UNIVERSITETET I AGDER

A Strategic Analysis & Fundamental Valuation of SalMar ASA

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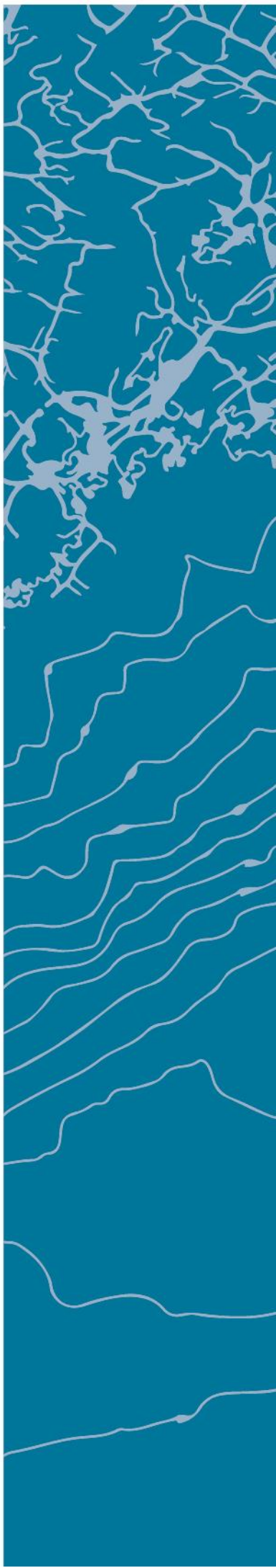

Preface

This master thesis is written to fulfill the final requirement for the graduate program in Management Accounting and Financial Economics by Jakob Gulgazarian and Magnus Øvrebø Øksenholt, at the University of Agder (UiA) School of Business and Law.

Our goal with this thesis is to find the intrinsic value of SalMar ASA, using a strategic analysis and fundamental valuation. The motivation for the thesis came from both of us having taken our bachelor degree in auditing and accounting and due to our interest in strategy, finance, and accounting. Through our years at UiA, we have had several subjects that provided us with skills to complete our thesis. We both enjoyed the subject of valuation in our master's program, so this felt like a natural topic for our thesis. We hoped that by working on this thesis we would gain a better understanding of the aquaculture industry, which we believe is an interesting and promising industry, as well as a better understanding of valuation. We chose to value SalMar because of their success and growth in the recent years. We hope that this thesis will be of interest for industry actors and others who are interested in the aquaculture industry.

Working on this thesis has been time consuming. We utilized different theories and methods learnt throughout our studies. It has also been very educational to apply these theories to answer a practical question. Moreover, we have learnt a lot about a very interesting industry, which has increased our interest in the business of aquaculture.

We would like to thank our supervisor Anna Alon, who has been of great help in every way possible. We would also like to thank other professors who have given us help with specific questions within their areas of expertise.

Kristiansand, 31, May 2017

Jakob Gulgazarian

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Abstract

This master thesis, in the field of Management Accounting and Financial Economics, was written with the purpose of finding the intrinsic value of SalMar ASA's equity at 31.12.2015. The price per share of SalMar was 155.00 NOK at 31.12.2015. We chose this date for our valuation as it coincided with the latest available annual report. The valuation was done through a fundamental approach using the discounted cash flow model and the economic value added model. The comparative valuation was added as a supplemental check and weighted against the fundamental value to form our recommendation.

The thesis can be divided into 7 parts:

1. Introduction to the company, the industry, and peers
2. Strategic analysis
3. Financial analysis
4. Forecasting
5. Fundamental and comparative valuation
6. Incidents after the valuation date
7. Conclusion and trading recommendation

The strategic analysis was conducted using PESTLE, Porter's five forces, the VRIO framework, and a SWOT analysis. The financial analysis looked at the development of the salmon price, the cost of feed, and the connection between these and the stock price of SalMar. It also compared SalMar to its peers by looking at key figures, what drives these key figures, and through seeing how this changes by reformulating the key figures.

The forecasting included the reformulation of the financial statements, and an estimation of the future development of the company. Important parts of this was to estimate the future price of salmon, the future harvest volume of SalMar, and future costs.

The valuation estimated the weighted average cost of capital using the CAPM, and applied this together with the numbers from the forecasting to value the company, which gave a value of 168.99 NOK per share. The comparative valuation was also included, which gave a higher value of 197.572 NOK per share. Weighting these numbers together gave a value of 178.51 NOK per share. These numbers imply a premium of 9.03 %, 27.46 %, and 15.17 % respectively. We recommend buying this stock up to a price of 178.51 NOK per share because up to this point the we consider the stock to be undervalued.

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1.0 Introduction

Norway has always been a seafaring and fishing nation, and the sea has always been an important part of Norwegian life and commerce. Before the discovery of oil in the Norwegian sea, fishing was one of Norway's main industries. Even today it is an important part of the Norwegian export industry. Norway is one of the largest seafood exporters in the world, only trailing behind China. In 2016 the Norwegian export of fish and other fish-related products reached 55 billion NOK and represents 7,4% of the total Norwegian exports (SSB, 2016). Given its sustainability and environmental friendliness, we believe the aquaculture industry is the future of the seafood production.

1.1 Research Question

In this thesis we will answer the question - *what is the intrinsic value of SalMar ASA stock on 31.12.2015?* We chose this date because our analysis depends on the information from the company's Annual report and the latest available was for 2015. We will then, based on the calculated value, put forward a recommendation regarding buying or selling of the stock. To do so we consider the industry of salmon farming and SalMar ASA, referred to as SalMar. We will look at the methods of salmon farming, from eggs to smolt to final product and the related success factors in the farming process. We will analyse the external and internal strategic environment, including macro-economic factors and the competitiveness of the industry. Then we will analyze the financial situation of SalMar. We will also try to forecast the future of SalMar and the future of the salmon farming industry. Despite the fact that we are valuing the firm at date 31.12.2015, we will still touch upon some issues that have happened after the valuation date in the strategic analysis. This will be done to illustrate points and show connections. We will however not use any post-valuation date data in the valuation itself. Moreover, in our forecasting we will forecast based on the data available as of December 2015. Important events occurring after 31.12.2015 will be covered in Chapter 10, "Incidents After the Valuation Date".

1.2 Structure of Thesis

The structure of the thesis is built up in a manner for it to be easy for the readers to quickly familiarize themselves with it. We will first briefly present a given theory before putting it

into practise. Even though we will present the theory, we also expect a certain level of knowledge from the reader in terms of strategy, accounting, finance, and valuation. We start by an introduction into the Atlantic salmon farming industry, the industry structure, and the methods of production in chapter 2. Then in chapter 3, we present the company SalMar ASA, its history, organizational structure and ownership structure and operations. In chapter 4, we present the methodology of valuation and limitations. In chapter 5, we do a strategic analysis, both internal and external, using a number of strategic frameworks like PESTEL, Porters' five forces, VRIO, and finally put all of it together in a SWOT analysis. In Chapter 6, financial analysis, we look at the price development of salmon and salmon feed. Then we analyse the development of the stock price for the peer group and SalMar, comparing them to each other and to the Oslo Børs Seafood index. We also look at the development in recent years of some key figures and the value drivers behind these figures. In chapter 7, we forecast pro-forma financial statements, and forecast the price of salmon using a regression model utilized in the valuation and sensitivity analysis. Then in chapter 8, we undertake the valuation itself by first calculating the WACC using CAPM and estimating the beta through a regression. This is then applied to the DCFM and EVA models to calculate the value of the SalMar stock. We also undertake a comparable valuation using the peers of SalMar. In chapter 9, we do a sensitivity analysis based on the WACC, the terminal growth rate, the price of salmon, and costs per kg. Then in chapter 10, we look at incidents after the valuation date that may have an impact on the value of SalMar, but wasn't included in the valuation. Lastly, in chapter 11, we conclude and give our trading recommendation.

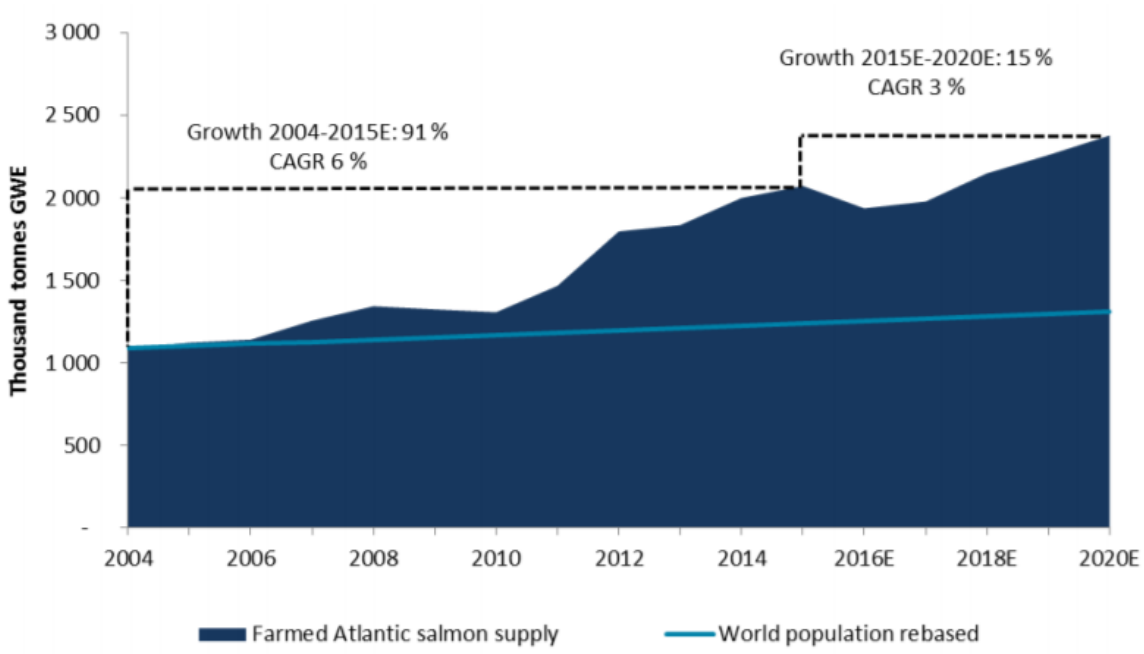
2.0 Salmon Farming Industry

In this chapter, we discuss the salmon farming industry in Norway and the rest of the world. We focus at the market for salmon, the industry structure, and the methods of production. Our main source is the Marine Harvest Salmon Farming Handbook (2016). We recognize that it is prepared by a competitor of SalMar. Because of this, we will, to a certain degree, be critical of the information. However, the handbook is used by many stakeholders in the industry and is generally accepted as a good source of information.

Several species of the family Salmonidae are referred to as Salmon, like the Atlantic salmon that we are going to focus on, but also the Pacific salmon. Other fish in the same family are called trout, like the large trout and the small trout. Even though over 70% of the world surface is covered by water, only 6.5 % of total human protein consumption comes from fish (Marine Harvest1, 2016) (FAO of the United Nations, 2011).
The methods of cultivating that we see in use today were first pioneered in Norway in the 1960s as an experiment. It was very successful and in the 1980s was done on an industrial scale in Norway, and in the 1990s in Chile. This method also spread around the world, and now there is industrial scale salmon farming all over the world, with Norway, Scotland, Canada and Chile being the big four producers (Asche, 2011). There is also substantial salmon farming activities in Australia, Faroe Islands, Iceland, New Zealand and Ireland. Salmon as a species in in the top five in most seafood markets (Asche, 2011). In 2014 aquaculture provided half of the fish destined for direct human consumption (Marine Harvest1, 2016). According to data from Marine Harvest 2016, all commercial Atlantic salmon in 2015 was farmed.. Biological and climate conditions in the above mentioned regions are suitable for Atlantic salmon farming. The optimal temperature for the Atlantic salmon is between 8 and 14 degrees Celsius. The salmon is cultivated in fjords and quiet waters where the conditions are ideal for both good yield and cheap production. The Atlantic salmon is considered a healthy source of protein because of its high content of easily digestible pertain, omega-3, vitamins and minerals. It is also economically superior to other sources of protein. Its edible yield is 68% and edible meat per 100kg is 61kg (Marine Harvest1, 2016), substantially higher than other main sources of protein. In addition, it also has a very environmentally friendly production with a low carbon footprint of 2,9kg CO2/kg edible meat (Marine Harvest1, 2016). The supply of Atlantic salmon has been steadily increasing, and has had an average annual growth of 9% since 1995. However, this growth

has slowed down, with an annual growth of only about 6% between 2004 and 2015. (Marine Harvest1, 2016). Kontali Analyse, an independent provider of analysis and information in the aquaculture industry, forecasts that the growth will slow down even further and expects an annual growth of 3% from 2015 to 2020. (see figure 1)

Figure 1 Growth of Atlantic Salmon supply



Source: Marine Harvest1, 2016, p.18

2.1 Market

Today there is a huge market for Atlantic salmon all over the world. The largest markets are the EU, North America, and Asia including Russia. At the same time, most of the harvest is coming from Northern Europe and South America (Marine Harvest1, 2016). In 2016 the total Norwegian export of Atlantic Salmon was worth 61,4 billion NOK, a 29% increase from 2015. Out of that 77% and 76% respectively were exported to EU27 (Akvafakta, 2017). Since salmon is mainly consumed as fresh food, each harvesting region is usually focused on supplying their own region or nearby regions, in other words there is a high degree of geographic segmentation. This trend has come out of the economic factors like cost of transportation. Thus, the main competitors of Norwegian salmon farmers are other Norwegian salmon farmers and, to some degree, other European producers. However, there is still Norwegian Salmon available across Asia but the price is naturally higher. Other salmon

products that can be more easily and cheaply transported, like frozen salmon and smoked salmon, are therefore sold around the world. According to Kontali Analyse the market for Atlantic salmon has on average grown by 6,2% the last 10 years and 8,6 % the last 20 years. With Asia having a CAGR of 10% the last 10 years and Brazil having a CAGR of 19% (Marine Harvest1, 2016).

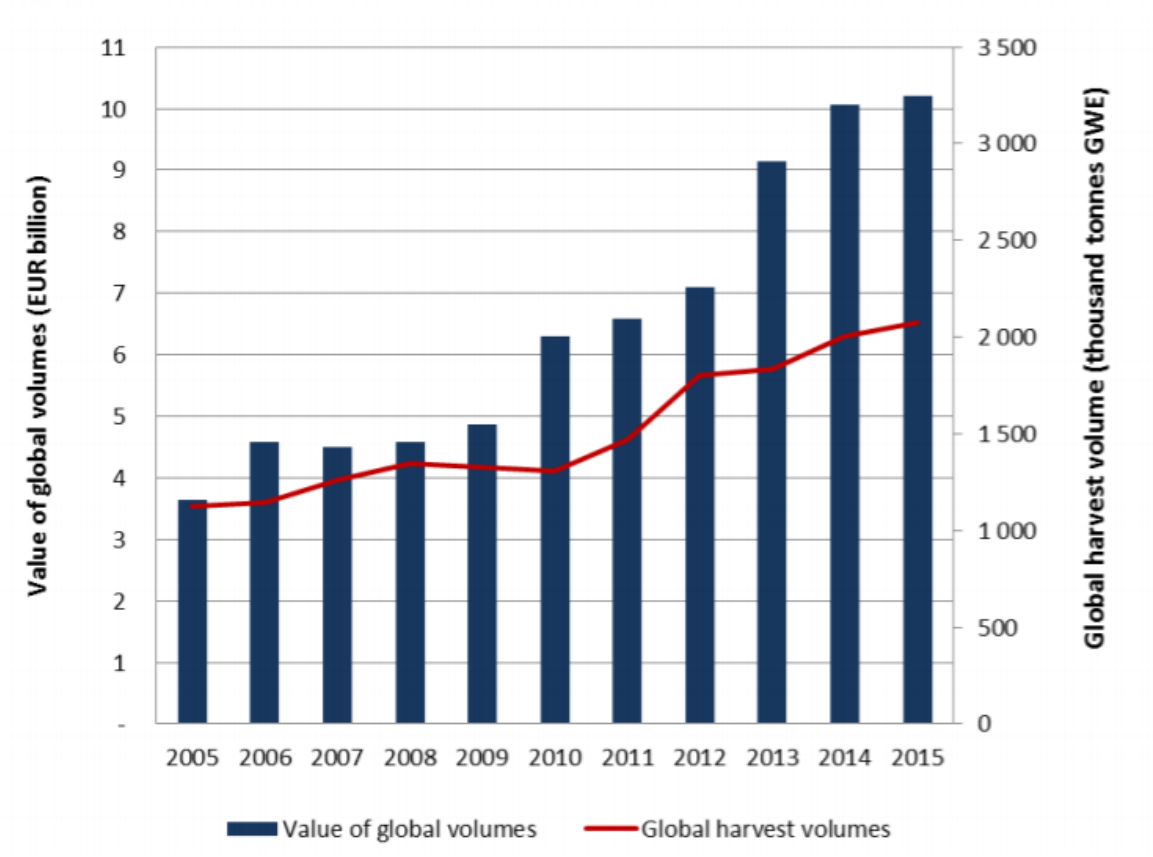
The Marine Harvest Salmon Farming Handbook illustrates the growth of the demand of Atlantic salmon by comparing the value of the total harvest and the total harvest by volume (see figure 2). We can see that there is a larger growth in the value of the harvest than the harvests volume. This indicates that the demand has grown. The price of the Norwegian Salmon is affected by many factors. The Marine Harvest Handbook (2016) lists the following factors:

- Supply (absolute and seasonal variations)
- Demand (absolute and seasonal variations)
- Globalisation of the market (opportunities for arbitrage between regional markets)
- Presence of sales contracts reducing quantity available on the spot market
- Flexibility of market channels
- Quality
- Disease outbreak
- Food scares

The prices of salmon are taken from reference prices, like the Nasdaq price for Norwegian salmon (FCA Oslo) and UB price for Chilean Salmon (FOB Miami). These reference prices are for standard products, and without taking shipping and transportation into account. They also do not apply to frozen or portioned products. The prices for Norwegian, Chilean and Fresh Atlantic salmon seem to follow the same trends over the years. The prices of Scottish and Faroes salmon follows the price of the Norwegian salmon. but sells at a premium over the Norwegian salmon (Marine Harvest1, 2016).

Because of the long production cycle of farmed Atlantic salmon, 24-40 months, more closely explained in *"2.3 methods of production"* it is difficult to produce the right amount of salmon for a given year, in regards to the demand in that year. Therefore, the producers need to forecast the demand in 2-3 years from now to decide what quantity they need to produce today. This can lead to situation where a sudden increase in demand, that was not foreseen, can force the price up even more because the supply cannot be adjusted up, until around 3 years later.

Figure 2 Value of global harvest vs volume of global harvest.



Source: Marine Harvest1, 2016, p.22

2.2 Industry Structure

Norway is by far the largest producer of Atlantic salmon followed by Chile. In the early days of salmon farming, most of the production in Norway was divided between many small-scale farms, but over the years consolidations and acquisitions have lowered the number of producers. In 2015, 22 of Norway's biggest companies were responsible for over 80% of the total farmed salmon. This number was close to 70 in 1997. In Chile, 13 of the top producers stood for 80% in 2015 (Marine Harvest1, 2016). The total number of companies producing salmon in Norway is 98, even though there are 151 commercial license holders. Marine Harvest is the top producer of salmon in Norway with a harvest volume of 254 800 tonnes followed by SalMar with 136 400 tonnes, and closely followed by Lerøy Seafood with 135 000 tonnes in 2015 (see table 1). The information in the table clearly shows how the top producers in each market make up a very large part of the total harvest.

Table 1 Ranking of the top producers of each region.

	Top 10 Norway	Harvest	Top 5 UK [1)]	Harvest	Top 5 North America [1)]	Harvest	Top 10 Chile	Harvest
1	Marine Harvest	254 800	Marine Harvest	50 100	Cooke Aquaculture	42 000	Empresas Aquachile	63 000
2	Salmar	136 400	Scottish Seafarms	27 000	Marine Harvest	40 100	Marine Harvest	62 500
3	Lerøy Seafood	135 000	The Scottish Salmon Co.	25 600	Mitsubishi (Cermaq)	21 000	Mitsubishi	60 000
4	Mitsubishi (Cermaq)	58 000	Cooke Aquaculture	19 000	Grieg Seafood	14 300	Salmones Multiexport	51 000
5	Nordlaks	39 000	Grieg Seafood	16 400	Northern Harvest	13 000	Camanchaca	39 000
6	Nova Sea	37 400					Australis Seafood	38 100
7	Midt-Norsk / Bjørøya	32 000					Pesquera Los Fiordos	30 000
8	Grieg Seafood	31 700					Blumar	25 800
9	Norway Royal Salmon	27 900					Cooke Aquaculture	25 000
10	Alsaker Fjordbruk	27 000					Ventisqueros	22 000
	Top 10	779 200	Top 5	138 100	Top 5	130 400	Top 10	416 400
	Total	1 110 800	Total	149 700	Total	139 900	Total	531 800
	Total	70 %	Total	92 %	Total	93 %	Total	78 %

Note: All figures in tonnes GWE for 2015

1) UK and North American industry are best described by top 5 producers.

Source: Marine Harvest1, 2016, p.27

2.3 Method of Production

The salmon cultivations starts with the selection of broodstock from seawater cages, usually in autumn, which are taken to freshwater tanks to develop the eggs. Then the fish are stripped and the eggs are fertilized with milt. This process takes about 2 months. The hatching itself takes place in a specially designed hatchery. Later, the alevins are transported to tanks; here the fish are kept until smoltification, this can either happen in the spring of the following year or can be artificially sped up for early smoltification. These fish are then moved to seawater cages when they are ready, and capable of surviving in salt water. The fish are kept in these cages for the next 2 years and are grown to a size suitable for harvesting, usually from 2 kg and upwards. In total, the production cycle takes 24-40 months (Marine Harvest1, 2016). The production cycle of around 3 years will be used in this thesis when conducting further analysis.

