

# **A comparison on how a small local bank performs compared to bigger national banks**

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| Arbetets namn:  | En jämförelse av hur en liten lokal bank klarar sig jämfört med de större nationella jättarna |
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| <p>Sammandrag:</p> <p>Följande uppsats analyserar hur en liten bank klarar sig jämfört med större nationella banker. Det görs genom att analysera data från tre banker, en liten bank och två större. Deras prestationer jämförs med varandra. Prestationerna mäts genom finansiella nyckeltal, såsom kassalikviditet och lönsamhet.</p> <p>Resultatet avslöjar att det går väldigt bra för Ålandsbanken i total tillgångsomsättning. Det går också bra för Ålandsbanken när man räknar gånger räntor uppnådda och kontanttäckning. Det går medelmåttigt för dem när man ser till kassalikviditet fastän ändå inte tillräckligt bra i jämförelse med de andra bankerna. Det går bra för Ålandsbanken i lönsamhet, men inte lika bra som sina konkurrenter.</p> <p>Slutsatsen som nås är att mindre banker har en plats inom speciella nischer, men att de inte kan konkurrera på samma nivå som storbanker.</p> |   |
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| <p>Abstract:</p> <p>The following thesis analyzes how a small bank measures up to bigger national ones. It is done by analyzing financial data from three banks, one smaller bank and two bigger banks. Their performance is compared to each other. The performance is measured by the use of financial ratios, such as liquidity ratios and profitability ratios.</p> <p>The results reveal that Ålandsbanken does really well in terms of total asset turnover. Ålandsbanken also does well in times interest earned and cash coverage. It fares decently in terms of liquidity although not good enough compared to the other banks. In profitability Ålandsbanken does well on its own, but not nearly as well as its competitors.</p> <p>The conclusion reached is that smaller banks does have a place in certain niches, but that they will not be able to compete on the same level as big banks.</p> |   |
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# 1 INTRODUCTION

## 1.1 Motivation for choice of research topic

Recently in the local newspapers there were articles about how Ålandsbanken had their best quarterly result ever. That made the author very interested in how they would compare to the bigger national banks.

## 1.2 Research Aim

The aim of the research is to find out if a small local bank can compare itself to the bigger national banks in terms of profitability and investment value. Although Ålandsbanken has had some of the best results ever in recent years, the author wants to find out if that is good enough on a national level.

On the Åland Islands, there is often talk about how good of a performance Ålandsbanken has compared to its bigger national competitors, especially OP-Pohjola and Nordea.

## 1.3 Research Questions

**How does the key performance indicators of Ålandsbanken compare to the bigger national banks of Nordea and OP-Pohjola?**

Financial ratio analysis will be explained in the Literature review. The sources will consist of written material such as books about financial analysis, articles as well as the annual reports of the banks in question

That will then be applied to the data from the annual reports of the banks. The answer to the question will be acquired by comparing the financial ratios of the aforementioned banks.

A summary of all the financial ratios explored in Literature review will tell us whether Ålandsbanken can put itself in the same league as the bigger ones explored in this thesis.

## **1.4 Theoretical Framework**

The theoretical framework consists of literature in the area of financial analysis, more specifically financial ratios. The literature explains how the financial ratios are used and why it is used. There are mainly two books that have been used, “Ross, Westerfield and Jaffe, 2013, Corporate Finance (10th edition)” and Brealey-Meyers, 2003, Principles of Corporate Finance (7th edition).

Both books give a good sense of financial ratios, what they are and each of the ratios strengths and weaknesses compared to the other ratios. They are theoretical books covering corporate finance in general. Therefore they do lack some depth when explaining the ratios and how they can be applied together to make a complete analysis.

Some articles like the one by Milbourn in Financial Times Mastering Finance, 1997, are used for specific sections, this particular one for Economic Value Added.

There are also some ratios given in the annual financial reports of the companies in question, and how they are calculated. The ratios that are presented in the reports differ between the banks. They also give a detailed outlook on the financial year, its key moments and why the result is as presented.

These financial ratios, including Economic Value Added(EVA) and Weighted Average Cost of Capital (WACC) are then used to evaluate the financial status of the banks. The reasons for why the comparisons are showing the different results are looked for in the annual reports.

## 1.5 Demarcation

The research is limited to comparing only the banks earlier mentioned. None of the other banks will be taken into consideration, as that would make this thesis too long. Other ways to measure business performance will not be discussed.

Since OP Pohjola is a company owned by its customers, ratios that requires share price will be ignored, to get a complete comparison between all the banks. Some other ratios such as the Acid-Test Ratio is ignored due to the fact that banks don't usually have any significant assets tied up in inventory.

Since Ålandsbanken does not offer insurance, and the other banks mentioned in this thesis do, it will not be discussed. This thesis is limited to the entire corporation and does not factor in the differences between the specific business units or subsidiaries.



## 2 COMPANIES PROFILE

### 2.1 Ålandsbanken

Ålandsbanken was founded in as Ålands Aktiebank 1919 and was listed on Helsinki stock exchange in 1942. It is headquartered in Mariehamn with a total of 5 offices on the Åland Islands, 5 offices in the rest of Finland and 3 offices in Sweden. Ålandsbanken has 3 subsidiary companies, Crosskey Banking Solutions Ab Ltd, Ålandsbanken Fondbolag Ab and Ab Compass Card Oy Ltd. All of them are operating in a field closely related to banking and are owned 100% by Ålandsbanken.

The most noteworthy of Ålandsbanken's subsidiaries is Crosskey Banking Solutions Ab Ltd. It was founded in 2004 by separating the IT department from Ålandsbanken and creating a new company from it. Crosskey creates and manages IT-solutions within financial services, such as banks. Their customers are located within the Nordic and Baltic states. Several of their customers are competitors with Ålandsbanken.

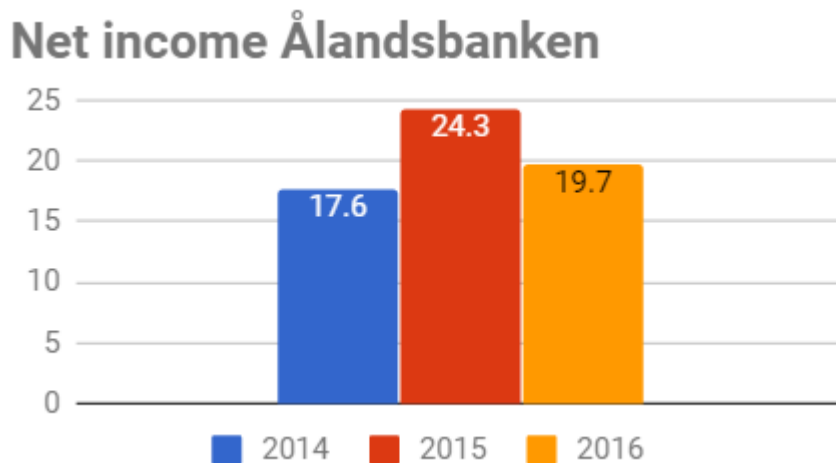
On the Åland Islands, Ålandsbanken is positioned as a bank for everyone, however in Sweden and the rest of Finland the bank is focused on entrepreneurs and people with high net worth. They also offer services for institutional investors. Ålandsbanken is known for its innovative thinking within the financial services industry, among others it launched the concept of Premium Banking, which has been a model for other banks within the Nordics. It also has a concept called the Baltic Sea Account, through which it gives donations to projects that improve and protects the environment.

