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FINANCIAL RATIOS AS A TOOL TO EVALUATE NORDEA BANK ABP PERFORMANCE

Bachelor's thesis

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ABSTRACT

This thesis aims to provide an overview of the performance evaluation of banking institutions and explain how financial ratios are defined and measured for banks. The thesis uses financial ratio analysis to investigate the financial performance of Nordea’s Abp Bank as one of the biggest banks in Europe.

The thesis uses profitability, leverage and asset utilization ratios together with trend analysis to examine Nordea’s performance for the period of 2015 to 2019. Furthermore, it uses a relative valuation model in order to determine Nordea’s valuation for the same period.

Thesis conducts a comparative empirical study to show where the bank stands in relation to its competitor Danske A/S.

The results of the study show that Nordea has better financial performance in comparison with its competitor Danske A/S. The thesis proved that despite of the profitability ratios of Nordea for the year 2019 were lower than Danske A/S, profitability ratios cannot be studied isolated from other factors. Nordea showed better performance in leverage and asset utilization ratios. In addition, relative valuation results showed that Nordea is consistently higher valued with relation to key financials than its competitor Danske A/S.

Keywords: Financial Ratios Comparison, Relative Valuation Model, Trend analysis, Nordea Bank Abp, Danske Bank A/S.

INTRODUCTION

Nordea Bank Abp is headquartered in Helsinki. It is the biggest bank in Finland in terms of total assets. In 2019, Nordea Abp struggled with a money-laundering scandal that has also hit Danske Bank A/S. Nordea Abp deepened in suspicious money flows to about 700 million euros from Soviet states to the west. Danske Bank A/S is one of the main competitors of Nordea Bank Abp and is also under investigation because of suspicious transactions for $230 billion from the Estonian unit. Although both banks allocated many of their resources to the anti-money laundering work, they still allowed money in questionable funds to be transmitted through their accounts (Milne 2019). This raises the question if recent events have also influenced the financial performance of both banks. This thesis investigates the performance of banks by applying financial ratio analysis.

There are no universal correct values for assessing financial performance. Only the income statement or balance sheet cannot be used for evaluating and planning purposes. Instead, there are certain techniques to yield important insights that reveal much about the financial performance of Nordea Abp. The author uses financial and valuation ratios and compares the results with Danske bank.

Although some financial analytics documented the role of ratios in analyzing the financial health of firms, this thesis provides further and valuable insights that include the banking industry. It is a tool to evaluate a universal bank. The thesis discusses important financial formulas in detail that could be used to evaluate the financial performance for a universal bank and investigate the value of it in the bank industry.

This thesis evaluates the financial performance of Nordea Abp Bank, based on the profitability, leverage, asset utilization and valuation ratios. In addition, the author uses the trend analysis for the years of 2015-2019, in order to make assessments of Nordea’s financial health in comparison with Danske with Danske Bank A/S and explore the most significant changes in ratios during the mentioned period.

The aim of the thesis is to investigate the financial performance of Nordea Bank Abp during the years of 2015-2019 and compare it to Danske Bank A/S.

The thesis uses financial ratios as a tool to observe and monitor the financial performance of the mentioned banks. The author uses price to earnings (P/E) and price to book (P/B) ratios to compare Nordea Bank Abp with Danske A/S during the time of 2015 to 2019.

The thesis hypothesis is formulated as follows: Nordea Abp Bank has better financial performance as compared to Danske A/S Bank based on financial ratios. This thesis states the following research tasks to prove the hypothesis successfully:

1. Provide an overview of the performance evaluation of banking/financial institutions.
2. Explain how financial ratios are defined and measured for banks.
3. Conduct a comparative empirical study to show where the Nordea Abp Bank stands in relation to its competitor.

The study is done by using online sources, books, and academic articles. The thesis is based on using both the primary and secondary sources. The author uses original sources such as using the annual reports and financial statements of the compared banks. The secondary sources to be used are from industry reports, academic articles, and books. The variety of sources is important to provide a full picture and knowledge that helps the author to evaluate the financial performance of Nordea Bank Abp.

This thesis is divided into three chapters. In the first chapter, the author highlights the specific character of financial institutions in evaluating their performance. In this regard, the notion of the banking industry is clarified. It is also important to justify the methodology and why using the chosen ratios was best for performance evaluation.

In the second chapter, justify the data, where it originates and how it is analyzed. The methodology of valuation clarified as well as the chosen model and options of financial ratios in order to determine the performance of Nordea.

Moreover, in the second chapter, the author focuses on Nordea Bank and Danske Bank as two of the biggest banks in Europe. She gives a background information about both banks, then provides an overview about the recent changes in the structure of the bank.

The third chapter comprises of the ratio comparison analysis, where the author uses financial ratios to analyse and compare Nordea's financial health for a period of 5 years. In this subchapter, the trend analysis is used. In the second subchapter the author compares results with Danske followed by discussion and results as third subchapter.

1. THEORETICAL BACKGROUND

1.1. Performance evaluation of financial institutions

Financial analysis can be one of the most important tools to determine the stability and financial performance of any business. Typically, financial analysts use the available financial information of firms in order to learn and understand how to make better financial decisions. They work in detail with interpreting the financial ratios.

It is wise to start with the short overview of the financial statements in order to give a brief background on how the performance evaluation is performed in general for financial institutions. In this regard, financial statements can be defined as the formal records prepared by managers of the company to present financial activities. They are considered as written records and one can go back to them when there is a need to verify the financial performance by numbers for any reason, either internal or external reasons. For example, financial statements can be used to ensure accuracy, investing, financing or tax reasons. The financial statement consists of several statements which are: balance sheet, income statement, and cash flow statement. (Murphy 2019)

However, financial statements of banks are slightly different from the regular companies due to the nature of bank operations. Banks do not have sales as main source of income and they use more leverage and gain profit from the difference between the interest they earn on granting loans and the cost of storing deposits (Blokhin 2020). The banks have unique balance sheet structure that other business institutions do not have. The preparation of the bank's balance sheet consists of (CFI s.a. a):

1. Assets: there are different kinds of bank's assets, including property, loans to customers, trading assets and central bank's deposits.
2. Liabilities: the bank's liabilities are the central bank's loans, trading liabilities, customer's deposits and misc. debt.
3. Equity: equity of banks would include preferred and common shares.

Bank’s income statement, however, has revenue in the top and net income in the bottom which does not stray from a typical income statement. The unique classes of bank’s revenue represented of non-interest revenue, interest revenue and credit loss provisions as follows (*Ibid.):*

1. Non-interest revenue: contain ancillary revenue which the bank makes to support its services, such as broker fees, underwriting fees, trading assets sales, commission and fees expenses and other fees of customers (Overdrawn, swipe and NSF fees).
2. Interest revenue: captures the interest payments received from the loans. This line item whether would state only the gross interest revenue, or also deduct the interest expense to obtain the net interest revenue.
3. Credit loss provisions: company should prepare credit loss provisions in the event of unable borrowers to pay off the loans.

For banks, evaluating a bank's financial status can be misleading and has always been particularly challenging. This refers to the unique characteristics of financial bank statements, e.g. there are no accounts receivables to evaluate whether sales are falling or rising (Wagner 2014). Nevertheless, banks gain their profits in different ways than most businesses. They rely on the net interest margin that reveals on interest-earning assets, e.g. loans (Maverick 2019). This chapter highlights the specific character of financial institutions in evaluating their performance. In this regard, the notion of the banking industry, and the most suitable financial ratios, which are needed to evaluate the performance of the bank industry are clarified.

Financial institutions (FI) are defined as those institutions, which are engaged in businesses related directly to money and financial transactions. Their major work is to provide financial services such as deposits, loans and investments. It must be noticed that FIs can vary in their size from small into big. However, the industry of financial institutions, such as banks, have a huge role in affecting the local and international economy (Hayes 2019).

