Basel III implementation impact on Capital Adequacy in Europe

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Abstract:

After the financial crisis of 2007-2008, the Basel Committee on Banking Supervision (BCBS) recognized inadequate regulations in the banking sector. Thus, the BCBS published Basel III in 2011. The third regulatory framework of the committee aims to strengthen the stability of the financial sector by introducing stricter capital ratios for banks. The capital ratios represent the capital adequacy of a bank under Basel III and function as key figures in the assessment of a bank's capital strength. The implementation of Basel III is set over the years 2013-2019, as the framework is highly complex. This implementation forces banks to take a step back and evaluate their business, as the implementation presents many challenges. The imposed challenges of Basel III present new risks and opportunities for banks that have to be exploited in order to make correct choices in the future. The main challenges consist of the new stricter minimum capital requirements. Common Equity Tier 1 (CET1) and other vital capital ratios are increased in order to create a buffer for banks during economic stressful times. The raised capital requirements create constrains on a bank and the economy as a whole, as a bank has to stack capital into reserves. These reserves and unexploited capital quantities will lead to less profit such as decreasing Return on Equity. Thus, the study aims to analyze the current capital adequacy in Europe by assessing current capital ratios. This is done trough qualitative research on main financial institutions, and an assessment of the Basel III European monitoring exercise conducted by the European Banking Authority (EBA). Additional comparisons will be made on the capital ratios and key figures of two Nordic case banks. These are Handelsbanken and Nordea. The outcome of the study clearly states a bank conversion towards the Basel III framework and demonstrates the significance of regulation. European banks have already adapted to the ratios and some even fulfill the minimum capital requirement today. Thus, it can be concluded that the overall capital adequacy in Europe is acceptable.

Keywords:	Basel III, CRD IV, CET1, implementation challenges, capital adequacy, banking regulation, Europe
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Basel Committee on Banking Supervision (BCBS) identifierade otillräckliga regleringar i bankväsendet efter den finansiella krisen under åren 2007-2008. Därför publicerade BCBS Basel III reglering 2011. Syftet med den tredje regleringen är att stärka stabiliteten på den finansiella sektorn genom att introducera striktare relationstal för kapital. Relationstalen representerar kapitaltillräcklighet under Basel III regleringen och fungerar som nyckeltal i bedömningen av bankers kapitalstyrka. I och med att regleringen är mycket komplex, skall själva implementeringen genomföras åren 2013-2019. Den medför nya utmaningar och tvingar därmed banker att ta ett steg bakåt för att evaluera allokeringen av kapitalet och organisationen. Utmaningarna inom Basel III medför nya risker och möjligheter för bankerna. Den essentiella utmaningen består av de nya striktare minimikapitalkraven som regleringen medför. Common Equity Tier 1 (CET1) relationstalet och andra centrala nyckeltal har höjts för att skapa bättre kapital buffertar åt banker under ekonomiskt svåra tider. Dessa krav begränsar bankerna lönsamhet, såsom avkastningen på eget kapital. Därmed är syftet med studien att analysera den nuvarande kapitaltillräckligheten i Europa genom att bedöma de nuvarande relationstalen. Detta har gjorts genom kvalitativ forskning av information från väsentliga finansinstitut samt genom en analys av den Europeiska Basel III uppföljningsövningen gjord av European Banking Authority (EBA). En ytterligare jämförelse är gjord av två nordiska bankers relationstal och andra nyckeltal. Dessa är Handelsbanken och Nordea. Resultatet av studien påvisar en klar omvandling mot Basel III regleringen hos Europeiska banker samt den enorma betydelsen den har på bankindustrin. Europeiska banker har anpassat sig till regleringens striktare relationstal och vissa banker uppfyller kraven redan idag. Därmed kan det konstateras att den övergripande kapitala tillräckligheten för Europeiska banker är godtagbar.

Nyckelord:	Basel III, CRD IV, implementerings utmaningar, kapital tillräcklighet, bank reglering, Europa
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1 INTRODUCTION

The most important lessons in financial history have in most cases been learned to late. Highs, lows, depression, recession as well as bubbles have not always been recognized and dealt with in time. The financial sector and banking industry is no different when it comes to the regulations. The Basel Committee on Banking Supervision (BCBS) therefore emerged after the breakdown of the Bretton Woods exchange rate system in 1973 (Bank of International Settlements, 2009, p. 1). The breakdown itself, lead to many banks going under due to massive foreign exchange losses. During recent history the BCBS has published banking regulations such as the Basel I and Basel II in order to strengthen the banking industry and avoid financial crises. Sadly, these have not been sufficient and prevented crashes.

The financial crisis in 2007 proved to be a valuable lesson for the banking industry, as the outcome clearly demonstrated the insufficiency in former regulations. Due to this insufficiency, the BCBS published the third version of its regulatory framework in June 2011. The regulatory framework of Basel III intends to further strengthen financial supervision and guarantee long-term global financial stability as it becomes fully implemented in 2019. The stricter capital definitions and raised minim capital requirements aim to ensure this, as well as the implementation of various capital buffers. Unfortunately, the side effects of the regulation also present constrains on banks and the economy as a whole, which have to be dealt with.

If the regulation is implemented correctly, the global banking industry will become more stabile and at the same time create new opportunities for international banks. An effective implementation will demonstrate to regulators, shareholders and customers that the bank is recovering well from the financial crisis (Pierre-Etienne Chabanel 2011, p. 3). A rapid implementation will also contribute to a bank's competitiveness by delivering superior management insight into the business and in turn helping it to take advantage of future opportunities (Pierre-Etienne Chabanel 2011, p. 3). Thus, corporate and risk governance will become a vital part in the banking industry and the financial reports need to become more transparent.

1.1 Problem definition

The main problem for internationally operating banks implementing Basel III is the impact on profitability while meeting the minimum capital requirements. The regulatory framework presents new stricter definitions on capital and new calculation standards on Risk-weighted assets. Thus, the minimum capital requirement ratios in the Basel III framework will be impacted in a negative way, i.e. it will be harder to reach high values in the key ratios. The outcome of this problem results in putting more capital aside in a hope of reaching better capital ratios, as the ratios represent the capital adequacy of banks' under Basel III.

However, when banks need to save larger amounts of capital in order to reach the capital buffers of Basel III, how can they simultaneously grow and have a high return on equity (ROE)? The key capital ratios presented in Basel III will have an effect on the ROE and lower it. Therefor, a comparison between the capital ratios of Basel III and the ROE will give an answer on how well banks' have accomplished the implementation of Basel III compered to the damage it has done to the profitability. The ROE states the net income as a percentage of shareholder equity and is therefor a key figure in the comparison.

The secondary problem that needs to be examined is which alternatives banks' have in the management and implementation of Basel III. Which risks and opportunities does the regulatory framework present and how can these be dealt with. The management of a bank needs to consider new ways to operate in order to successfully implement Basel III, e.g. a thorough examination of bank processes may need to be done.