During the banking crisis of the 1990s Ålandsbanken was the only bank in Finland that handled that without receiving aid from the government. This put them in a very good position after the crisis, when they expanded their business with 7 new branch offices.

The same strategy can be seen after the financial crisis of 2008-2009 when Ålandsbanken again used the troubled economic situation to buy Kaupthing Bank Sverige Ab,

which was turned into Ålandsbanken Sverige Ab. The purchase was made to establish Ålandsbanken on the Swedish market.

Ålandsbanken is a small bank with a turnover of 120 million euros for the year of 2016, of which net interest income was 55.1 million euros and a net result of 19.7 million euros. The group has around 750 employees.



*Figure 1. Net income Ålandsbanken*

The figure above shows the development of Ålandsbanken's net income for the past three years. It shows that there was a significant increase from 2014 to 2015, which was the best year in their history. It does seem that 2015 was a fluke year, since the net income dipped to a more normalized level.

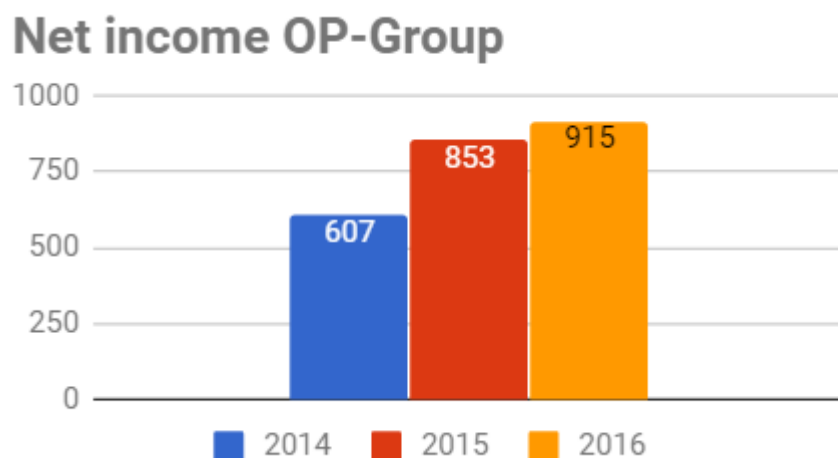
## **2.2 OP Financial Group**

OP Financial Group is the biggest group in financial services in Finland. The group is a cooperative bank, which means it is owned by its customers. It was founded as Palo-vakuutus-Osakeyhtiö Pohjola in 1891. As of 31.12.2016 there are 173 independent member cooperative banks. The cooperative principles are the basis for the group's operations, which means cooperation and sharing the success with everyone involved. It has three business segments: banking, non-life insurance and wealth management. The group has 1.7 million owner-customers. The group owns several subsidiaries, mainly within banking, but also including a hospital.

The banking group managed to get through the Nordic banking crisis of the 1990s and became the biggest bank in Finland 1991. The market share of deposits was almost 34% at its peak. OP became the first bank in Finland and second worldwide to introduce online banking to its customers.

During the 2000s the banking group was turned into a financial group. This was achieved by combining banking services with insurance. In 2005 the group became the majority shareholder of Pohjola, an insurance company. In 2007 it change its name to OP Pohjola. In 2014 OP bought the rest of the shares of Pohjola and took it off the stock exchange. This made it into a completely customer owned financial group.

For the year of 2016, the total income was 3 billion euros, of which net interest income was 1.1 billion. This lead to a profit after tax of 915 million euros. The group also has around 11 000 employees.



*Figure 2. Net income OP Financial Group*

Accoding to the above figure, OP Financial Group has shown a steady increase in net income for the past couple of years, with a big leap from 2014 to 2015 and then a minor increase to 2016. This is in contrast to Ålandsbanken, who had a drop from 2015 to 2016.

It is easy to speculate that the same reason for the growth in net income between 2014 and 2015 is the same for both banks. The CEO of Ålandsbanken mentioned in the annu-

al report that part of this reason was the elimination of banking tax and deposit guarantee expenses.

## **2.3 Nordea**

Nordea has a long and complex history, with roots all the way to 1820. Nordea today was created in the merging of Merita-Nordbanken, Unibank and Kreditkassen in 2001. Several of these banks have been through plenty of mergers before becoming Nordea. For example Föreningsbanken in Finland, which was the first commercial bank in Finland, merged with Kansallis-Osake-Pankki in 1995 to become Merita Bank, which in 1998 merged with Nordbanken. This merger paved the way for Nordea.

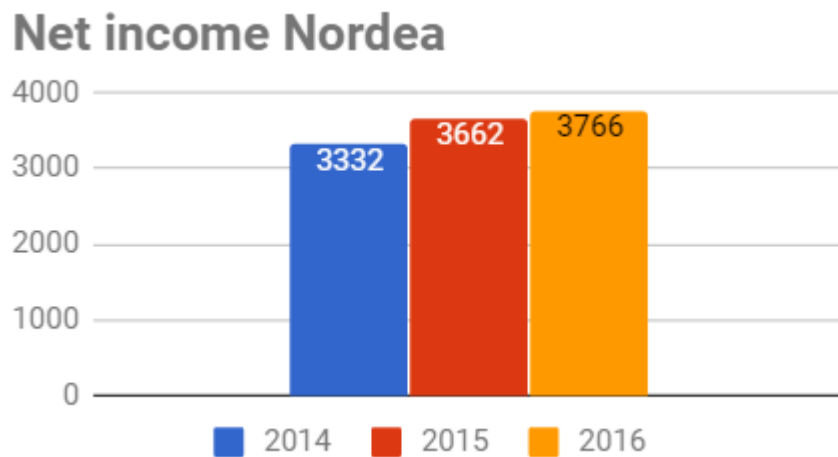
Nordbanken was bought by PKbank in 1990, but ran into financial difficulties during the Nordic banking crisis. It was taken over by the Swedish government and merged with Gota Bank, which also had been taken over by the Swedish government. The crisis created a completely revamped bank, and also facilitated the series of mergers which would become Nordea.

Nordea is the leading bank in the Nordics, with around 11 million customers, 30 000 employees and 600 branch offices. It is one of the 10 largest European banks in terms of total market capitalization.

Nordea has eight “home markets”, which are the four Nordic countries of Denmark, Norway, Sweden and Finland, the three Baltic states of Estonia, Latvia and Lithuania as well as Russia. Nordea is listed on the stock exchanges of Stockholm, Helsinki and Copenhagen.

In 2017 the legal structure of the bank was simplified by changing the subsidiary banks in Finland, Norway and Denmark into branches of the Swedish parent company. The same year Nordea decided to move its headquarters from Stockholm to Helsinki. The move is planned to take place during 2018.

In 2016 the total income was 10 billion euros, of which net interest income was 4.7 billion euros. This led to a profit after tax of 3.8 billion euros. Nordea had a total of 31 596 employees in the fiscal year of 2016.



*Figure 3. Net income Nordea*

Nordea's figure for net income is telling almost the exact same story as OP Financial Group. It had a somewhat big increase from 2014 to 2015, while it had a smaller increase from 2015 to 2016.

Although the percentage increase is not as high as neither OP's nor Ålandsbanken's, it can be explained by the fact that it already has very high net income and increasing it by a high percentage is more difficult than for a company with a smaller net income in absolute terms.

## **3 LITERATURE REVIEW**

### **3.1 Financial ratios**

Holmstrand (2010) describes financial ratios as a way of comprehending a big and complex entirety by splitting it up into smaller parts. This will of course also mean simplification. The big advantage of using financial ratios comes from its use of the financial statements, such as the balance sheet, income statement and statement of cash-flow. The statements are subject to the accounting standards used by the company.