Financial Institutions provide a wide variety of investment, lending and deposits products to business, individuals or both. Some financial institutions provide accounts and services for the general public while others are most likely to serve only certain consumers to more specialized offerings. However, there are 9 main types of financial institutions, which include investment banks, savings and loan associations, internet banks, credit unions, brokerage firms, mortgage companies, retail and commercial banks, central banks and insurance companies. (Horton 2020)

The financial institutions are regulated by the act of financial institutions, which is an 'offshoot' of the Banking Act. The legislation includes organisations of different scope and size, and activities contain factoring, administering and issuing means of payments, commitments and guarantees, foreign exchange, as well as services of money transmission. The financial institution is forbidden to have from the public deposits or other reliable funds to fund its activities. Its activities can include the following (FinanceMalta 2014):

- Lending such as mortgage credits, factoring with or without recourse, personal credits and financing of commercial transactions;
- Commitments and guarantees, money broking, risk capital, financial leasing, payment services and electronic money issuing;
- Issues of underwriting share and such issues;
- Administering and issuing means of payment such as travellers' checks, bankers' drafts and credit cards;
- Trading for the account of customers or for own account in foreign exchange, financial options and futures, instruments of the exchange and interest rate, instruments of the transferable and instruments of the money market.

Financial institutions are for profit institutions, where their work is mainly aimed to gain profit. Therefore, their performance is measured by financial indicators. Mainly it is measured by the three most important metrics that contribute to improving the performance of these institutions. First, revenue, i.e. cash flow, expenses, i.e. all the costs incurred during the institution operations. Second, operating profit obtained by subtracting expenses from revenue to have all net money earned from operations after taxes and interests.

Characterization of the performance of an entity may need a correct definition of inputs and outputs, associated with its activities. The definition of what are inputs and outputs and how they could be measured in financial institutions is challenging and has faced some disagreement for a long time. For example, banks can deal with non-monetary services or as a mediator between savers and borrowers (Wirnkar, Tanko 2008, 7).

Several studies have focused on microeconomic and macroeconomic factors that affect the financial institution performance. However, in terms of the bank industry, the case is complicated. Many cases showed that banks are not that much affected by macroeconomic factors. For example, inflation does not have any significant effect on the rate of profitability of many banks around the world, such as in Turkey and Tunisia. However, studies showed banks are affected mostly by microeconomic and industry-specific factors, e.g. competition in the market (Helhel 2015, 148).

1.2. Methodology of financial ratios applied to banks

Banks are different from standard companies. Typically, companies make their money from the production of goods or services (Petersons, Nielsen 2010). However, banks are unique. They make money from the interest that they receive from loans and from the provision of financial services. Banks provide services such as checking accounts, savings accounts, credit cards, interest of checking deposits, ATMs, check debit cards, automatic payment and deposit, online banking, money transfers, traveller's checks, overdraft protection and safe deposit boxes (Oklahoma state department of education 2016).

For many reasons, whether internal or external, banks at a certain point need to look closely at their financial structure of the company in order to assess its performance and compare it with competitors. This can be done by financial ratios. Financial ratios show the historical data of the relationships between financial statement units in order to identify the strengths and weaknesses of the institution. In this regard, financial ratios also estimate banks possible financial performance in the future. Thus, financial ratios display essential information related to debts, performance and future development possibilities. (Basu 2019)

For banks, ratios are divided into categories to evaluate the performance. Financial ratios can be classified as ratios for profitability, ratios for efficiency, ratios for financial strength, and other specific ratios. (CFI s.a. b)

According to Maverick (2019), the analysts of banks use financial ratios to evaluate the bank industry, such as net interest margin, return on assets (ROA) ratio, loan to assets ratio. It has always been challenging to analyse banks since banks operate and generate profit in a fundamentally different way from most other businesses.

Financial ratios are a relative magnitude of numerical values taken from an enterprise's financial statements to evaluate the overall financial condition to perform quantitative analysis and measure profitability, leverage, liquidity, efficiency, and valuation. Many of the financial ratios can be presented in percentages by multiplying decimals by 100%.

The ratio analysis techniques are also trend analysis and industry comparison. Industry comparison used to compare different companies within an industry and evaluate the comparative performance. (Tarawneh 2006)

Profitability ratios examine the ability of the financial institution management to generate profits. increase in total revenue on the total costs during a certain period. The common ratios applied to financial institutions are Return on assets (ROA), Return on equity (ROE) and Net Interest Margin (Carlson 2019; CFI s.a. b).

While leverage ratios are used to determine a capital structure, obligations and the company's ability to clear these obligations. Company's financial aptitude is measured by the creditors, board of directors, investors and others by using leverage ratios. At a certain point in time, every business needs finance from financial institutions and investors to expand but in order to generate earnings, these debts and loans must be controlled. Return on investment (ROI) should be greater than the interest rate which paid on loans and debt. ROI > Interest means that the wealth of shareholder is increased, while ROI < Interest means that the wealth of shareholder is depleted. (Borad 2019)

The current ratio is the most common liquidity ratio and is the current assets to current liabilities ratio. This ratio examines the ability of the company to pay short-term bills. Greater than one ratio is usually a minimum as anything lower than one means that the company's liabilities are more than its assets. Higher ratio means that the safety cushion is high, that increases flexibility as some of the receivable balances and inventory items cannot easily be convertible to cash. (Basu 2019)

The efficiency ratios are also called asset utilization ratios. They show how much the financial institution is able to generate profits from its assets. High number of ratios shows between performance for a firm. However, it is wise to compare results of ratios with competitors in the market, as some industries have higher ratio numbers than others. This is due to the fact that some industries have very huge assets that take longer to be turned into profits. *(Ibid.*)

For listed banks, it is also possible to evaluate the performance of a bank by using valuation ratios. It is a way to value banks by comparing them with other banks. The best examples of using a relative valuation approach to determine the value of property occur in the real estate field (Jacobson 2018). This method considers the effect of property value features, meaning the value property procedure that compares a similar property, which has similar utility. The relative valuation shall be made based on the conditions of the financing terms, sales, market conditions, physical characteristics and location. (Office of the Federal Register 2018)

The ratio comparison approach is based on replacement value or book values, it assumes that a new investment approximately should sell the same price ratio to as an existing investment of salient economic variable with an observable ratio. However, it is possible to use in this approach alternative numbers for earnings as the denominator for this ratio comparison such as book value, sales revenue, subscribers, advertising lines, monthly rents or cash flow. (Jacobson 2018)

For banks, however, P/E ratios are widely used by analysts and investors to find the relative value of a bank’s shares by comparing it across a bank's peers. It can also be used to gauge performance over years or in comparing the aggregate markets with each other or over time. Price-to-earnings (P/E) ratio is useful for valuing companies that determine its current share price as compared to its per-share earnings. P/E ratio, also known as the earnings multiple or the price multiple (Hayes 2019).

A bank´s price to book (P/B) ratio is calculated by dividing its stock price by the bank’s book value per share (BVPS). Low P/B ratios could mean undervalued stocks. P/B ratio could be useful for conducting a thorough stock value analysis (Staff 2019).

Here is a list of the financial ratio’s main categories that can be used for the analysis of banks with brief description (Table 1).

Table 1. Categories of financial ratios applied to banks

Ratios	Description	Ratios
Profitability	Evaluate a bank's ability to generate profits.	1) Return on assets (ROA) 2) Return on equity (ROE) 3) Net Interest Margin (NIM)
Leverage	Evaluates a bank's ability to pay off its long-term debt and the interest of the debt.	1) Total Debt Percentage of Total Assets 2) Total Debt Percentage of Total Capital 3) Total Debt Percentage of Total Equity 4) Capital Adequacy 5) CET1 Ratio
Liquidity	Evaluates the banks' ability to pay the short-term debt.	1) Liquidity Coverage Ratio 2) Loans to Total Assets Ratio 3) Loans to Deposits Ratio 4) Shareholders' Equity to Total Assets
Efficiency	Evaluates a bank's ability to use its assets to generate revenue.	Cost of Income Ratio = Expense / Revenue
Valuation	Provides a comparative assessment of valuation compared to the peer group	1) Price-to-earnings (PE) ratio 2) Price-to-book (P/B) ratio 3) EV to EBITDA

Source: Made by the author, based on Carlson (2019); CFI (s.a. c)

Defining the number of financial ratios applied to financial analysis seeks to reach for the correct decision on financial performance (see figure 1). It requires us to calculate a number of different ratios and compare them to certain standards. Using ratios effectively enables financial analysts to interpret the data contained in the financial statements and the results of financial performance to be used for having a competitive strategy. It is one of the planning and control tools for any bank. Ratios shall enhance the detection of strengths and weaknesses and achieve performance efficiency.