1.2 Aim of the Thesis

The study aims to analyze the capital adequacy of European banks and to show how the Basel III regulatory framework has affected it. The main Basel III effects will be stricter capital definitions and changes in the calculation of RWAs. Capital adequacy and key figures regarding the implementation of Basel III will be examined by analyzing the European Banking Authorities monitoring exercise. An additional comparison and analysis will be made between the results of the monitoring exercise and two Nordic banks in order to gain an understanding of the Nordic banking sector compared to the European. Thus, the secondary aim is to see how far the Nordic banking sector has implemented Basel III compared to the rest of Europe. The two Nordic case banks in question are Handelsbanken and Nordea.

In order to understand the analysis, the study presents the Basel III regulatory framework and explains why it is important for banks to comply with. This will be accomplished by presenting the framework itself and the impact it creates on banks and the economy as a whole. The risks, opportunities and challenges banks encounter in the implementation of Basel III will be presented in the end of the study.

The Basel III regulatory framework is global and has some variation depending on the implementation region. Thus, the research will only focus on European banks and implementation problems for them. An additional delimitation will be made to the research, as the framework is highly complex. The focus will remain on Pillar I of the Basel III regulation. Pillar I represents the minimum capital requirements in Basel III and will serve as sufficient knowledge when analyzing capital adequacy of international banks' under Basel III and CRD IV. Thus, Pillar I liquidity requirements and possible Pillar II minimum capital requirements will not be listed in the research.

1.3 Methodology

This study is conducted by both qualitative and quantitative research methods, as well as a descriptive analysis of the findings. The primary qualitative research is done trough main financial institutions official homepages such as the BCBS, EBA (European Banking Authority), ECB (European Central Bank) and IMF (International Monetary Fund). The quantitative research is conducted trough analysis of the Nordic case banks Annual and Interim Reports.

The qualitative research in this study aims to be inductive, i.e. generating theory for the study itself (Bryman & Bell, 2011, p. 26). Mostly referring to Bank of International Settlements (BIS), as the institution is responsible for the publishing of BCBS material such as all the Basel frameworks, i.e. Basel I, II and III. The qualitative research of the Basel frameworks is conducted in order to summarize and understand the regulations. The reference emphasis is on BIS, as it functions as the publisher for the work done by the BCBS. Thus, only limited additional references regarding the Basel III framework are presented in the study, as they themselves refer to BIS.

The Basel III monitoring exercise made by the EBA is presented with the help of both qualitative and quantitative research. The qualitative research aims to present how the quantitative study by the EBA was conducted. The quantitative research aims in this part to present the key figures and Basel III capital ratios in order to understand the current situation in Europe. The sample bank findings and key figures are presented trough quantitative representation, i.e. tables and figures. Here the quantitative study's findings can be presented with information only from EBA, as the calculations of the capital ratios differ from other studies.

The analysis and research of the Nordic case banks is conducted trough quantitative research. The research started with general examination on both Handelsbanken's and Nordea's official homepages. The Basel III capital adequacy key figures and numbers were presented in the 2013 Annual reports and 2014 1st quarter Interim reports. Trough the examination of these, the current capital adequacy of Nordic banks will be examined. The key ratios analyzed are the CET1 capital ratio, Tier 1 capital ratio and the Total Capital ratio calculated according to CRD IV/CRR. The return on equity percentage (ROE %) will also be included in the analysis as the difference between CET1 and ROE defines how well a bank has managed the implementation of Basel III (i.e. CRD IV) in comparison to its profitability.

The aim is to summarize the findings of the study trough a descriptive analysis conducted in the end. The descriptive analysis uses the research findings from both the qualitative and quantitative results and presents them in a comprehendible way. Descriptive comparative results will as well be added as the descriptive analysis is concluded in the end.

1.4 Outline of the Study

An introduction to the BCBS, the Basel Capital Accord and the Basel II framework is done in chapter 2. The main objective of the chapter however, is to get a general understanding of the Basel III framework and minimum capital requirements it presents. Thereafter, the Capital Requirement Directives (CRD) is also shortly presented in the section. Chapter 3 presents the summary of the latest monitoring exercise conducted by the EBA. Key ratios and aspects relevant to the study are presented here in order to gain an understanding of the current and latest situation in Europe. Unfortunately, the Basel III key ratios are calculated with CRD III, as the latest CRD IV had not yet entered into force at that time. Thus, the key capital ratios are indicative and cannot be fully compared with the key capital ratios from the Nordic banks Q1 2014 Interim reports.

Chapter 4 introduces the Nordic banks and presents the capital adequacy findings for each of them. Here the Basel III key capital ratios from the Interim Reports of Q1 2014 are presented and analyzed. In order to make the analysis more interesting, the ROE percentage has been added for comparison on how well the banks have managed to stay profitable during the implementation process of Basel III. Chapter 5 will thereafter include a short comparison between the monitoring exercise of European banks and the findings of the Nordic banks. Unfortunately, as already mentioned above, the two cannot fully be compared. Nonetheless, they illustrate the latest situation and can be compared somewhat to give a picture of the present capital strength.

The last part in chapter 6 presents the risks and opportunities associated with the implementation of Basel III. Here the future prospects in regards to the Basel III regulation will be presented and discussed. Basel III implementation risks, opportunities and challenges are also included in the chapter as they affect the future prospects. Additionally, a short discussion will be conducted regarding the future of European banking regulations and the financial sector.

The last chapter functions as a conclusion and presents the key findings of the thesis.

1.5 Key Concepts and Definitions

BCBS: Basel Committee on Banking Supervision, global standard setter for banking supervision matters.

EBA: European Banking Authority, monitors the implementation results of Basel III in Europe.

ECB: European Central Bank

IMF: International Monetary Fund

CET1: Common Equity Tier 1, key capital definition.

CRD IV: Capital requirement directive IV, the translation of Basel III into European law.

CRR: Capital requirements regulation, part of the CRD IV package generated by the European Commission.

ROE: The year's profit in relation to average equity (Handelsbanken, 2014a, p. 216).

2 BASEL COMMITTEE ON BANKING SUPERVISION

The Basel Committee on Banking Supervision (BCBS) is responsible for the global supervision of banking services. The main objective of the Committee is to enhance the understanding of key supervisory problems, as well as improve the supervision quality regarding worldwide banking. Thus, the BCBS is the primary global standard-setter in the field of global banking supervision. In addition to its mandate to strengthen financial regulations and increase financial stability, the Committee offers a professional forum for problem solving regarding supervision matters. (Bank of International Settlements 2013a)

However, the decisions made by the BCBS have no legal power, as the supervisory standards the BCBS presents are guidelines and recommendations of best practices for banks operating internationally. The expectation is that these standards are to be implemented by the national authorities of each member country into their own laws in a way that fits the respective countries own directives. The BCBS functions in this way more as a monitoring institution for the implementation and encourages convergence towards common standards. (Bank of International Settlements 2009, p. 1)

Up until now, the BCBS has published three regulatory frameworks with the objective to strengthen global supervisory matters. These are the Basel Capital Accord (also known as Basel I), Basel II and Basel III. The main aspect of each framework is shortly introduced in the following chapters.