Ross (2013) states that financial ratios are grouped into the following categories:

- “1. Short-term solvency, or liquidity, ratios.
2. Long-term solvency, or financial leverage, ratios.
3. Asset management, or turnover, ratios.
4. Profitability ratios.
5. Market value ratios.”

An explanation on each group will be given, and a closer look at the chosen ratios to compare the chosen banks to each other.

#### **3.1.1 Liquidity ratios**

Also known as short-term solvency ratios. The best known liquidity ratio is the “current ratio”, also known as “working capital ratio”. It is a useful to measure short-term liquidity because it is in principle converted to cash within the next 12 months. Any value over 1 is expected. If the value is below 1 it means that the working capital is negative. (Ross 2013)

If the company were to take a long-term loan, the value of the current ratio would rise, since current assets would rise, in the form of cash, and current liabilities would remain unchanged. (Ross 2013)

The following formula is used to calculate current ratio:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The Cash ratio is a measure of a company's most liquid asset, which is cash. The difference between cash ratio and current ratio lies in that current ratio includes other current assets, such as short-term receivables, while the cash ratio does not. The cash ratio is the most uncompromising of the liquidity ratios, as it only measures hard cash. (Brealy 2003)

The following formula is used to calculate cash ratio:

$$\text{Cash ratio} = \frac{\text{Cash}}{\text{Current liabilities}}$$

### **3.1.2 Financial leverage ratios**

Also known as long-term solvency ratios. By taking into account all debts of all maturities to all creditors, we get the total debt ratio. This ratio measures the difference between total liabilities and total assets. If a high or low value is good depends on the capital structure of the company. (Ross, 2013)

The more stable the industry the more acceptable it is to have a high debt ratio. This being because of the financial risk that comes with more debt. Debtors can put a company into bankruptcy if the debt cannot be repaid. Shareholders can only try to sell their shares if the company does not turn out to be a good investment. (Ross, 2013)

It is not recommended to have a high ratio if the company operates in an industry with high volatility. The debt ratio is always compared within an industry. If a company has a high debt ratio compared with its peers its cost of borrowing will probably be higher. (Ross, 2013)

A ratio greater than 1 means that a company has more debt than assets and inversely if the ratio is less than 1 it means the company has less debt than assets. This is a good ratio to use together with other measures of financial health. By doing so one can determine the company's risk level. (Ross, 2013)

The following formula is used to calculate total debt ratio:

$$\text{Total debt ratio} = \frac{\text{Total assets} - \text{Total equity}}{\text{Total assets}}$$

Times interest earned ratio measures how well a company can cover its interest obligations. It is also known as interest coverage ratio. The total debt ratio also has a relationship with this ratio, since the higher the debt ratio the higher the interest payments. This is a useful ratio for determining how a company should capitalize itself. (Ross, 2013)

If the ratio is under 1 it means that the company has trouble meeting its interest obligations. In a situation like that it would be advisable to take on more equity instead of debt. (Ross, 2013)

One issue with this ratio is that it is based on EBIT (earnings before interest and taxes), which includes depreciation and amortization, meaning that it is not based on cash. (Ross, 2013)

The following formula is used to calculate times interest earned ratio:

$$\text{Times interest earned ratio} = \frac{\text{EBIT}}{\text{Interest}}$$



Cash coverage ratio solves the problem of the previous ratio by removing depreciation and amortization. This means using EBITDA (earnings before interest, taxes, depreciation and amortization) instead of EBIT. The cash coverage ratio will almost always have a higher value than times interest earned ratio. (Ross, 2013)

The same principles apply to the cash coverage ratio as with times interest earned ratio. One should not use the ratio to compare companies in different industries, as that will not give any useful results. It is used to compare companies in the same industry. (Ross, 2013)

The following formula is used to calculate cash coverage ratio:

$$\text{Cash coverage ratio} = \frac{\text{EBIT} + (\text{Depreciation and amortization})}{\text{Interest}}$$

### 3.1.3 Turnover ratios

Total assets turnover measures how well a firm utilizes its assets, i.e. how efficient the company is in generating revenue with the use of its assets. The result tells us how long it takes to turn over the assets. Sometimes average assets is used by adding the assets at the beginning of the period to the assets at the end of the period and dividing the sum by two. (Ross, 2013)

The higher the ratio the better the company is performing. A higher ratio means that the company is generating more revenue per asset. The turnover can greatly differ between industries, hence it is better used when comparing companies in the same industry. (Ross, 2013)

There are however some issues when asset turnover can give an erroneous picture of the actual results. Some of those issues includes a period when a company make a large investment into assets that will generate revenue in the long run. In such a period the total asset turnover will show a worse ratio than intended. (Ross, 2013)

Likewise there are periods when a chunk of the assets is sold off in preparation for a period of lower revenue. That will make the ratio show a higher value than intended. In light of these issues it is recommended to include several previous periods in order to get a sense of the change in the ratio. In case of a significant variance between the periods it is recommended to find out if any of the above reasons is the cause of the variance. If so, it should be taken into account when doing the comparisons. (Ross, 2013)

Total asset turnover is calculated using the following formula:

$$\text{Total asset turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

#### **3.1.4 Profitability ratios**

Net profit margin is a measure of how much of the sales find its way into the after tax profit. As with other ratios, the profit margin is best used within an industry instead of comparisons between industries. In some industries the profit margins are very high, while in others it is very low. A business that is running at a loss will have a negative net profit margin. (Ross, 2013)

Profit margin is calculated using the following formula:

$$\text{Profit margin} = \frac{\text{Net income}}{\text{Sales}}$$

EBITDA margin is similar to net profit margin, but because it does not take depreciation and amortization into account, it gives us a more direct view of operating cash flow. Profit margins varies a lot between industries. (Ross, 2013)

$$\frac{\text{EBITDA}}{\text{Sales}}$$

Return on assets measures how much profit per euro of assets the company produces. Return on assets can also be referred to as return on investment. It is a measure on how effectively the company is using its assets (investments). It gives the information on what earnings came from invested capital. (Ross, 2013)

When using this ratio it is good to keep in mind that total assets equals to total liabilities plus shareholder's equity. It is common to add back the interest expense into the formula, since the assets are funded by both debt and equity. By adding back the interest expenses, one effectively disregards the cost of borrowing. One can also use the average assets during the period. The average assets are calculated by adding the assets at the beginning of the year with the assets at the end of the year and dividing the sum by two. (Ross, 2013)

In order to calculate the change of return on assets of a period, one can calculate the ratio in the beginning of the period and compare it to the ratio in the end of the period. That way one gets the change in profitability during the period. (Ross, 2013)

Return on assets is calculated using the following formula:

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Total assets}}$$

Return on equity measures how much profit is generated for the equity of the company, i.e. how much profit is generated with the investment from shareholders. It is the accounting measure of a company's performance. Return on equity is a very common measure, especially when comparing profitability between companies in the same industry. It is important to use a weighted average of the number of shares if new shares are issued during the period. (Ross, 2013)

The formula for return on equity has several variations. One being the return on common equity. It is calculated by disregarding preferred dividends and preferred equity by subtracting it from net income and shareholder's equity respectively. Another variation, similar to the variation of return on assets, is to use average shareholder's equity. This

variation is calculated in the same way as return on assets, by summing shareholder's equity at the beginning of the year with shareholder's equity at the end of the year and dividing the sum by two. (Ross, 2013)