2.4 Cost Structure

The costs of salmon farming comes from several production inputs. Firstly, there is the physical input of either eggs or smolt. A firm can either buy smolt from third party firms, buy the eggs and produce them in-house or harvest the eggs themselves and do the entire process in-house. Most salmon farming firms in Norway produce their smolt in-house (Marine Harvest1, 2016). Specialized egg suppliers usually supply the eggs; these include the Norwegian Aquagen AS, Salmobreed AS and Irish Fanad Fisheries. The market for salmon eggs is international. Then there is the cost of labour, according to Marine Harvest handbook 2016, in Norway this cost is higher than in Chile and slightly higher than in Scotland and

Canada. The level of automation is also relatively higher in Norway. According to Nofima's 2013 numbers taken from Marine Harvest1 (2016) there were over 9600 full time employees in the Norwegian aquaculture industry. If we add the 15000 employees who work indirectly with aquaculture, we get a total of 24000 people working either in the industry or the value chain. Another input is the cost for electricity. The use of electricity is primarily in the early and late stages of production. The cost can vary depending on the price of electricity and the natural temperature. In total the Marine Harvest Salmon Farming Handbook (2016) estimates that the cost of electricity ends up around 6-8% of the harvest cost in Norway. The salmon feed makes up the largest part of the production cost. The feed for the salmon farming industry is usually produced near the farms itself. Just like the salmon farming industry itself, the salmon feed producing industry has also seen consolidations in the last years. As of 2015 four companies hold almost 100% of the market share for feed producers in Norway (Marine Harvest1, 2016). In addition to eggs, labour, electricity, and feed, there are other costs like processing, and shipping. We will not look into these any closer here.

3.0 The Company

In this chapter, we look at SalMar, its current situation, brief history and organization of operations. We also look at their vision and mission along with the ownership structure of the company.

SalMar ASA is an Aquaculture firm focusing on the farming of Atlantic salmon, mostly based in Norway. SalMar owns 100 licenses in Norway, 68 of the licenses are in the regions of Trøndelag and Nordmøre, while the rest are owned by the SalMars subsidiary, SalMar Nord AS (SalMar1, N.D.). SalMar is the second largest Atlantic salmon farming firm in Norway, after Marine Harvest, and the third largest in the world after Marine Harvest and Mitsubishi (Marine Harvest1, 2016). As of 2015 SalMar had a market share of 12.28 % of the harvested farmed Atlantic Salmon in Norway and through its stake in Scottish Sea Farms Ltd also had a market share of 9.02 % of the UK farmed Atlantic Salmon harvesting (Marine Harvest1, 2016). SalMar is listed on the Oslo Stock Exchange and has been since 2007. The headquarter is located at the island of Frøya in central Norway and most of the farming is done in this region. Today SalMar is an international conglomerate with shareholdings in the UK, and Iceland. SalMar employs 1000 employees while harvesting around 150 000 metric tons of gutted fish in 2015 (SalMar1, N.D.). SalMar is recognized as one of the most profitable salmon farming firms and beats their rivals on many key indicators.

3.1 History

SalMar was founded on the 8th February 1991 on Frøya in Sør-Trøndelag. This was during a period of great turmoil for the Norwegian aquaculture industry and its license for the production of farmed salmon and a harvesting/production plant was bought from a company that had gone into liquidation. Since then SalMar has experienced a substantial development and has played a large part in the growth of the Norwegian aquaculture industry during the last twenty years. During its existence, SalMar has developed and restructured itself and the industry through a focus on industrialization and delivering finished products ready for consumers to consume directly. During the first years of business, SalMar stayed within central Norway and bought companies there, but in 2000 it acquired 49 % of the shares of Senja Sjøfarm AS in northern Norway. Already the next year SalMar expanded internationally through a joint venture with Lerøy Seafood Group and this joint venture, Norskott Havbruk AS, is the sole owner of Scottish Sea Farms Ltd, the second largest salmon

producer in the UK (SalMar2, N.D.). In 2005 SalMar focused its business more on what it viewed as its core areas and divested its operations related to herring, herring oil and fish meal. From here on out SalMar continued acquiring numerous businesses and on 8th May 2007 SalMar was listed on the Oslo Stock Exchange in order to get more funding to continue its growth. In 2008 and 2009, SalMar bought 34% and later the remaining 66% of Volstad Seafood AS. The acquisitions continued the following years with some of the notable ones being, 75,54% of Rauma Gruppen AS, 24,8% of the Faeroes firm Bakkefrost P/t, 50,4% of Villa Organic AS, and a number of other smaller Norwegian firms based around mid-Norway. Eventually SalMar sold its shares in the Faeroe Islands. However, in 2015 it got an indirect stake of 22,91% in the Icelandic firm Arnarlax Hf. Through these acquisitions of firms and licenses and growth of its own operations SalMar went from producing 11 000 Tonnes gutted weight in 2001 to almost 150 000 in 2015 (SalMar2, N.D.).

3.2 Organization and Operation

SalMar has stated four business areas:

- Hatchery Production/smolt
- Farming
- Processing
- Sales and Distribution

SalMar is a vertically integrated producer of salmon and these business areas are all directly related to the value chain of delivering salmon to consumers. SalMar is in many ways a success story from mergers and acquisitions when it comes to value generation through vertical integration with increased industrialization and associated cost savings as a result (SalMar4, N.D.).

3.2.1 Hatchery Production

The hatchery production relates to the production of fish fry and smolt, and self-sufficiency is viewed as crucial to achieving adequate access to supplies of the right quality smolt and strategic control of future volume to be delivered to the market. Having this production in-house also allows for a more even seasonal distribution and higher usage of available capacity.

3.2.2 Farming

The central part of aquaculture is the fish farming itself. This is where the fish are grown outside in fish farms from small smolt to full size salmon ready to be processed. The keys to good fish farming is cost-effective operations and high standards of animal husbandry.

SalMar has here chosen to subdivide its fish farming based on regions. SalMar Central Norway is the largest division and responsible for harvesting 80,500 metric tons of gutted salmon from its 52 production licenses as of 2015. Several of these licenses are research and development licenses, three of which are part of an association with a research organization called Sintef (SalMar4, N.D.). Research and development is key in the aquaculture industry as the largest potentials for growth are based on improving fish health, and reducing the time it takes for smolt to become harvestable salmon is one of the most important value adding actions that a company in the industry can undertake. From 1st January 2016 SalMar Central also included the Rauma segment which in 2015 harvested 16,400 metric tons of gutted salmon from its 16 production licenses. The last Norwegian division is SalMar Northern Norway, which harvested 39,500 metric tons of gutted salmon from 32 production licenses. Here there is room for geographical growth in Finnmark, away from the traditional focus areas in Troms. This region has excellent environmental conditions for sustainable production due to having few challenges related to diseases and parasites.

3.2.3 Processing

These operations are closely linked to the farming operations and has been a focus point for the development of the company. Large scale operations with large harvesting volumes allows for the implementation of economies of scale and improved utilization of all the parts of the salmon, including usage beyond human consumption. These operations are located at the headquarters on Frøya in central Norway and the facility, which was built in 2010 and required around 550 million NOK of investments, is called InnovaMar. The goal of InnovaMar is *"…to be the world's most innovative and efficient facility for the landing, harvesting and processing of farmed salmon."* (SalMar5, N.D.). It covers 17,500 square meters of floor space over two departments. Another aspect of InnovaMar is that each salmon is categorized and followed throughout the entire plant, which allows the product to be traced *"from roe to retailer."* (SalMar5, N.D.).

3.2.4 Sales and Distribution

The last part of the operations is to find a buyer and bring it to them. The sales are done either through the mother company Salmar AS or, for the Asian market, through the subsidiaries SalMar Japan, SalMar Vietnam and SalMar Korea (SalMar6, N.D.)

3.3 Strategy and Vision

"A firm's mission is its long-term purpose. Missions define both what a firm aspires to be in the long run and what it wants to avoid in the meantime" (Barney, 2011 p.5) These missions

are often written down in mission statements and vision statements.
SalMars vision, that they adopted in 2014, is: *"Passion for Salmon".* This shows how strongly they are focusing on salmon and is consistent with their divestment of herring associated businesses in 2005. Through this vision, SalMar aims for excellence and growth within the salmon aquaculture industry, but retains a focus on sustainability. This sustainable growth relates to social corporate responsibility and environmental, social, and financial sustainability. What this means in practice can be many things, but reducing biological risks through a focus on survival rates of smolt, reducing disease and parasite rates, and preventing fish from escaping is vital. Other focus areas are reducing unused space in cages, mostly on a seasonal basis with excess room historically being around April, May and June, and shortening production time at sea through the use of larger smolt (Nordhammer, 2015). Through this vision SalMar also tries to focus on the wellbeing of the salmon itself, both while alive, and in the careful handling of the meat during processing. This careful handling of the products is supposed to be visible even for the end consumer, salmon from SalMar attempts to be perceived as always being perfectly shaped in premium packaging (SalMar7, N.D.).

3.4 Ownership Structure

SalMar is a listed company with a wide variety of shareholders. The largest shareholder is Kverva AS, which owns 53.40 %. The founder of Salmar, Gustav M. Witzøe, owns 90.85 % of Kverva. The second largest shareholder is Folketrygdfondet, the Norwegian Pension Administration, which owns 7.33 %. Other shareholders include J.P. Morgan Chase, and State Street Bank and Trust Company (SalMar8, N.D.). This type of shareholders might indicate that the stock is highly traded. The CEO of SalMar is Trond Willkisen who used to be the CEO of another aquaculture related firm called AKVA Group, and previously worked as a consultant for fishery related businesses. Trond Tuvstein is the CFO; he has a master in accounting and auditing from NHH. Tom Aleksandersen is the CSO. Olav-Andreas Ervik is the director of farming and Eva Haugen is the director of quality management. Gustav M. Witzøe himself is the director of processing and sales (Brønnøysundsregisteret1, N.D.) (SalMar3, N.D.).

4.0 Methodology

In this chapter, we will take a brief look at the methodology used in this thesis. We will look at the different models of valuation and briefly explain them. We will be using the framework that is outlined by Penman in *"Financial statement analysis and equity valuation"* (2013).

4.1 Methods of Valuation

There are several types of valuation methods. To be able to choose which method is the best for us when valuing SalMar we take a look at these methods. Here we divide the methods into different categories. For a valuation to make financial sense, the benefit must justify the cost, therefore the time consumption and the cost of a valuation is of utter importance when deciding to run a valuation. Based on our assessment we end up using the methods of comparables, DCFM, and EVA as described in this chapter.

4.1.2 The Method of Comparables

Sometimes called multiple comparison analysis or simply "comps" is a method of valuation where you look at similar companies in the same industry. You identify some key measures in the comparable firms' financial statement and calculate multiples of those measures in regards to the firms' value. Then you take the multiples and a measure of center of mass and apply it to the firm you are trying to valuate. (Penman, 2013). Let us take a simple example. If we are trying to valuate SalMar we can take the price to earnings of comparable firms like Marine Harvest and Lerøy Seafood, average it out and multiply the multiple with the earning of SalMar to get the price of SalMar. Usually you would use more than one measurement, like price to book value and price to sales. This is a very simple way of coming up with a value, and very cost effective. However, Penman (2013) points out the flaws with this method. Since the price of SalMar is based on the price of its peers, then the price of its peers can be calculated by using the price of SalMar, it ends up being a circle. With this method, the value of SalMar is not based on anything fundamental and is based only on the market price of comparable companies (Penman, 2013). This method can be justified in some cases where we need a quick look into the price of a firm that is seldom traded and where the comparables are believed to be efficiently priced. Furthermore, a comparative valuation might seem simple and time effective, but it can sometimes be time consuming and complex because it relies on a number of assumptions. These assumptions need to be fulfilled or the result might be biased.

However, in most cases not all assumptions are fulfilled due to time constraints, so there is a degree of bias in the results (Petersen, 2017).

4.1.3 Asset-based Valuation

Another easy and not-so-reliable way of valuation is the asset-based valuation. Here you identify all the assets in the company, then take the value of the assets and deduct the value of the liabilities what you are left with is the value of the firm. Assets and liabilities are given in the balance sheet, and some of the numbers in the balance sheet are close to the market value, like debt, cash and accounts receivable. You can also find the market value of many of the assets in the footnotes. However, many of the numbers in the balance sheet are not equal to the market value, and are instead equal to amortized historical cost. These are often times the assets that are worth the most and are responsible for the value creation (Penman, 2013). Furthermore, income statements do not reflect the value of a brand name and other goodwill; this can be a large source of value that is not taken into account in an asset-based valuation. According to Penman (2013) this method of valuation is *"often placed in the too difficult basket"*(Penman, 2013, p83), but it might still be justified in some instances, for example when valuing a firm who only invests in traded stocks, but once again the traded stocks market value might not be accurate because of market inefficiency (Penman, 2013)

4.1.4 Fundamental Analysis

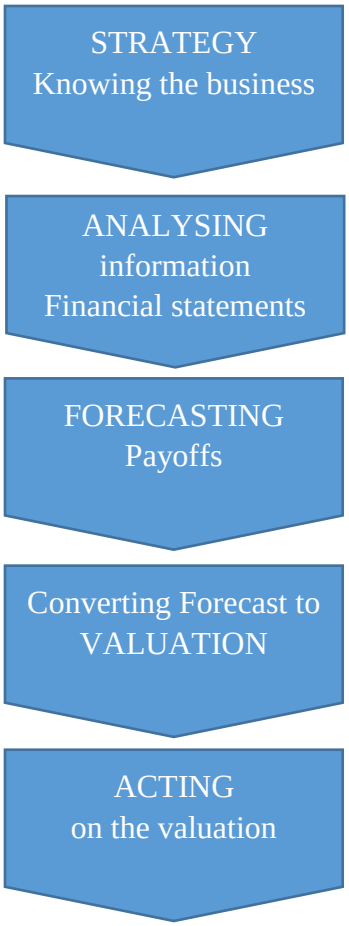
The most comprehensive of the methods we are going to discuss is the fundamental analysis method. The value of a firm is based on its future payoffs (Penman, 2013). Therefore, in a fundamental analysis method one tries to forecast the future payoffs of the firm. This is what differentiates this method from the first two methods, the addition of future forecasting. However, to be able to forecast the future one needs to go through a number of steps. Penman (2013) illustrates the process of fundamental analysis in a figure similar to figure 3.

You start by a strategic analysis of the firm and its business. Frameworks like PESTLE can be used here, to analyse external macroeconomic environments, like competitors, legal issues, political issues and other parameters that will be essential for the forecasting stage. VRIO can be used to analyse the internal strategic situation.

The next step is to analyse information in the financial statement and outside of financial statement. Here you look at key indicators and compare the firm to similar firms and indexes. Once you have gained an extensive knowledge in both the strategic and financial situation you are ready to forecast. After the forecast, you can start the fundamental valuation. The last

step in the process is acting on your findings. If the value you find is higher than the selling price you should buy the stocks, if its lower you should sell them.

Figure 3 Process of fundamental analysis



Penman, 2013 The process of fundamental analysis, p.85

4.2 Fundamental Valuation

There are a number of models that can be used in the fundamental valuation method, all of the models are comprehensive and require forecasting. In theory, one should also always get the same result with all of the models, as long as the input numbers are correct. The first two methods we are going to discuss are the discounted cash flow model and the discounted dividend model. Both these models prove to be unsatisfactory in practice, because the cash flow of the firm does not necessarily capture the value added (Penman, 2013).

4.2.1 Dividend Discount Model

This model tries to find the value of the firm by forecasting the future dividends, which are the free cash flow that the firm gives out to the stockholders. These future dividends are then discounted with a discount rate. Mathematically the DDM model looks like this.

$$V_0^E = \frac{d_1}{\rho_E} + \frac{d_2}{\rho_E^2} \ldots \frac{d_T}{\rho_E^T}$$

V_0^E= Value of the equity at time 1

ρ_E= Discount rate for equity

To get the correct value of the firm the dividends need to be discounted indefinitely, however it is not easy to forecast the dividends so far into the future. We also need to add the future value that the stock can be sold for. It is also naïve to use a perpetuity and assume that the dividends will not grow. Because of these reasons, we can use Gordon's growth formula. With that, the final formula looks like following.

$$V_0^E = \frac{d_1}{\rho_E - g}$$

g=1 plus the growth rate of the dividend

This formula assumes that there is going to be a stable growth of g percent indefinitely after the first year. The DDM is considered to be one of the easier models to work with, but is criticised because as mentioned earlier, cash flow doesn't represent value added, some firms that are doing badly might have high dividend payoffs while firms doing well can have zero payoffs (Penman, 2013).

4.2.2 Discounted Cash Flow Model

In this model we rely on the fact that the enterprise value of a firm is the value of the debt and the value of the equity, $V_0^F = V_0^D + V_0^E$. Therefore, the value of the equity of the firm is the cash flow that comes from the operations and investments, subtracted the claim of the debt holders. The formula looks like this:

$$V_0^E = \frac{C_1 - I_1}{\rho_F} + \frac{C_2 - I_2}{\rho_F^2} + \cdots + \frac{C_T - I_T}{\rho_F^t} + \frac{CV_T}{\rho_F^T} - V_0^D$$

C_1= Cash from operations at time 1

I_1= Cash investment at time 1

ρ_F= Discount rate for equity

CV_T = Continuing value

V_0^D = The value of debt

The Continuing value (CV), also known as the terminal value, is the value of calculations after our initial forecasting period, if we choose to assume that the free cash flow will be an infinite perpetuity then the continuing value is given by:

$$CV_T = \frac{C_{T+1} - I_{T+1}}{\rho_F - 1}$$

Alternatively, if we assume a growth in the free cash flow in the future, we will again use the growth formula like we did in the case of the dividend discount model.

$$CV_T = \frac{C_{T+1} - I_{T+1}}{p_F - g}$$

Penman (2013) points out why this method can be problematic for valuating, for example a firm can have negative cash flows because they are using more money on investments than they are getting from their operations. All of these investments might be positive NPV investments that will bring profit in the future, but the DCF model will not catch these value adding activities. These investments will grow the future cash flows, but if a firm keeps investing more and more, you have to wait more and more for the cash flow, and the forecasting horizon needs to be larger and larger for you to see the positive cash flows. Negative or slow cash flows might be an effect of low operational incomes, which is "bad", but it can also be an effect of large investments, which is "good". The DCF model would have worked much better if the reality were that operational cash flow at period one came from the investments in the same period, but this is simply not the case (Penman, 2013).

4.2.3 The Residual Earnings Model

The REM is based on calculating the book value of the firm and then adding to it the discounted value of residual earnings in the future. This method usually brings more value forward in time, so more value is recognised in the forecasted period and less is left in the continuing value. This means that there is less speculation in the calculation of the continuing value. (Penman, 2013).

The Residual earnings model mathematically.

$$V_0^E = BV_0 + \sum_{t=1}^{\infty} \frac{RE_t}{(1+\rho)^t} \quad Where: RE_t = E_t - \rho * BV_0$$

V_0^E= Value of equity at time 0

BV_0= Book Value at time 0

RE_t= Residual Earnings

E_t Earnings

p=required rate of return

As we can see residual earnings, also known as abnormal earnings, is simply part of the earnings that exceeds the required earnings on the book value. If there is an assumption of constant growth in RE in the future, then the Gordon's growth formula can be used here as well. This model is superior to the two models mentioned earlier because it looks more into value adding activities and is not effected by dividends, and share repurchases which are generally irrelevant to the value added (Penman, 2013).

4.2.4 Economic Value-added Model

Another model that is similar to the residual earnings model is the economic value added model (EVA). These models are similar in a sense that they both rely on accrual accounting data. The EVA model estimates the enterprise value of a firm while the RE model estimates the equity value of the firm. The EVA method says that the enterprise value of a firm is equal to the book value of the firm plus the present value of all future economic values added (Petersen, 2017).

The EVA model mathematically

$$Enterprise\ value_0 = Invested\ capital_0 + \sum_{t=1}^{\infty} \frac{EVA_t}{(1+WACC)^t}$$

Where

$$EVA_t = (NOPAT_t - WACC * invested\ capital_{t-1})$$

This is used when there is an expected infinite lifetime.

EVA can also be presented as a two stage model, where it consists of three terms; the invested capital from last year, the present value of the EVAs in the forecast horizon and the present value of EVAs in the continuing value. To find the equity value one must subtract the market value of net interest-bearing liabilities.

The two-stage model looks like this mathematically.

$$Enter.value_0 = Invested\ capital_0 + \sum_{t=1}^{n} \frac{EVA_t}{(1+WACC)^t} + \frac{EVA_{n+1}}{WACC - g} * \frac{1}{(1+WACC)^n}$$

One of the strengths of the EVA model is that it specifically shows when the firm is traded below or above its book value of invested capital. The market value is above the book value of invested capital when the present value of expected EVAs is positive and below when it's negative (Petersen, 2017)

4.2.5 The Abnormal Earnings Growth Model

The last model we are going to take a brief look at is the abnormal earnings growth model (AEG). This model and the Residual Earning model are based on the same principle, of earnings above the required rate. Abnormal earnings growth is simply the change in residual earnings.

$$Abnormal\ Earnings\ growth_t\ =\ cum\ dividend\ earnings_t - normal\ earnings_t$$

$$Cum\ dividend\ earnings_t = Earnings_t + (\rho - 1)Earnings_{t-1}$$

$$Normal\ earnings_t = \rho * Earnings_{t-1}$$

Where: p=1+required rate of return

As we can see, cum-dividend earnings for year t are the earnings of year t plus the reinvested dividend from year t-1. The Normal earnings are the earnings from last year times the required rate of return pus one. The AEG is therefore simple the cum-dividend earnings minus the normal earnings.