2.1 Basel Capital Accord

The "International Convergence of Capital Measurement and Capital Standards" was the first consultative paper made by the BCBS. Published in July 1988, the report presented the Committees work of several years with the purpose to secure international convergence of supervisory regulations governing the capital adequacy of international banks (Bank of International Settlements, 1988, p. 1). The publication covers capital constitutes, the risk weighting system, the target standard ratio, and transitional and implementing arrangements of the regulation (Bank of International Settlements, 1988, p. 3). These have since been updated and are therefore not presented in further extent.

The two main objectives of the framework on regulatory convergence are:

- The framework should serve to strengthen the soundness and stability of the international banking system, and
- It should be in fair and have a high degree of consistency in its application to banks in different countries with a view to diminishing an existing source of competitive inequality among international banks. (Bank of International Settlements, 1988, p. 1)

Measuring and assessing the strength of a bank is done through the measurement of capital adequacy. The framework assesses capital in relation to credit risk, also known as the risk of counterparty failure. In order to assess overall capital adequacy though, other risks, like interest rate risk and the investment risk on securities need to be taken into account. (Bank of International Settlements, 1988, p. 2) This is the reasoning for capital ratios to be calculated in relation to risk weights.

2.2 Basel II

The BCBS released a comprehensive and revised version of the "International Convergence of Capital Measurement and Capital Standards" in June 2006. The purpose of the revised framework was to strengthen the already existing Basel Capital Accord of 1988. The publication states that, Basel II was the product of work done by the BCBS over many years to secure international convergence on revisions to supervisory regulations governing the capital adequacy of internationally active banks. This work included the BCBS to conduct three quantitative impact studies in order to make the consultative framework feasible. (Bank for International Settlements, 2006, p. 1)

The framework is comprehensive and the BCBS has therefor divided it into three Pillars. Each Pillar presents a key aspect in the regulation and makes the regulatory framework easier to grasp. Pillar I consists of the minimum capital requirement, Pillar II of the supervisory review process and Pillar III of disclosures and market discipline. Pillar I will be the central focus as the minimum capital requirements present the capital adequacy of a bank.

The revised Basel II framework will hold on to key elements of the Basel I capital adequacy framework, e.g. that banks should hold on capital equivalent to at least 8 % of risk-weighted assets. Additionally, the BCBS has stated that the revised framework will promote the adoption of stronger and stricter risk management practices in the banking industry. This can particularly be noted in the calculation of capital requirements for credit risk, which is one of the internal risk assessment methodologies introduced in the revised framework of Basel II. The BCBS has presented two options for the determining of capital requirements for credit risk, one being the Standardized approach and the other being the Internal Ratings-Based (IRB) approach. (Bank for International Settlements, 2006, p. 2-3)

2.2.1 Minimum Capital requirements

The minimum capital requirement ratios are calculated using the definitions of regulatory capital and risk-weighted assets. The BCBS agreed in its report on an 8 % minimum for the capital ratio. An additional outcome in the report stated Tier 2 capital to be limited to 100 % of Tier 1 capital. (Bank for International Settlements, 2006, p. 12)

2.2.2 Standardized approach vs. Internal Rating-Based approach

Credit risk calculation is a central part in the assessment of a banks' capital adequacy. The BCBS notes this fact in its Basel II regulatory framework and has therefore permitted two broad methodologies for the calculation of credit risk capital requirements. The two alternatives differ from each other in the risk-weights used for the calculation of the key ratios. The Standardized approach offers the bank to use external credit assessments done by an external institution, e.g. Standard & Poor. Where as the Internal Rating-Based (IRB) approach allows the bank to use its internal rating system for the assessment of credit risk. (Bank for International Settlements, 2006, p. 19)

In order for a bank to use the IRB approach, the bank's supervisor has to approve it (Bank for International Settlements, 2006, p. 19). The measurement itself is based on unexpected and expected losses, where the amount of unexpected losses is used in the calculations of assessing the risk-weight for capital requirements (Bank for International Settlements, 2006, p. 52).

2.3 Basel III

Basel III is the third installment in the regulatory framework designed by the BCBS to strengthen the banking sector. The continuous efforts to reduce the risks associated with the financial sector are further developed from the Basel I and II framework. Hence, the regulatory measures aim is to improve the ability to absorb shocks from the financial and economic stress. This will be accomplished through improving the risk management and governance, as well as by strengthening the banks' transparency and disclosures. (Bank for International Settlements, 2011 a, p. 1)

The regulatory framework is complex and consists of the same three pillars as Basel II with a few additional requirements and enhancements. Pillar I consists of minimum capital requirements and liquidity requirements, and will again be the focus as they demonstrate the capital strength of the bank. Through these requirements, the Basel III regulation aims to strengthen the banking sector by raising both the quality and quantity of the regulatory capital base, as well as by raising additional adequate capital buffers (Bank for International Settlements, 2011 a, p. 2-3).

The Basel III regulatory framework is translated into the CRD IV package, consisting of the Capital Requirements Regulation (CRR) and Capital Regulation Directive IV (CRD IV). The legislation prepared by the European Commission entered into force on the 1.1.2014 and has since been the standard on capital requirements. (European Commission, 2014 b)

2.3.1 Capital definitions

The capital definitions have been updated since Basel II and need to be clear in order to comprehend the capital requirements and ratios of Basel III. A key element of the new stricter definition of capital is the greater focus on common equity, the highest quality component of a bank's capital. The total regulatory capital consists of the sum of Tier 1 and Tier 2 capital. Tier 1 capital is further divided between CET1 capital and additional Tier 1 capital. (Bank for International Settlements, 2011, p. 12)

Tier 1 capital

- Common Equity Tier 1 (CET1)
  - Common shares issued by the bank that meet the criteria for classification as common shares for regulatory purposes
  - Stock surplus (share premium) resulting from the issue of instruments included Common Equity Tier 1
  - Retained earnings
  - Accumulated other comprehensive income and other disclosed reserves
  - Common shares issued by consolidated subsidiaries of the bank and held by third parties (i.e. minority interest) that meet the criteria for inclusion in CET1 capital
  - Regulatory adjustments

Retained earnings and other income include short-term profit or loss. Dividends are removed from CET1 if they meet appropriate accounting standards. (Bank for International Settlements, 2011, p. 13)

- Additional Tier 1 capital
  - Instruments issued by the bank that meet the criteria for inclusion in Additional Tier 1 capital (and are not included in CET1)
  - Stock surplus (share premium) resulting from the issue of instruments included in Additional Tier 1 capital

    - Instruments issued by consolidated subsidiaries of the bank and held by third parties that meet the criteria for inclusion in Additional Tier 1 capital and are not included in CET1
    - Regulatory adjustments applied in the calculation of Additional Tier 1 Capital