The following figure (see Figure 1) shows the advantages of ratio analysis for banking industry

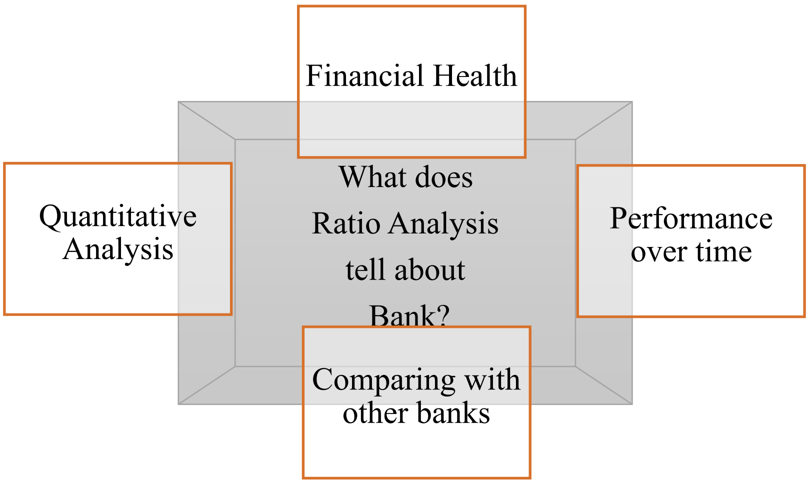

Figure 1. Advantages of ratio analysis: Banks Industry
Source: Made by the author, based on Henry *et al.* (2012)

Ratios are scrutinized because any weakness in one area may cause a significant sell-off of the stock. Insolvency is considered to apply to a bank, when it cannot pay its obligations when they come due. The bank's failure and insolvency occur when the bank's capital is limited and when a bank cannot meet its financial obligations to depositors and creditors. This could arise from a wide number of causes (Rees 1995, 293). Table 2 presents a list of the causes of the bank's insolvency:

Table 2. Causes of a bank's insolvency

Failure of the value of the bank's assets
The bank owing more than it owed
Run out of cash
The bank cannot pay its debts when it is due
Run out of central bank reserves
Run out of electronic equivalent
Cash flow crisis
Failure of new competition
Loss of an important customer
Excessive debts
Important employees' poor retention

Source: Made by the author; HJS Recovery (2019)

2. METHODS AND DATA

2.1. Methodology and models

The processes of globalization, technological progress, liberalization and financial markets deregulation have significantly changed the operating environment of banks. These changes established the necessary prerequisites for management and performance evaluation on the market and enhanced market competition. The profit-earning pressure for banks, the credit markets crisis, increasing requirements, acquisitions and mergers leads to change the view of the further banking development as a whole. Performance management became a priority direction and the urgent issue of modern banking development (Buriak 2014).

Among the huge set of measures used by practitioners and academics alike to evaluate a bank's performance, a distinction could be made between market-based, economic and traditional measures of performance. Market-based measures characterise the capital markets way of valuing the company's activity, compared with its economic value or estimated accounting. The most used metrics include total share return, price-earnings ratio, price-to-book value and credit default swap. While economic measures consider the aim at assessing and development of shareholder value creation of any given fiscal year, the results generated from its economic assets. Economic measures mainly focus on efficiency with high levels of data requirements. An additional measure similar applied in other industries is traditional performance. From an assessment perspective, the most widely used are return on equity, cost-to-income or return on assets ratio. (ECB 2010)

This chapter provides information related to methods used to reach for the evaluation of performance of Nordea Bank. The chapter aims to describe the structure of the thesis and justify the models and sections. The purpose is to gain better understanding on the process of the thesis. It answers the question of why the thesis used the specific financial ratios and methods of analysis.

As the thesis focuses on the financial performance of Nordea Bank, author uses financial ratio analysis to investigate the profitability, leverage and asset utilization together with the valuation ratios, because these ratios are found to be most appropriate for bank evaluation (Petersons, Nielsen 2010).

Following discussion presents the ratios with respective formulas which are applied to evaluate the performance of Nordea Bank.

First of all, profitability ratios, which are one of the most important factors to evaluate the performance of Nordea Bank and compare it to Danske Bank. It is a method to evaluate the ability to generate profits and how well Nordea gains profits. In this regard, author used the following ratios to achieve the profitably: (Maverick 2019)

Net Margin (NM) Indicates the availability of company's convert revenue into profits for shareholders.

$$Net\ Margin\ = \frac{(Total\ Revenue - Total\ Expense)}{Total\ Revenue} \tag{1}$$

Net Interest Margin (NIM) is a measure of the difference between the interest income generated by banks and the amount of interest paid to their lenders (e.g. depositors), relative to the amount of their total assets. Since the interest earned is a primary source of revenue for a bank, this metric is a good indicator of a bank's overall profitability.

$$Net\ Interest\ Margin = \frac{Interest\ Income - Interest\ Expense}{Total\ Asset} \tag{2}$$

Return on assets (ROA) is also another good method to evaluate the financial profit of banks relative to its total assets

$$Return\ on\ Assets\ = \frac{Net\ Income}{Total\ Assets} \tag{3}$$

Return on equity (ROE) is especially important to bank shareholders and when a result of a bank is intended to be compared with another bank, as it helps in eliminating the size differences. Thus, it is an effective measure to analyze how each bank is performing based on the equity capital available to it.

$$Return\ on\ Equity\ = \frac{Net\ Income}{Equity} \tag{4}$$

Leverage ratios are also very important while evaluating the bank performance. The ratios evaluate how leveraged a bank is in relation to its consolidated assets and if a bank needs additional capital in the event of a financial crisis (Moneycontrol 2019). Tier 1 capital is the core capital of a bank and includes equity capital and disclosed reserves (CFI s.a. b).

$$Leverage\ ratio\ = \frac{Tier\ 1\ Capital}{Total\ Consolidated\ Assets} \tag{5}$$

In addition, in this thesis it is important to measure CET1 Ratio, which is similar to leverage ratios, but it is more comprehensive, as it also takes the possible risks into consideration. It is expected that all banks should meet the minimum required CET1 ratio of 4.50% by 2019.

$$CET1\ = \frac{Common\ Equity\ Tier\ 1\ Capital}{Risk\ Weighted\ Assets} \tag{6}$$

The author also uses two efficiency ratios. The asset utilization ratio shows the ability of the bank to generate revenues from its assets. Another ratio evaluates the bank efficiency by comparing non-interest expense (e.g. fixed operating costs) to revenues. These ratios are very informative as they allow to evaluate the performance of a bank from different angels. In this regard, the author uses two ratios as follows: (CFI s.a. d)

$$Asset\ Utilization\ = \frac{Revenue}{Average\ Total\ Assets} \tag{7}$$

Ratio assesses the efficiency of a bank's operation by dividing non-interest expenses by revenue, which is very suitable to evaluate the bank performance.

$$Efficiency\ ratio = \frac{Noninterest\ Expense}{Revenue} \tag{8}$$

Furthermore, the author uses relative valuation ratios to compare Nordea Bank Abp to a competitive firm based on an analysis of market prices and bank financials. Valuation ratios are important to estimate the relative valuation of banks by stock markets. In this regard, the author uses price to earnings (P/E) and price to book (P/B) ratios. These ratios are much better fit for financial service firms than value multiples such as value to EBITDA (Petersons, Nielsen 2010).

Price to book ratio indicates the price that has to be paid compared to the shareholder equity.

$$P/B\ Ratio = \frac{Market\ Price\ per\ Share}{Book\ Value\ per\ Share} \tag{9}$$

Price to earnings ratio indicates the valuation of the bank share by markets in relation to current profits.

$$P/E\ Ratio = \frac{Market\ value\ per\ Share}{Earnings\ per\ share} \tag{10}$$

High value of price to earnings ratio may indicate good growth prospects of the bank or possible price bubble. Application of value ratios assumes a proper peer group for comparison.