The AEGM formula:

$$V_0^E = \frac{Earn_t}{\rho_E - 1} + \frac{1}{\rho_E - 1}\left[\frac{AEG_2}{\rho_E} + \frac{AEG_3}{\rho_E^2} + \frac{AEG_4}{\rho_E^3} + \cdots\right]$$

$$= \frac{1}{\rho_E - 1}\left[Earn_1 + \frac{AEG_2}{\rho_E} + \frac{AEG_3}{\rho_E^2} + \frac{AEG_4}{\rho_E^3} + \cdots\right]$$

Where:

V_0^E=Value of equity at time 0

ρ_E=1+required rate of return

The AEG model calculates the value of the firm by adding the earnings of the next year to the change in residual earning for the following years than dividing it by the required rate of return. The advantages of this model are that its protects you from paying too much for growth, can be used under many different accounting principles and is easy to understand.

Some disadvantages include its reliance on accounting numbers, and its sensitivity to the estimation of the required rate of return (Penman, 2013).

4.3 Conclusion

All of the methods in this chapter have been considered, but we choose to limit ourselves to the method of comparables, the DCFM and the EVA model. We do this because these models cover a broad section of the valuation approaches. Using all of the fundamental valuation methods is redundant as they should all give the same result. The asset-based valuation has severe weaknesses and is unfit for a company such as SalMar where the balance sheet items may have a significantly different book value than market value.

5.0 Strategic Analysis

Strategic analysis is an important part of a fundamental analysis and valuation. This is because the value of a firm depends not only on the numbers in the financial statements, but also on their strategic situation. In Penman's (2013) model that we discussed in chapter 4, we saw that strategy was the first step in the process of valuation. The strategic analysis together with the financial analysis are at the core of a fundamental valuation. In this chapter, we therefore address the strategic situation of SalMar by using different strategic frameworks. We start by looking at the company's external macro environment by using PESTLE framework for an analysis of the different environmental forces. Then we look at Porters five forces to analyse the strengths of the different stakeholders. After that, we go into the internal analysis and use the VRIO/VRIN framework to look at SalMars internal strategic situation. Finally, we fit all our findings into a simpler SWOT Analysis.

5.1 PESTLE Analysis

The PEST framework is a famous framework for strategic management and strategic analysis. PESTLE is a framework for analysing the macro economic situation in a firm; it is a modified version of the framework PEST that adds the legal and environmental factors. When analysing an industry like the salmon farming industry it makes sense to look at the environmental factors, moreover the industry is regulated with a number of legal regulations like, for example licensing.

5.1.1 Political Factors

The political factors focuses on the different ways that political entities can affect the industry. It can be trade restriction between different countries, tax breaks on certain industries in certain municipalities or even political turmoil and unfriendliness to the industry. The Norwegian government has for many years tried to promote Norwegian seafood exports. For instance, the Norwegian seafood council is working tightly with Norwegian fisheries to develop export markets (Norwegian Seafood Council, N.D.). Because of this the political situation in Norway is regarded as positive towards the production and export of seafood. As discussed earlier, the production of Atlantic salmon is mostly based in the four main countries, Norway, Canada, Chile, and Scotland, and these producers export their product to the world, but mostly to their nearby regions. Most of SalMar's production is in Norway while the export goes out to the rest of the world, especially the European Union with roughly

51% of the 2015 sales revenue. Followed by Asia with 21% and North America 13%. Only 15% of the revenue comes from sales in Norway (Annual Rapport SalMar, 2015). Because of this, trade agreements and trade restrictions between Norway and partner countries can have a large effect on the exports volumes of SalMar. Licensing can also be analysed under political factors, but we will discuss the licensing under legal factors.

5.1.1.2 Trade Agreements and Restrictions

Norway is a member of several intergovernmental organizations, like the World Trade organization (WTO), the European Economic Area (EEA), and the European Free Trade Association (EFTA). In addition to these trade agreements, Norway is also currently negotiating several other trade agreements with countries like Indonesia, India, and several other south east Asian countries. Norway was also negotiating an agreement with Russia, Kazakhstan, and Belarus, but these negotiations are currently on hold because of political tensions resulting from the Ukraine crisis. In total Norway has 29 agreements with 40 different countries (Regjeringen1, 2016). China used to be a large importer of Atlantic salmon from Norway, but effectively banned Norwegian salmon after the Norwegian Nobel committee awarded the Nobel peace prize to the Chinese political activist Liu Xiaobo in 2010. Before the ban the Norway stood for over 90% of the Chinese Atlantic salmon import and the total consumption was around 15-20 thousand tonnes. Today the consumption is over 70 thousand tonnes and Norway only supplies 2500 of them (Berglind, 2016). There is great potential for growth. However, after the ban in 2010, Chilean and Scottish salmon have taken over the market and it will not be easy to re-enter the market and obtain such a big market share, should the ban be lifted. The situation with Russia does not seem to be getting any better anytime soon, the ban on Norwegian salmon was set as a reaction to the sanctions by the EU in 2014, and Russia quickly replaced the import of Norwegian salmon with Chilean salmon. Nevertheless, according to SalMar's annual report for 2015, SalMar managed to redirect all of the export that was going to Russia to other existing markets. From 1991 until 2012, USA also had an extra tariff on Norwegian fresh and frozen salmon in order to promote local products, but this tariff has been removed since 2012. However, the American market is not being heavily supplied from Norway and is supplied mainly by Chile and Canada (Marine Harvest1, 2016) (Asche, 2011).

5.1.2 Economical Factors

There are a number of economic factors that can affect SalMar. Here we will look at some of them including exchange rates, economic growth in Norway and export countries, price of

raw materials, and interest rates. Some economic factors are also discussed in the financial analysis.

Since 85% of the sales revenue comes from outside of Norway, most of the revenue comes in foreign currency while the costs are in NOK. This means that fluctuations in the currency has a significant effect on the revenues of SalMar. For instance, the growth in Norwegian exports in the last years might partly be due to the weak NOK compared to the main markets currency, the EURO, USD, and Asian currencies. In SalMar's Annual Report from 2015, they point out that the risk for exchange rate fluctuations is most relevant with the following currencies, USD, EUR, GBP and JPY (Annual Report SalMar, 2015). Trading Economics (2017) is forecasting the NOK using the autoregressive integrated moving average (PRIMA) method and is forecasting as of 23.02.17 that the Norwegian Krone will fall against the dollar in the remaining of the 2017 and will continue to fall over the next 3 years. If the forecast is to come true, we can expect a reduction in costs and an increase in revenue the coming years. However, forecasting currency fluctuations are considered quite challenging and one cannot always rely on these. The Norwegian Central Bank changing the interest rate can easily affect the currency. In their annual report note 2: SalMar calculates that a 10% reduction in the NOK will change the conglomerate result before tax with 169 million NOK (Annual Report SalMar, 2015)

Economic growth means more value creation and more money in the economy, which will lead to more purchase of premium products like Atlantic salmon. A simple yet effective way to look at economic growth is by looking at the GDP growth rate. The World Bank (World Bank1, N.D.) has data on the GDP growth rate of every country. Here we will only look at some of SalMar's main markets. We will also look at some forecasted growth rates the coming years. The forecast is done by the Organization of economic co-operation and development (OECD1, N.D.).

Table 2 GDP Annual Growth rate and Forecasted

	2013	2014	2015	2016	2017	2018
Canada	2.2	2.5	1.1	1.2	2.1	2.3
China	7.8	7.3	6.9	6.7	6.4	6.1
Euro 15	-0.2	1.2	1.9	1.7	1.6	1.7
Japan	1.4	0.0	0.6	0.8	1.0	0.8
USA	1.7	2.4	2.6	1.5	2.3	3.0
Norway	1.0	1.9	1.6	0.7	0.5	1.4

Source: OECD1, N.D., World Bank1, N.D.

Euro 15: is the European countries that were in the EU before the 1st of May 2004.
The EU15 comprised the following 15 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

As we can see in Table 2, there has been a steady growth rate in North America and a very high growth rate in China, these growth rates are forecasted to continue in the coming years. However there has been a lower growth rate in Europe, Norway and Japan. The high growth in China and USA can be a good opportunity for Norwegian exporters like SalMar. Norway has seen a low growth the later years because of the fall in the oil price, but it seems like it is forecasted that the growth will start rising once more in 2018. Likewise, with the European Union, low growth because of the Euro Crisis but a rise in the later years. Over all it looks like the growth in the main markets will be similar to how it has been, generally positive.

The price of feed will be discussed in chapter 6, financial analysis, but we also mention some key points here. In 2015 SalMar's conglomerate had total operating expenses of 5.9 billion of these 765 million NOK were salary expenses, around 13%. While the largest part of the expenses was cost of goods sold with 3.8 billion NOK or around 64% (Annual Report SalMar, 2015). Most of these is cost of feed. Feed prices are based on cost-plus-contracts, so that they are highly dependent on the raw materials going into the production of feed. The later years feed prices have gone up as a result of the raw material prices going up. For more details look in Chapter 6.

Lastly, we will look at the Interest rate in Norway. In 2015, SalMar's total long term Debt equalled 3.99 billion NOK out of these 2.37 billion NOK was debt to various credit institutions. The interest rates given by these institutions are based on the interest rate set forward by the Norwegian Central Bank. This rate has been steadily declining the last couple of years. From April 2012 until November 2014, the interest was 1.5% after November 2014 the interest has declined and reached an all-time low of 0.75% in December of 2015. (Norges Bank1, N.D.). According to a Bloomberg article, close to zero or even negative interest rates are going to be the norm in the future (Kennedy, 2015).

5.1.3 Socio-cultural Factors

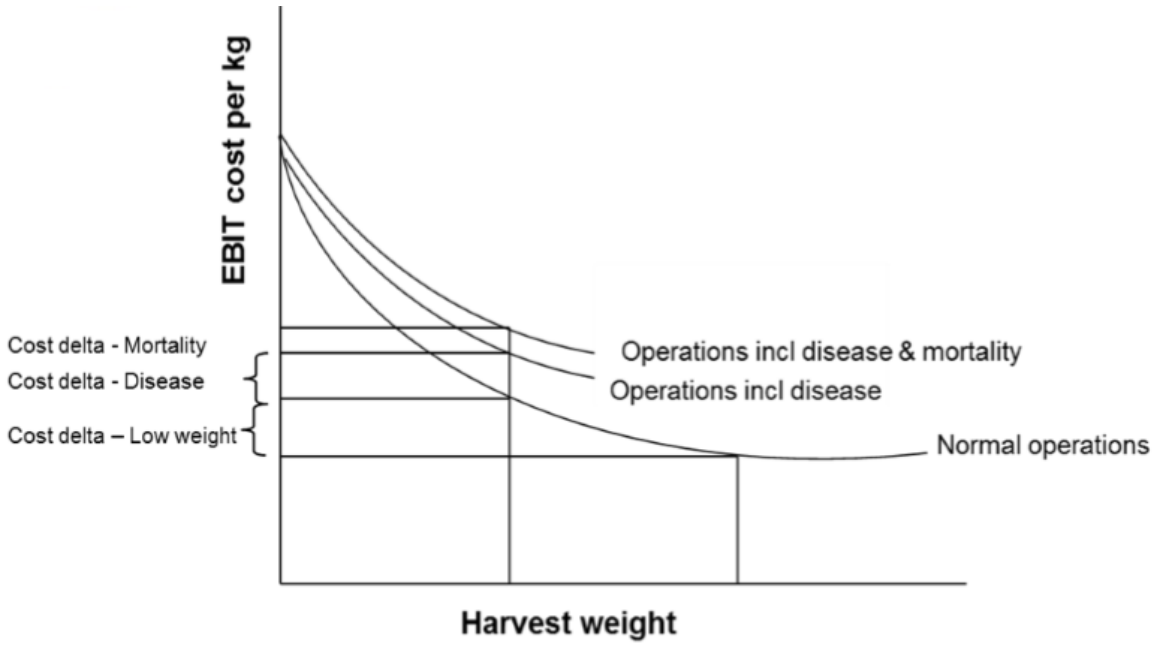
Businesses need to consider the socio-cultural factors when adopting business decision. These factors include, education levels, buying patterns, cultural factors, demographics, and other similar factors. For instance, in the later years there has been a trend of eating heathy foods and joining fitness studios. This has probably affected the buying patterns of the affected demographics, they might for example have started buying healthier food options than before. Another good example is how the younger demographic might prefer to buy products online and the older generation might prefer to buy their products from physical shops. SalMar's main product is Atlantic Salmon, which many consider a healthy alternative to meat. Atlantic Salmon meat is rich in Omega-3 EPA and DHA, which reduces the risk of cardiovascular disease, and several other health issues (Marine Harvest1, 2016). Fish fats are considered unsaturated fats, which are preferable to saturated fats found in other meat sources (World Health Organization, 2015). Furthermore, it is more environmentally friendly than other meat products regarding its carbon footprint, and only the chicken meat beats salmon in regards of carbon footprint. In addition, regarding water consumption it beats all other mayor sources of animal protein (Marine Harvest1, 2016). Both these socio-cultural issues are on the rise as in the later years, not only in Norway, but also in the rest of the world. People are trying to get healthier and trying to reduce the impact on the environment and fight global warming, therefore we believe that salmon consumption will be on the rise. As mentioned earlier, the Norwegian government invests heavily in promoting the salmon farming sector, and the Norwegian workforce is highly educated for working in the production of Atlantic salmon. Looking at the bigger picture, the world's population, and the need for additional food, means that food production is going to be of great importance in the coming years. In 2015, the population growth was 1.182% (World Bank2, N.D). A considerable decrease in growth has occurred in the last 20 years; in 1990, the number was 1.732%. Still the United Nations

forecasts that the world population will reach 8.5 billion by 2030 and 9.7 billion by 2050. Most of this growth will be based in Africa and Asia. (United Nations, 2015)

5.1.4 Technological Factors

Technological factors are research and development of technologies that will affect the output of the production or other business relevant parameters. The most important technological factors in salmon farming industry is the fighting of salmon diseases like sea lice. EBIT cost per kg fish decreases with an increase of harvest weight, which means that the bigger the fish is when harvested, the cheaper it is per kg. Diseases and fish mortality can force the fish to be harvested at an earlier stage than optimal, thereby decreasing EBIT per kg (Marine Harvest1, 2016). Therefore, by reducing the risk for disease SalMar can produce salmon more cost-efficiently.

Figure 4 EBIT cost per kg and harvest weight

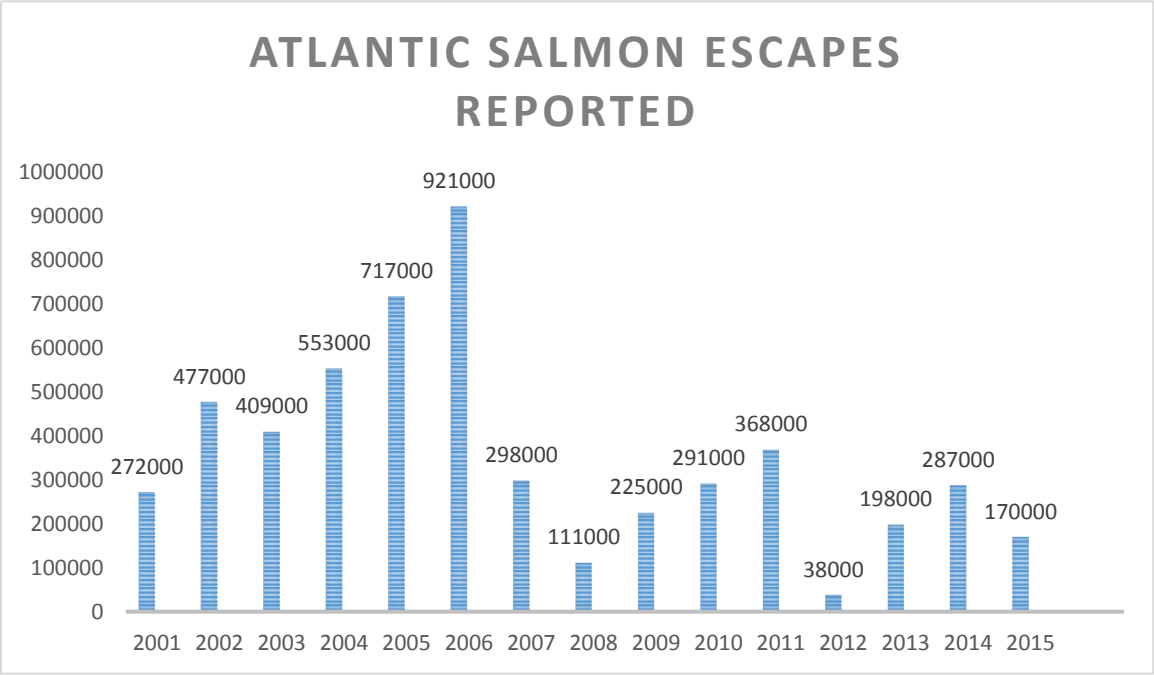


Source: Marine Harvest1, 2016, p. 35

As we can see from figure 4, the higher the harvest weight the lower the EBIT cost per kg. The salmon farming industry is focusing its R&D efforts to minimize these diseases.
In 1987 Norwegian Atlantic salmon farming firms used almost 50 tonnes of antibiotics, but with the development of effective vaccines the number was reduced to less than 1.4 tonnes in

1994 (Marine Harvest1, 2016). We believe this trend will continue and diseases will become less of a risk in the future, with development of even better anti-measures.
Another production cost that can be reduced with technological advances is the rate of escapes. Escapes not only increase the costs of the company but also are harmful to the environment and the ecosystems, because of the risk of spreading diseases to wild salmon populations. According to "Fiskeridirektoratet"'s statistics (Fiskeridirektoratet1, 2017) 170 000 salmon escaped in 2015. Figure 5 shows the number of salmon escapes from 2001 until 2015.

Figure 5 Escape numbers



Source: Norwegian fisheries directorate (Fiskeridirektoratet1, 2017)

As we can see from Figure 5 the number of escapes have decreased drastically after 2006, when the government issued a "zero escape policy" in 2007.
Economies of scale are often applicable in the salmon farming industry, and with higher production volume, the cost per kg usually goes down. This means that farms who can produce on a larger scale will have a competitive advantage. To be able to produce on a large scale the farms need to have access to licenses. Before 1992 each firm could only have one licence per farm, but by the end of the 1990s firms started to combine several licenses per

farm to increase production. Licences alone will not produce larger amounts of salmon, there also needs to be technological advances in the production methods, because with larger farms, there is a larger risk of disease and a larger risk of escapes.

5.1.5 Legal Factors

Legal factors concern laws and regulations in the country, municipality, or industry. The most important regulation for salmon farming is the licence regulations. These licences exist in one form or another in every major salmon farming country. We look at the Norwegian regulations before briefly looking at the regulations in the other countries. A licence usually has a maximum capacity of biomass that can be farmed by each company and it is a way for authorities to limit the total farming output to their desired amount.

In Norway, there are a large amount of regulations that the aquaculture firms have to follow. The most important ones are *"The Aquaculture act 17 Jun. 2005"* and the *"food safety act of 19 Dec. 2003"* (Marine Harvest1, 2016). A licence in Norway allows you to farm salmon in fresh or seawater. Freshwater farming is smolt farming while seawater farming is when you are farming full-grown salmon. The Norwegian ministry of trade, industry and fisheries awards new licences. After 1982 new licenses are only awarded in given years, in 2014, 45 "green" licenses were awarded. The licenses will last forever unless they are withdrawn. A license can also be sold in the open market and the price varies between 4.5 and 7 million euros. (Marine Harvest1, 2016). Licences in Norway give you the right to produce a "maximum amount of biomass" (MAB). This is the maximum amount of fish a company can hold at sea at any given time. One license is set at 945 tons in the regions of Troms and Finnmark and 780 tons in the rest of the country. In addition to the limitation coming from the licenses, each farming site has its own MAB limitation, usually between 2340 and 4680 tons (Marine Harvest1, 2016).

A new government regulation from 2015 aims to make the industry more sustainable, by dividing the country into farming regions and putting forward criteria for growth and a maximum growth of 6% annually per region. Moreover, no single company can own more than 50% of the allowed biomass in a single region.

In 2015 the government also announced a 5% growth possibility for all licenses, given a criteria of maximum 0.2 sea lice per fish (Bye, 2015). Also in 2015 a new category of licenses was announced, called development licenses, these licenses aim to push for development of new fish farming solutions and are free of charge for 15 years, if the applier reaches the targets that are set by the government (Fiskeridirektoratet2, 2017) (laksetildelingsforskriften, 2005).

5.1.5.1 Scotland

The Scottish model relies on permissions from three different institutions instead of a license. A planning permission from the local regional council, a marine licence from Marine Scotland and a discharge licence from Scottish Environment Protection Agency. And the MAB is determined by the environmental concerns in the given farming site, this number can vary between 100 and 2500 tons (Marine Harvest1, 2016). Getting new licenses can take anywhere from 10 to 18 months and the easiest rout for growth is through expansion of existing facilities.

5.1.5.2 Chile

The licensing in Chile is divided in two, one is a licence given by the equivalent of the ministry of economy, and one by the equivalent of the defence ministry. The first license is a license to operate a fish farming business, this is given for an unlimited time and can be traded in the free market. The second licence is given so that the firm can use the national seawaters in a specific geographical area. This licence also limits the production to a given quantity and applies to a specific species. The production limit is subject to regular inspections and changes (Marine Harvest1, 2016). Before 2010, licences were given for an indefinite period, but after 2010 licences are given for 25 years and can only be renewed once. While the licences are being used, the user has to pay a yearly licence fee to the government. These licences are also tradable (Marine Harvest1, 2016).