In order to calculate the change of return on equity of a period, one can calculate the ratio in the beginning of the period and compare it to the ratio in the end of the period. That way one gets the change in profitability during the period. (Ross, 2013)

The following formula shows the standard way of calculating return on equity:

$$\text{Return on equity} = \frac{\text{Net income}}{\text{Total equity}}$$

Cost to income ratio is another measure on profitability. It is calculated by taking the cost and dividing it by the income. It is a ratio that is similar to profit margin. Cost to income ratio is a common ratio used when comparing banks. The lower the ratio, the more profitable the company, therefore creating an inverse relationship between the ratio and profitability. It tells the story of how efficiently the company is being run. (Moneyweek, "Cost to income ratio", 2013)

The formula for calculating it is:

$$\text{Cost to income} = \text{Cost} / \text{Sales}$$

### **3.1.5 Common equity tier 1**

Common Equity Tier 1 ratio (CET1-ratio) is a ratio that is set out in the Basel 3 rule. Its purpose is to protect the economy from a financial crisis, such as the one from 2008. It does so by setting international standards to compare a bank's assets to its capital in order to see how it would fare during the test of a crisis. It is a measure of solvency and measures the capital strength of the bank. (Basel Committee on Banking Supervision, 2013)

In order to measure it properly, the assets of the bank are based on credit and market risk of that asset. Any losses incurred are deducted from the CET1, which means that in case of losses the ratio is likely to worsen. The capital requirement is a ratio of at least 4,5% by 2019. If a bank incur losses that puts it below the requirements, they will have to enter a capital rebuilding phase to reach the required level. If it fails to do so, regulators might shut it down or take it over. Regulators also have the power to restrict the bank's payments of dividends and bonuses during the rebuilding phase. In the event of a bank going insolvent, the equity holders bears the losses first. (Basel Committee on Banking Supervision, 2013)

### **3.2 Problems with financial ratios**

Holmstrand (2010) explains three important limitations with using financial ratios. The first one is that the value in the books are not necessarily the same as market value. Book value is at a certain date, which is usually several months behind the reporting date.

The second limitation is that the books are telling a story of the past and cannot say anything about the future.

The third limitation comes with the fact that accounting principles give some flexibility in how the accounts are reported, for example in depreciation. Another example more specific to banks is how the assets are valued. In some cases there are no obvious market values and they are highly subjective. This is not evident in the reports from the companies.

The standards of financial reporting (accounting principles) can vary greatly between the countries and their different regulations. One example being the difference between International Financial Reporting Standards(IFRS) and the United States Generally Accepted Accounting Principles (US GAAP).

Another example is the precautionary principle mainly in use in the Nordic countries. The principle of caution states that one may not appreciate assets nor write off debts un-

til the appreciation or write off has been realized. This often makes the debts overstated and the assets understated. These two examples can have a big implication on the ratios when comparing them between companies that are using different accounting principles. It is not always evident whether any difference is present or how it skews the ratios. (Holmström, 2007)

Ross (2013) adds that the ratios are not computed the same way by everyone, there is no standard way of calculating each ratio, and that this lead to confusion. If one is using ratios for comparison, especially if they are from different sources, it is important to know how each ratio is calculated.

### 3.3 Economic value added

Economic value added (EVA) is a method for calculating the earnings after cost of capital. Because investors expect a positive return on their investment, a company that breaks even in terms of accounting profits, is really making a loss. EVA is a way of calculating residual income. (Brealy, 2003)

The formula for calculating EVA is:

$$\begin{aligned} \text{EVA} &= \text{residual income} = \text{income earned} - \text{income required} \\ &= \text{income earned} - \text{cost of capital} \times \text{investment} \end{aligned}$$

Brealy (2003, p. 323) explains the relationship between EVA and net return on investment as:

“Net return on investment and EVA are focusing on the same question. When return on investment equals the cost of capital, net return and EVA are both zero.

But the net return is a percentage and ignores the scale of the company. EVA recognizes the amount of capital employed and the number of dollars of additional wealth created.”

A growing number of firms use EVA to calculate management compensation. Milbourn (1997) writes that EVA is a better option than Net Present Value (NPV) for management compensation because NPV is based on future cash-flows, while EVA is based on the actual result. In theory EVA gives the same recommendations as NPV. One of the basic properties of EVA is the awarding of managers for the income it generates, while still accounting for the required capital necessary to generate said income. EVA send the message to managers that they should only invest if the increase in earnings is enough to cover the cost of capital. (Brealy, 2003)

### **3.4 Pros and cons of EVA**

One of the main pros of EVA is that it highlights parts of the business that have poor performance. Another pro is that it is relatively easy for managers to grasp, which enables it to be used as an incentive compensation system far down in the organization. However, if those managers get the incentive, they also have to be given the power of the decisions that affect EVA. (Brealy, 2003)

One of the drawbacks is the lack of forecasts for future cash flows and measurement of present value. This means that short-term investments show a better EVA than long-term ones, even though the long-term ones might show a better NPV. This is the case in for example start-ups or R&D for pharmaceutical companies. It may take a long time for their investments to become profitable so the EVA is negative in the first years even though the investments go according to plan and shows a positive NPV. (Brealy, 2003)

### **3.5 Weighted average cost of capital**

The weighted average cost of capital (WACC) is used when a company or project is financed with both debt and equity. Since it is a weighted average, weight is given to both of its components. The weights are “the proportion of total value represented by equity and the proportion of total value represented by debt”. (Brealy, 2003)

In order to calculate WACC, one has to first figure out the expected rate of return. This in itself is difficult and is rather subjective. One has to first analyze the financial statements of the company to determine it. (Ross, 2013)

WACC is calculated as follows:

$$\frac{S}{S+B} \times R_s + \frac{B}{S+B} \times R_b$$

S stands for equity, B stands for debt,  $R_s$  stands for cost of equity and  $R_b$  stands for the firm's borrowing rate.  $R_b$  can be found by looking at the yield and maturity of the firm's debt. A firm that is fully financed by equity will have a WACC that is equal to its cost of equity. (Ross, 2013)

$R_s$ , which is the return rate for investors, can be quite complex to calculate. One has to take into account the risk free rate, the beta (which is the premium for risk added to the risk free rate) and the average market return. (Ross, 2013)

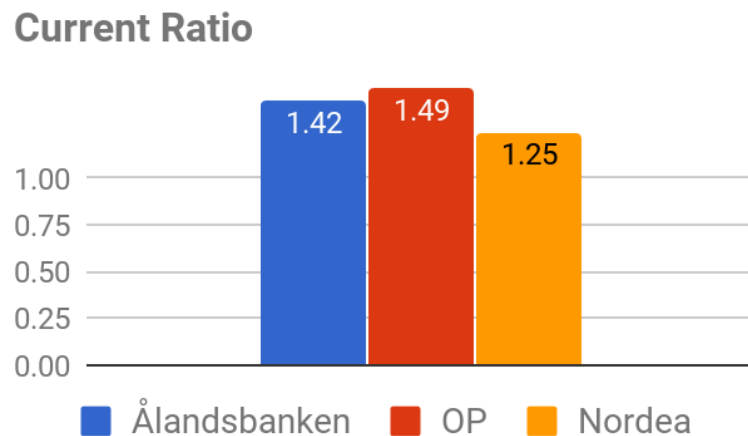
$R_b$  can be calculated by looking at the company's credit rating from companies such as Moody's or S&P. Each rating agency has its own scale, but by using the scale one can find out the return rate for debtors. (Ross, 2013)