2.2. Data gathering and analysis

Information for the empirical study is collected from the information, which is available for public use. Thesis uses two approaches toward financial analysis in order to compare the results of ratios used in this thesis. First, the thesis uses a cross-sectional analysis approach in order to compare results with Danske Bank A/S. This model is important, because it allows for comparison between a particular company to its industry peer over a focused time period (Chen 2019). Furthermore, it is an important model that would help the author to find out the result of the hypothesis.

Furthermore, the author uses trend analysis to gain an overview of the most significant changes in the financial performance of Nordea Bank for a 5 years period. It is important to follow the financial performance of Nordea for a long enough period, in order to have a more comprehensive view of its performance and to be able to recognize any patterns in it.

Trend analysis gains a greater insight into Nordea's performance over time based on the results of ratios in each year. A common approach of trend analysis for several years is to use the oldest year as the base year.

This thesis investigates Nordea’s financial statement between 2015 and 2019. The analysis includes its competitor bank: Danske A/S Bank. Income statement data for Nordea Abp Bank and Danske A/S Bank can be found in appendix 1 and 2, respectively.

2.3. Nordea Bank Abp

Nordea Abp Bank branch is one of the strongest banks in Europe. It is a universal bank leading commercial and investment bank located in Finland (Nordea s.a. a). Since 1998, Nordea Bank Finland Abp (NBF) has been with the Nordea Group that was formed by merger between Nordbanken and Merita. NBF conducts banking operations in Finland, the banking operations as part of Nordea Group. (Nordea Bank AB s.a.)

Nordea signed the principles for responsible banking in 2019 to hold the bank’s commitment toward principles of a sustainable economy and become a truly main focus of banking Nordic union. Nordea is one of other 30 founding principal responsible banks, developed by the United nation environment program finance initiative assigned in New York at the climate week (Nordea s.a. b)

The bank introduced its services in twenty countries, sixteen countries are out of the Nordics and these four countries – Finland, Sweden, Norway and Denmark-. Based on market capitalisation the bank is one of the best ten financial services institutions in the European countries. Nordea bank also holds an AA rating that just a few banks in Europe hold. (Nordea s.a. c)

In 2019, the total assets were EUR 554.8 billion and the bank's total operating income was EUR 8.6 billion *(Ibid.)*. On 20 June 2019, the bank was ranked as one of the most sustainable banks in the world. Furthermore, on 28 November of 2019, the bank classed as the best corporate bank between the Nordics countries’ banks (see figure 2). (Nordea Bank Abp Annual report 2015 to 2019)

Figure below (see Figure 2) shows that Nordea’s Equity is strong and has a resistant growth.

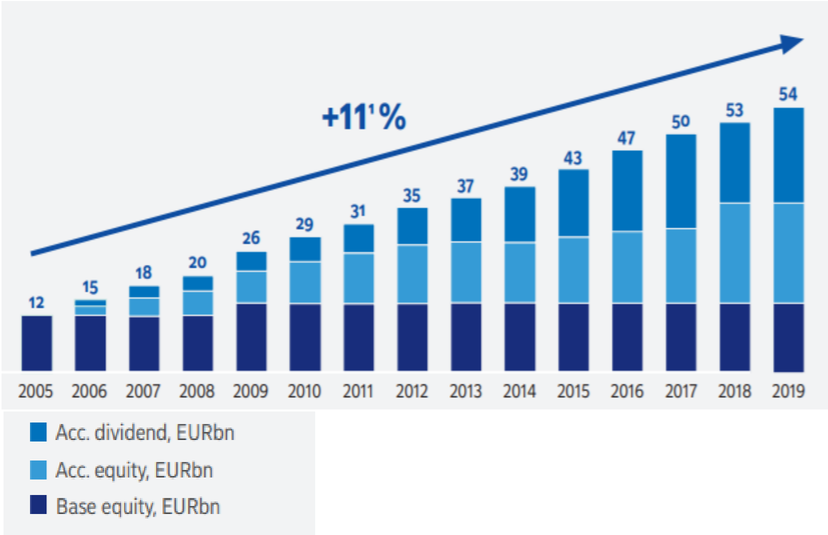

Figure 2. Nordea's equity
Source: Nordea Bank Abp Annual report 2015 to 2019

The bank shifted its main centres from Stockholm to Helsinki In October 2018. The reason behind this movement is that Nordea moved into the Single Supervisory Mechanism and the Banking Union (Norrestad 2019). During the financial year of 2018 Nordea continued its improving process following the renewed ISO9001 certificate which needs to be renewed for a period of three years. ISO 9001 management tool deals with quality management system (QMS), its sets must fulfil standards that help organizations to ensure they meet their requirements. Thus, Nordea builds a strong relationship with customers and society (Luukkanen 2018).

In leaked documents cited by the Finnish broadcaster Yle, Yle reported that between 2005 and 2017, Nordea handled about €700m in suspicious transactions. Yle said that the money is registered in tax havens, originated from companies such as the Virgin Islands, Belize or Panama. The leak was revealed because Nordea faced allegations with money laundering scandals in Estonia. (Kauranen, Ahlander 2019)

Business activities change widely in business, which offers many options for assets or money to enter the company through seemingly legal in business transactions, as it enables assets or money to remain in a normal business flow after money laundering has been done. On the other hand, the familiar opposite scenario, that transferring money from regular flows to different paths, with terrorism financing, get interested. (Cindori, Slovic 2017)

2.4. Danske Bank A/S

Danske Bank is considered as one of the strongest competitors to Nordea. In 2019 it delivered a net profit of DKK 15.1 billion, return on equity of 9.5% and growth of 3%. Danske started to simplify their product range, accelerating their digitization efforts in the most important areas to their customers, improved cost discipline, and defined clear quantitative objectives for their sustainability strategy and societal impact. These were just a few steps of the transformation journey Danske will take to become a better bank over next year with a strong market position. (Danske Bank A/S 2020)

Danske Bank acquired in financial companies' space after the deregulation of globalization in the 90s. Danske Bank devises more rewarding strategies but relatively risky. This means not only entering new markets but also expanding into new business segments such as pension, leasing, mortgage finance, asset management and insurance. The reason why having this strategy was the desire to decrease the net interest margin (NIM) to ensure the stability of receiving more interest than it pays and making Danske Bank the largest bank in Scandinavia. (Kouassi-Zessia, Zikoh Jean Luc 2009)

The world today is more exposed to media and news than ever. Information can be gathered instantly about the latest news from around the world using many different sources of news. Danske Bank investigated in a money laundering scandal more than 200 million euros in five countries, the suspicious payments flowed in its Estonian branch from Russia. (Kauranen, Ahlander 2019)

In 2018, the largest money-laundering scandal arose in Europe for Danske Bank, the scandal happened in its Estonian branch, viewed in terms of monetary. Money- laundering concerns also the financial market, where shareholders and investors connect the new events which they have been instantly informed to their personal interest. When information about the company is released, this will cause the stock market fluctuations. The information arrived from an anonymous whistleblower at the department of Danish justice showed that the money-laundering had been gained for Russian accounts and believed that Danske Bank accepted more than 7 billion DKK within over 1700 transactions. (Berglund 2019)

The Danske Bank scandal was one of the most topics that was discussed in 2018. The issues related to the scandal appeared in Sweden alone 50 times in television and radio, 1528 times on online news sources, and 400 times in newspapers (Berglund, Ekelund 2019). The realisation is that even the safest Banks in Europe have been caught up in a money-laundering scandal which can affect their financial performance. Money laundering can be performed in different ways, involving regular business operations. The effect of a money-laundering scandal on banks varies, causing the change in their financial performance and effects on the bank's reputation.

3. RATIO COMPARISON ANALYSIS

3.1. Financial performance ratios of Nordea Abp

In this chapter, the author analyses the financial and valuation ratios of Nordea for the period of 5 years. Trend analysis for financial ratios is also conducted as a method to show the ups and downs of Nordea throughout the investigated years. Financial ratios are used to show profitably, leverage, asset utilization, and valuation ratios. Author uses ratios that are shown to be the best methods for finding out financial performance of banks.

Second, the author compares the results of financial ratios of Nordea with Danske as to evaluate the financial performance of Nordea. Comparing Nordea with its most competitive bank in the market shall give a clearer picture to the value of Nordea and its financial performance as overall.