These are the minimum set of criteria's for an instrument issued by a bank, in order that it can be included in the Additional Tier 1 capital. (Bank for International Settlements, 2011, p. 15)

Tier 2 capital

The objective of Tier 2 capital is to provide loss absorption on a gone-concern basis, i.e. create efficient loss absorption capabilities for non-common equity. The Tier 2 capital includes according to the Bank of International Settlements the following capital elements:

- Instruments issued by the bank that meet the criteria for inclusion in Tier 2 capital (and are not included in Tier 1 capital)
- Stock surplus (share premium) resulting from the issue of instruments included in Tier 2 capital
- Instruments issued by consolidated subsidiaries of the bank and held by third parties that do not include in Tier 1 capital
- Certain loan loss
- Regulatory requirements included in the calculation of Tier 2 capital (Bank for International Settlements, 2011 a, p. 17)

2.3.2 Minimum capital requirements

The global banking sector entered the financial crisis with an insufficient level of high quality capital. Thus, one of the main objectives of Basel III is to increase the minimum capital requirements of banks, while still supporting lending to the economy. The framework states the following minimum capital requirements in relation to risk-weighted assets:

- Common Equity Tier 1 must be at least 4,5 % of risk-weighted assets at all time
- Tier 1 Capital must be at least 6 % of risk-weighted assets at all time
- Total Capital, i.e. Tier 1 capital plus Tier 2 Capital, must be at least 8 % of risk-weighted assets at all time (Bank of International Settlements, 2011, p. 12)

The Basel III framework presents simultaneously to the minimum capital requirements a capital conversation buffers. The capital conversation buffer aims to ensure, that banks build up excess capital during stress-free periods in order to be better prepared for periods with losses. The buffer of 2,5 % will be added to the minimum capital requirements as of 2019 when the Basel III framework is fully phased-in, i.e. minimum capital requirement percentage plus 2,5 percentage. Otherwise, the capital conversation buffer is phased out between 2016-2018 with a steady increase of 0,625 %. (Bank of International Settlements, 2011, p. 54 and 57) The Basel III timetable (Appendix 1) shows the phase-in arrangements.

The role of the capital conversation buffer is to strengthen bank supervision and governance by constraining the distribution of earnings during stressful times. The distributions of earnings in question are dividend payments, share buy-backs and staff bonus payments. The closer a bank gets to the minimum conversation buffer, i.e. draws from the capital buffer, the greater the constrains are. Thus, strengthening the resilience of the banking sector during an economic downturn. (Bank of International Settlements, 2011, p. 54-55)

The capital ratios are calculated by inserting the capital amount in the numerator and the Risk-weighted assets in the denominator. The CET1 capital ratio functions as an example below. The new dimension in regards to challenges in Basel III can be explained with this function. Basel III states a higher required minimum CET1 capital ratio, i.e. meaning that the outcome of the function is supposed to increase. The sum of CET1 in the numerator is going to decrease as a result of the stricter capital definitions. Thus leaving a lower value in the numerator. The RWA, consisting of all the various risks calculated for the bank, is going to increase. (Accenture, 2011, p. 5)

$$CET1\ in\ \%\ =\ \frac{Common\ Equity\ Tier\ 1\ capital}{RWA}$$

The outcome of a decreased numerator (CET1 capital) and a decreased denominator (RWA) will not lead to increase in the capital ratio result (CET1 %). The outcome will be the opposite, a decreased capital ratio result. This is the main challenge banks are facing in regards to the calculation of the new higher capital ratios. (Accenture, 2011, p. 5)

3 CURRENT BASEL III CAPITAL ADEQUACY IN EUROPE

The BCBS and the European Banking Authority (EBA) are in charge of the impact monitoring of Basel III. Since the regulatory framework was launched in December 2010, both parties have conducted semi-annual monitoring exercises. The BCBS monitors the overall global impact, whereas the EBA conducts the monitoring at the European level. The EBA's fifth and latest monitoring exercise was published in March 2014 with data based as of June 2013. The exercise summarizes the aggregate results of 174 EU member state banks, which are divided into two groups. Group 1 includes 43 banks and Group 2 131 banks. (European Banking Authority, 2014 a, p. 5) Table 1 illustrates the participating banks by country and group.

Table 1, participating banks by country and group (European Banking Authority, 2014 a, p. 11-12)

Country	Group 1	Group 2
Austria	3	6
Belgium	1	2
Denmark	1	3
Finland	-	14
France	5	5
Germany	8	40
Hungary	1	2
Ireland	3	1
Italy	2	11
Luxembourg	-	1
Malta	-	4
Netherlands	3	16
Norway	1	7
Poland	-	5
Portugal	3	3
Spain	2	4
Sweden	4	-
United Kingdom	6	7
TOT	**43**	**131**

A Group 1 bank is defined as internationally active with Tier 1 capital in excess of EUR 3 Billion. All other banks' belong to Group 2 (European Banking Authority, 2014 a, p. 11).

The EBA report states that it aims to provide an impact assessment on changes to the definition of capital that result from the new capital standard. Also, it presents the re-allocation of regulatory adjustments to CET1 and changes to the eligibility criteria for Tier 1 and total capital (European Banking Authority, 2014 a, p. 10). Essentially, this entails that the monitoring exercise presents the average CET1, Tier 1 and Total capital ratios for the sample banks. Thus, the monitoring exercise functions as a suitable representation of capital adequacy for European banks.

The exercise assumes full implementation of the Basel III regulatory framework, excluding transitional arrangements such as the phase-in deductions. Additionally, the exercise was conducted under the CRD III, due to the time of the exercise. The updated CRD IV had not yet been entered into force at the reporting time of June 2013. The EBA has also based the exercise under the "static balance sheet" assumption, i.e. capital elements were only included in the report if the eligibility criteria was fulfilled at the reporting date. Thus, the report does not take into consideration any planned management decisions to increase capital or decrease risk-weighted assets. The EBA additionally states, that the report cannot be compared to similar industry estimates as they often include assumptions of a bank's future actions. (European Banking Authority, 2014 a, p. 5-6)

3.1 Results of the Basel III impact on capital ratios

The Basel III framework will affect the capital ratios tremendously. This can be interpreted in table 2, which shows the overall change in CET1, Tier 1 and total capital ratios if Basel III would be fully implemented as of the exercise time. As a result, the table clearly shows a reduction in all of the capital ratios if the regulatory framework would have been implemented 30.6.2013.