## 4 FINDINGS

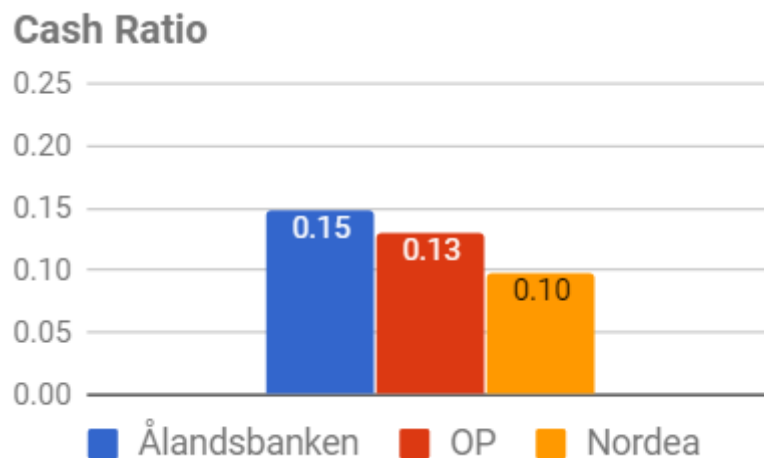
### 4.1 Financial ratios

#### 4.1.1 Liquidity ratios



*Figure 4. Current Ratio*

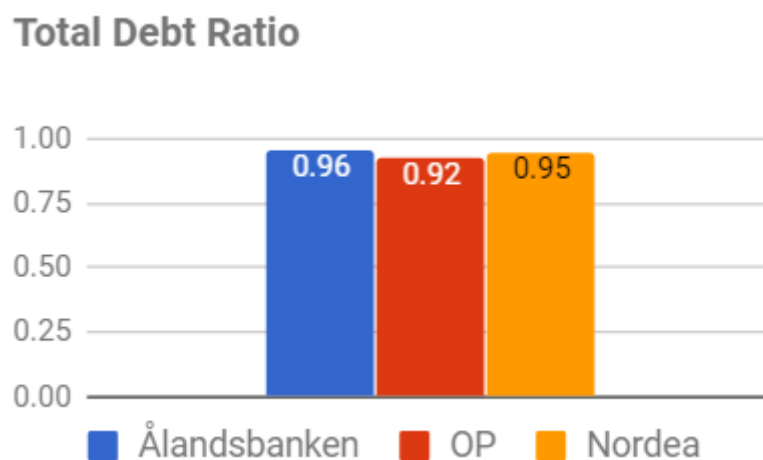
In the chart above we can see that Ålandsbanken fares reasonably well compared to its competitors, being almost as liquid as OP. However, a higher current ratio is not necessarily better. A current ratio above 1 means that the company has underutilized assets that could have been used to increase the profit instead.



*Figure 5. Cash Ratio*

Here we can see that Ålandsbanken has the highest cash ratio, closely followed by OP and Nordea. The same thing as with the goes here, a higher number is not necessarily better, because that can mean underutilized assets that could be used to make a higher profit.

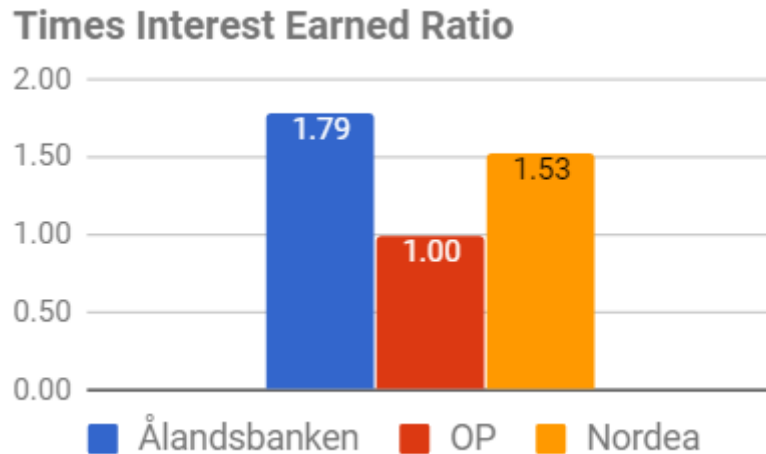
#### 4.1.2 Financial leverage ratios



*Figure 6. Total Debt Ratio*

Banks in general tend to have a high total debt ratio. The same thing goes for all of the analyzed banks. Ålandsbanken does have the highest debt ratio, while OP has the lowest. It is also possible to look at this ratio from the other point of view where the 1 minus the total debt ratio give the equity ratio. This tells us that Ålandsbanken is financed with half the equity to that of OP.

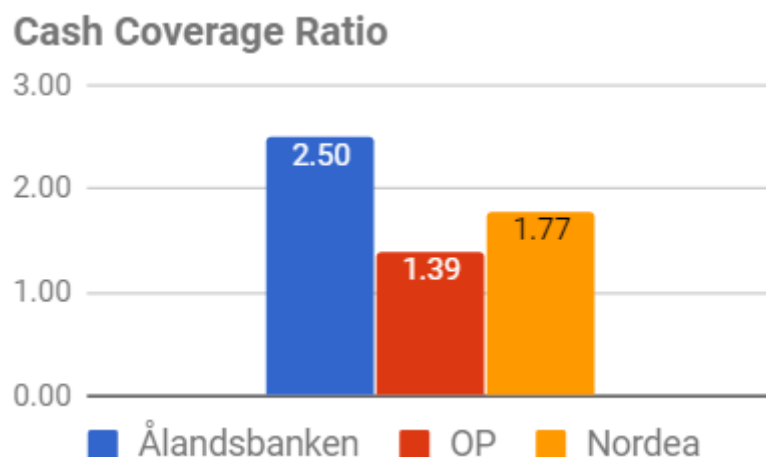
When looking at the ratio in that way, we can see that even the slightest difference between the banks are huge in terms of equity. The closer the total debt ratio get to 1, the bigger the difference in terms of equity.



*Figure 7. Times Interest Earned Ratio*

Ålandsbanken is far superior in the times interest earned ratio. Nordea is also doing fairly well, but OP is on a bare minimum. However, it is measured using EBIT, meaning that it is before interest earned. That is a problem when using this measure for banks, since a big portion of a bank's income is interest. It can therefore be considered quite impractical to use this ratio, as it doesn't tell the full story.

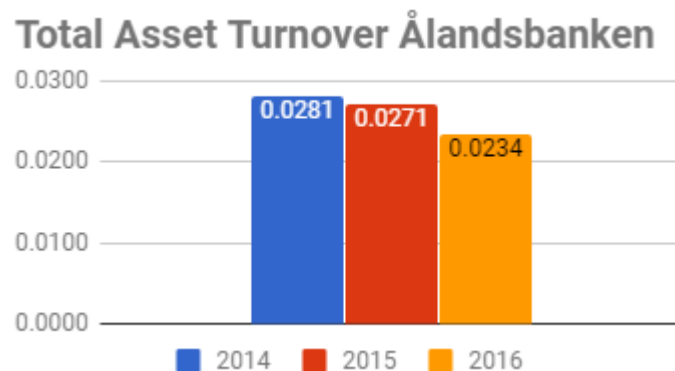
As mentioned in the previous chapter, there is also the problem of taking depreciation and amortization into account, which can skew the picture of this ratio. On these grounds this ratio will have a very minimal weight when reaching the conclusion. In order to fix the first issue, one could account for the interest earned specified in "net interest earned".