First of all, the table below (see table 3) shows the profitability of Nordea by using the net margin, return to assets, return to equity and net interest margin for the period of 2015 to 2019. Formulas of each ratio are described in detail in the second chapter. This table shows in detail about the financial performance of Nordea concerning its profit. Author made the chart below to show better view for the ups and downs of Nordea's profits throughout the investigated years.

Table 3. Profitability ratios of Nordea Bank Abp

Ratios	2019	2018	2017	2016	2015
Net margin (NM)	18.5%	35.9%	32.6%	38.9%	37.2%
Return on Assets (ROA)	0.3%	0.5%	0.5%	0.6%	0.6%
Return on Equity (ROE)	4.8%	9.5%	9.4%	11.9%	12.0%
Net Interest Margin (NIM)	1.19 %	1.28%	1.47%	1.30%	1.24%

Source: Thomson Reuters Eikon; Nordea Bank Abp Annual report 2015 to 2019

From the charts given in figure 3 and 4 (See figure 3 and 4), one can realise that Nordea was stable for the period between 2015 to 2018, as lines of chart are almost at the same level. However, in 2019 changes in the profitability of Nordea is clear. Shows that there is a decline of profitability performance of Nordea in 2019.

In 2016, Nordea reached its highest peak in regard to net margin profit. This shows that Nordea was able to keep a large proportion of its revenue as profit after the deduction of expenses before it declined little by little to fall down in 2019 with 17.4% loss and difference in profit from the previous year. The reason for the change includes: the change in the competitive environment, change in the levels of foreign exchange rate and interest, the macroeconomic development, and change in the government actions such as regulatory changes (Nordea Bank Abp Annual report 2015 to 2019).

However, return on equity is very widely used as one of the best ratios to know how well the company generates earnings from their investments. The profitability gained by returns on equity, shows the highest point was in 2015 with 12.0% and it decreased year by year to reach its lowest for the past 5 years in 2019 with 4.8%. In general, the ROE in 2015 is considered as good, but with 4.8% for the ROE can be considered as between satisfaction to weak. (Meriläinen 2015)

The following Figure (see figure 3 and 4) shows the profitability of Nordea Abp Bank from for the year 2015 to 2019.

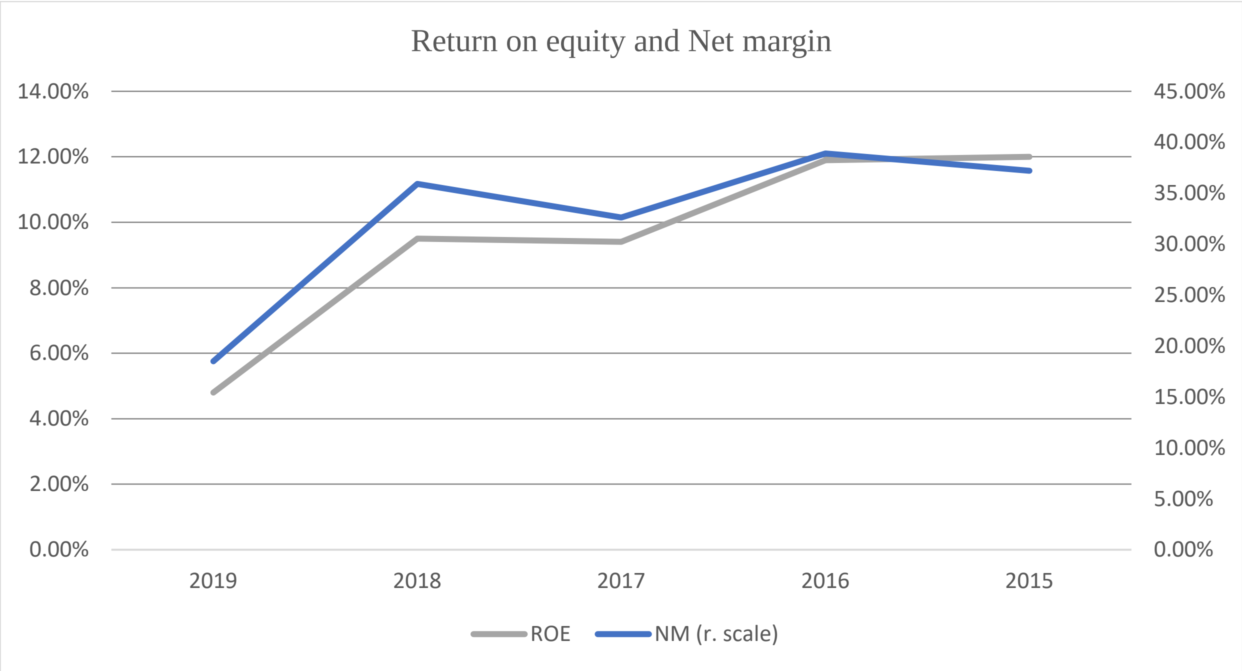

Figure 3. Chart of profitability ratios for Nordea Bank Abp

Source: Chart made by the author

Regarding the profitability gained by return on assets, Nordea showed stability from 2015 until 2018, before it was improved in 2019 with 0.2% difference. This ratio is displayed as a percentage and it measures Nordea’s ability to generate profits from total assets. It can be affected by events such as stock buyback or issuance, and by goodwill, a company's tax rate and its interest payment (Gurufocus 2020 a). However, it may not reflect the true earning power of the assets because the true earning power depends on how the company used its assets, such as the utility which might be private. For example, a significant acquisition’ value in relation to the value of the market is considered as a technical accounting solution. Hence, even if assets set figures of this losses, this does not solve losses. The land, however, has to be disposed off at market value in order to solve this problem (Satyanarayana 1985).

The net interest margin shows how much Nordea was able to earn from its interest on loan provided compared to what Nordea is paying actually for its deposits. Nordea achieved its highest rate in 2016 and lowest in 2019. Many reasons can affect the net interest margin of Nordea. One can be, because local central bank and European central bank (ECB) reduced interest rate to stimulate economic growth, which resulted in decreasing Nordea’s net interest margin. Another reason is that the demand for savings increases relative to the demand for loans. When loanable funds curve shifts to the right, this decreases the interest rates.

The following Figure (see figure 4) shows the net interest margin and return on assets of Nordea Abp Bank from for the year 2015 to 2019.

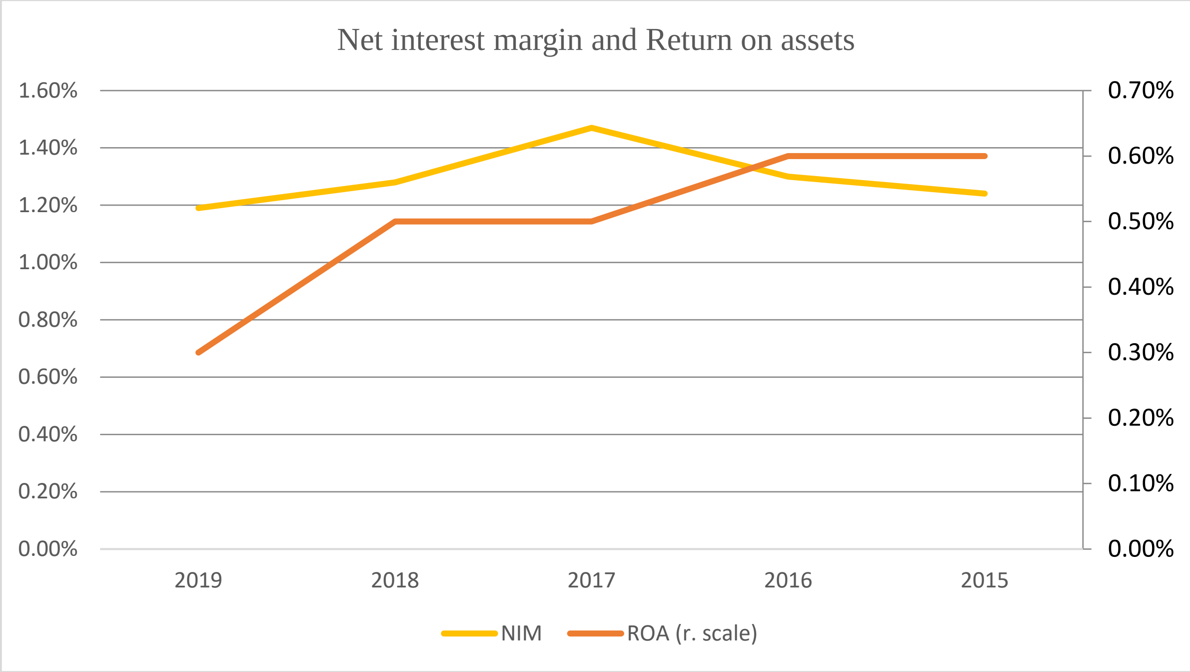

Figure 4. Chart of profitability ratios for Nordea Bank Abp

Source: Chart made by the author

Second, the author uses Leverage and CET1 ratios in the table below (see table 4) in order to indicate the financial position of Nordea in terms of its debt and its capital or assets. Formulas of these ratios are mentioned in the second chapter. This table shows in detail the financial performance of Nordea concerning its leverage. Author made the chart below to show a better view for the ups and downs of Nordea's leverage throughout the investigated years.