Table 2, Capital ratios for all banks and the effect of Basel III (European Banking Authority, 2014 a, p. 15)

	Number of banks	CET1 Current	CET1 Basel III	Tier 1 Current	Tier 1 Basel III	TC Current	TC Basel III
Group 1	41	12,0	9,1	13,4	9,2	16,0	10,8
Group 2	126	12,4	8,8	13,0	9,3	15,8	11,1

The effect on Group 1 banks CET1 ratio is a reduction of 2,9 % from 12,0 % to 9,1 %. Simultaneously, the Tier 1 capital ratio decreases from 13,4 % to 9,2 % and the total capital from 16 % to 10,8 %. An explanation for the effects in the capital ratios, are the new capital definitions and the increases in risk-weighted assets. Thus, the main driver for Group 1 banks is the decline of 16,4 % in capital with CET1 and an increase of 9,9 % in RWA's. Naturally, a decrease in the numerator and an increase in the denominator always result in a reduction of the value. (European Banking Authority, 2014 a, p. 15)

The same can be noted for Group 2 banks, as the capital ratios decrease here as well with the implementation of the Basel III framework. The reduction of CET1 is 3,6 % from 12,4 % to 8,8 %, whereas the Tier 1 ratio decreases 3,7 % and the total capital ratio with 4,7 %. The new definitions of capital have affected the CET1 with a decline of 21,8 % and an increase of 10,4 % on RWA. (European Banking Authority, 2014 a, p. 15)

The monitoring exercise reveals also an interesting comparison between the sample banks that have met the 4,5 % minimum capital requirement and/or the 7 % target regarding the CET1 ratio. The first monitoring exercise from June 2011 functions as the base and the latest fifth exercise as the newest data. Figure 1 illustrates the change over time of the CET1 ratio and proves that 95 % of banks in Group 1 meet at least the CET1 minimum requirement ratio of 4,5 % under Basel III. Evidently, 82 % of Group 1 banks are already at or above the 7 % target. This is an important accomplishment for European Group 1 banks and a step towards the right direction of the CET1 ratio in the Basel III implementation. The same progress can be seen in Group 2 banks, as the CET1 ratio percentage difference between 2011 and 2013 has increased 14 %. 89 % of the 2013 sample Group 2 banks have obtained the 7 % target for the CET1 ratio and 95 percent the minimum requirement of 4,5 %.

The tables are constructed from data in the first and the fifth EBA Basel III monitoring exercises.

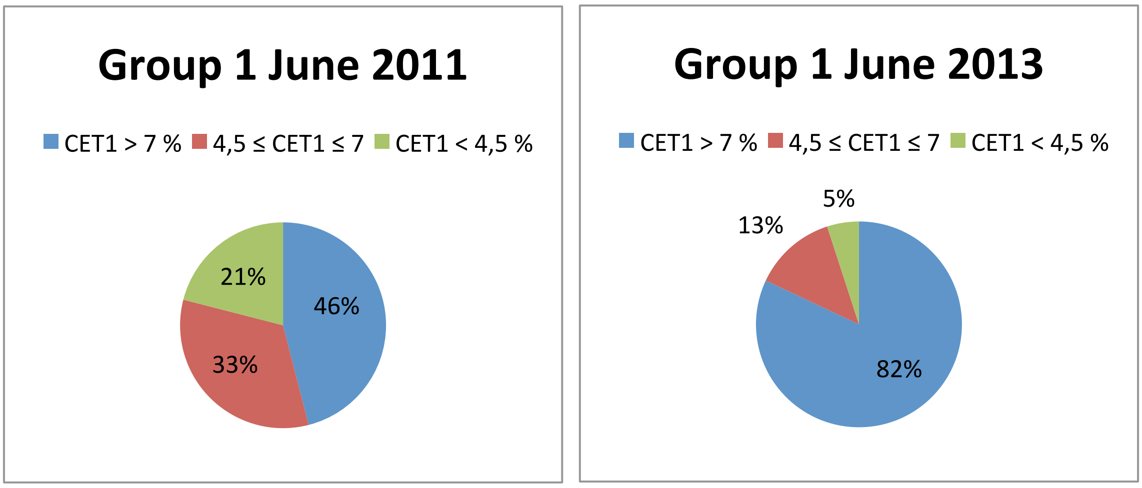

Figure 1, distribution of Basel III CET1 ratio for group 1 banks (European Banking Authority, 2014 a, p. 17)

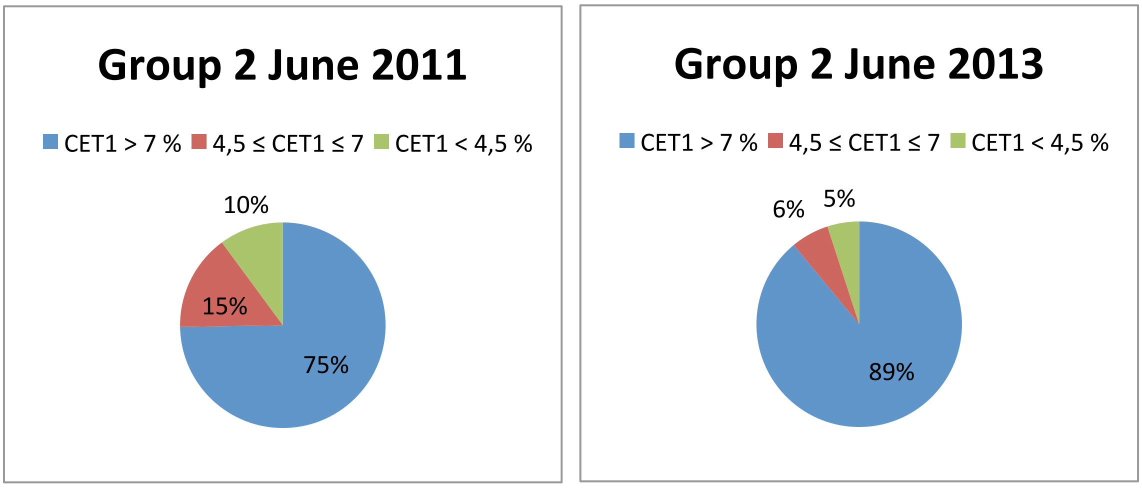

Figure 2, distribution of Basel III CET1 ratio for Group 2 banks (European Banking Authority, 2014 a, p. 17)

3.2 Analysis of the results

The implementation progress indicates that European banks take the Basel III framework seriously. The different key figures and ratios are shown on each banks Annual report and each of the quarterly Interim reports. Thus the information is easily accessible for potential investors and customers. The capital ratios and key figures are immensely important even from a regulators view, as they need to make sure that the bank has adequate healthy capital. The majority of European banks will be able to meet the standards of Basel III if the implementation proceeds in the same way until 2019.

4 CURRENT BASEL III CAPITAL ADEQUACY IN NORDIC BANKS

The banks have been selected due to the size and importance in the Nordic region. Each case banks capital base will be introduced in this chapter. The current capital adequacy of Nordic banks will be examined by observing the 2014 Q1 interim reports and 2013 Annual reports. The key ratios analyzed are the CET1 capital ratio, Tier 1 capital ratio and the Total Capital ratio calculated according to CRD IV/CRR. The return on equity percentage (ROE %) will also be included in the analysis as the difference between CET1 and ROE define how well a bank has managed the implementation of Basel III (i.e. CRD IV) in comparison to its profitability.