*Figure 8. Cash Coverage Ratio*

As expected, the cash coverage ratio tells the same story as the times interest earned ratio. It does also have the same problems. If there were any big differences between how the cash coverage ratio and the times interest earned ratio are spread out between the companies, it would tell us something about the depreciation and amortization. In this case though, the two ratios tell the same story.

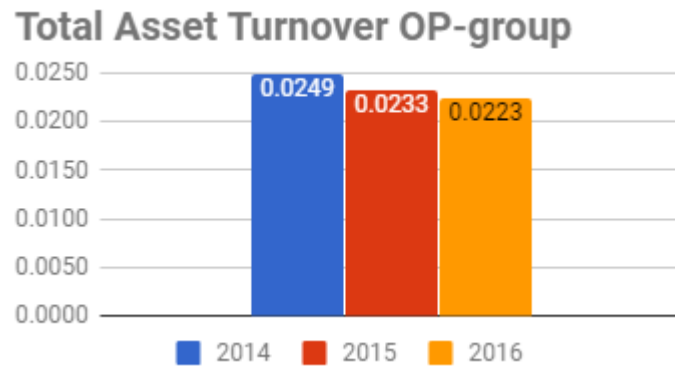
#### 4.1.3 Turnover ratios



*Figure 9. Total Asset Turnover Ålandsbanken*

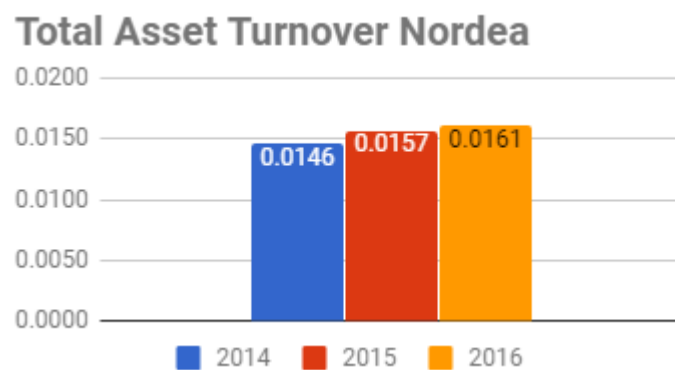
The above figure shows the total asset turnover for Ålandsbanken for the past three years. We can see that the turnover ratio has dropped significantly from 2014 to 2016.

This is mostly due to an increase in assets. From 2014 to 2016 Ålandsbanken's assets increased from 4 292 million euros to 5 137 million euros, or by almost 20%. It can take some time for the newly acquired assets to have its desired effect. That is what is being shown here, and will have to be taken when making the comparison between the banks for the year of 2016.



*Figure 10. Total Asset Turnover OP Group*

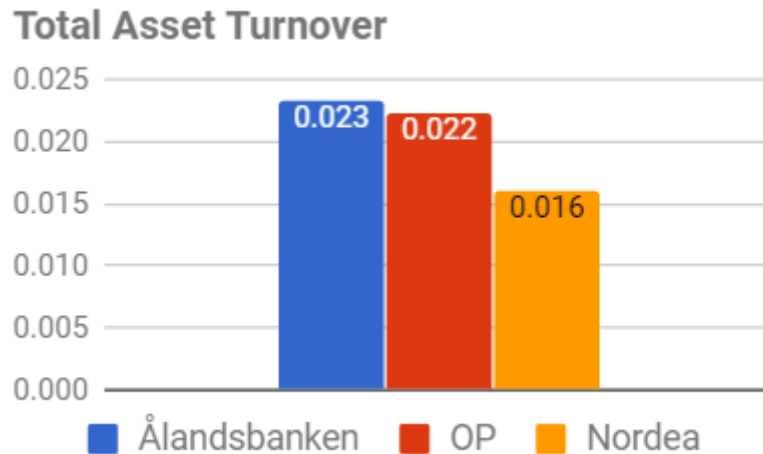
As for Op Financial Group's total asset turnover between 2014 and 2016 we can see that they too have had a drop, although not as significant as that of Ålandsbanken. I can be explained by the same reason as Ålandsbanken; that they have had an increase in assets for the past 3 years of 23.3 billion euros, or about 21%.



*Figure 11. Total Asset Turnover Nordea*

Nordea is the only one of the three banks that have managed to increase its ratio. It is also the only one of the three that saw a decrease in total assets from 2014 to 2016 by some 83.7 billion euros, or about 12%.

A trend can be spotted here; where the asset base of banks plays a much larger role in how well a company measures up in total asset turnover. Sales does not have nearly as significant of an impact as assets.



*Figure 12. Total Asset Turnover*

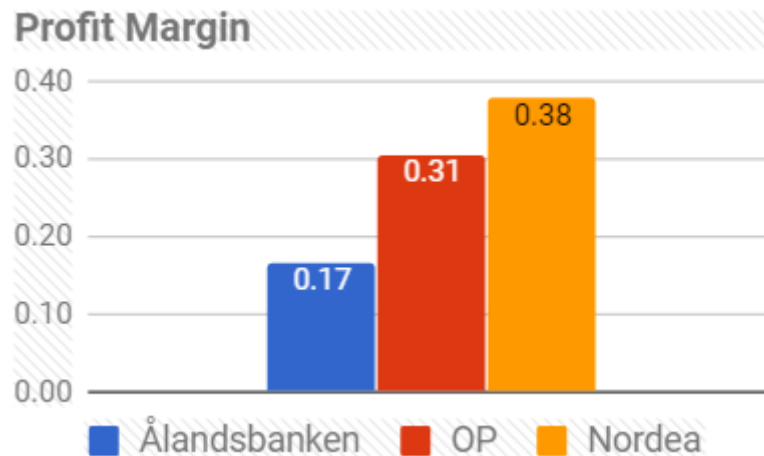
The figure above shows the total asset turnover comparison between the banks for the financial year of 2016. The banks have a very low asset turnover compared to other industries, and that is because of the nature of the business. Financial institutions in general have a very large number of assets, or holdings, and therefore the number tends to be lower.

When measuring total asset turnover, a higher score is generally better. That means that the company is putting their assets to more income generating use. In the chart above, we can see that Ålandsbanken has the highest ratio, narrowly ahead of OP. Although a bit surprising to see Ålandsbanken take the lead using this measure, the most likely explanation could be that it has less assets and can therefore utilize them better.

Nordea does have a much lower ratio than the other two and that is because of the large number of total assets, which makes it more difficult to generate a high percentage of turnover from them. If we look at the figures for each bank from 2014 to 2016, Nordea is catching up. This is because Nordea has been decreasing its assets. Its sales has also been decreasing slightly, but not as much in relative terms as the assets.

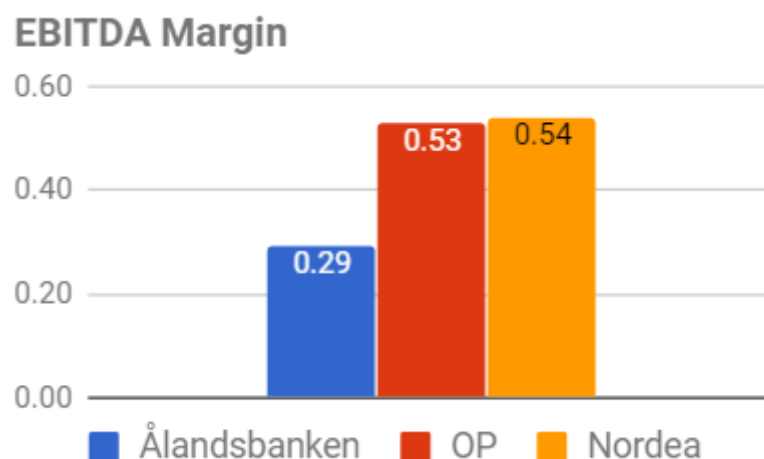
A bank can have a lot of useless assets in its books, that barely generates any turnover, or it can slim down its total assets and only focus on the ones that actually generate good revenue.