5.1.5.3 Canada

In Canada a firm needs both a licence from the provincial government and from the federal government to run a fish farming facility. The provincial government administers the lands on which the fish farms are set and the federal government regulates the fish farming activities. The provincial government licence is given as a tenure, as right to use the land and this tenure has a yearly fee. The fee is calculated by the size of the tenure, a provincial index and land value. The federal governments licence however gives several conditions for the fish farm, one of them being the MAB. The MAB depends on many things and is site specific. These licences are given for a 6-year period, all licences are however renewable (Marine Harvest1, 2016). The licences can be transferred from one company to another if the government accepts this, usually in cases of company acquisitions.

5.1.6 Environmental Factors

In the last decades, environmental friendliness has become an issue of larger and larger importance. With climate change and environmental sustainability being in the spotlight, companies today must do more than ever to aim for environmentally friendly production.

We have earlier discussed how Atlantic salmon farming is a far better alternative than fishing of wild salmon in regards to the environment. However, there are still several problems with this industry in regards to the environment. Here we will focus on three of the main environmental problems. Sea lice, outbreak of diseases, and fish escapes.

Salmon louse is the type of Sea lice that lives mostly on Atlantic and Pacific Salmon. It is naturally found in salt waters. Salmon louse is a parasite that lives on the salmon's skin and spreads diseases and infections to the salmon. At the start of January 2016 an outbreak of sea lice in Norway, sent the salmon price up, but sea lice also have an effect on the environment. A larger production of salmon contributes to the spread of Sea lice. The spread of these parasites can in extreme cases contribute to the extinction of wild Atlantic salmon populations. This impacts the reputation of the salmon farming industry a bad manner. Because of the dire situation in 2014, the government announced a maximal concentration of 0.1 lice per fish on average (Regjeringen2, 2014), later changed to 0.2 lice (Bye, 2015), still considerably lower than the previous limit of 0.5. To combat the sea lice companies use good husbandry and management practises. They also use lumpsuckers and wrasse that eat the lice, thereby cleaning the fish. If necessary also licensed medicine is used (Marine Harvest1, 2016).

Beside Sea lice there are also a number of diseases that can threaten the salmon, like Pancreas Disease, Salmonid Rickettsial Spricaema, Infectiois Pancreatic Necrosis, Gill Disease, Infectious Salmon Anaemia, and others. These diseases are mainly managed by mitigation practice, good husbandry and in some cases vaccination. In Norway, Pancreas Disease, and Heart and Skeletal Muscle Inflammation are the most common (Marine Harvest1, 2016).

The third environmental problem is fish escapes, this is because escaped salmon will merge with the wild salmon and change their genetics to become less adaptable to their environments. There has been regulation from the government to limit fish escapes as discussed under technological factors.

5.2 Porters Five Forces

The five forces model was created by Michael E. Porter of Harvard University in 1979, because he found the then popular SWOT method inexact and ad hoc (Porter, Argyres, McGahan, 2002, p43-52). The creation of this new framework changed the strategy field in the coming decades (Porter, 2008, p25). The job of a manager is to create a strategy to deal with its competitors; however, Porter suggested that the direct competitors of today are not the

only force that can drive competition. In addition, he added four other forces (Porter, 2008, p25-33). In the five forces framework Porter suggest that five specific attributes of industry structure can threaten the ability of a firm to either maintain or create competitive advantage (Barney, 2011). In this framework, Porter looks at the different threats, which he classifies as different forces who attempt to increase the competitiveness of the industry. The frameworks objective is therefore to help managers identify these threats so they are more successful in creating strategies to minimize them or preferably completely neutralize them (Barney, 2011). The five forces that Porter puts forward are: (1) The threat of entry, (2) the threat of rivalry, (3) the threat of substitutes, (4) the threat of powerful suppliers and finally (5) the threat of powerful buyers. Figure 6 shows the five forces framework of Porter. The configuration of the five forces differs by industry, in some industries suppliers and buyers might be important while in others substitutes and rivals might be the strongest, the strongest force usually determines the profitability (Porter, 2008, p25-33).

In this part of the chapter we will apply Porters framework to SalMar and the salmon farming industry of Norway to get a better understanding of the competitiveness of the industry and thereby the profitability of the industry. We will look at the five forces and apply them to SalMar one by one.

Figure 6 Five Forces Model

Source: Porter, 2008, p. 27

5.2.1 The Threat of Entry

The first force in the five forces framework is the threat of new entrants. New entrants are either firms that have recently begun operations in the industry or are planning to begin operations soon (Barney, 2011). The structure-conduct-performance paradigm suggest that new entrants are motivated to enter the industry by the high profits and performance of the already existing firms, by entering they will reduce the profits and create a more competitive environment (Barney, 2011). The attractiveness for new entrants into the industry depends on the barriers of entry, these barriers can be high initial investment costs, and if the initial investment cost is higher than the potential return then the potential entrant will not have any gain in entering. Therefore, when the threat of new entrants is high, the incumbent firm must keep down prices or increase investments to lower potential profits and deter new entrants (Porter, 2008, p25-33). In SalMar's case, the start-up investments are quite high, with expensive licences and expensive initial capital investments into farms by the seaside.

Another barrier is economies of scale, in industries where larger productions are cheaper than smaller productions; this is without a doubt the case in salmon farming companies. As discussed earlier with larger biomass the cost per kg is getting lower, because of this, large producers, such as Marine Harvest, SalMar and Lerøy, will be able to sell their salmon for cheaper than a potential small entrant will. There are also scale independent barriers, like industry knowhow. Incumbent firms will usually be more cost effective then potential new entrants because of industry knowhow. New entrants can however still enter when they are themselves very wealthy, and can afford the initial high investments and can build their own large facilities, and in addition hire knowhow. These are typically large firms from other industries that are branching into a new industry (Porter, 2008, p25-33). Another large barrier to entry is regulations, the licencing in Norway is very strict and its hard do get new licences, these can however be bought, that's how SalMar became so successfully to begin with, by buying up licences and firms in the years of large consolidations in the industry. There are also other barriers to entry, like access to raw materials and access to geographic location, which both apply to SalMar and salmon farming industry. In conclusion, we do not believe the threats of new entrants to be high in the industry of Atlantic salmon farming in Norway.

5.2.2 The Threat of Rivalry

Rivalry is the intense competition between the incumbent firms in the industry. A high level of rivalry is indicated by frequent price cuts, aggressive advertisements, introductions of new products, improvements of service and rapid actions and reactions (Barney, 2011) (Porter, 2008, p25-33). The rivalry is at its largest when (1) there are many similarly sized competitors without an industry leader, (2) industry growth is slow and the incumbents fight for market share, (3) exit barriers are high, (4) rivals with high ambitions of becoming market leaders, (5) identical products, like commodities (6) high fixed cost and (7) perishable product (Porter, 2008, p25-33).

As we can see many of these points apply well to our industry, Marine Harvest might be considered an industry leader, but its market share is not that far above the others, and most of the firms are in the same ballpark when it comes to market share. The industry growth is high, especially in the later years, so this does not contribute much to high competition, nor is there high exit barriers in the industry, since it is a very attractive industry, assets can be sold with ease if a firm wants to exit. However, we do see very competitive rivals with ambitions. For example, Marine Harvest the competitor with the largest market share and Norway Royal Salmon who has been showing impressive results the later years. Salmon is also a commodity, so there is not much difference between salmon from SalMar and salmon from NRS.

Furthermore, the fresh salmon is very perishable, this does un-doubtfully create more rivalry between the firms.

As discussed in chapter 2, the largest costs in the salmon farming industry is the variable cost of feed so high fixed cost do not really push for more rivalry. We have only looked at Norwegian competitors here, but we can expect fierce competition from other European producers as well. Overall, we believe the rivalry is high in the industry.

5.2.3 Threat of Substitutes

The threat of substitutes is when a product or a service that is provided by a firms rival meets approximately the same costumer needs as the product or service provided by the firm itself (Barney, 2011). Substitutes are always present, but are rather easy to overlook at firsts glance because they might look completely different products. As Porter himself brilliantly exemplifies this in the Harvard business review; "*for someone searching for a father's day gift, neckties and power tools can be substitutes"* (Porter, 2008, p31). One can also count not buying a product or service at all, or even doing it yourself as a substitute (Porter, 2008, p25-33). When the threat of substitutes is high the profitability suffers, but it can also set a limit to how high the industry can put its prices, for example if the price of a product goes high enough a whole new substitute product can suddenly become viable, in extreme cases a substitute can completely replace an industry product. (Barney, 2011). When it comes to the substitutes of the Atlantic salmon, we can firstly start by looking at the close substitutes that is other types of fish, then we can add all other types of edible meat, we can also add to this the other substitutes of meat protein, like beans, nuts, tofu, eggs and even protein powder. The largest land based substitutes are beef, pork and chicken, and table 3 shows that Atlantic salmon beats beef, pork and chicken on almost every indicator. The largest sea based substitutes are Carps and Cyprinids, Molluscs, Cods, Alaskan Pollock, and Tilapia and other Cichlids (Marine Harvest1, 2016).

Table 3 Salmon Nutrition

				
Protein Retention	31 %	21 %	18 %	15 %
Energy Retention	23 %	10 %	14 %	27 %
Edible Yield	68 %	46 %	52 %	41 %
Feed Convertion Ratio (FCR)	1.1	2.2	3.0	4-10
Edible Meat pr 100 kg fed	61 kg	21 kg	17 kg	4-10 kg

Source: Marine Harvest1, 2016, p. 15

However, there is a certain allure to the Atlantic salmon meat, people do not choose to eat salmon because it is the cheapest form for protein, they choose to eat it because of its taste, texture and health benefits. In other words, the needs that Atlantic salmon meat provides for the costumer is not simply protein, but rather the whole experience of the taste and, the fact that it is a healthier and more sustainable alternative to beef. In this sense, the only substitute that comes close to the Atlantic salmon is other types of salmonids. However, the Atlantic salmon is the most farmed type of salmonids and none of the other even come close to the same volume. In a sense, the Atlantic salmon is a niche product that is not easily substitutable therefore; we choose to put the threat of substitutes as low.

5.2.4 Bargaining Power of Suppliers

Powerful suppliers can threaten the performance of a firm by increasing the price of their supplies or by reducing the quantity, this way they can shift the profits of the firm to themselves (Barney, 2011). Suppliers are powerful when they are more concentrated than the industry they serve, when they serve many types of industries, suppliers offer differentiated products or if the buyers faces large switching costs. Suppliers are also powerful when there are no substitutes for what they offer (Porter, 2008, p25-33). Looking at the salmon farming industry with these points in mind, we can assess the power of the suppliers.

There are two types of suppliers in the industry, the suppliers of eggs and the suppliers of feed. The most significant suppliers of eggs are Aquagen AS, Fanad Fisheries Ltd, Lekeland and Salmonbreed AS (Marine Harvest1, 2016). The egg-supplying industry is quite concentrated, but does not serve many types of industries, furthermore there are almost no switching cost. There are no substitutes in this case, only salmon eggs will give you salmon.

With all this in mind, the suppliers of eggs are not considered very powerful.
The other big supplier of the industry is the supplier of feed, and, as mentioned before, the feed is the largest cost for the salmon farming industry (Marine Harvest1, 2016). This starts them off with substantial power to begin with. As discussed earlier, in Norway, four feed producers account for most of the production. These are in descending order, EWOS, Skretting, BioMar, and Marine Harvest (Marine Harvest1, 2016). With four producers in the industry, we consider it a very concentrated industry. The industry mostly serves the salmon farming industry and the product they supply is homogenous and not differentiated in any substantial way. Moreover, there are almost no switching costs for the firms to switch from one supplier to another. With this information in mind one might assume that the suppliers of feed are not too powerful, but taking into consideration how big a part the feed is of the total cost and how concentrated the supplier industry is we choose to assume that the suppliers and the farming industry are equal in bargaining power.

5.2.5 Bargaining Power of Buyers

Also called the power of customers, powerful buyers can capture more of the value by forcing down the price, demanding more service or better quality thereby increasing costs, or by playing industry participants off against each other thereby decreasing profitability (Porter, 2008, p-25-33). Buyers are powerful when they buy large volumes of the product, or when the firm has only a few buyers. They are also powerful when they have low switching costs, the product of the industry is not differentiated or when they can integrate backwards and produce the product themselves (Porter, 2008, p25-33). In a sense, powerful buyers are the opposite of powerful suppliers; a powerful buyer decreases revenue by decreasing the sale price while a powerful supplier decreases revenue by increasing costs (Barney, 2011). If we for the sake of simplicity only look at the European market, which is the largest market for Norwegian salmon, see Chapter 2, we can see that the salmon ends up in two different buyers, retail that stands for 75% of the purchase and HORECA (HotelsRestaurantsCafes) for 25%. In total, 60% is fresh and 40% is frozen (Marine Harvest1, 2016). The buyers that buy salmon from the farmers are the secondary processing industry as opposed to the primary processing industry; the fish farming companies often do that. This is the case with SalMar as well. Norwegian salmon is often sold to the EU in its fresh form because the tariffs are higher on processed salmon than on unprocessed salmon. This is because Norway is not a member of the EU; due to this, the secondary processing industry in Norway has not seen the same growth (Asche, 2011). Secondary processing is also known as VAP, value added processing. The seafood industry in Europe is very fragmented with over 4000 players that are small.

However, there are some larger companies, some of whom are owned by large salmon farming firms, like Marine Harvest and Lerøy Seafood. The average VAP industry company has 33 employees and a turnover of 4.2 Million EUR (Marine Harvest1, 2016). All this indicates that these buyers do not have considerable bargaining power, they are small in size, fragmented, and don't buy big quantities.

In conclusion using the five forces model, we found that there is high rivalry in the industry, but the threat of new entrants is low because of high barriers to entry. The threat of substitutes is also low because of a very niche market. The suppliers have an equal amount of bargaining power compared to the salmon farming industry because of concentration and the importance of the cost of feed. At the same time the buyers are weaker because of fragmentation of the industry.

5.3 VRIO Framework

Until now we have used the PESTLE framework to analyse the firm's external environments, however to analyse the internal environment we need to use another framework. The VRIO framework, also known as the VRIN framework, was developed by J. B. Barney in his 1991 book *"Firm Resources and Sustained Competitive Advantage".* The VRIO framework is structured in a manner where the firm has to answer four questions, **value**, **rarity**, **imitability** and finally the question of **organization** (Barney, 2011). The answers to these questions decide if a firm's resource or capability is a strength or a weakness (Barney, 2011).

The first question is value. This asks if the firm's resources and capabilities add value so that the firm will easier be able to cope with threats and take advantage of opportunities. SalMar's resource is salmon, which has a distinct value, but also its competent management with good experience and forward thinking attitude can be assessed as a value, adding resources and capabilities.

The second question is about rarity. Are the resources or capabilities of SalMar considered rare? Salmon is a rare product that can only be farmed in certain locations; SalMar also has access to the facilities where they can be farmed and the good environmental factors. This is however also the case for all the other salmon farming companies of Norway, so in that perspective it is not so rare. However, the new facility InnovaMar can be considered as a rare capability because of its innovative solutions and large-scale production. It is one of the world's most cost-effective facilities.

For valuable and rare resources and capabilities to be effective in the long term, they need to be hard to imitate. Either because of lack of expertise or lack of funds. The new InnovaMar facility is certainly costly to imitate, it cost SalMar around 550 million NOK to build it and a similar structure will also take a considerable amount of time to build.

The last question that needs to be answered is the question of organization, the firm needs to be organised in a manner that maximises the advantage of the firms valuable, rare and hard to imitate resources and capabilities (Barney, 2011). The financial results that SalMar has showed in the past years indicate constant above average performance and serve as an indicator of a capable management and good organization.

5.4 SWOT

Lastly, let us combine all the information gathered in the strategic analysis and put it into a SWOT framework. A SWOT analysis focuses on both the external attributes of the firm like threats and opportunities and internal attributes like strengths and weaknesses (Barney, 2011). A distinction between the external and internal environments of the firm is used in many strategy analysis approaches; SWOT is probably the best known of these approaches (Grant, 2003). However, without the use of analytical tools for analysing a firms environment and its internal capabilities, SWOT does little more than just identify the strategic questions that a firm should ask itself (Barney, 2011).

5.4.1 Strengths

As the financial analysis shows, SalMar has had very good margins in the last years, only Marine Harvest and Lerøy Seafood Group have managed to do better than SalMar, but that was only for one year, 2011, explained in the financial analysis chapter. The financial analysis also showed that they are less susceptible to a reduction in the salmon price. The large margins and good results show that SalMar is in a strong competitive position. With its InnovaMar facility SalMar has built one of the best and most innovative fish processing facilities in Norway. In addition, the management and the board of SalMar seems professional with relevant experience, like the CEO Trond Williksen with over 30 years of experience from the fisheries and aquaculture industry. Moreover, the largest shareholder of SalMar, Gustav Witzøe, seems to be very involved in the running of the company with a focus on long term growth and not only short term profit, a good example of this being the large investment into InnovaMar.

5.4.2 Weaknesses

SalMar seems to be very solid internally, and it is hard to find internal weaknesses when looking at it from the outside. Some of the weaknesses of SalMar are that they do not have any form of diversification, the only product they sell is Atlantic salmon and they are very exposed to drops in the price. This can sometimes be a weakness, but it can also be a strength, they only produce salmon because that is their business, that is what they do best. One thing we can count as a weakness might be that they rely on others for their feed and smolt, and, as discussed previously, the suppliers have a considerable bargaining position. Maybe SalMar could try to tap more into the suppliers' market and produce smolt and feed themselves to reduce this potential weakness.

5.4.3 Opportunities

As discussed earlier, we believe there are large opportunities for growth in the salmon farming industry. There is potential for markets that are currently closed to Norwegian producers to be opened. Furthermore, aquaculture is becoming more and more accepted as a more environmentally friendly and wildlife preserving alternative to wild fishing and other types of meat farming, in these times of global warming and climate change this is a great asset. We can also add that salmon meat is considered healthier and better than most other types of meat and a healthy lifestyle is a growing trend in the developed world. In conclusion, there are large potential opportunities for growth for SalMar and we believe the will be growth in the future.

5.4.4 Threats

SalMar, like most aquaculture firms, is susceptible to outbreaks of diseases. An outbreak of Sea lice in Norway can seriously harm the salmon production output and send profits down. Also, partly because of disease outbreaks, the salmon price is very volatile and can change rapidly, this is problematic in an industry where the production time ranges from 2 years to over 3 years. Moreover, the power of the feed suppliers can be considered a threat.

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Figure 7 SWOT

Strengths: • New facilities • Good management • Good Margins • Susceptibility to price	**Weaknesses:** • No diversification • No feed production
Opportunities: • Possible opening of new markets • Increase in salmon demand • Attractive product	**Threats:** • Diseases outbreaks • Price of Feed • Volatile salmon price

Source: Own research

5.4.5 Summary

In summary, the SWOT matrix shows us a simplified but somewhat complete picture of the strategic situation in the company. It seems to show that the company is in an overall satisfactory strategic situation, which has been our conclusion in the PESTLE Analysis, Five Forces model and the VRIO Framework

6.0 Financial analysis

The value of SalMar depends on many factors, and to be able to calculate the value we need to do a financial analysis of the sector. This is because the value of SalMar is strongly dependant on, for example, the demand for Atlantic salmon and the price of Atlantic salmon, on the output side, and the price of feed on the input side. Our analysis will include, among other things, looking at the development of the price of salmon, and seeing how the price of SalMar has been affected by the market price of Atlantic salmon. Looking at the development of the price of feed. Analysing the correlation between SalMar and the Oslo Børs Seafood index (OSLSFX). Comparing SalMar's stock price to the price of its peers. In addition, looking at different key indicators of SalMar and its peers over the years. We will also look at how well SalMar has been doing over the years and try to identify the external factors that have been affecting the stock price of SalMar. All these historical analyses are of important because they might be an indicator of how the future will look like.

6.1 Price Development Analysis

Here we look at the price of Atlantic salmon and the price of the most expensive production input, which is feed. Analysing the historical price of both these two is important to get an understanding of how the market has been developing historically and how we can expect it to continue in the future. This information will later on be useful when forecasting the future and choosing different estimates for the valuation itself.