Table 4. Leverage and CET1 ratios of Nordea Bank Abp

Ratios	2019	2018	2017	2016	2015
Leverage	5.3%	5.1%	5.2%	5.0%	4.6%
CET1	16.3%	15.5%	19.5%	18.4%	16.5%

Source: Thomson Reuters Eikon; Nordea Bank Abp Annual report 2015 to 2019

The chart in figure 5 shows stability somehow with the leverage ratio. Leverage ratio is improving year by year to Nordea. However, CET1 is somehow upside down. CET1 reached its peak in 2017 but reduced again in 2018 and then was improved in 2019. As it is more than 4.5% CET 1 of Nordea is able to protect the economy from financial crisis and thus achieves its role (Grant 2020).

The following figure (see figure 5) shows the leverage and CET1 ratios for Nordea Bank Abp for the year 2015 to 2019.

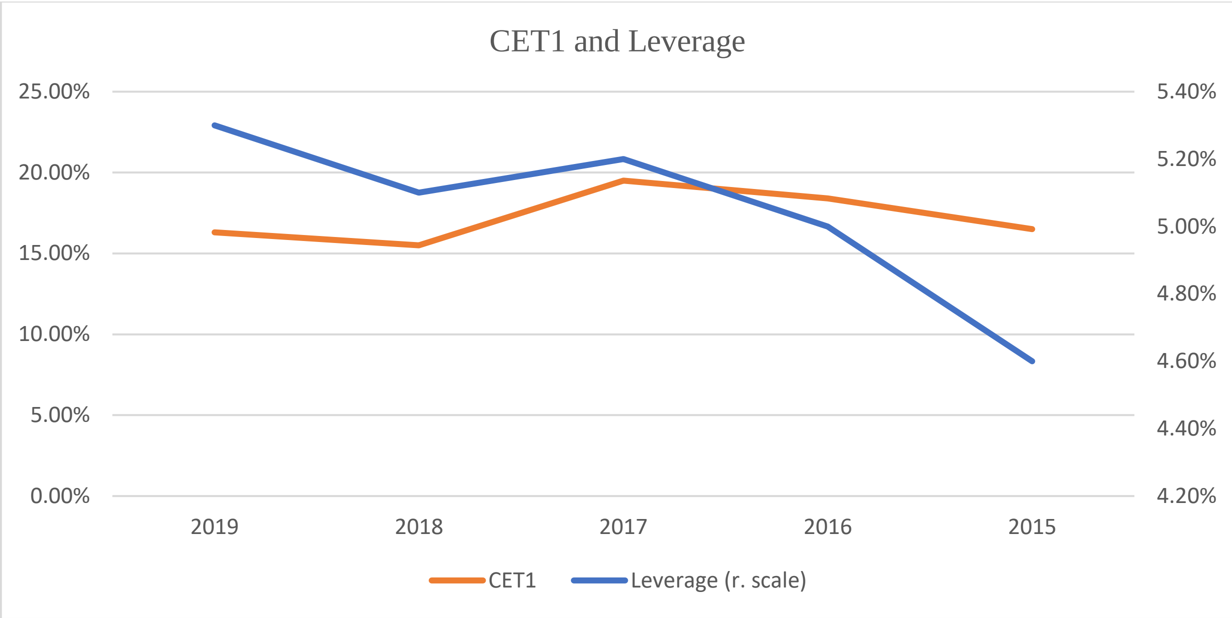

Figure 5. Leverage and CET1 ratios of Nordea Bank Abp
Source: Chart made by the author

Third, the author uses the table below to analyze the asset utilization of Nordea. Analyzing asset utilization is important to show the efficiency and ability of Nordea to turn its assets or services into profits. Here the author used three ratios, which are asset utilization, efficiency and operating leverage (see table 5). Formulas of these ratios are explained in detail in chapter two.

Table 5. Efficiency ratios of Nordea Bank Abp

Ratios	2019	2018	2017	2016	2015
Asset utilization ratio	1.4%	1.5%	1.6%	1.6%	1.7%
Efficiency ratio	68.3%	51.9%	53.7%	47.2%	47.4%

Source: Author's calculations; Thomson Reuters Eikon

According to the chart in figure 6 (see figure 6), 2019 showed highly improving efficiency. However, the chart shows that asset utilization of Nordea is stable. It is well known that a higher number for ratio of assets utilization means that the company is better able to turn its assets to profit efficiency. However, it also depends between one industry to another. Here Nordea shows a small number for asset utilization throughout the years. This is normal because banks have large asset bases, it is expected that they would slowly turn over their assets to profits.

The following Figure (see Figure 6) shows the asset utilization and efficiency for Nordea Bank.

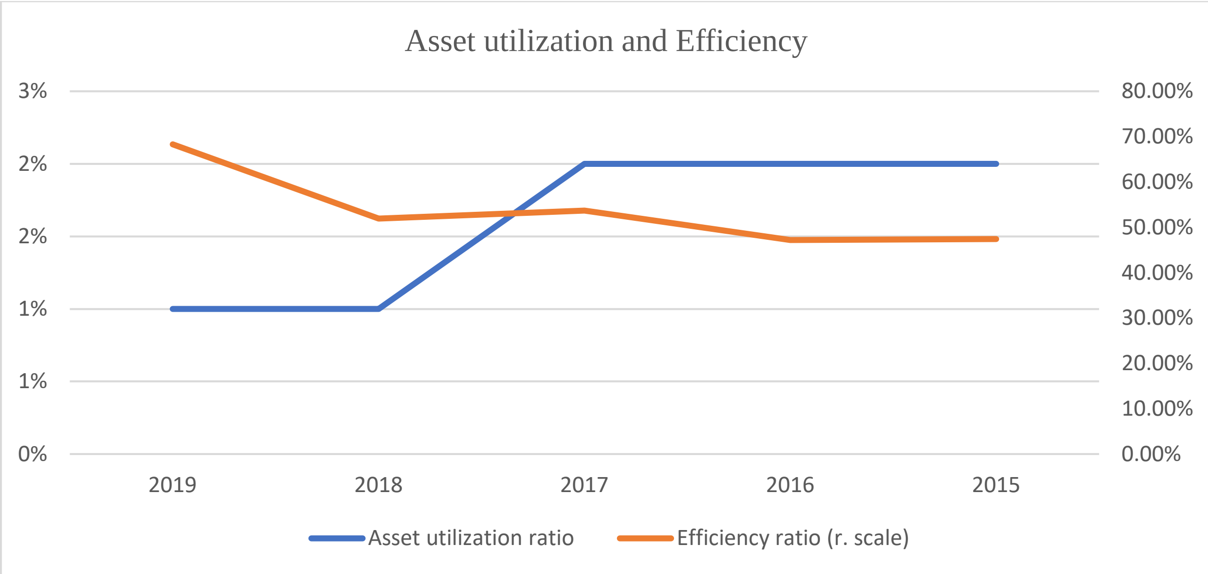

Figure 6. Asset utilization and efficiency ratios of Nordea Bank Abp
Source: Chart made by the author

For further review, the author chooses to apply the trend analysis. This method gives a better view for the changes in development since the base year of investigation, which is 2015. If the result is less than 100% this means there is a decline in the level of performance. However, if the result is 100% or more, this shows that financial performance of Nordea is either stable or getting better year by year. The trend analysis formula is described in detail in the second chapter.