#### 4.1.4 Profitability ratios



*Figure 13. Profit Margin*

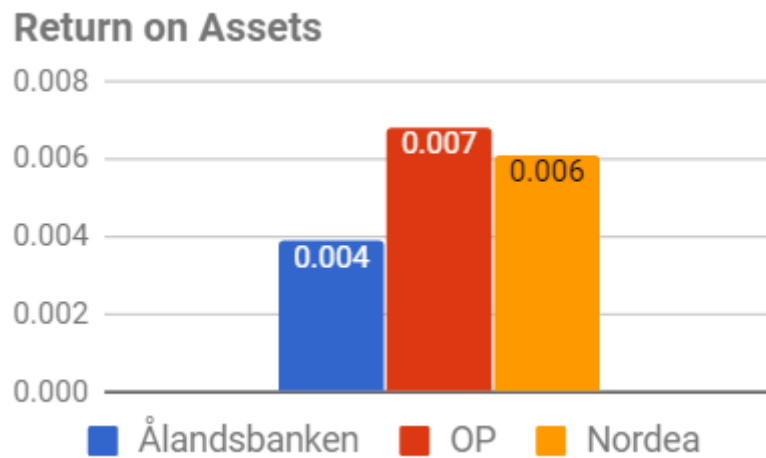
Ålandsbanken does have the worst profit margin of the three. It is expected that smaller banks have worse profit margin than bigger competitors. That can be explained by economies of scale. Fixed costs, such as administrative costs, are much more likely to be higher and therefore pushing down the profit margins. In previous chapters this has been discussed in the form that there has come plenty of new regulations since the 2008 financial crisis, such as the Basel 3 agreement. This increase the administrative costs disproportionately more for smaller banks.



*Figure 14. EBITDA Margin*

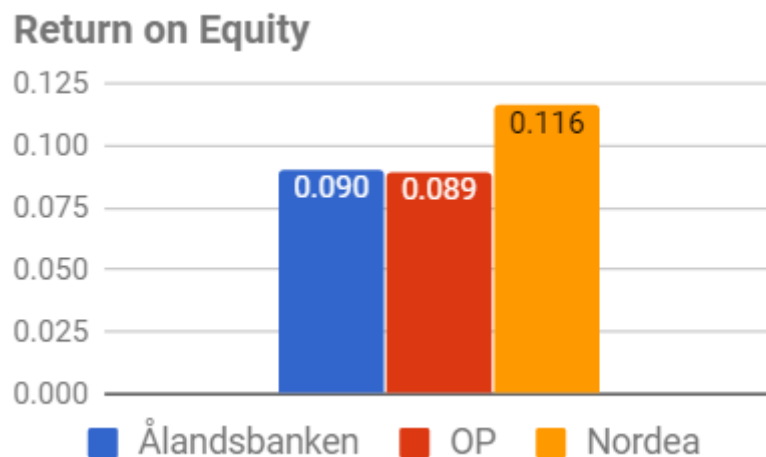
OP and Nordea has a very good EBITDA Margin, with Ålandsbanken trailing them heavily. We can see that depreciation and amortization has had a bigger impact for OP than for the other two. This is because of a higher number of depreciating assets. The

reason Ålandsbanken is trailing has been discussed above, as it is the same as profit margin.



*Figure 15. Return on Assets*

Ålandsbanken is behind the other ones, which are fairly close to each other. This is an interesting result, because as we saw above Ålandsbanken was ahead in total asset turn-over, but is trailing in return on assets. The difference suggests that Ålandsbanken is good at utilizing their assets, but they lag when it comes to utilizing them in the most profitable way. One possible reason is the difference in size. Another possible reason is the fact that its profit margin is significantly lower.



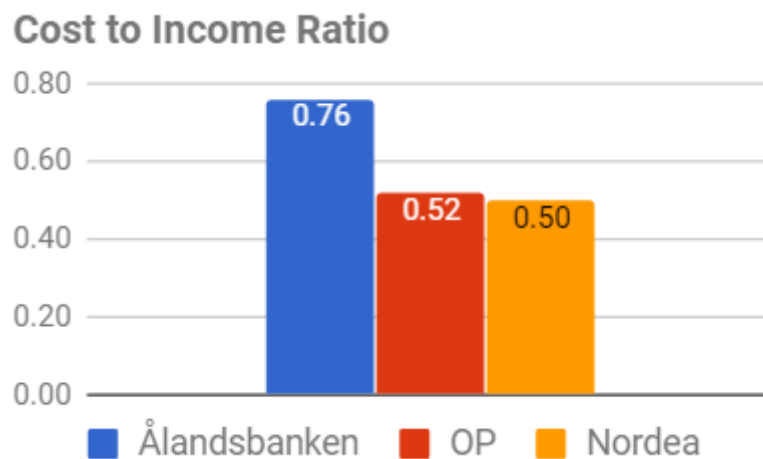
*Figure 16. Return on Equity*

Ålandsbanken does well in return on equity, having roughly the same return as OP. However, both of them are way behind Nordea. One possible reason is the way they are



financed. It is possible that Nordea is financed more by debt than by equity, thereby facilitating a higher return on equity.

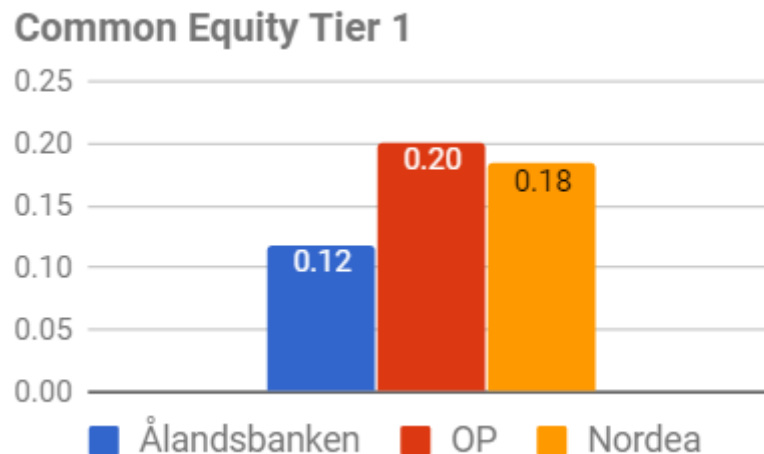
It has already been discussed that banks, by their nature of the business they are in, are mostly financed by debt. They can sustain this high level of debt by consistently generating a positive cash flow. This leads to lower levels of equity, where just the slightest difference can have a big impact in this ratio.



*Figure 17. Cost to Income Ratio*

Ålandsbanken does have the worst cost to income ratio, where a lower number is better. Again, this can probably be explained by economies of scale, same as with the profit margins. The general rule is that the bigger the business the lower the ratio of fixed costs, such as administrative costs, are. This ratio is closely related to the profit margin.

#### 4.1.5 Common equity tier 1



*Figure 18. Common Equity Tier 1 Ratio*

The CET1-ratio is essentially a measure of risk-taking. We can see that Ålandsbanken is quite far behind its bigger competitors, but that risk-taking is not shown as rewards in the profitability ratios that we already looked at. Basel 3 sets the rule that all banks must have a minimum ratio of 4,5% by 2019. All three banks are already way above that rule.