The CRD IV package will have an effect on the total capital requirements of banks. As a result, the total requirements will be higher than in the Basel III framework.

4.1 Handelsbanken

Handelsbanken offers services for both private and corporate customers and aims to be a universal bank for these. Being one of the biggest Nordic banks, Handelsbanken has a nationwide branch network in Sweden, the UK, Finland, Norway and the Netherlands (Handelsbanken, 2014a, p. 2). The bank considers this as its home market and aims to have a better profitability here than the average peer banks (Handelsbanken, 2014a, p. 9). This will be accomplished with a decentralized way of working, a strong local presence and a long-term approach on sustainability (Handelsbanken, 2014a, p. 9).

4.1.1 Capital base, capital Ratios and key figures

The total capital base according to Basel II decreased to SEK 100 billion from 101 billion, and at the end of the period 89 % of the capital base was common equity tier 1 capital. The capital base according to Basel III was SEK 106 billion on 31.12.2013, unfortunately the Basel III capital base was not presented for 2012 in the annual report. Under Basel III, the CET1 capital tier itself increased to SEK 93 billion compared to the reported Basel II CET1 capital of SEK 89,5 billion the same year. (Handelsbanken, 2014a, p. 9) This positive change in the CET1 capital from Basel II to Basel III indicates a transition towards the Basel III regulation for the bank, as greater focus has been put into the positive illustration of the Basel III CET1 capital.

The capital ratios are presented in Handelsbanken's Q1 2014 Interim report. The calculations are clear and state that the bank is healthy in regards to capital adequacy. Handelsbanken has managed to increase the ROE to 14 %, a 0,8 % increase in comparison to the last quarter of 2013. At the same time Handelsbanken has managed to increase every minimum capital requirement ratio and is now well over the minimum requirements stated by CRD IV. CET1 has increased in one year from 17,5 % to 19,5 %. Meanwhile though, the ROE has only increased by 0,2 %. If we look even closer at table 3, we can see that the ROE in fact decreased in 2013 by 0,6 %. This is not a good thing from an investor's point of view, as it will affect the company's net income and share price.

This minor increase in ROE over the year can be seen from two perspectives. Handelsbanken has managed to consistently raise the minimum capital requirements, but at the cost of a nearly stagnated ROE. This is bad as ROE states a part of the banks profitability. Fortunately, the argument still holds that the bank has managed to increase its capital base in relation to its RWAs over the same period, which is a positive sign for Handelsbanken.

Table 3, Handelsbanken Key Figures calculated according to the CRD IV package (Handelsbanken, 2014b, p 26 and 47)

Handelsbanken	**Q1 2014**	**Q4 2013**	**Q1 2013**
ROE %	14,0	13,2	13,8
CET1 capital ratio %	19,5	18,9	17,5
Tier 1 capital ratio %	21,1	21,0	19,8
Total capital ratio %	24,5	21,6	21,0

4.2 Nordea

Nordea is a leading bank in financial services in the Nordic region with total assets worth EUR 630,4 billion. The key markets for Nordea consist of Sweden, Norway, Denmark and Finland. Additional markets that have become more important for Nordea in the past years are the countries in the Baltic region as well as Russia. According to the Annual report of 2013 Nordea is the most diversified bank in the Nordic area and offers financial services for both private and corporate customers. (Nordea, 2014a, p. 2-6)

4.2.1 Capital base, capital ratios and key figures

Nordea's capital base according to CRD IV package is presented in the Interim Report of quarter 1 2014. The first quarter of 2014 states a tier 1 capital amount of EUR 24,8 million, a decent increase from the EUR 24,4 million last quarter of 2013 (Nordea, 2014b, p 3). The CET1 capital experienced a marginal decrease from EUR 17, 351 million to 17, 342 million during the first quarter of 2014 and last of 2013 (Nordea, 2014b, p. 54).

The minimum capital requirement ratios and ROE percentage for Nordea are presented in table 4. The ratios are calculated in the same manner as the ratios for Handelsbanken, i.e. according to CRD IV rules. Nordea ROE has increased by 0,9 % compared to the previous quarter, but only 0,3 % compared to the same time 2013. Simultaneously, the CET1 ratio has experienced an over 1 % percent growth. The correlation between the CET1 ratio and ROE is clear when looking at the table. The overall implementation in Nordea towards stronger minimum requirement ratios is good, as all of the ratios are over the current requirements. Only the Tier 1 ratio has experienced a minor decrease of 0,1 %. Otherwise, all the ratios have an upward trend.

Table 4, Nordea Key Figures calculated according to the CRD IV package (Nordea, 2014b, p. 3)

Nordea	**Q1 2014**	**Q4 2013**	**Q1 2013**
ROE %	11,4	10,5	11,1
CET1 capital ratio %	14,6	14,9	13,2
Tier 1 capital ratio %	15,6	15,7	14,0
Total capital ratio %	18,4	18,1	16,5

5 COMPARISON AND DISCUSSION

Sadly, a hundred per cent accurate comparison between the European monitoring exercise results and the Nordic case banks is impossible due to the new calculation methods implemented with the CRD IV package in 1.1.2014. Additional problems are the reports published by each Nordic bank, as the calculations include future management decisions, possible changes to the capital base and RWAs in order to make the ratios seem superior to other banks. Hence, these have to be viewed with minor skepticism. However, the overall implementation trend towards Basel III can be discussed and analyzed, as well as a comparison between the Nordic banks can be conducted.

5.1 European banks

The average minimum capital requirement ratios calculated by the EBA in the monitoring exercise (table 2) prove integration within Europe towards Basel III. The same thing can be stated of Handelsbanken and Nordea, as the Nordic case banks belong to the EU as well. Unfortunately, the conducted monitoring exercise does not state whether Handelsbanken and Nordea are included in it. This would be an interesting aspect to know, because both banks would have a tremendous impact on the minimum capital requirement ratios if included.

A long-term approach by banks can be proved regarding the evolution of the CET1 ratios calculated in the monitoring exercise, illustrated in figure 1 and 2. As seen in the pie charts, banks have successfully managed to raise the CET1 ratio over the years. This positive growth is welcomed during present economic times, as the financial sector still experiences some mistrust. The positive trend of the capital ratios leaves also room for improvements regarding the profitability of the sample banks. From an investor’s aspect, this is important. Now that some of the banks in the sample already have reached the minimum capital requirements, they can focus on ways to reach higher profits. Of course, the question still remains on which bank an investor should invest, as the exercise does not state the results of each specific bank. However, this can be found in the interim reports of each bank with a little research.

The findings of the monitoring exercise are therefor clear. The sample banks have clearly taken actions towards the higher minimum capital requirements. The impact of Basel III in the capital ratios is also stated in table 2. Here the effects of Basel III in comparison to the current rules during the exercise result in a decrease of the ratios with an average of 3-4 percentage points. The decrease of the capital ratios leads to what in the first place was one of the objectives with Basel III, i.e. strengthening the assessment of bank capital adequacy in Europe. This is the main impact of the Basel III regulatory framework. The rest of the monitoring exercise states the results of the changes the sample banks have made in order to meet the challenges presented.

