Appendix C - Charts

Figure 1: Governance structure Handelsbanken



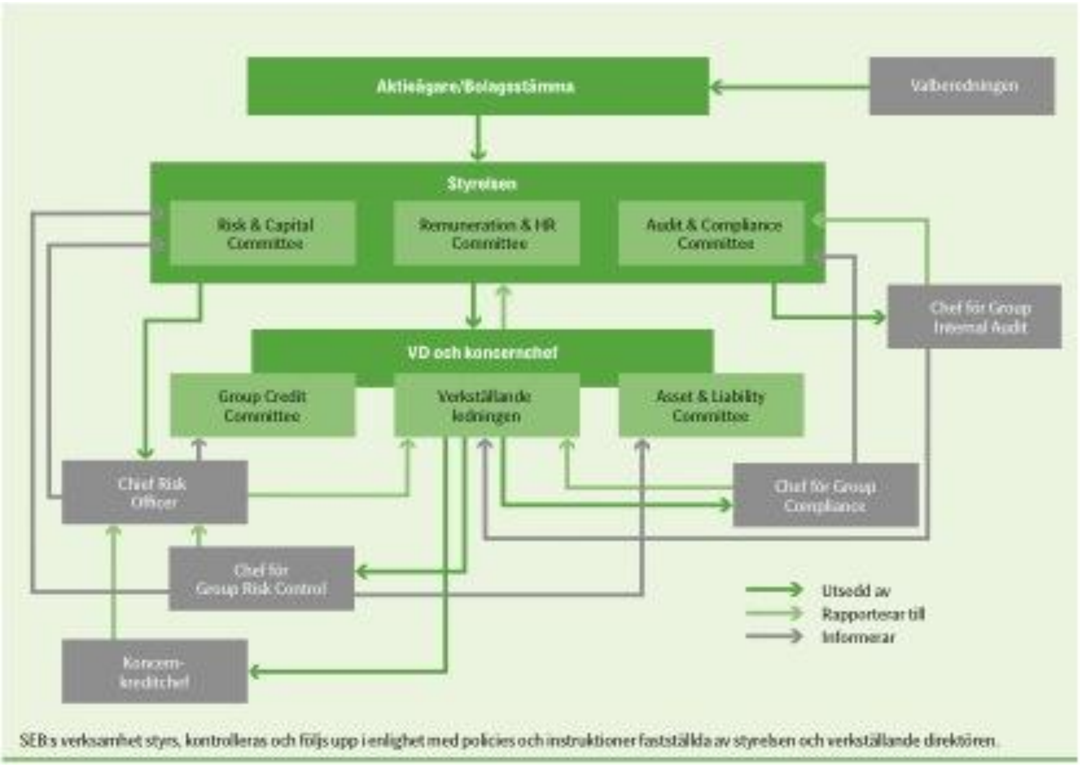
(Source: Handelsbanken, Annual Report 2010)

Figure 2: Governance structure Swedbank



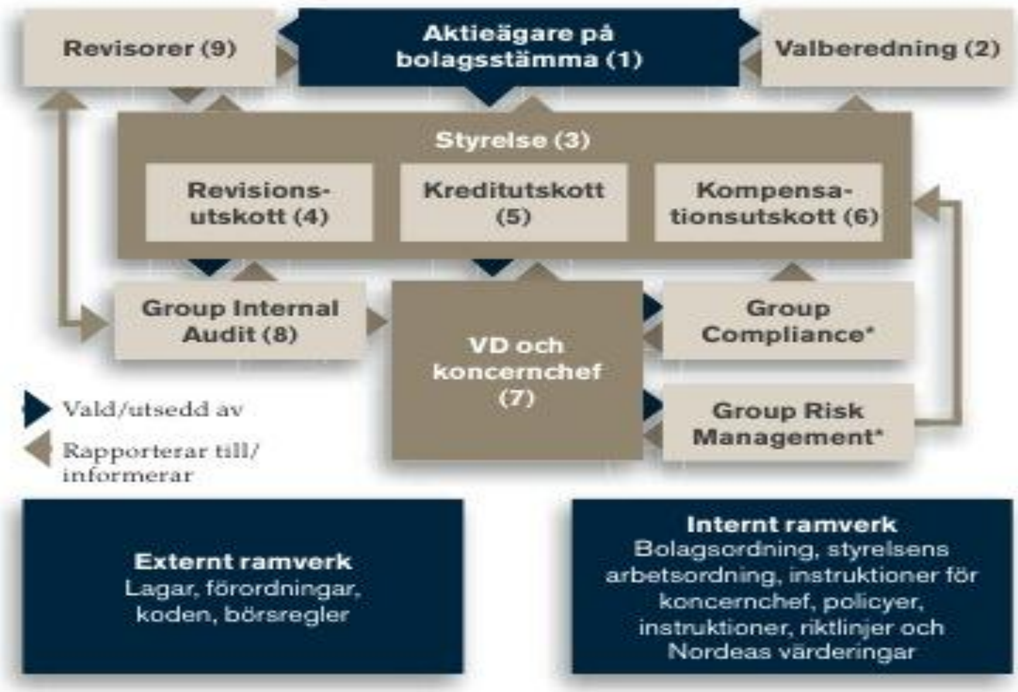
(Source: Swedbank, Annual Report 2010)

Figure 3: Governance structure SEB



(Source: SEB, Annual Report 2010)

Figure 4: Governance structure Nordea



(Source: Nordea, Annual Report 2010)