## 4.2 The future of small banks

The general consensus for small companies to thrive is to find its own niche. The same goes for banks. For example Ålandsbanken thinks it has found its niche in its concept of premium banking.

One way for a small bank to gain stability is to have at least one specific market where it is very strong, be that as a business segment or a geographical location. Ålandsbanken achieves this by being the market leader on the somewhat isolated Aland Islands.

To gain ground, some banks are expanding its personalized services. In both Finland and Sweden there is a big downgrade in this area as more and more customers do their banking through the internet. This is creating a vacuum where especially older customers do not have the same possibilities anymore, which could be a potential niche for smaller local banks to take advantage of.

In mainland Finland, Ålandsbanken has a strong customer base because of having Swedish as its corporate language. At the moment in Finland it is difficult to get any kind of services in Swedish, including banking. This leads to Ålandsbanken attracting customers whose mother tongue is Swedish and wants to be services in their mother tongue.

One of the major challenges for smaller banks is to keep up with ever tightening regulation. Since the financial crisis of 2008 regulations, such as Basel 1-3, is putting more demand on the banks to disclose more of their assets and their financial health. This leads to higher administrative costs, which disproportionally hits smaller banks harder than bigger ones. (SvD, 2016)

Another major challenge is to keep up with technological changes, which can be costly. Ålandsbanken gets around it by using its subsidiary Crosskey to develop its technologies and sell it to other actor within financial services, thereby generating income on product that was developed for Ålandsbanken. (Capgemini, 2016)

However this can also have downsides, such as instances where it might be more cost effective for its competitors to buy the solutions instead of being forced to create their own or find more expensive solutions.

Another downside to this business model is the difficulty to attract customers as many of the potential ones are competing with Ålandsbanken in one or several market segments. It would give Ålandsbanken an unwanted insight into their business and therefore a big benefit to its competitiveness.

For banks that does overcome these challenges the future looks bright. At the moment there is a very big upswing for banks, big and small. The smaller banks certainly does have their place in today's society.

## 5 CONCLUSIONS

This thesis has been about answering the question on how well a small bank fares in terms of stability and profitability compared to bigger banks. This was done by choosing a set of financial ratios. There are a lot of financial ratios available, therefore the ones deemed to give an overall sense of the banks' financial health and profitability were chosen.

In order to reach a conclusion, one has to examine each of the financial ratios separately. In the research there were three key performance indicators that were examined: liquidity, efficiency and profitability.

The liquidity ratios shows how capable a company is to pay its short-term debt. A high ratio shows a bigger capability to pay the short term debts. Ålandsbanken performs well, as does OP Financial Group. However, Nordea is behind both of them, but is still sufficient to meet its current liabilities.

The financial leverage ratios tell us how much of a company's funding comes from debt and how much comes from equity. It also shows us how well it can cover its interest payments. The more funding comes from debt the more risk the company carries. Ålandsbanken is the bank that has the highest level of debt. It is also the company that has the best possibility to pay the interest on that debt.

The efficiency ratio, or turnover ratio tells us how the company's assets are used. Only one turnover ratio was examined and that was the total asset turnover ratio. For this ratio we looked at the three previous years to determine how the ratio had changed. It turns out that only Nordea managed to improve its ratio during these years. Ålandsbanken's and OP's ratio both decreased in the same time period. It turned out that even though Nordea had improved its ratio, Ålandsbanken's ratio was the best one, with OP close behind.

Five different ratios were looked at for profitability ratios, profit margin, EBITDA margin, return on assets, return on equity and cost to income ratio. This is where Ålandsbanken is way behind by all measures. Ålandsbanken does have better return on equity than OP, but that is the only up-side.

Although Ålandsbanken does really well when measured on its own, it simply cannot expect to compete in terms of profitability nor solvency with the 2 giants in Finland, OP and Nordea. The reason for Ålandsbanken not doing as well as OP and Nordea is most likely economies of scale, as shown by several of the ratios, most obviously in profit margin and the cost to income ratio.

Overall we can see that Ålandsbanken does shine in some areas, such as total asset turnover and cash coverage. On the other hand, it trails its bigger competitors in most other areas, most notably in profitability and especially in profit margins and cost to income.

Suggestions for further research could be to look into the core businesses of the banks to see the effect of their subsidiaries. Another suggestion would be to delve deeper into the financial ratios to look at several other ones that has not been covered here, such as the DuPont ratio. One could also do the same analysis with different banks or with banks in a different country.

## REFERENCES

Holmstrand, 2010, Finansiell Ekonomi, Egypten, Liber Ab, 100-101.

Milbourn, 1997, Financial Times Mastering Finance, London, Hutton-Williams Agency, 157-162.

Ross, Westerfield and Jaffe, 2013, Corporate Finance (10th edition), New York City, McGraw-Hill, 48-61, 273-304, 417-434.

Basel Committee on Banking Supervision, 2013, Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, Bank for international settlements.

Brealey-Meyers, 2003, Principles of Corporate Finance (7th edition), The McGraw-Hill Companies, 323-326, 822-831.

Moneyweek, 2013, "Cost to income ratio", [online] Available at <https://moneyweek.com/glossary/cost-to-income-ratio/>, retrieved 22.11.2017.

Holmström and Lindholm, 2011, Företagsekonomi - från begrepp till beslut, Sanoma Utbildning.

Capgemini, 2016, "Sju av åtta banker oförberedda på digitala utmaningar", [online] Available at <http://www.mynewsdesk.com/se/Capgemini/pressreleases/sju-av-atta-banker-foerberedda-paa-digitala-utmaningar-1379799>, retrieved 27.11.2017

Svenska Dagbladet, 2016, Bankföreningen sågar "tsunamivåg av regleringar", [online] Available at <https://www.svd.se/bankforeningen-sagar-tsunamivag-av-regleringar>, retrieved 27.11.2017

## **BIBLIOGRAPHY**

Bodie, Kane and Marcus, 2001, Finance and investments 5th edition, McGraw-Hill.

Allen, F., Brealey, R., Myers, S., 2011 Principles of Corporate Finance 10th edition, McGraw Hill.

Bodie, Kane and Marcus, 2009, Investments, 8th edition, McGraw-Hill

Ålandsbanken Abp 2015, Annual Report 2014, Mariehamn, Ålandsbanken Abp

Ålandsbanken Abp 2016, Annual Report 2015, Mariehamn, Ålandsbanken Abp

Ålandsbanken Abp 2017, Annual Report 2016, Mariehamn, Ålandsbanken Abp

OP Financial Group 2015, Annual Report 2014, Helsinki, OP Financial Group

OP Financial Group 2016, Annual Report 2015, Helsinki, OP Financial Group

OP Financial Group 2017, Annual Report 2016, Helsinki, OP Financial Group

Nordea Bank Ab 2015, Annual Report 2014, Stockholm, Nordea Bank Ab

Nordea Bank Ab 2016, Annual Report 2015, Stockholm, Nordea Bank Ab

Nordea Bank Ab 2017, Annual Report 2016, Stockholm, Nordea Bank Ab

Lermarck, 2003, Steps to Basic Company Financial Analysis, Philadelphia University

Helfert, 2001, Financial Analysis- Tools & Techniques a Guide for Managers, McGraw-Hill.

Head and Watson, 2007, Corporate Finance: Principles & Practice, 4<sup>th</sup> Edition, Prentice Hall