The table of author calculations for trend analysis (see table 6) shows interesting changes in the financial performance of Nordea. In 2016, Nordea improved its performance in most of its operations and management. In 2017 and 2018, trend analysis shows that performance was lower in some areas but is still in the stable range. However, 2019 shows a serious decline in profitability for about 50% difference.

Table 6. Trend analysis of overall performance of Nordea Abp Bank

Ratios	2019	2018	2017	2016	2015
Net margin	50%	97%	88%	105%	100%
Return on Assets	83%	83%	83%	100%	100%
Return on Equity	40%	79%	78%	99%	100%
Net interest Margin	96%	103%	119%	105%	100%
Leverage	115%	111%	113%	109%	100%
CET1	99%	94%	118%	112%	100%
Asset utilization	50%	50%	100%	100%	100%
Efficiency ratio	144%	109%	113%	100%	100%

Source: Author's calculations

After the author investigated the financial ratios of Nordea, it is time to turn for the relative valuation model in order to determine Nordea's stock price. This model shows how much Nordea is worth in the Market during the instigated years. The author uses price to book and price to earnings as shown to be best for banks. The formulas for valuation ratios, P/E and P/B, are described clearly in the second chapter.

The table shows the P/E to Nordea from 2015 to 2019 (see table 7). It describes the relationship between Nordea's stock price and its earnings. It shows how much the market is willing to pay for Nordea's earnings. As the number of ratios is getting up, it shows that Nordea is getting more favour with investors to reach its peak in 2019. An interesting point is that the P/E was declined in 2018 with 4.15 difference, but Nordea was able to rise back in 2019 with big development.

Concerning price to book, it shows the price that has to be paid compared to the shareholder equity. In other words, it shows an estimation of the value of Nordea if it were to be liquidated. The table shows that P/B ratios in the years 2018 and 2019 are less than 1, which means the inner value is bigger than the share market price and thus the stock is probably undervalued. However, in years 2015, 2016 and 2017, a number of P/B were more than 1, which means that the inner value of Nordea was less than market share price and the stock is overvalued. It must be noticed however that P/B ratios are not directly linked to Nordea's ability to generate profits or cash for shareholders.

Table 7. Valuation ratios of Nordea Bank Abp

Valuation ratios	2019	2018	2017	2016	2015
P/E	18.94	9.54	13.69	11.48	11.04
P/B	0.94	0.86	1.23	1.33	1.28

Source: Gurufocus (2020 a.)

For valuation ratios, however, it is not enough to compare the result of ratios to Nordea alone. The results also have to be compared with the competitor bank or to the market as a whole (see table 8) in order to know whether Nordea value is high in the market or not, which shown in the next chapter for comparison.

Table 8. Trend analysis, ups and downs of valuation of Nordea throughout the investigated years 2015-2019

Nordea	2019	2018	2017	2016	2015
P/E	172%	86%	124%	104%	100%
P/B	73%	67%	96%	104%	100%

Source: Table made by the author

3.2. Compare the ratios to Danske Bank A/S

In this subchapter, the author compares Nordea with its competitor Danske for the year 2019, in order to determine which bank has better financial performance and value in the market. First of all, profitability ratios to Nordea compared to Danske for the year 2019 (see table 9).

Table 9. Profitability ratios comparison between Nordea Abp Bank and Danske A/S Bank

Profitability ratios	Nordea	Danske
Net margin	18.5%	33.6%
Return on Assets	0.3%	6.9%
Return on Equity	4.8%	9.4%
Net Interest Margin	1.19 %	20.19%

Source: Thomson Reuters Eikon; Nordea Bank Abp Annual report 2015 to 2019

The chart of profitability ratios comparison (see figure 7) shows higher profitability for Danske than Nordea in 2019. It shows that Danske had better performance in regard to its ability to generate profit. As mentioned in the first subchapter, Nordea's ability to generate profit declined in 2019. This could be the reason why Danske has better performance from a profitability view.

The following Figure (see figure 7) shows the profitability ratios comparison between Nordea Bank Abp with Danske A/S Bank for the year of 2019.

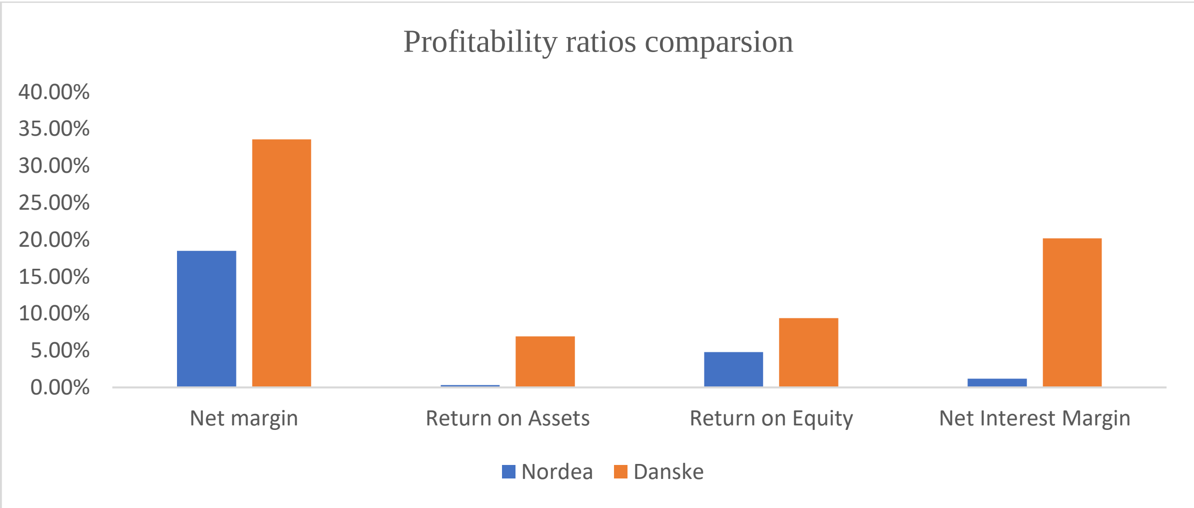

Figure 7. Profitability ratios comparison
Source: Chart made by the author

Second, the Leverage and CET1 ratios for the year 2019 is compared between Nordea and Danske (see table 10) to see which bank had better financial position in terms of its debt and its capital or assets. The table shows Nordea's ability to meet its financial obligations than Danske with a small difference of 0.6%.

Table 10. Leverage ratios of Nordea Abp Bank and Danske A/S Bank

Leverage ratios	Nordea	Danske
Leverage	5.3%	4.7%
CET1	16.3%	17.3%

Source: Thomson Reuters Eikon; Nordea Bank Abp Annual report 2015 to 2019

The CET1 of Danske is better, but again with not a huge difference. This shows that Nordea and Danske have a similar level of performance concerning their ability to meet debts and financial obligations and thus also protect the economy from financial crises. The chart below shows a clearer view (see figure 8).

The following Figure (see figure 8) shows the leverage ratios of Nordea Abp Bank compared to Danske A/S Bank for the year of 2019.