5.2 Handelsbanken and Nordea

The correlation between the CET1 ratio and ROE in the case banks can be somewhat proven. With an increasing CET1 ratio the bank saves strong capital, which in turn decreases the ROE of the bank. Especially the ROE decrease for Nordea during 2013 Q1-Q4 proves this fact, as the CET1 ratio possibly drove it down. This is a theoretical assumption, as the real decrease in the ROE is not stated. The future for Nordea's part will be interesting, as the bank states a ROE ambition level of 15 % for 2015 (Nordea, 2014a, p. 8). How will this affect the future capital ratios? If they decrease, how will it affect the continuous efforts towards higher capital ratios? After all, the Basel III phase-in arrangements have not yet all been implemented as of now. Nonetheless, it can be expected that Nordea will be able to meet the requirements, as the bank already has a capital adequacy over the minimum requirements.

Handelsbanken has experienced the same characteristics as Nordea in the fall of ROE during 2013, i.e. a decrease of 0,6 % simultaneously to a CET1 increase of 1,4 %. Not as severe as Nordea, but nonetheless an interesting factor. The same theoretical assumption can therefor also be stated for Handelsbanken as for Nordea. The higher capital ratios have affected the ROE in a negative way and resulted in a decreased ROE. The first quarter in 2014 has on the other hand been a success in both the increase of ROE and higher capital ratios.

Unfortunately, Handelsbanken's and Nordea's CET1 ratios over time can not be displayed in the study, as the past ratios are not calculated according to Basel III rules and are not displayed in earlier reports. However, the current and past trend in Europe indicates the same positive capital adequacy growth for both Handelsbanken and Nordea as for the sample banks in the monitoring exercise.

5.3 Basel III criticism

The Basel III regulation and the capital ratios have also met some criticism. Especially, Patrick Slovik and Boris Cournède in their working paper regarding macroeconomic impacts of Basel III state criticism towards the capital requirements and ratios. Referring to the financial crisis during 2007-2008, the paper presents the Core Tier 1 (equivalent to CET1 under that time) capital ratios of that time. During the financial crisis banks managed to continuously increase the capital ratios of that time, only a minor fall was recorded during 2006 to 2007 (Patrick Slovik & Boris Cournède, 2011, p. 6). Simultaneously though, the financial markets experienced a hard crash. How could this happen if the capital requirements and ratios aim to strengthen the stability of the banking sector and how will the ratios save future crashes if this has already occurred ones.

The Basel III framework has approached this matter correctly, as the biggest adjustments have been done to the capital definitions and the calculation standards of RWAs. Thus, the stricter definitions will improve the possible misleading estimations regarding the capital ratios. The risk calculation of RWA will also state a more accurate figure of the risks a bank has. These two combined reforms introduced in the Basel III regulation will lead to more accurate and trustworthy assessment of a banks capital adequacy. Thus, leading to a more stabile and secure financial sector.

6 RISKS, OPPORTUNITIES AND CHALLANGES IN THE BASEL III IMPLEMENTATION

The challenges in the implementation of Basel III are several, due to the complexity of banks' internal and external processes and the framework itself. In the past a bank could adopt a "wait and see" approach to compliance, this is no longer possible due to the regulatory reforms of Basel III. This means that banks need to rethink their IT-infrastructure in order to meet the data reporting and risk-management requirements (Cognizant, 2013, p. 1). Processes reengineering will play a vital role, as the information required needs to be accurate, on time and available for the right person in the process chain. This presents a significant and complex challenge as banks' IT-infrastructure is built in layers. The required information is often not available without extensive and time-consuming data mining sessions.

The new capital definitions and RWA calculations are the main challenge banks are facing in regards to meeting the required capital ratios. The Basel III framework requires higher capital ratios, but as the numerator decreases with stricter capital definitions and the denominator increases with new RWA calculations, the outcome of the calculation decreases (Accenture, 2011, p. 5). This simple equation is illustrated below. In order to increase and meet the new capital requirements, banks need to restructure their capital in a more transparent and resilient way.

$$\downarrow Required\ capital\ ratio = \frac{Capital\ (according\ to\ new\ definition)\ \downarrow}{RWA\ (Credit, Market\ and\ Operational\ risk)\ \uparrow}$$

A simple example will be used to illustrate this core problem banks are facing. Bank XYZ has a EUR 10 million CET1 capital and the risk-weighted assets amount to EUR 100 million under Basel II. This will lead to a CET1 ratio of 10 %, which is a respectable figure for the ratio. Now, the new capital definitions in Basel III lower the CET1 capital by EUR 2 million, and the new calculation standards increase the RWA by EUR 10 million. Resulting in a EUR 8 million CET1 capital amount and a EUR 110 million RWA amount for bank XYZ. This equation will lower the CET1 ratio to 7,3 % under Basel III. A nearly 3 per cent drop. The example bank still has a sufficient CET1 ratio (if the capital conversation buffer is excluded), but what if the bank in question already had severe problems under Basel II in meeting capital requirements? Then the effects of Basel III are an immense problem.

CET1 ratio under Basel II for example Bank XYZ:

$$10\ \% = \frac{10\ million}{100\ million}$$

CET1 ratio under Basel III for example Bank XYZ:

$$7{,}27\ \% = \frac{8\ million}{110\ million}$$

Thus, the main challenges under Basel III are not the minimum capital requirements themselves, but the implemented changes for the capital ratio calculations.

6.1 Responses to the Challenges

According to the consulting group Accenture, banks have different alternatives on how to respond to the challenges the regulation imposes. Through these different approaches the management of a bank can choose which risks are worth taking and which opportunities might arise as a result. These alternatives responses to the regulatory framework are operational, tactical or strategic (Accenture, 2011, p.7). The management needs to carefully examine the present business and operations of the bank in order to make the correct decision.

Operational responses consist of examining the current processes in the bank in order to meet the minimum requirements. The advantages a bank faces with this approach, is that the bank through process improvements simultaneously increase efficiency, lower costs and enhanced data quality. Tactical responses include the analysis of pricing, funding and asset restructuring. Here a bank can relieve pressure on profitability in short-term. Unfortunately, this approach does not address long-term issues the bank may be facing. Strategic approaches consist of analyzing the current business model as well ass the bank organization as a whole. This option may be effective if a bank is experiencing decent profitability, as the focus will be on equity changes with the goal to raise capital ratios such as the CET1 ratio. (Accenture, 2011, p. 7-8)

Each approach has its own risks and opportunities. Therefore, banks need to carefully analyze their own business in order to make correct choices. There is no universal rule on which response is the best, as the banks own strengths and weaknesses need to be assessed in order to make the correct choice. Thus, each bank has its own case to solve in order to meet the Basel III regulation. One bank may suffer of a low ROE percentage and one from poor processes and data quality.