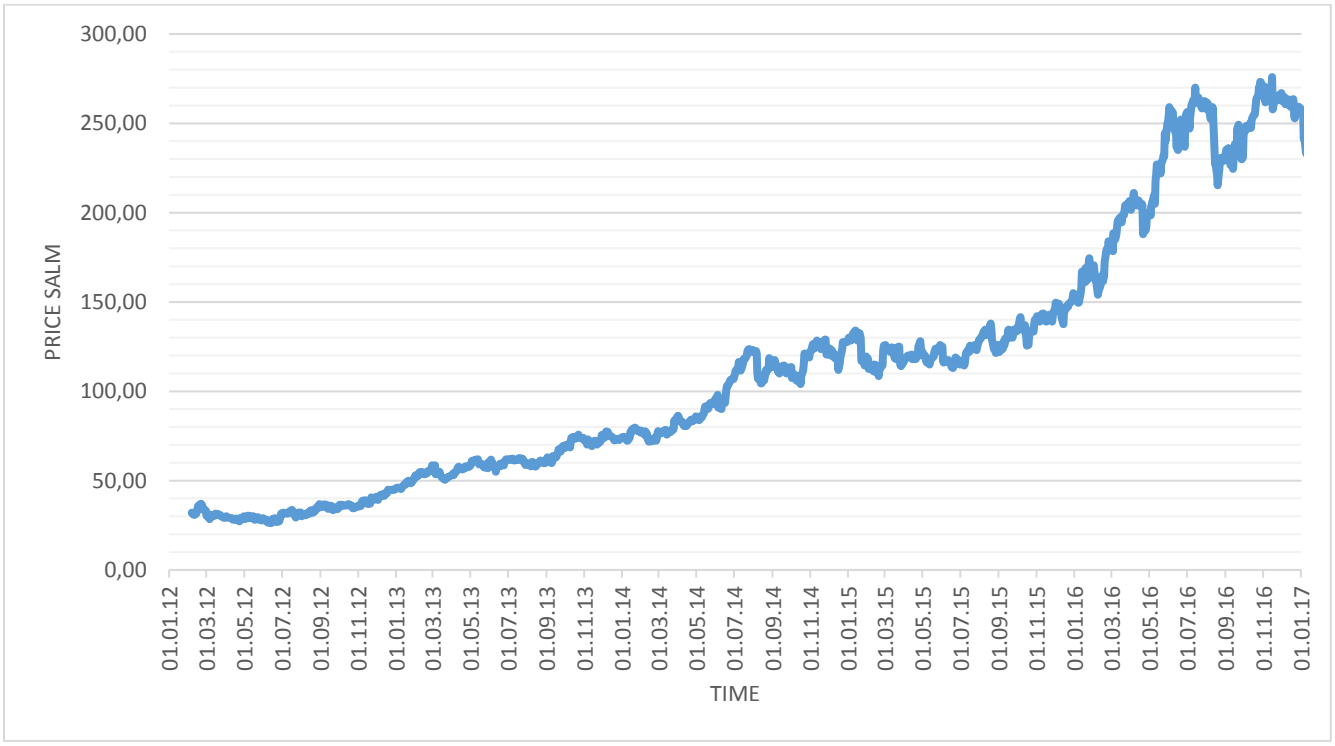
6.1.1 The Price of Salmon

As we discussed earlier in chapter 2.1, the price of Norwegian salmon is dependent on many factors. The Marine Harvest Salmon Farming Handbook (2016) outlined these factors. We also mentioned that the prices were taken from reference prices like the NASDAQ price for Norwegian salmon FCA Oslo. There are other reference prices for salmon from other regions. Like FOB Miami and FOB Seattle, for respectively Chilean Atlantic salmon and fresh Atlantic salmon (Canadian). The average yearly prices for all these three seem to have a clear correlation over the past 16 years. (Marine Harvest1, 2016 p.24) The salmon price is divided into several groups dependant on the size of the salmon. The most commonly used salmon weight category in European processing is salmon sized between 3 and 6 kg, which is the most common salmon size when looking at the Norwegian salmon distribution (Marine Harvest1, 2016). In this analysis we will be using the FPI index for salmon price, which

consists of three index elements, the Nasdaq Salmon index, SSB statistics and fish pool European buyer index. We look only at the price for salmon sized between 3 and 6 kg. This is because of time limitations and because this is the most common salmon size. This analysis will use numbers after the valuation date, but only to show the impact of changes in these input factors on the stock price of SalMar. We do this due to the lack of "uncontaminated data", which would be data exclusively from before the valuation date.

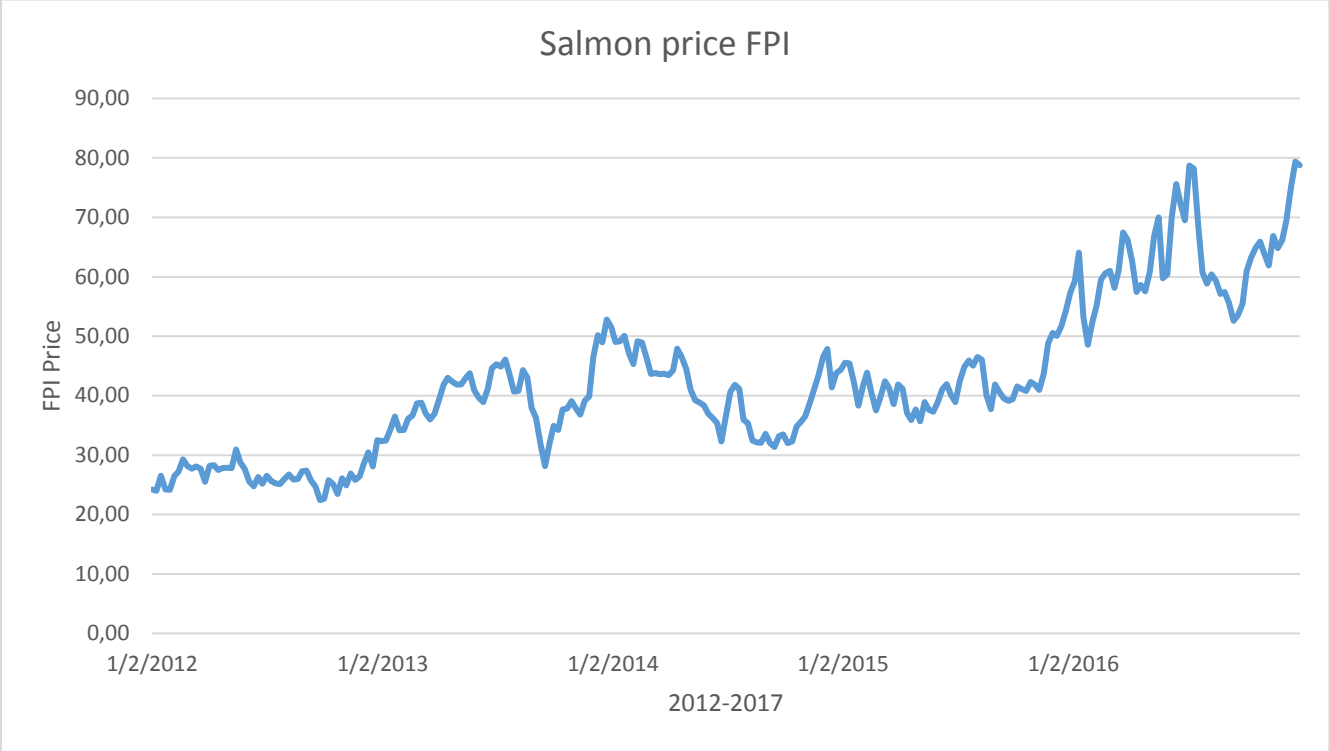
In figure 8, we look at the price of SalMar ASA from 2012 until 2017. As we can see the price has been gradually increasing, the same is true for the Fishpool index (Fishpool, N.D.), in figure 9. This shows us that increasing price in salmon has naturally had a positive effect on the stock value of SalMar. We can observe that SalMar's stock value has been increasing more than the price of Atlantic salmon, but the most rapid increase in the stock price correlates with the most rapid increase in the FPI from the start of 2016. There is also a clear decrease in SalMar's stock price when we see a large decrease in FPI in the middle of 2016. All of this goes to show how much of an effect the price of salmon can have on the value of SalMar and how rapidly the value can fluctuate because of the price of salmon.

Figure 8 SalMar stock price



Source: Olso Børs1, N.D., Own research

Figure 9 Salmon Price



Source: Fishpool, N.D., Own research

6.1.2 Price of Feed

As discussed in in chapter 2.4 Cost Structure, feed for salmon makes up the largest part of the total production cost, this is also the case with most other animal farming industries. In Norway the cost of feed makes up 47% of the total cost, this is larger than the makeup of feed cost for the other three big salmon farming countries (Marine Harvest1, 2016 p). In table 4, we can see an illustration of the main cost components for salmon farming, for Norway, Canada, Scotland, and Chile. Here we can see how the cost components are distributed.

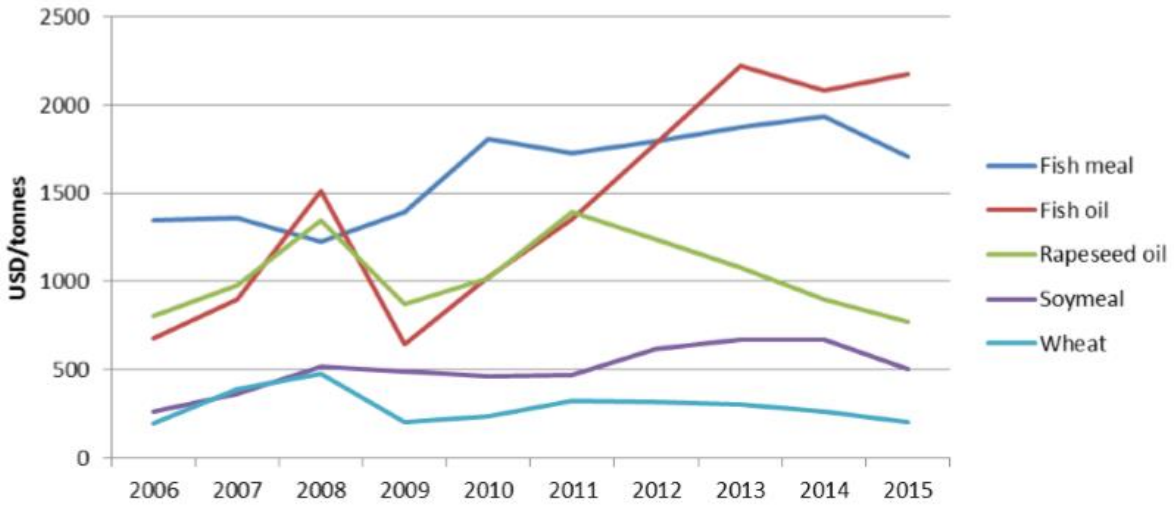
Table 4 Cost distribution

	Norway (NOK)	Canada (CAD)	Scotland (GBP)	Chile (USD)
Feed	13.34	2.41	1.40	1.96
Primary processing	2.67	0.48	0.27	0.67
Smolt	2.67	0.51	0.30	0.82
Salary	1.62	0.53	0.19	0.17
Maintenance	0.94	0.20	0.10	0.17
Well boat	0.95	0.18	0.19	0.22
Depreciation	0.78	0.23	0.13	0.17
Sales & Marketing	0.62	0.01	0.03	0.01
Mortality	0.44	0.07	0.11	0.22
Other	4.47	1.08	0.63	0.67
Total*	28.54	5.73	3.39	5.13

*GWE cost in box delivered at the processing plant including mortality

Source: Marine Harvest1, 2016, p. 39

Figure 10 Cost of feed raw materials



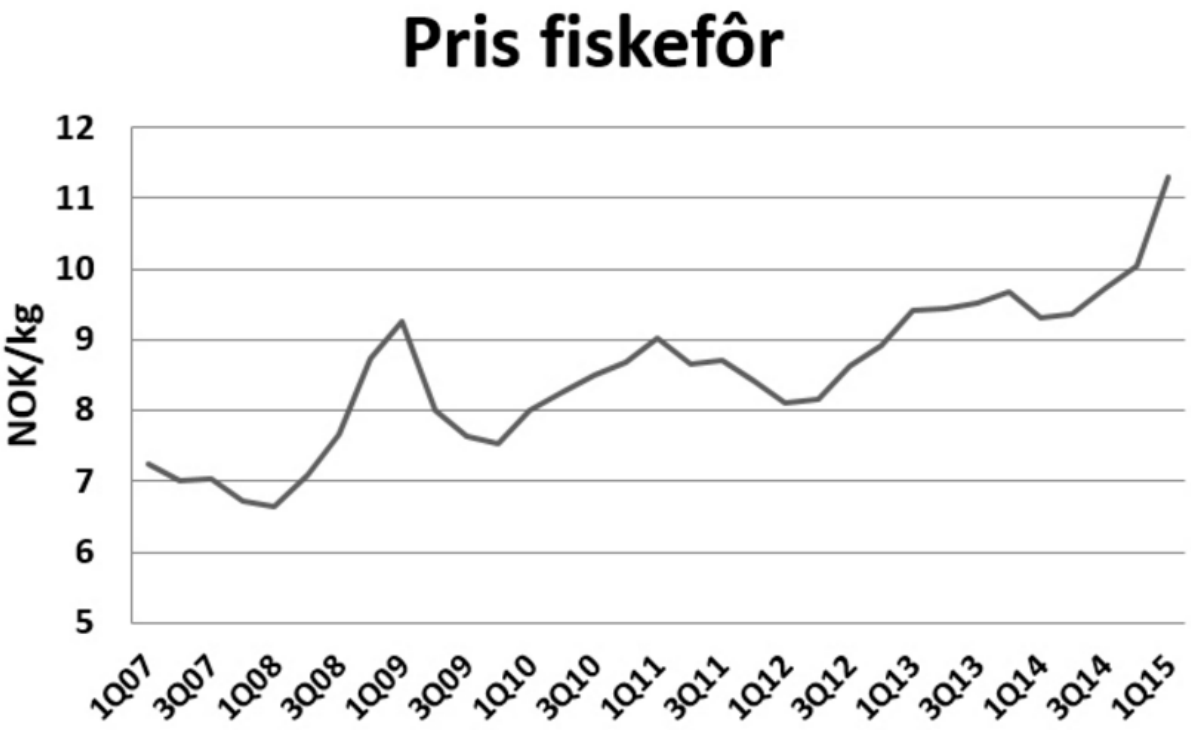
Source: Marine Harvest1, 2016, p. 46

According to the Marine Harvest Salmon Farming Handbook (2016) and Kontali analyse only 4% of total feed production was for aquaculture, out of these only 11% was directed at salmonids, and 85 % of those was for Atlantic salmon. That accounts for around 3.31 million tonnes of feed.

In 2015, 45% of the total salmon feed production in the world was used by Norwegian farms.

The amount of feed consumed varies depending on the temperature of the seawater, with the high season being between July and September and the low season between February and April. This means that companies like SalMar will use less on feed in the low seasons, and more in the high seasons. Feed sales volumes in Norway are published on Kontali and Akvafakta. The price of the feed is dependent on the price of the raw materials that are used for feed production. Traditionally the feed producing companies use a cost-plus-contract, leaving the aquaculture companies with the risk of price increases of the raw materials (Marine Harvest1, 2016). Because of this, the price that SalMar has to pay for the feed is highly dependent on the prices of the raw materials. The raw materials include, fish oil, fishmeal, rapeseed oil, soy meal and wheat. Figure 10, shows the historic prices of the raw materials from 2006 until 2015. From the figure, we can see that the price of fish oil has seen a rapid increase from 2009 and onwards. We also see an increase in the price of fishmeal and a drop in the price of rapeseed oil after hitting a peak in 2011. The prices of soymeal and wheat have been relatively stable the past ten years. It also looks like that there used to be a positive correlation between the price of fish oil and rapeseed oil until 2011, but then the correlation seems to have disappeared.

Figure 11 Price of feed



Source: Berge, A. 2015, EWOS

Figure 11 shows the price of salmon feed per kg that the EWOS Group was selling for from 2007 until first quarter of 2015. As we can see, there has been an increase in the price, following the increase in the price of raw materials closely.

6.2 Peer Group

In this chapter, we are going to try to identify and constrain SalMar's peer group for use in further analysis. We will also introduce the companies briefly.

There are many aquaculture companies in the world, firms producing different types of seafood. It makes sense for us to look at producers of Atlantic salmon only, even though one might consider other fish to be substitutes. Substitutes are discussed more in chapter 5. There are many large Atlantic salmon producing companies comparable to SalMar. Marine Harvest, Cooke Aquaculture, Empresas Aquachile, Lerøy Seafood, and many other. However as we discussed earlier the salmon farming market is quite geographically segmented. Therefore, it only makes sense to concentrate on companies based in the same geographical area. This leaves us with the Norwegian, British, Islandic and other European companies. We choose to exclude all companies that are not based in Norway. Since SalMar is a listed company, we will select peers that also are listed. The Oslo Børs Seafood index consists of listed salmon farming companies, but because of time constraints, we will only look at four of them, and the index as a whole.

6.2.1 Marine Harvest Group

Marine Harvest has a long history in salmon farming. In 1965, they started their salmon farming activities and have continued to grow since. Today Marine harvest is the largest salmon farming company in the world and employs 11 700 people in 24 different countries. It is listed on both the Oslo Stock Exchange and the New York stock exchange. According to their webpage, in 2015 they had a turnover of 28 billion NOK, harvested 420 000 tonnes GWE that they sold to 70 markets around the world (Marine Harvest2, N.D.). Marine Harvest is also responsible for the "*Salmon Farming Industry Handbook"* that includes information of many aspects of salmon farming. We choose to include MHG because it is SalMar's largest competitor.

6.2.2 Lerøy Seafood Group

Lerøy Seafood Group is an exporter of seafood from Norway and one of the largest producers of Atlantic salmon in Norway. LSGs main activities are distribution sale, and marketing of

seafood, and production of salmon and other seafood. The company employs 2300 people and was listed on the Oslo Stock Exchange in 2002 (Lerøy Seafood Group, N.D.). When it comes to GWE salmon harvested, LSG is the company that is most similar to SalMar, with around 135 000 tonnes in 2016 (Marine Harvest1, 2016). We choose to include LSG because it is most comparable to SalMar in size of harvest.

6.2.3 Grieg Seafood

Another one of the leading salmon producers in the Norway and the World. Grieg Seafood has activities in Norway, Canada and the United Kingdom, employing around 700 people (Grieg Seafood Group, N.D.). In 2015 Grieg Seafood reported a turnover of over 4,6 billion NOK (Grieg Annual Report, 2015). With a total harvest of 31 700 tonnes GWE Atlantic salmon, Grieg Seafood is producing much less than the top three in Norway. However, still a substantial amount (Marine Harvest1, 2016). We choose to include Grieg Seafood because we want to compare SalMar to a firm of a bit smaller harvest volume.

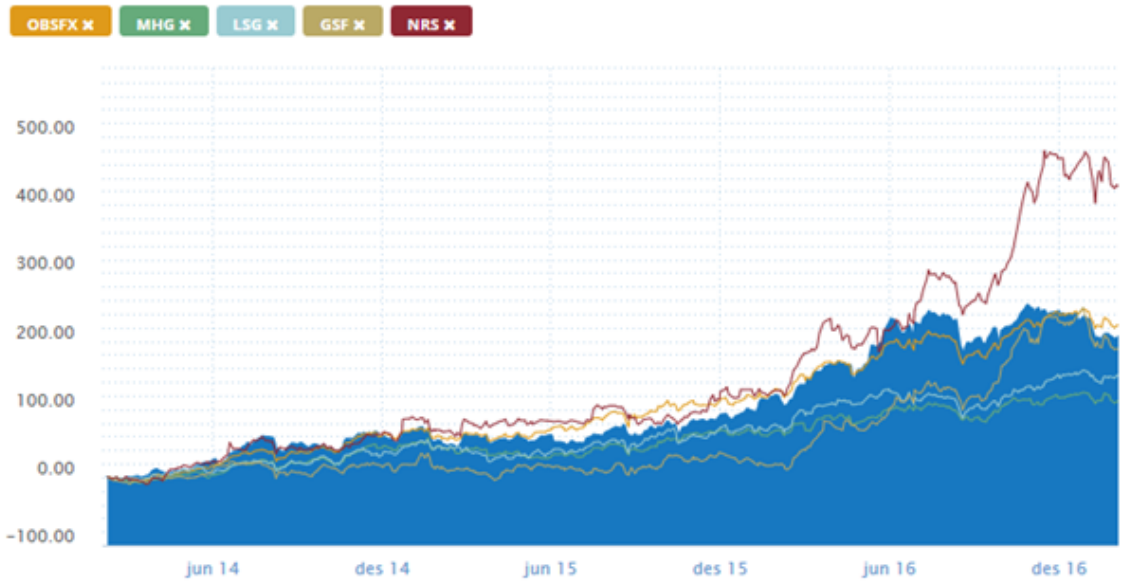
6.2.4 Norway Royal Salmon

Norway Royal Salmon is comparable to Grieg seafood in size of harvest in 2015 with 27 900 tonnes GWE (Marine Harvest1, 2016). Founded in 1992 and listed on the Oslo Stock Exchange in 2011, NRS is now the salmon farming company that has seen the most growth in its value. This is due to record-breaking quarterly numbers in the last year (Norway Royal Salmon, N.D.). We choose to include NRS because it is a success example in the last years, and has shown the best numbers.

6.3 Comparison Between Price of SalMar and OBSFX

Oslo Børs Seafood Index (referred to as OBSFX from now on) is composed of the most traded seafood securities on the Oslo Stock Exchange, officially *"in the GICS sector 30202030 Packaged Foods & Meats"* (Oslo Børs2, N.D.). No single security can have a weight above 30 % and the index is adjusted for dividend payments. The index currently consists of eight companies, but the comparison will only be with the index as a whole and the peer group. The companies that are included in the index are all seafood producers, unlike the similarly named Oslo seafood index (OSLSFX) which includes not only salmon farming companies but also companies in the value chain, like AKVA Group who is a provider of technology for the industry.

Figure 12 Comparison between actors on the OBSFX and the index itself



Source: Oslo Børs5 N.D.

SalMar is here colored in blue and forms the background for the other graphs. OBSFX is colored in orange, MHG is the ticker for Marine Harvest, LSG is the ticker for Lerøy Seafood Group, GSF is the ticker for Grieg Seafood and NRS is the ticker for Norway Royal Salmon. SalMar followed the OBSFX very closely for this period, reflecting that the value of the firm is strongly linked to the value drivers of the industry as a whole. Comparing the development of SalMar with the largest two companies, Marine Harvest and Lerøy Seafood Group, SalMar beat them both out in this period by a decent margin. Norway Royal Salmon seems to be an outlier in this period and is the only company that beat out SalMar, but it is also a lot smaller in terms of market capitalization. All this indicates how closely all of the companies are linked together. The large increase of the stock value of Norway Royal Salmon seems to have been an effect of record breaking quarter 2 operational EBIT that were released in august 2016 and perhaps the acquisition of 50% of Arctic Fish ehf. The quarter 3 operational EBIT numbers continued to be record breaking. The rise in both NRS and the rest of the peers in mid-2016 might be due to the rise of the price of the salmon in that period (chapter 6.1). Later on, the salmon price fell and we can see a fall in all of the values. It also looks like the most fluctuation as an effect of the salmon price is in the value of NRS.

6.4 Accounting Quality

The anchor of a fundamental analysis are the financial statements and it is therefore key to look at accounting quality when doing a financial analysis. Companies are required to meet certain standards when it comes to their accounting, but they are also allowed some opportunities for judgement calls. These opportunities have been used time and time again for companies to make themselves look better for investors in both their equity and also their debt, the latter usually financial institutions (Penman, 2013).