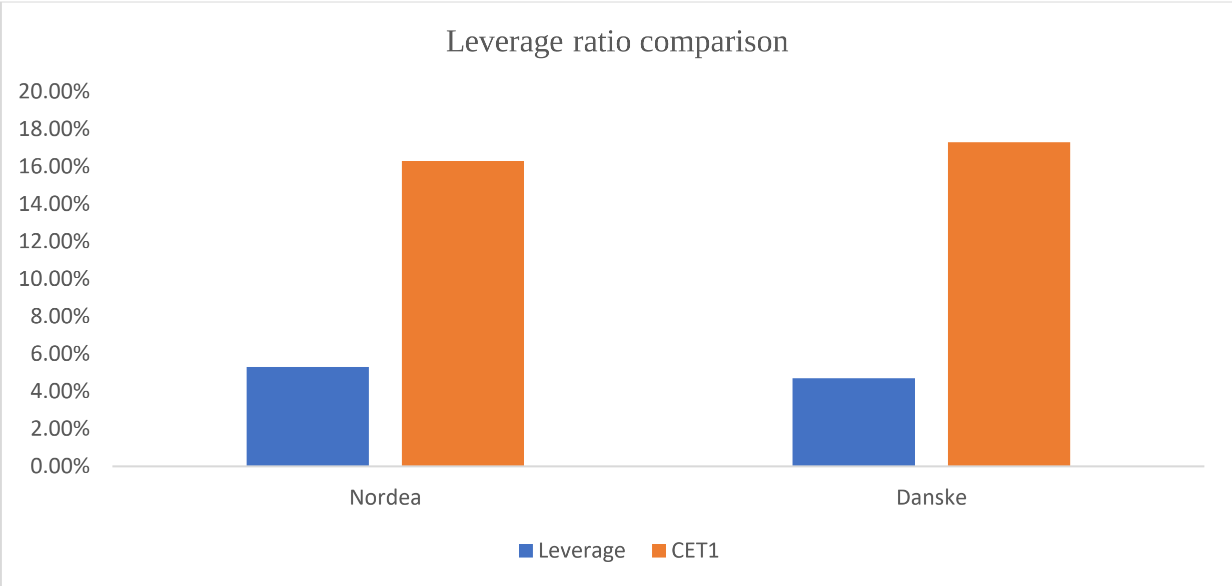

Figure 8. Leverage comparison
Source: Chart made by the author

Third, below table 11 (see table 11) compares the efficiency and ability of the both banks to turn their assists or services into profits.

Table 11. Asset utilization and efficiency ratios for Nordea Abp Bank and Danske A/S Bank for the year 2019

Ratios	Nordea	Danske
Asset utilization ratio	1%	1%
Efficiency ratio	68.3%	65.3%

Source: Gurufocus (2020 a); Gurufocus (2020 b)

From the provided chart (see figure 9), Nordea shows better performance concerning the ability to turn its asset to profits with a difference amount of 3% in efficiency. This may indicate that Nordea could have better performance than Danske. Although Danske has better and higher profitability ratios, Nordea has little bit more efficiency in accordance with its assets. Asset Utilization ratios are more specific to indicate the financial health of any company, especially for investors.

Concerning each bank value in the market, the table below (see table 12) shows the comparison between Nordea and Danske to understand whether the value ratios for Nordea in the previous subchapter were high or low in the market.

Table 12. Price to earnings and price to book ratios for Nordea Bank Abp and Danske Bank A/S

Bank	Nordea	Danske
P/E	18.94	14.62
P/B	0.94	0.55

Source: Gurufocus (2020 a); Gurufocus (2020 b)

In accordance with the chart below (see figure 10), Nordea shows higher stock price and worth in the market than Danske. P/E shows that investors are willing to pay more for one euro of surplus in Nordea bank than Danske with a 4.2% difference. Furthermore, P/B shows that investors find Nordea a relatively safer investment than Danske with a difference 0.39%.

3.3. Discussion of the results

The financial ratios analysis to Nordea showed that Nordea's performance was strong in 2016. The decline in performance was gradually after 2016 until 2019 but still better than the base year of 2015. Profitability ratios of Nordea were lowest in 2019. When the author compared profitability ratios of Nordea with Danske, results showed that Danske had better performance in regards with profitability with a big difference from Nordea.

The decline in profitability in 2019 for Nordea, led the author to search beyond the reasons. It is written in the news that Nordea reviewed its targets in 2019. In this year, Nordea was pinched by Anti-Money-Laundering compliance costs (Broughton 2019). In 2019, Nordea invested in regulatory and systems infrastructure, digital and compliance platforms, and operations to the Nordic markets in order to have better future developments (Arvopaperi 2019).

On the other hand, Nordea shows better performance in efficiency in 2019. Since the base year, 2015, Nordea was able to improve its leverage that shows its well management to meet its financial obligations as well as be able to protect the economy from crises.

Furthermore, Nordea was able to improve its asset utilizations that shows its better management year by year. In 2019, Nordea has well ability to turn its assists to profits. Although the ratio of asset utilization amounted to 0.02%, this does not mean that Nordea had difficulty turning assets to profits, because when compared to the banking industry, the number is reasonable and not much different from Danske, which amounted to 0.03%. Based on efficiency ratios, Nordea showed better performance in 2019 with 20.9% increase than the base year.

When results of leverage and assist utilization were compared with Danske, Nordea showed better results for the year 2019. It is worth mentioning here that leverage and assists utilization ratios are more specific than profitability ratios. They are very important for investors.

The results can also explain why Nordea had a better valuation in the market than Danske with a small difference. The small difference can also imply that Danske is a real competitor to Nordea, but Nordea still has better performance than Danske. Despite this fact, Nordea still needs to work in future to improve its profitability performance. It is also expected that the performance is going to be improved due to the fact that Nordea had several changes in its priorities in 2019, which shall show development in the next few years.

CONCLUSION

The evaluation of the bank financial performance is more complicated and can be misleading in comparison with any other firm. Banks are evaluated according to their profitability, leverage, asset utilization and valuation in the stock market. They get profits and been valued by different factors than any other firms. They are financial institutions, where they get most of their profits by interests. Therefore, formulas used to banks are not the same as any other business, but there are selected formulas can be applied to banks, which are more suitable to banks unique operations.

It is also necessary to observe the financial ratios used for a bank from different aspects. For example, track the ups and downs of financial ratios to a period of time and search for the reasons that were beyond any drop happened. This trend analysis is important to show whether bank is developing or going back in its financial performance. It is also a method to highlight the weak areas for the financial performance of bank in order to develop them in the future.

This thesis aims to investigate the financial performance of Nordea Bank Abp during the years of 2015-2019 and compare it to Danske Bank A/S. Financial ratios of Nordea showed development in the performance since the base year 2015. Nordea had the best performance in 2016 and its performance declined gradually in 2017, then 2018 and the lowest was in 2019 in the overall financial performance of Nordea.

The reason beyond the decline in the overall performance is referred to the drops in profitability ratios, although leverage and assets utilization ratios were improving year by year since the base year, 2015.

As investors are looking more at the ability of bank to meet its liabilities and turn its assets to profits, Nordea had better valuation year by year. P/E shows that investors are willing to pay more for one euro of surplus in Nordea bank in 2019 than any other year. Similarly, P/B shows that investors find Nordea a relatively safer investment in 2019.

In order to know whether financial ratios of Nordea were enough high, results were compared with Danske as competitor bank. Profitability ratios showed better performance for Danske than Nordea, while leverage and asset utilization showed better results in favor of Nordea.

In this regard, the author decided to accept the hypothesis and confirm that it was successfully proved. Nordea Abp Bank has better financial performance as compared to Danske A/S Bank based on financial ratios.

The author referred the reason for approving the hypothesis to the fact that despite of profitability ratios are important to evaluate a bank performance, these ratios cannot be compared isolated from other ratios, which are more specific and give more insights to the performance of banks. Asset utilization ratios and leverage ratios, as well as valuation ratios, showed that Nordea had better performance than Danske.

This means that Nordea is better welling to manage its operations and that Nordea is better able to meet its financial obligations, and also better able to turn its assets to profit. Therefore, Nordea was also better valued in the stock than Danske.

It must be noticed that Nordea and Danske had close valuation ratios and that is why Danske is considered to be a strong competitor to Nordea. Despite this fact, results showed that Nordea has better valuation in the market.

Reasons for profitability decline in Nordea may be referred to investments made by Nordea to change its priority in 2019 and to its long-term plan for 2022. Nordea put better regimes to fight money laundering, invested more in the Nordic region, as well as its investment in digital transformation for future development.

All these changes can lead also to higher expenses for the year 2019 and thus lower profit than the previous years. These reasons, on other hands, can also lead investors to trust more the investment in Nordea than Danske and thus have better valuation ratios. Thus, Nordea Abp Bank stronger than its competitor Danske A/S in most areas.

Comparing Nordea to its competitor Danske gave a better insight into the financial position of Nordea in the stock. However, a suggestion for further studies could be to also include in the study of other banks at the Nordic level, such as SEB and DNB. This could give a better rank to the level of the financial performance of Nordea.

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APPENDIX

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I Sindy Fouad Tutah

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