Banks will inevitably need to invest in IT-infrastructure, as compliance with the Basel III regulation becomes stricter. Some banks might already have gone through with this investment, where as some banks will try to manage with an older IT-infrastructure. This presents banks with a new opportunity, as a well-optimized IT-infrastructure will save both time and effort, and thus result in lower costs.

Some banks will tackle the compliance of the regulation by enhancing the current infrastructure environment. Other banks se the opportunity to invest and deploy a new regulatory environment. Managers need to calculate the possible risks with launching a new IT-infrastructure in regards to the new regulatory environment, as it often takes years to get them working as intended. This requires a perfect execution of the project. Nonetheless, it is an opportunity for the banks. If on the other hand the bank in question already has a working infrastructure and regulatory environment, then the bank may consider only enhancing it.

A simple conclusion for the different challenges, risks and opportunities a bank may encounter during the implementation of Basel III is presented in table 5. The challenges of the regulation are mainly the demand of higher quality and quantity of bank capital. The risks imposed by the Basel III regulation are clear, not reaching the minimum requirements will lead to mistrust towards the bank. There can be many different reasons for the failure in reaching the requirements. Some of them are presented in the table. However, the opportunities banks face with Basel III can lead to a banks future success.

A bank correctly tackling the problems and challenges of the Basel III regulation will have an advantage towards its competitors.

Table 5, Challenges, Risks and Opportunities for Banks under Basel III

Challenges: • Stricter Capital definitions • Higher capital requirements, i.e. higher capital quality and quantity • Higher RWA
Risks: • Not reaching capital requirements • Poor and inadequate accounting methods • Not transparent reports • Report creation problems due to e.g. missing numbers
Opportunities: • Capital re-allocation resulting in a stronger balance sheet • More efficient processes lead to an efficient and effective organization • IT-infrastructure improvements leading to better processes and cost savings • Better structural adjustments in the organization

6.2 Personal experience gained during Internship

During my Internship in Germany at Deutsche Bank, I witnessed some of the continuous efforts towards the compliance of Basel III. These efforts are not only valid for Deutsche Bank, but for the banking sector as a whole. At my position there was a firm priority towards more efficient and effective internal processes. Processes mapping and analysis, as well as training towards better cooperation between the different departments was prioritized. This is hugely important, as a bank's operations are complex and sometimes difficult to comprehend. Thus, my experience lead to the understanding of how vital the processes are for successful accounting and auditing results, which are one of the steps towards the compliance of Basel III.

7 CONCLUSION

The study started with introducing the Basel regulatory frameworks published by the BCBS with the focus on the Basel III framework. Basel III has and will affect the banking sector by introducing higher minimum capital requirements as well as stricter capital definitions. The capital adequacy of European banks was thereafter analyzed with the help of the Basel III monitoring exercise conducted by the EBA and the two Nordic case banks Handelsbanken and Nordea.

The findings from the monitoring exercise and the Nordic case banks are clear. The implementation of the Basel III regulatory framework is currently ongoing with the final arrangements and requirements set to be implemented as of 2019. Thus, the European banking sector has gradually adapted to the framework by making the necessary arrangements in order to fulfill the capital requirements. The case banks in the study have also taken the capital ratios seriously, as they already have higher capital ratios than the requirements state. Thus, the main objective of the study was accomplished as the findings state that the overall capital adequacy in Europe is good at the time.

The results of the comparison between the CET1 ratio and the ROE state a theoretical correlation between them. As both Handelsbanken and Nordea experienced a decrease in ROE during 2013. At the same time both banks managed to raise the CET1 ratio fairly successfully. The banks did not state the real reason for the decrease in ROE, but a theoretical assumption can be made. When the CET1 capital ratio increased, both banks had to put aside strong capital, which resulted in a decrease in the return on equity.

The main Basel III challenges for banks were also presented in the study. These are the higher minimum capital requirements, the stricter capital definitions and the new calculation standards of RWAs. An interesting finding in the study is that the higher minimum capital requirements are affected mostly by the underlying calculations for these, i.e. the stricter definitions of capital and the new RWA calculation standards. Trough these, the Basel III framework forces banks to raise both the quality and quantity of capital and thus strengthening the financial sector.

The risks and opportunities regarding the implementation of Basel III have also been presented in the study. The regulation creates new challenges for banks, but does this in a way that creates new opportunities for banks. In order to reach the minimum capital requirements banks possibly need to do structural adjustments to the organization as well as analyze the current processes of the bank. By doing this, a bank can create business advantages and be more competitive. Thus, the Basel III regulations will not only function as a stabilizing framework for the financial sector, but also as a measure for bank assessment trough the capital ratios.

7.1 Future prospects for the banking sector

The challenges the regulation imposes will also affect the future of banks. Basel III compliance already has, and also will in the future, mean higher costs for banks in form of various technology investments. Different approaches towards bank compliance, such as processes reorganization, will present banks with future opportunities that may create efficiencies.

As for the future requirements and buffers, banks will need to continue with the ongoing efforts towards a more stabile financial sector. The European Commission has also stated the significance of Basel III with the CRD IV package by making it binding to European law. Thus, the future is not going to be stress-free in regards to the banking industry. Bank managers' need to continuously improve the internal operations of the bank in order to comply with the future regulatory requirements and profits ambitions. Also, there needs to be a common understanding between banks with the aim of benefiting the economy as a whole. Basel III might just be the regulation to accomplish this.

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APPENDICES

Basel III phase-in arrangements

(All dates are as of 1 January)

	Phases	2013	2014	2015	2016	2017	2018	2019
Capital	Levrage Ratio	Parallel run 1 Jan 2013- 1 Jan 2017, disclosure starts 1 Jan 2015					Migration to Pillar I	
	Minimum Common Equity Capital Ratio	3,5 %	4,0 %	4,5 %				**4,5 %**
	Capital Conversation Buffer				0,625 %	1,25 %	1,875 %	**2,5 %**
	Minimum common equity capital ratio plus conversation buffer	3,5 %	4,0 %	4,5 %	5,125 %	5,75 %	6,375 %	**7,0 %**
	Phase-in deductions from CET1*		20 %	40 %	60 %	80 %	100 %	**100 %**
	Minimum Tier 1 capital	4,5 %	5,5 %	6,0 %				**6,0 %**
	Minimum Total Capital		8,0 %					**8,0 %**
	Minimum Total Capital plus conversation buffer		8,000 %		8,625 %	9,25 %	9,875 %	**10,5 %**
	Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital	Phased out over 10 year horizon beginning 2013						
Liquidity	Liquidity coverage ratio – minimum requirement			60 %	70 %	80 %	90 %	100 %
	Net stable funding ratio						introduced	

*Including amounts exceeding the limit for deferred tax assets (DTAs), mortgage servicing rights (MSRs) and financials.

(Bank of International Settlements, 2013 b)