Accounting quality is important both for the income statement and the balance sheet. Bias can occur in both these financial statements and it is more likely to happen when there is opportunity for a lot of personal discretion, the accounting standards applicable are complex, there is an opportunity to choose between different methods, the transactions have a complex nature such as derivatives, and when there is a long time horizon (Petersen, 2017).

For the salmon industry the primary assets are based on widely available market prices and are difficult to misrepresent. Financial derivatives are used, but these are generally not overly complex nor do they represent a large portion of assets.

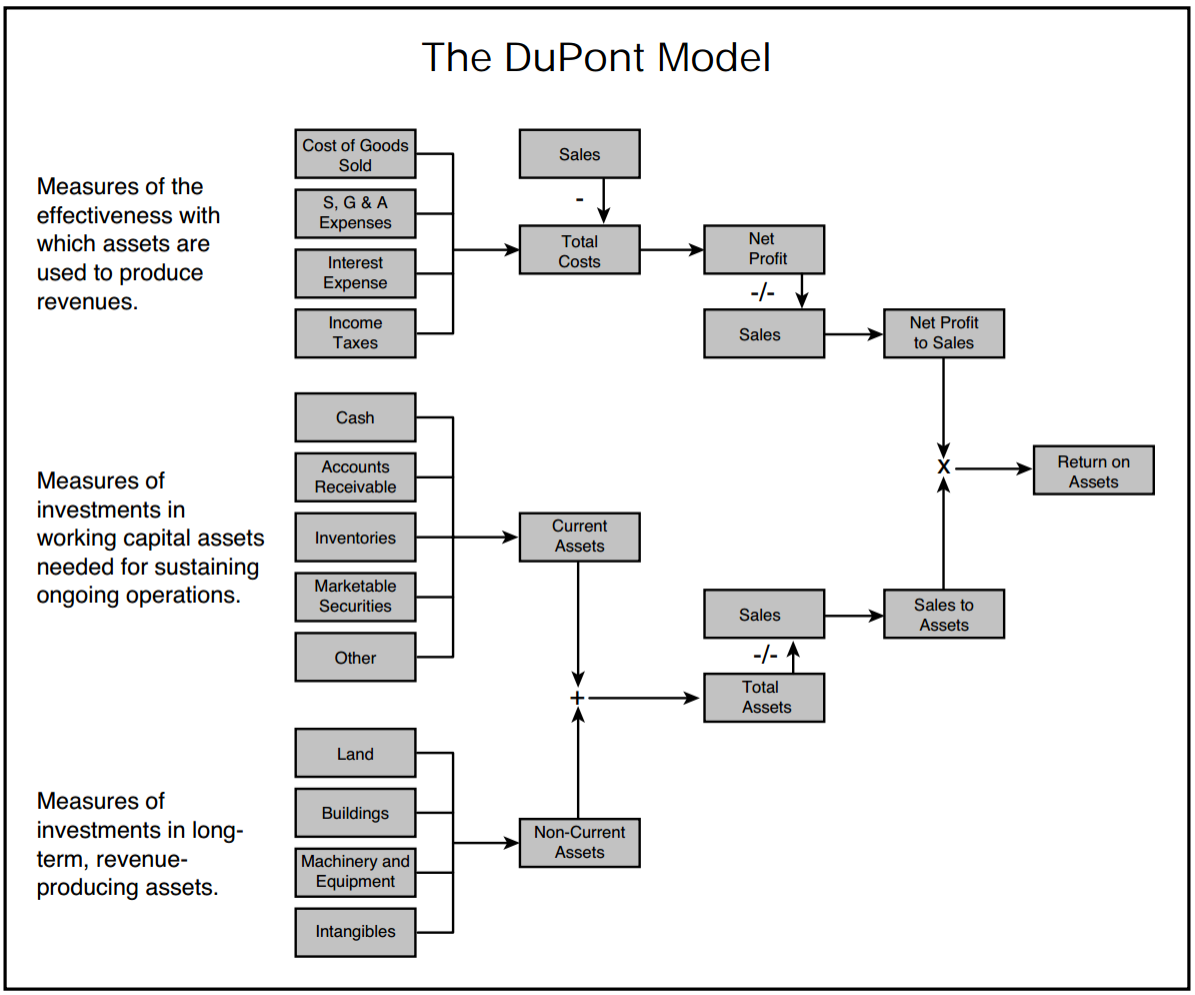
We have taken these issues into consideration when reformulating our financial statements so that the results are as representative of reality as possible. For example, we had some issues with SalMar changing reporting of income from associated companies and Grieg Seafood incorporated a company previously reported as an associated. Through looking at accounting notes these issues were addressed in the reformulated financial statement. In the same manner other challenges were addressed by looking at accounting notes and similar approaches. However, all of the companies we have looked at, including SalMar, are listed companies, which means they are required to have independent auditors and are frequently analyzed by the market. Because of this we believe that the accounting numbers are within satisfactory boundaries and do not misrepresent the economic reality of the companies. We view the accounting quality to be good for all companies analyzed.

6.5 Financial Comparison Between SalMar and Peer Group

For this comparison, a five-year window from 2011 to 2015 will be used with the data taken from the website proff.no (Proff, N.D.), but before the data is compared, there is first an analysis of how these numbers fit together. There is also a decomposition of the numbers

presented. This is justified by the possibility that some of the companies are calculating these numbers differently by using different methods for assigning costs.

Figure 13 The DuPont Model



Source: Farris, 2010, p370

The DuPont Model decomposes an important financial number often used in analysis of firms, namely return on assets, into components, which are often less abstract. In figure 13, there is pictured an extended DuPont Model which will be used here to compare the key figures taken from proff.no.

6.5.1 Operating Margin

The first key number to compare is the operating margin. Operating margin is one of several forms of margins that one can calculate and this one is calculated by dividing operating

income by net operating revenues. Margins such as this one *"… represents a key factor behind many of the most fundamental business considerations…"* (Farris, 2010 p 69). Margins can take the form of per-unit margins and percentage margins.

The definition of what is a unit varies greatly by industry and comparing per-unit margins can quickly become meaningless if one does not keep track of what units are being used. An industry can have multiple units, for example the tobacco industry uses "sticks", "packs", "cartons" and "cases", and calculations can be done on all of these. On the other hand, looking at per unit margins gives a more straight-forward understanding of marginal income from increasing sales and is often easier for non-economists to keep track of (Farris, 2010). The unit that is relevant for the salmon farming industry is Gutted Weight Equivalent, also written GWE, sometimes referenced per kg and sometimes in tonnes.

Percentages and percentage margins have the benefit that they are unit-less and can be calculated without defining what a unit is. This is very beneficial when calculating margins in industries where units are not clearly defined, such as new tech industries. It is also helpful when the data one has available is just the total sales revenue and total cost numbers (Farris, 2010).

6.5.1.1 How to calculate operating margin

There are several ways of calculating operating margins, depending on whether one wants unit margins or percentage margins, and whether one wants to calculate percentages based on total sales revenue or per unit sales price. Unit margin is calculated in the following way (Farris, 2010):

Unit Margin ($) = Selling Price per Unit ($) - Cost per Unit ($)

The unit margin here is calculated simply as the difference between the selling price and the cost. Now this does become a bit more complicated, if the cost you are looking at is not simply the variable cost and if there are rebates. With the consideration focusing on whether to consider rebates as a reduction in selling price or an increased cost. When looking at operating margins one has to include fixed costs into a per unit basis somehow. If there is only one product being produced this can be done simply by dividing the fixed costs by the number of units produced. Note that this is not the marginal revenue of selling an additional unit, which would not include the fixed costs. If there are multiple products being produced, things become more complicated and there are several ways to distribute fixed costs to different products. The classical approach is to divide it up by sales volume, placing the

majority of the fixed costs on the largest product line. A more intricate way of approaching this issue is using ABC-accounting method, "Activity-Based Costing", to assign costs to product lines. Economies of scale benefits that may be present in one product line may not be present in another and the fixed costs assigned through ABC-accounting may be greater as a result for smaller product lines. A famous example of this in Norway is the frozen pizza "Grandiosa" which is a simple pizza with cheese, ham and paprika. There is also a version without the paprika, but this is not produced in such large quantities. Due to the reduced effects of economies of scale, it is therefore assigned higher fixed costs per unit compared to the original version. This results in a higher price in the stores and jokes about the price being a result of the producer hiring people to peel the paprika off the original one.

The next calculation is the percentage margin calculated based on unit numbers (Farris, 2010):

$$\textbf{Margin}\ (\%) = \frac{\textbf{Unit Margin}\ (\$)}{\textbf{Selling Price per Unit}\ (\$)}$$

The percentage margin is here calculated by dividing the unit margin found in the previous formula by the selling price used in that same formula. This means that everything that needed consideration in the previous calculation is also a valid concern here. Another issue that can arise is that there are some costs where it is not clear where they belong and there might be a difference between the margins calculated this way and those calculated using total numbers. When using this approach to calculating total margins in the presence of multiple product lines it is important to use a dollar-weighted average of the different products (Farris, 2010) as opposed to a simple average of the different products. This prevents a small product line with a very high margin from skewing the total margin number disproportionately. For the salmon industry this would be calculated by dividing the difference between costs per kg GWE and the salmon price per kg GWE by the salmon price per kg GWE.

A third calculation is the percentage margin calculated based on total numbers and is the one closest to the boxes found in the DuPont Model (Farris, 2010):

$$\textbf{Margin}\ (\%) = \frac{[\textbf{Total Sales Revenue}\ (\$)\ -\ \textbf{Total Cost}\ (\$)]}{\textbf{Total Sales Revenue}\ (\$)}$$

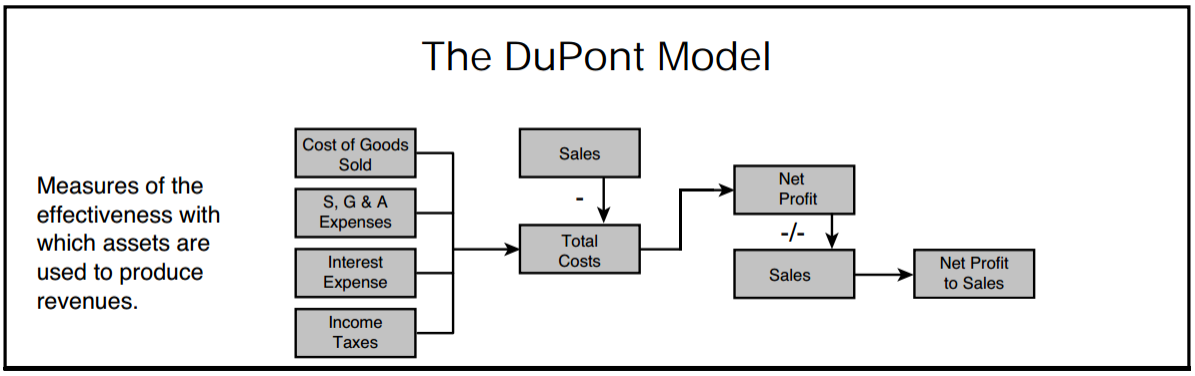
The percentage margin is here calculated by dividing the difference between the total sales revenue and the total cost, which is also known as net profit in the DuPont Model, by the total sales revenue. This is a simpler calculation to do after the yearly accounting numbers are

ready, compared to the previous two ways, and is what it makes sense for proff.no to do. A benefit of calculating margins this way is that all the costs that one wants to include can be included in a straightforward manner. Moreover, there are no considerations needed regarding unit sizes, what product lines should bear which costs or other similar problems, but there is still the issue of rebates, and whether to report them as costs or reduction in sales for internal reporting. Rebates is not an issue for external reporting as it is done in the same matter for all companies due to the reporting approach being mandated by accounting standards.

6.5.1.2 DuPont Model approach

Operating margin relates to the top part of the DuPont Model and is here known as "net profit to sales".

Figure 14 The DuPont Model Net Profit to Sales



Source: Farris, 2010, p370 (edited for focus)

Net profit is the revenue sans the costs and, while these concepts are familiar to most people in business, there is still trouble associated with the periodization of both of them. (Farris, 2010). Net profit is also known as earnings or net income (Penman, 2013). Looking at net profit is one of the most common ways of determining whether a company is successful or not.

$$\textbf{Net Profit } (\$) = \textbf{Sales Revenue } (\$) - \textbf{Total Costs } (\$)$$

This is usually viewed at after taxes, which will be different from what is done when calculating pre-tax return on equity.

Revenue is the value coming in from selling products, usually in the form of cash, and is often easy to determine, with the one of the primary exception being rebates in internal accounting, but that is not relevant when looking at external accounting.

Costs in particular seem to struggle with periodization problems as costs and expenditures are not the same thing, an example being that while buying a car or machine for the business might be a large expenditure in the first year, the costs are divided on the lifetime of the item. Looking at costs from the expanded DuPont Model, costs can be divided into four components, cost of goods sold, S, G & A Expenses, interest expense and income taxes. Income taxes will be disregarded when looking at pre-tax return on equity. Costs of goods sold is the production cost of the goods sold. S, G & A expenses (Selling, General and Administrative expenses) can be further broken down to its components. Selling expenses is the direct and indirect expenses related to selling the items, most notably advertisement and marketing expenses. General expenses is a category for miscellaneous items directly related to the general operation of the company, but that does not fit anywhere else. Administrative expenses are primarily the salaries of the executives and general support personnel and the overall administration of the company. This also includes taxes that are not income taxes. Interest expense are the costs associated with holding debt and is viewed as the after-tax interest expense. The last post is the income taxes, which is linked to the pre-tax profit.

6.5.1.3 SalMar Operating Margin Comparison with Peer Group

In this case, it is possible to use either per unit operating margins or percentage operating margins as the businesses are in the same industry and it would be natural to assume they use the same unit sizes. However, the data used is given in percentages and is therefore presented in percentages.

SalMar beat out all competitors in every year except for in 2011 when they were beat by Marine Harvest and Lerøy Seafood Group, with it being worth mentioning that the two most recent years have been especially good compared to the competitors. The difference between SalMar and the rest here is generally quite substantial and is a large driver of value. Due to the salmon price being perceived as given, this must be done through having lower costs per unit than the competitors have.

Table 5 Operating margin, in percentages

	2011	2012	2013	2014	2015
SalMar	4.9	15.2	31.2	22.9	19.6
Marine Harvest	7.5	6.3	24.3	14.2	11.1
Lerøy Seafood Group	6.5	7.9	20.6	11.5	11.6
Grieg Seafood	-9.1	-4.3	31.1	7.6	-0.4
Norway Royal Salmon	-1.5	4	13.9	9.3	7.8

Source: Proff1, N.D., Proff2, N.D., Proff3, N.D., Proff4, N.D., Proff5, N.D.

6.5.2 Return on Assets

The second key number to compare is the return on assets. Return on assets is one of several measures of adjusting profitability to the size of assets involved. Another, which will be mentioned later, is return on equity, specifically pre-tax return on equity. There are many categories of assets, new plants and equipment, inventories, and accounts receivable are some of the important ones. Metrics such as return on assets provide a snapshot of the period and the asset size adjusted profitability of that period. An issue that can arise here is that the averaging over the period disguises high variation in both profits and assets, especially vulnerable to this are assets such as inventories and accounts receivable. It is viewed by Penman (2013) as being a worse metric than RNOA (return on net operating assets), but it is widely used in practice.

6.5.2.1 How to Calculate Return on Assets

Return on Assets can be calculated using the DuPont Model or one can do the following suggested by Penman (2013)

$$\textbf{Return on Assets} = \frac{\textbf{Net Income} + \textbf{Interest expense}}{\textbf{Average total assets}}$$

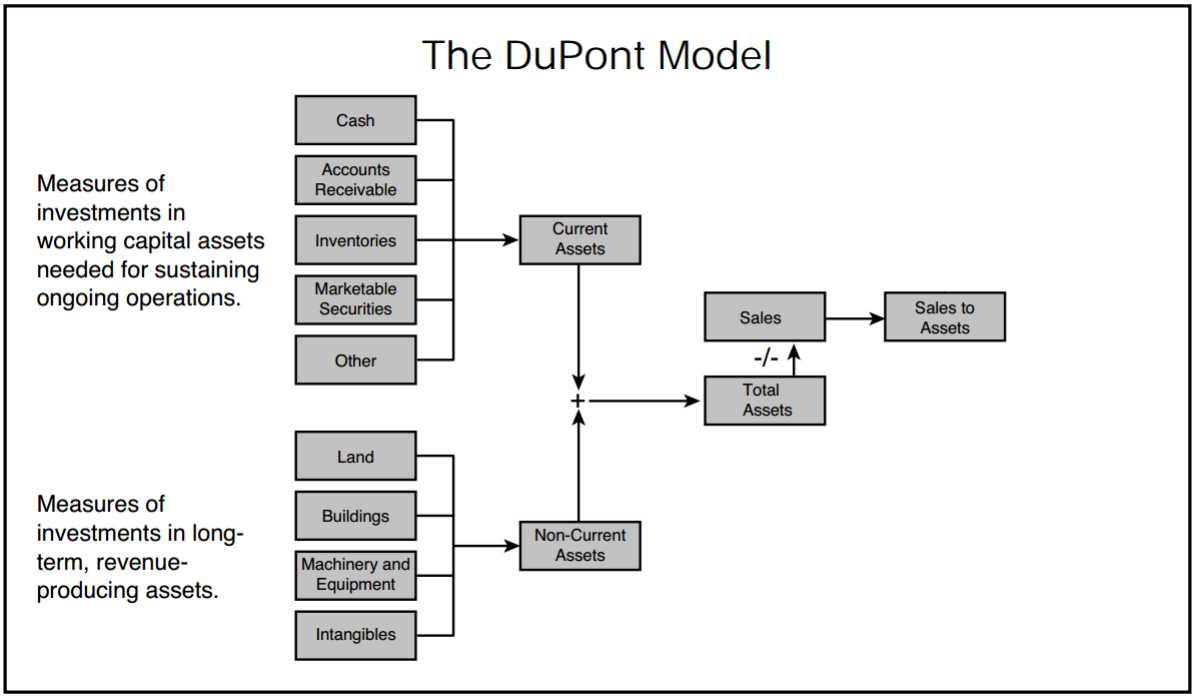
Interest expense is included in net profit and in order to calculate this, one has to therefore understand the two concepts net profit and assets, and the parts that make up these concepts. Net profit was handled when looking at operating margin.

The average total assets is the average of the start of year assets and the end of year assets. All assets are included here, both current and non-current assets. Assets can also be regarded as the sum of debt and equity in a company.

6.5.2.2 DuPont Model Approach

The next part is looking at the bottom part of the DuPont Model (see figure 15), and how to summarize all the assets and decompose the assets into subgroups. The two large subgroups are the current assets and the non-current assets. The current assets can be described as the measures of investments in working capital assets needed for sustaining ongoing operations. The non-current assets can be described as the measures of investments in long-term, revenue-producing assets. These large subgroups can be divided further into smaller pieces.

Figure 15 The DuPont Model Sales to Assets



Source: Farris, 2010, p370 (edited for focus)

Current assets can be divided into cash, accounts payable, inventories, marketable securities, and other. Cash is the money that has been received from customers or that has been paid into the business in order to be able to pay the bills and to keep the business running in a day-to-day manner. Accounts Payable is the money owed by the business to its suppliers, but that has not been paid yet. Inventories are the goods stored by the company which has not yet been sold. Marketable Securities is often referred to as a cash-like object and can also be grouped with cash. It usually consists of bonds that are easy to sell at an exchange or similar. Other is a

miscellaneous grouping for things that fit the description of current assets, but does not fit in any of the other categories.

Non-current assets can be divided into land, buildings, machinery and equipment, and intangibles. The first three can also be called property, plant and equipment as per ISA 16 (International Standards on Auditing) in the IFRS (International Financial Reporting Standards). Land is the property itself, usually with a deed in the name of the company, and can have its value depend heavily on the regulation of what activities can be undertaken there, ranging from heavy industry to possible housing in what could become a newly gentrified area. It is not uncommon for the buildings to be grouped together with the land into "properties" or something similar.

Machinery and equipment is the tools used in the production of the goods and services sold by the company. It is important for assets in this category that one works under the assumption of the company being a going concern as per ISA 570 due to there often being a large difference in valuation between the value under this assumption and the value should one try to liquidate the assets, especially so for highly specialized equipment. The salmon farming industry has large costs associated with machinery (Marine Harvest1, 2016)

Intangibles are outlined in IAS 38 (International Accounting Standards) and are non-monetary assets without physical substance while still being identifiable. Typical examples of intangible assets brand names and cooperative team ability of employees. It is something that is not easily replicate able and is paid a premium for in acquisitions. It is worth noting that under modern accounting standards, at least in the developed world, companies cannot earn intangibles from internal research and developments, those costs are instead deducted immediately as long as they fulfil certain criteria.

6.5.2.3 SalMar Return on Assets Comparison with Peer Group

Table 6, shows that SalMar outperformed all the competitors in every year except for 2011, the later years has seen SalMar doing substantially better than the competitors.
The difference between SalMar and the rest is in general quite substantial and is a large driver of value. Sales to assets is also called asset turnover and the fact that SalMar remain at the top in most years reflects that SalMar also has a strong asset turnover.

Table 6 Return on assets, in percentages

	2011	2012	2013	2014	2015
SalMar	4.8	10.7	28.4	17.5	14.1
Marine Harvest	8.7	7.1	17.6	10.3	8.0
Lerøy Seafood Group	5.4	6.9	20.3	11.0	10.6
Grieg Seafood	-3.2	-2.2	15.0	5.6	2.2
Norway Royal Salmon	1.1	5.2	23.0	14.8	10.9

Source: Proff1, N.D., Proff2, N.D., Proff3, N.D., Proff4, N.D., Proff5, N.D.

6.5.3 Pre-tax Return on Equity

The third key number to compare is the pre-tax return on equity. Pre-tax return on equity is one of several measures of adjusting profitability to the size of investment assets involved. Here the focus is from the viewpoint of an investor looking to buy equity. The calculation of leverage is often straight-forward, but situations can arise with debt-like items and different treatment of such items.

Common equity, or common shareholders equity, is the stocks that in a listed company would be freely traded on the exchange. It distinguishes itself from the wider term equity, which includes preferred dividends, by regarding preferred dividends as an instrument so close to debt that it should not be included in this narrower equity term (Penman, 2013).

Preferred dividend is more common in the United States than it is in Norway and, as is normal in Norway, SalMar has no preferred dividend. This means that the return on equity is equal to the return on common equity. From the viewpoint of the holder of common equity, preferred stock is a debt-like item and can be regarded as a financial obligation (Penman, 2013).

Unlike the other numbers, this metric uses values before taxes. The corporate and private tax rates in Norway are grouped together into what is called general income tax (“skatt på alminnelig inntekt”). The marginal tax rate on general income was for many years constant at 28 %, but after the 2013 election, and the change in government that followed that election, the tax rate has gone down a bit, becoming 27 % for 2014 and 2015, 25 % for 2016 (Skatteetaten, N.D.). Tax rates affect operating margin and return on assets, but pre-tax return

on equity is shielded from the effect of changing tax rates. There is also some uncertainty regarding the plans of the Labour party, the largest party in Norway and the party in charge of the previous coalition government, and what they might do to the tax rate should they win the 2017 election.

6.5.3.1 How to Calculate Pre-tax Return on Equity

Return on common equity (ROCE) can be calculated like this (Penman, 2013):

$$\textbf{Return on common equity} = \frac{\textbf{Comprehensive income}}{\textbf{Average Common Shareholders Equity}}$$

Converting this to be before taxes means changing comprehensive income to earnings before taxes (EBT). The new formula becomes this:

$$\textbf{Pre} - \textbf{tax return on common equity} = \frac{\textbf{Earnings before taxes}}{\textbf{Average Shareholders Equity}}$$

6.5.3.2 DuPont Model Approach

For the top part of the model taxes are disregarded, which changes the profit calculated. For the bottom part the debt and debt-like instruments of the company is subtracted from the assets so only equity remain. The debt subtraction is done separately from the model as the model itself does not touch upon leverage directly, as the effects of leverage unrelated to taxes do not impact return on assets. Assuming only cash and cash-like assets necessary for sustaining ongoing operations are counted into current assets, as excess amounts would be calculated as negative debt for net debt calculations. Differences from return on assets will therefore arise from differences in leverage and effective tax rates.

6.5.3.3 SalMar Pre-tax Return on Equity Comparison with Peer Group

Table 7, once again illustrates that the year 2011 was the only year that SalMar did not beat all competitors. However, in pre-tax return on equity NRS managed to beat SalMar in 2014. The difference between SalMar and the rest is overall still quite substantial and is a large driver of value, but it is not as significant as the other key figures, which might indicate that SalMar is less levered than its competitors are.

Table 7 Pre-tax return on equity, in percentages

	2011	2012	2013	2014	2015
SalMar	6.9	21.8	57.8	31.9	26.7
Marine Harvest	11.8	7.0	25.3	9.6	13.6
Lerøy Seafood Group	9.1	11.5	36.7	18.3	17.8
Grieg Seafood	-10.6	-12.6	31.1	7.6	-0.4
Norway Royal Salmon	-3.1	7.1	53.7	34.1	24.5

Source: Proff1, N.D., Proff2, N.D., Proff3, N.D., Proff4, N.D., Proff5, N.D.

6.5.4 Comparison between the figures

Visual comparison

Looking at the figures directly and comparing them gives the impression that the three figures are linked, both in the relationship between the companies and year-by-year comparisons. SalMar wins out in the most of the same years and the numbers follow a similar development over the years, with Norway Royal Salmon beating it out in 2014 for pre-tax return on equity. The companies that can rank the years internally in the same order as SalMar is Lerøy Seafood Group and Norway Royal Salmon, the numbers for the other companies are not in the same order. Comparing the ranking of the companies per year, the discrepancies become even clearer. Grieg Seafood ranks lowest for all years except for 2013 for operating margin and pre-tax return on equity, and lowest in every year for return on assets. While it ranked very highly in 2013 when it came to operating margin, almost beating out SalMar for that year, it ranked second lowest for pre-tax return on equity. Also in 2013, Marine Harvest had the lowest pre-tax return on equity while at the same time maintaining a solid operating margin.

Theoretical connection

Operating margin is very important for the size of the return as it can also be called net profit to sales. Operating margin is solely concerned with measures of the effectiveness with which assets are used to produce revenues, the top part of the DuPont Model. The other part of the DuPont Model is the sales to assets, which can also be called asset turnover rate.

The differences between the development of operating margin and return on assets arise from change in sales to assets, as that is where the difference between the two numbers are found.

The differences between the development of operating margin and pre-tax return on equity arise from change in sales to assets and the effects of financial leverage, including the tax-deductibility of interest.

Pre-tax return on equity and return on assets both base themselves on the return of the company in one shape or the other, which is then adjusted by the size of investment. The difference is that while return on assets ignores financial leverage when looking at the size of investment, it is very important for the pre-tax return on equity. Another difference is the treatment of tax in the two metrics where the changing tax rate boosts return on assets in 2014 and 2015, while not impacting pre-tax return on assets.

6.5.5 Conclusion

In conclusion, it seems like SalMar has been outperforming the competitors financially, with higher operating margins, return on assets and pre-tax return on equity. However, the margin by which SalMar is beating the competitors is substantially lower when it comes to pre-tax return on equity, this might suggest that they have a less aggressive financing structure, in other words they are less leveraged. We believe the outperformance comes from SalMar having lower costs of production, due to the innovative new processing plant InnovaMar and a competent management.

6.6 Financial Analysis Using Reformulated Numbers

All the numbers in the financial statements regarding SalMar are gathered from the annual reports of SalMar using that year's annual report from 2005 until 2015. The numbers for 2005 and 2006 were gathered from the annual report from 2007, as there was no access to those annual reports. The other companies use their respective annual reports, but only the period from 2011 to 2015 is used for them. The presentation used by SalMar was used as a template for importing the numbers in a comparable way. The financial statements were then reformulated to separate financing activities from operating activities in the manner that is required to use for the valuation models and to include all comprehensive numbers (Penman, 2013). The treatment of associated companies differed slightly from company to company, and even changing for a company over the period analyzed, but for the reformulated numbers the income from these companies were regarded as financing income as the companies cannot control the actions of associated companies.

6.6.1 What Happened to SalMar in 2011?

SalMar is lower for all metrics in 2011 as a result of negative adjustments from operations due to reduced salmon price, which applies to everyone, and due extraordinary biological incidents for SalMar specifically. These extraordinary incidents were according to the annual report due to fines, recapturing costs, and the original costs of manufacture of fish resulting from fish escapes and government mandated destruction of a sizeable quantity of fish as a result of an outbreak of disease.

6.6.2 EBITDA Margin

All the margins are calculated by dividing the chosen metric by the income from operations. For EBITDA it becomes the following formula:

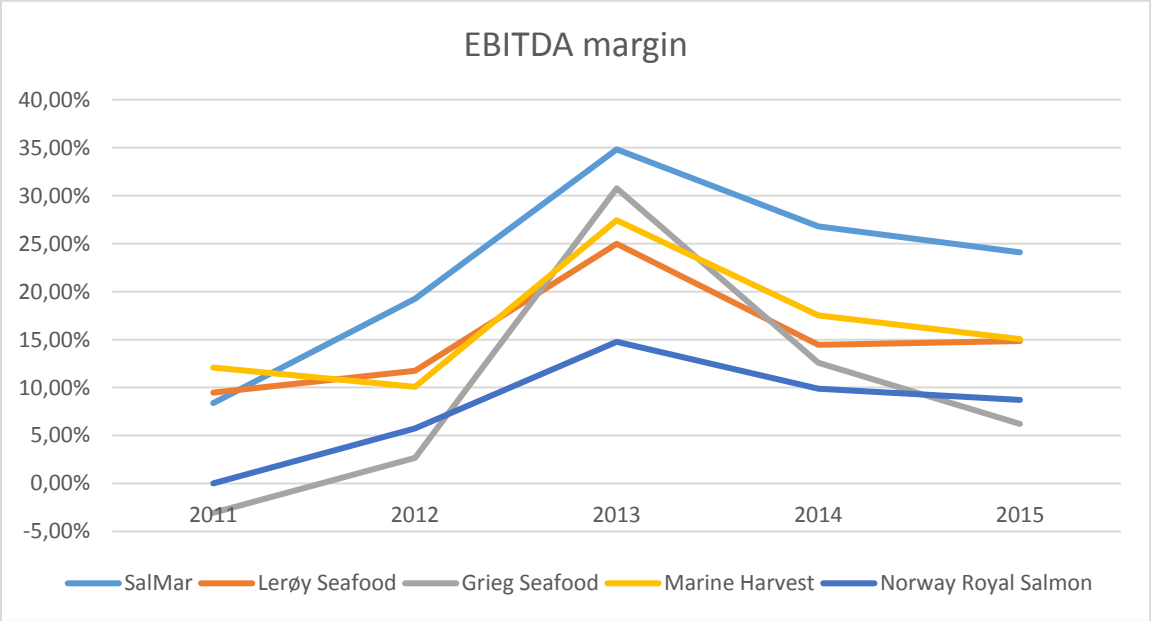
$$EBITDA\ margin = \frac{EBITDA}{Income\ from\ operations}$$

The calculation of the income from operations is done by simply adding the sales income with other income, resulting in the following formula:

$$Income\ from\ operations = Sales\ income + other\ income$$

The EBITDA margin is a metric of how well the company creates value from its core operations in a shorter time horizon as it excludes depreciation and amortization, which are only relevant with a longer time horizon (Petersen, 2017).

Figure 16 EBITDA margin



Source: Own research, Annual Rapports

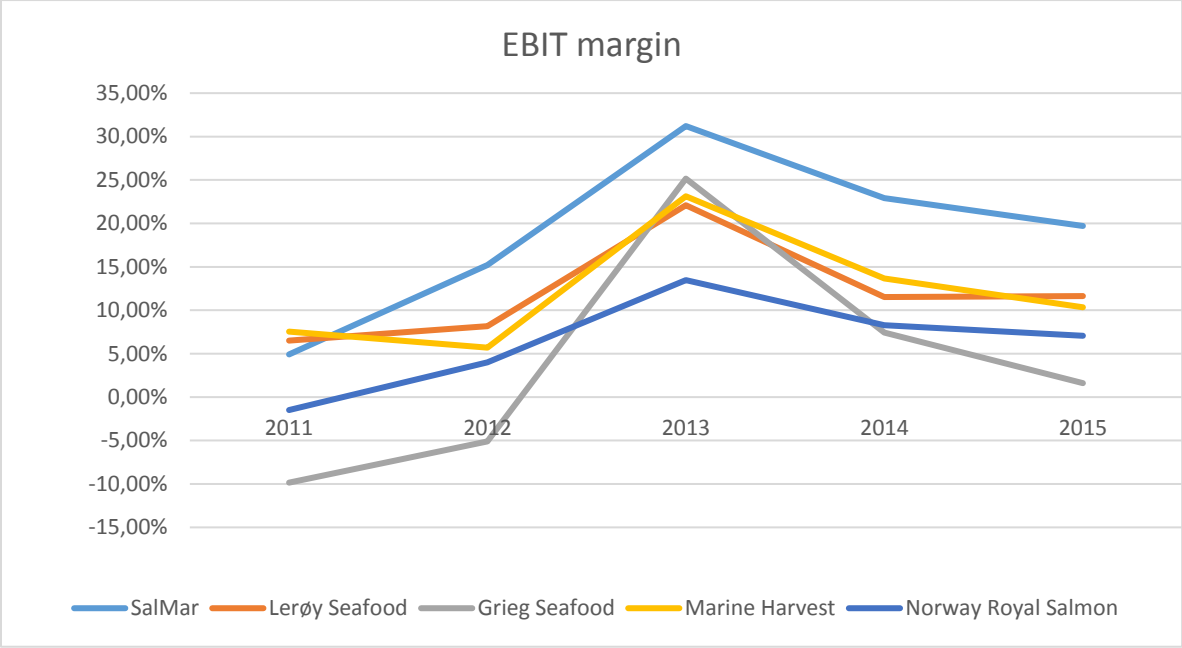
6.6.3 EBIT Margin

As stated before, all the margins are calculated by dividing the chosen metric by the income from operations. For EBIT it becomes the following formula:

$$EBIT\ margin = \frac{EBIT}{Income\ from\ operations}$$

This margin includes the longer-term costs of reinvestment that is necessary to continue operations in the future. Improvements made compared to competitors from EBITDA to EBIT is a good indicator of proper management control of investment requirements and avoidance of overinvestment.

Figure 17 EBIT margin



Source: Own research, Annual Rapports

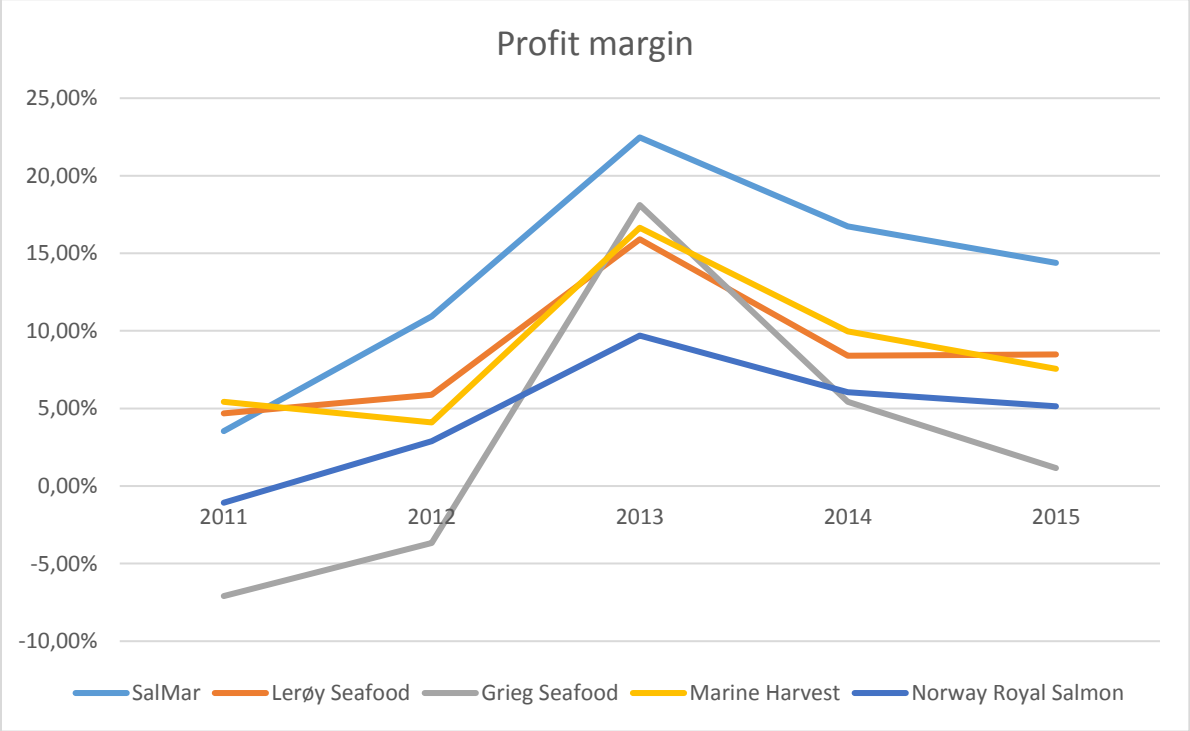
6.6.4 Profit Margin

As previously mentioned, all the margins are calculated by dividing the chosen metric by the income from operations. For the profit margin it becomes the following formula:

$$Profit\ margin = \frac{NOPAT}{Income\ from\ operations}$$

Unlike the other margins this metric is after taxes are applied. It is very similar to the EBIT margin, but the actual numbers presented are interesting to see to compare to the numbers retrieved from proff.no which are not reformulated. For more details on our reformulated numbers see appendix 12.

Figure 18 Profit margin



Source: Own research, Annual Rapports

6.6.5 Conclusion

Using the reformulated numbers gives a similar picture of SalMar's performance as the numbers from proff.no. The assumed advantages SalMar has when it comes to lower production costs in the daily operation is carried throughout from EBITDA, through EBIT margin and to the profit margin. All this comes to show that SalMar is in an enviable financial situation.

7.0 Forecasting

In this chapter we are forecasting the pro-forma Financial statements of SalMar and more in-depth information on the forecasting can be found in Appendix 2, 4, and 7.

It is important to understand what the important value drivers in a particular industry are when doing forecasts of businesses in that industry (Penman, 2013). For the salmon industry, there are in particular two factors that create revenue. The first one is harvest volume, which the business can try to maximize while minimizing costs, the second one is the salmon price, which the business is assumed to have no meaningful control over. These are also the two parts, which makes up sales income that is a good step 1 in forecasting (Penman, 2013). A third value driver is the cost per kg, but this is a negative driver of value where reducing costs increases value.

7.1 Strategic Assumptions and Sales Income Forecast

We are here again using the reformulated financial statements from 2005 until 2015 gatherd from the annual reports, in the same manner as mentioned in chapter 6.6.

7.1.1 Forecasting Period

Forecasting periods can vary in length from 10 years before they reach a steady state, to around 5 years. We have chosen to limit our forecasting period to 5 years due to the volatility of the salmon industry, especially regarding the price of salmon, more than 5 years would be too speculative. When basing forecasts on data from previous years, two 3-year cycles (see details about business cycles earlier in the thesis) were chosen, making it a 6-year estimation window period. There are however some exceptions to this rule, but they will be mentioned specifically.

7.1.2 Licenses

In 2015, SalMar had 100 licenses. Our forecasted growth has been limited to be in the range of 3-4%, which is consistent with previous growth. This growth is in line with the new position of the Norwegian government of issuing fewer licenses and trying to limit the ones that are issued to development and green licenses, which was mentioned in the strategic analysis. Therefore, we forecast a growth of 4 licenses per year in the forecast period.

7.1.3 Production per License

From 2011 and onwards, there seems to have been a change in trends regarding the production per license, coinciding with InnovaMar becoming operational, therefore 2010 was not included when forecasting future years. A weighting was done based on the previous years' numbers where recent years were more heavily weighted than years further into the past. This weighting is shown in the forecasted financing items part.

7.1.4 Harvest Volume Abroad

This post arises from Norskott Havbruk which owns Scottish Sea Farms Ltd, of which SalMar owns 50 %. This number has been stable around 13 500 tonnes GWE and is assumed to remain so in the forecast period.

7.1.5 Harvest Volume in Norway

Harvest volume here is the sum of licenses and production per license and relies on the assumptions made there.

Table 8 Harvest volume Forecast

	2015A	2016E	2017E	2018E	2019E	2020E
Licenses	100	104	108	112	116	120
License growth	*0,00 %*	*4,00 %*	*3,85 %*	*3,70 %*	*3,57 %*	*3,45 %*
Production per license	1 364	1 362	1 362	1 367	1 375	1 371
Harvest Volume abroad	13 500	13 500	13 500	13 500	13 500	13 500
Harvest Volume in Norway	136 400	141 657	147 137	153 143	159 550	164 572
Harvest volume tonnes GWE	149 900	155 157	160 637	166 643	173 050	178 072
Harvest volume growth	*-3,17 %*	*3,51 %*	*3,53 %*	*3,74 %*	*3,84 %*	*2,90 %*

Source: Own research, Annual reports

7.1.6 Salmon Price

The salmon price is of critical importance to SalMar's financial result and is the largest single factor in estimating the value of the company. It is therefore of utmost importance to forecast this as precisely as possible.

SalMar is a large company, but it is not large enough to manipulate the price of salmon in a way that would be beneficial for itself. The salmon price will therefore be viewed as an exogenous input factor determined by things outside SalMar's control. The focus will as a result be on the price for the industry in general and not for SalMar in particular.

7.1.6.1 Supply of Salmon

There is according to Marine Harvest's Salmon Industry Handbook (2016) a strong correlation between global salmon supply and the salmon price. It is therefore important to forecast supply of salmon in order to accurately forecast the salmon price. There are many factors that are important when it comes to the supply of salmon, diseases, sea temperatures, mortality rates and decisions made by the different actors in the salmon industry, but to accurately forecast based on this falls outside the scope of this thesis. This forecast will instead initially use the handbook mentioned earlier and numbers taken from there. Later the numbers will be reviewed to see if the numbers are realistic or if there is, a possibility that the vested interest that Marine Harvest has in having analysts forecast a high salmon price may have impacted the decisions that was made when creating the forecast.

Table 9 Salmon supply forecast

	2015A	2016E	2017E	2018E	2019E	2020E
Salmon supply thousand tonnes GWE	2 200	2 266	2 334	2 404	2 476	2 550
Salmon supply growth	5,00 %	3,00 %	3,00 %	3,00 %	3,00 %	3,00 %

Source: Handbook 2015, own research

The supply of farmed salmon in 2015 exceeded 2.2 million tonnes GWE globally. The salmon farming handbook expects the supply to grow at a yearly rate of 3 percent from 2015 to 2020.

Supply is often coupled with demand, but there has not been put forth an accurate proxy for demand of salmon. The factors that influence demand are touched upon in the strategic analysis, but neither of these enhance the model. Demand growth is therefore assumed constant, and will be reflected in the intercept shown in the regression. There are two outliers, 2012 and 2013, where the price change is much more positive than the model would predict; this was accounted for in the regression.

7.1.6.2 Regression

This regression uses only two variables, the dependent variable being the change in the price of salmon and the independent variable being the growth in supply. The variables are given as rates of change and do not require additional reworking as they are already abstracted. Three regressions were run to estimate the relationship between the two variables using different sets of the data. The first was ran on the entire 15-year period and resulted in the lowest

adjusted r-square of the regressions. The second was ran on the first 11 years, from 2001 to 2011, in order not to include the outliers in 2012 and 2013. The third regression ran on all non-outlier years, this means it ran from 2001 to 2011, eliminated 2012 and 2013, and included 2014 and 2015. More details about the regression output can be found in Appendix 13.

Table 10 Salmon price regressions

	All years	**2001-2011**	**2001-2011+2014-2015**
Estimated intercept	0,2107	0,2381	**0,2270**
Estimated coefficient	-2,6007	-3,4987	**-3,4583**
Adjusted r-square	0,5917	0,8408	**0,8201**

Source: Own research

We chose here to use a 95 % confidence level, and both the intercept and the coefficient were significant on all regressions. The intercept reflects the previously assumed constant growth in demand and unsurprisingly is thus strongly positive. The coefficient is, consistent with economic theory, strongly negative. The first regression had an adjusted r-square of 0.59, which is considerably lower than the two other regressions, consistent with the view of 2012 and 2013 being outliers. The second regression had an adjusted r-square of 0.84 which means it had a really high explanatory power which also means it is likely a really good model. The third regression had an adjusted r-square of 0.82 which means it too had a really high explanatory power which again means it is likely also a really good model. The second regression had the highest adjusted r-square, but as this was only marginally above the third regression, the third regression was chosen in order to include as many data points as would be reasonable to include. Both the second and the third regression had a high adjusted r-square indicating a strong goodness of fit. The generic regression model used can be written like this:

$$y = \beta_0 + \beta_1 x_1$$

Here y is the change in price of salmon, β_0 is the intercept, β_1 is the coefficient for change in supply and x_1 is the change in supply. Transforming this from the generic model to the current model the equation for the change in the salmon price looks like this:

$$\Delta SP = 0{,}227014925 + -3{,}45826423 * \Delta SUPPLY$$

Table 11 Salmon price development

	2015	2016	2017	2018	2019	2020
SalMar salmon price	kr 48,72	kr 54,73	kr 61,47	kr 69,05	kr 77,56	kr 87,13
SalMar salmon price growth	5,34 %	12,33 %	12,33 %	12,33 %	12,33 %	12,33 %

Source: Own research

The forecasted salmon price shows a very strong yearly growth, breaking records every year. This development in price seems unrealistic and a judgement call is now made regarding the rest of the valuation. The price of salmon is mentioned in SalMar and many of its peers' annual reports as being very important for accounting purposes, but also in general for estimating value.

7.1.6.3 Adjusted Price Estimation

Two approaches to this can be used here. The first is that with this price development we expect that the market as a whole will increase supply as soon as possible, which due to the 3-year business cycle of the industry will be from 2018 onwards. The second is that instead of forecasting the price of salmon using this regression, forward prices from fishpool.eu can be used. Due to the forward prices as they were at the valuation date are not available to us, this will instead be covered in a separate chapter called incidents after the valuation date. This approach does not use a forecast of the supply of salmon in the future, but instead relies on forecasts done directly on the price of salmon instead. Using the first of these approaches the following supply and price forecasts have been made.

Table 12 Adjusted salmon supply forecast

	2015	2016	2017	2018	2019	2020
Salmon supply thousand tonnes GWE	2 200	2 266	2 334	2 614	2 778	2 952
Salmon supply growth	5,00 %	3,00 %	3,00 %	12,00 %	6,27 %	6,27 %

Source: Own research

Table 13 Adjusted salmon price development

	2015	2016	2017	2018	2019	2020
SalMar salmon price	kr 48,72	kr 54,73	kr 61,47	Kr 49,92	Kr 50,42	kr 50,93
SalMar salmon price growth	5,34 %	12,33 %	12,33 %	-18,80 %	1,01 %	1,01 %

Source: Own research

We choose to have a supply growth of 12 percent in 2018 because economic theory suggest that the actors in the industry will increase supply when prices increase, but the increase of supply will not enter the market until 3 years later because of the 3 year cycle of the industry. The supply growth of 12 percent in 2018 is similar to the one in 2011 and is justified as being within the historical proven capabilities of the salmon industry to grow supply, at the same time it corrects the price to a more reasonable level. The supply growth in the following years is the historical average growth using arithmetic mean.

7.2 Forecasted Income Statement Items

7.2.1 Operations Items

Operations items are separated from financing items to distinguish between core and non-core items. Core items are items regarded as part of the main value creating activities of the firm while non-core items are outside the scope of the main operations of the business.

7.2.1.1 Sales Income

This is the product of multiplying total harvest volume by the salmon price and relies on the assumption made there.

7.2.1.2 Other Income

The growth rate in other income is calculated using the weighting used in production per license on the growth rate of total income from operations, except it is constrained to move towards the steady state growth rate towards the end of the forecasting period.

7.2.1.3 Depreciations, Amortizations and Impairments

From 2009 onwards, impairments happen regularly and it's possible that these impairments are simply covering underreported depreciations and amortizations. These are therefore grouped under one heading and forecasted as a percentage of the total harvest volume based on a ratio gathered from the estimation window.

7.2.1.4 Change in Work in Process Inventory

The growth period for salmon is more than a year (as mentioned in the production methods chapter), therefore the work in process inventory is rather large and increasing to accommodate for future growth (Marine Harvest1, 2016). The forecasting uses the same method as depreciations, amortizations and impairments and is based on the estimated harvest volume.

7.2.1.5 Inventory Proceeds from Acquisitions
This is considered a one-time event and is thus forecasted to be 0 for all years.

7.2.1.6 Cost of Goods Sold
These costs are based on harvest volume and are therefore forecasted in the same manner as depreciations, amortizations and impairments.

7.2.1.7 Cost of Salaries
Salaries need to be paid regardless of how much is produced, but is highly linked to production and is therefore forecasted like cost of goods sold.

7.2.1.8 Other Costs of Operations
This post includes all the assorted costs of operations that do not fall into one of the above categories. These costs are still considered to follow the same pattern as the other costs and is forecasted in the same manner as cost of goods sold, based on harvest volume.

7.2.1.9 Increased Price of Feed and Biology
As mentioned in the financial and strategic analysis feed is the most important and largest cost for the salmon producers. It is also a variable cost so it is based on the amount of salmon produced. Due to this, a forecast of the price of feed is essential to get a good forecast on the free cash flows of the company. Our financial analysis has showed that the price of feed and the price of raw materials for feed have been growing the past years. Moreover the greater emphasis on environmental friendly production from the government, for example the strict, no-escape policy and eco licenses, will lead to higher costs from biology. With this in mind we are forecasting a continuation of this growth in costs and will use a cost increase of 7 NOK per GWA kg per year in the forecasting period.

7.2.1.10 Value Adjustments from Biomass
This figure varies greatly from year to year and can be both positive and negative. It is based on pricing the value of the salmon in inventory at spot prices and is not contributing to any actual cash flow to the company. It is as a result considered to be 0 for the forecast period.

7.2.1.11 Extraordinary Biological Incidents
This figure is only present in two years, 2011 and 2012, and is not a recurring cost. It is therefore considered to be 0 for the forecast period. As a result of this post and the value adjustment post being 0, there are no adjustments to the result from operations in the forecast, all adjustments are a result of events that will not be forecasted.

7.2.2 Forecasted Financing Items

The items forecasted here are based on a weighted average of previous years. The weighting used is as follows:

$Year_t = Year_{t-1} * 0.235 + Year_{t-2} * 0.215 + Year_{t-3} * 0.175 + Year_{t-4} * 0.150 + Year_{t-5} * 0.125 + Year_{t-6} * 0.100$

One-time events are removed where necessary.

7.2.2.1 Income on Investments in Associated Company

SalMar changed reporting method on this post in 2012 and it is no longer included in net result from financing. This post has been quite stable over time and has been calculated using weighting of previous years in the same manner as production per license was earlier. For valuation purposes this income is assumed to have 0 % terminal growth rate and the same WACC as SalMar. The valuation of this income is done using the DCF model.

7.2.2.2 Other Interest Income

The weighting mentioned previously is used here without any adjustments being made to the calculation.

7.2.2.3 Other Financing Income

An outlier in 2013 has been eliminated in the forecast. The weighting has been applied here as well, but with standardization due to an eliminated data point.

7.2.2.4 Interest Costs to Company in Same Conglomerate

This post has been zero since 2007 and it has therefore been forecasted to be zero in the future as well.

7.2.2.5 Other Interest Costs

The weighting mentioned previously is used here without any adjustments being made to the calculation.

7.2.2.6 Other Financing Costs

This post uses the same weighting mentioned at the start without any adjustments being made to the calculation.

7.3 Balance Sheet Items

Most of the balance sheet items were forecasted based on their average relationship to the harvest volume in the previous six years. This relationship was then multiplied by the forecasted harvest volume for the relevant year.

7.3.1 Assets
Assets are the items the company has invested in, what they have paid for with their financing. Assets can be current, where they are highly liquid, or non-current, where they require a longer time horizon to realize their full value.

7.3.1.1 Concessions, Patents, etc.
These are viewed as closely linked to harvest volume and are forecasted the way mentioned at the start of this subchapter.

7.3.1.2 Goodwill
This arises primarily from acquisitions where a premium is paid and due to the difficulty of forecasting this will be held at constant value during the forecasting period.

7.3.1.3 Fixed Assets
Also known as property, plant, and equipment. These are also linked closely with the harvest volume and are calculated in the same manner as discussed previously.

7.3.1.4 Other Non-current Assets
Investments in associated companies and other non-current receivables are calculated by taking the average of these posts for the six previous years.

7.3.1.5 Biological Assets and Other Goods
The change in work in process inventory is what drives these posts. They retain their share of total goods they had in the previous year, but the total goods changes by the change in work in process inventory.

7.3.1.6 Current Receivables
Accounts receivable and other current receivables are driven by the income from operations. The model used previously is also applied here, but instead of harvest volume being the driving force it has been replaced by income from operations, which means these posts are also dependent on the price of salmon.

7.3.1.7 Cash and Cash Equivalents
This post is handled in the same way the current receivables is handled. While cash in this post may exceed the required cash to handle operations, it is reasonable to assume this post to grow as the company grows.

7.3.2 Debt and Equity
Debt and equity is how the company finances its assets. Management can choose to change the ratio between these for an optimal capital structure to reduce the weighted average cost of capital and through that create value.

7.3.2.1 Debt Items

All debt items were forecasted by calculating their average relationship to the income from operations and multiplying this with the forecasted income from operations for each year. This was done due to the fact that many of the liabilities are closely tied to the income from operations and the total debt level can be higher when income from operations is higher.

7.3.2.2 Equity

Equity is the part of the company the shareholders own, the financing that comes for surpluses in the company that has not been handed out as dividend or share repurchase, or that was raised from shareholders. It is equal to the difference between assets and debt, or the difference between net operating assets and net interest bearing debt and was calculated through the latter approach.

8.0 Valuation

While the valuation itself is done in this chapter, the assumptions made in the forecasting chapter lay the basis for the valuation and if those assumptions are faulty the valuation will also give faulty results. The valuation is done by first calculating the discount factor used through the WACC. After that, the forecast and the WACC is combined in the fundamental valuation methods used. Finally there is also conducted a comparative valuation based on multiples with the peer group.

8.1 WACC

The weighted average cost of capital (WACC) and the cost of equity (r_E) are needed to discount the cash flows calculated in the valuation models.

8.1.1 CAPM

Jack Treynor, John Lintner, Jan Mossin and William F. Sharpe created the capital asset pricing model, CAPM. The surviving members received the Nobel Prize for economics in 1990 for their work on CAPM.

CAPM is a mathematical model that illustrates the relationship between the risk-free rate in the market, the beta of a security, the market risk premium and the expected rate of return of that security. The beta is a measure of systematic risk of a security; this is the sensitivity of the asset to fluctuations in the market and the non-diversifiable risk. The risk free rate is the rate that an investor can expect from putting their money in a risk-free investment, often times these are government obligations, and the market risk premium is the premium that an investor demands for putting his money in an asset with risk. The risk premium is the expected market return minus the risk free rate (Penman, 2013). The general purpose of CAPM was to create a model that would make it easier for investors to calculate a rate of return for an asset. An investor needs to be compensated for the time value of money and the risk. The risk free rate represents the time value of money while the risk premium represents the risk the investor is taking.

The model can be used for, among other things, portfolio selection and for estimating cost of capital. In valuation the model is widely used for finding R_{Wacc}.

Even though the model has many times been empirically proven to be flawed (Fama, French, 2004, p25-46) it is still the most used model for its simplicity and many uses, and due to its widespread use among investors, we also chose to use it.

8.1.2 Cost of Equity

It is expressed generally as:

$$r_i = r_f + \beta_i (r_m - r_f)$$

Which can be transformed to apply specifically to SalMar like this:

$$r_{SalMar} = r_f + \beta_{SalMar} (r_m - r_f)$$

Here r_{SalMar} is the cost of equity of SalMar, r_f is the risk free rate, β_{SalMar} is the covariance between SalMar and the market, also known as the systematic risk of SalMar, and $(r_m - r_f)$ is the market risk premium.

8.1.3 Risk Free Rate

The risk free rate chosen for SalMar will be the Norwegian government bonds due to SalMar being based in Norway and these bonds are assumed risk free. For 2015 the 10-year bond had an annual average quote of 1.57 % and due to this being the most used risk free rate it is used in this valuation (PWC1, 2015) (PWC2, 2014) (Norges Bank2, ND).

A second risk free rate is chosen for the terminal period, the steady state period. This risk free rate is lower than the one in the estimation period which is justified by low or negative interest rates becoming the new norm. (Kennedy, 2015)

8.1.4 Beta

The beta of SalMar is as mentioned a metric of the covariance between SalMar and the market. The beta has therefore been estimated using regression analysis between SalMar and both OSEBX and OBX (Oslo Børs3, N.D.) (Oslo Børs4, N.D.). It has further been adjusted using Blume's beta adjustment method (Blume, 2011, p. 785-795). The Beta chosen is the one estimated using 2 years of daily data regressed on the OSEBX, the benchmark index of Oslo stock exchange. This beta was chosen due to the regression having the highest adjusted r-square and therefore the highest explanatory power of the regressions made. The adjusted r-square is still very low and this is perhaps indicative of a weakness of CAPM, which regressions such as this is based on. Knowing the industry, it might be that there are factors related to salmon that are omitted from simply regressing on the market. This will affect the valuation by having investors ask for too little compensation for the actual risk taken, resulting in an overvaluation of the company. This gives cause for concern, increasing the importance of adjusting the beta using Blume's method.

Table 14 Beta regressions

	OSEBX	OBX
3-year	750 observations	
Estimated beta	0,7636	0,6709
Blume adjusted beta	0,8424	0,7806
Adjusted r-square	0,1483	0,1280
2-year	500 observations	
Estimated beta	**0,7442**	0,6532
Blume adjusted beta	**0,8295**	0,7688
Adjusted r-square	**0,1567**	0,1356

Source: Own research

The Blume adjusted beta calculated here is similar to the one retrieved from Dagens Næringsliv (N.D.), a Norwegian financial newspaper, which was 0.8200.

8.1.5 Market Risk Premium

The difference between the return on the market and the risk free rate makes up the market risk premium. This is the additional return expected by the investors in order to take on the market risk. Between 2011 and 2015 this has stayed unchanged at 5 % (PWC1, 2015) (PWC2, 2014).

8.1.6 Cost of Debt

The cost of debt is estimated using historical data on interest expenses in comparison to interest bearing debt.

Table 15 Historical cost of debt

	2006	2007	2008	2009	2010	
Interest expense	-21 789	-47 104	-72 178	-32 078	-49 597	
Debt to credit institutions	674 972	775 730	942 170	864 144	1 811 998	
Cost of debt	3,23 %	6,07 %	7,66 %	3,71 %	2,74 %	
	2011	**2012**	**2013**	**2014**	**2015**	**Average**
Interest expense	-98 791	-150 224	-168 053	-124 193	-98 780	
Debt to credit institutions	2 530 291	2 694 528	2 371 707	2 056 841	2 511 759	
Cost of debt	3,90 %	5,58 %	7,09 %	6,04 %	3,93 %	4,99 %

Source: Own research, Annual reports

8.1.7 Leverage

Leverage is a measure of how large a part debt has in the capital structure and the calculation for this will be done using market values for both debt and equity. This is the value of the long-term debt and the current maturities of long-term debt divided be the market value of assets. Financial analysis also showed that SalMar is not highly leveraged.

8.1.8 Tax Rate

The tax rate used will be the marginal corporate tax rate of 25% for the complete forecasting period. The corporate tax rate in 2015 was 27%, but it was already decided to be reduced to 25% for 2016.

With all the components of the WACC having been calculated or assumed, the WACC can now be calculated (see table 16).

Table 16 WACC in estimation period

WACC calculation		
Risk free rate		1,57 %
Equity beta		0,83
Risk premium		5,00 %
Required Return on Equity		5,72 %
Average SalMar corporate bond rate		4,99 %
Total current liabilities	1 583 852	
Deferred liabilities	1 230 815	
Long-term debt	2 761 373	
Current maturities of long-term debt	140 421	
Value of liabilities	5 716 461	
Shares outstanding(thousands)	113 300	
Share price	155,00	
Market value of equity	17 561 500	
Market value of assets	23 277 961	
Leverage		12,47 %
Corporate tax rate		25,00 %
Weighted average cost of capital		5,47 %

Source: Own research

In the terminal value a different WACC is used due to a different assumption for the risk free rate at this stage (see table 17).

Table 17 WACC in terminal period

WACC calculation		
Risk free rate		0,21 %
Equity beta		0,83
Risk premium		5,00 %
Required Return on Equity		4,51 %
Average SalMar corporate bond rate		4,99 %
Total current liabilities	1 583 852	
Deferred liabilities	1 230 815	
Long-term debt	2 761 373	
Current maturities of long-term debt	140 421	
Value of liabilities	5 716 461	
Shares outstanding(thousands)	113 300	
Share price	155,00	
Market value of equity	17 561 500	
Market value of assets	23 277 961	
Leverage		12,47 %
Corporate tax rate		25,00 %
Weighted average cost of capital		4,28 %

Source: Own research,

8.2 DCFM

The Discounted Cash Flow Model (DCFM) values the company by setting the value of the enterprise equal to the value of all future cash flows generated by the enterprise (see table 18).

Table 18 DCFM calculations

DCFM calculations						
Required rate of return	5,47 %					
Req rate of return terminal	4,28 %					
Growth rate	1,00 %					
		1	2	3	4	5
Year	2015	2016	2017	2018	2019	2020
EBITDA		2 238 461	3 403 379	1 606 622	1 755 766	1 897 151
Depreciation (tax deductible)		259 555	268 722	278 768	289 486	297 888
EBIT		1 978 907	3 134 657	1 327 853	1 466 279	1 599 262
Taxes		494 727	783 664	331 963	366 570	399 816
NOPAT		1 484 180	2 350 993	995 890	1 099 710	1 199 447
Depreciation (tax deductible)		259 555	268 722	278 768	289 486	297 888
Capital expenditures		166 493	171 703	172 449	176 045	208 922
Increase in Net Working Capital		524 370	557 873	285 429	494 589	501 528
Free Cash Flow		1 052 872	1 890 139	816 780	718 562	786 885
Continuing Value						24 246 604
Discount factor		1,0547	1,1124	1,1733	1,2375	1,3052
Discounted Free Cash Flow		998 251	1 699 112	696 142	580 659	602 882
Present Value of Free Cash Flow	4 577 045					
Present Value of CV	18 576 836					
Value of associates and jv's	1 483 742					
Enterprise Value	24 637 623					
Cash	223 585					
Short-term investments	1 686					
Value of Debt	5 716 460					
Value of Equity	19 146 434					
Value per Share	168,99					

Source: Own research,

An important assumption for the valuation is made regarding the terminal growth rate. It is assumed to stay constant at a moderate level of 1.0 %. This is considered reasonable as it is less than the growth of the economy as a whole. Even though the strategic analysis has indicated that there is potential for significant growth in the salmon farming industry as a whole, we wish to be conservative regarding the terminal growth rate for SalMar as it is

important to not pay too much for growth (Penman, 2013). The value per share calculated here is 168,99 NOK.

8.3 EVA

The Economic Value Added (EVA) model values the company by setting the value of the enterprise equal to the value of the invested capital plus the value of future excess return on invested capital beyond the required return calculated by the WACC (see table 19).

Table 19 EVA calculations

EVA calculations						
Required rate of return	5,47 %					
Req rate of return terminal	4,28 %					
Growth rate	1,00 %					
		1	2	3	4	5
Year	2015	2016	2017	2018	2019	2020
EBITDA		2 238 461	3 403 379	1 606 622	1 755 766	1 897 151
Depreciation (tax deductible)		259 555	268 722	278 768	289 486	297 888
EBIT		1 978 907	3 134 657	1 327 853	1 466 279	1 599 262
Taxes		494 727	783 664	331 963	366 570	399 816
NOPAT		1 484 180	2 350 993	995 890	1 099 710	1 199 447
Invested capital	9 846 959	10 757 224	11 594 068	12 356 883	13 218 459	14 169 645
ROIC		13,80 %	20,28 %	8,06 %	8,32 %	8,46 %
WACC		5,47 %	5,47 %	5,47 %	5,47 %	5,47 %
Spread		8,33 %	14,81 %	2,59 %	2,85 %	2,99 %
EVA		895 580	1 716 603	319 762	376 439	424 130
Continuing value						13 068 889
Discount factor		1,05472	1,11243	1,17330	1,23749	1,30521
Discounted EVA		849 119	1 543 115	272 533	304 194	324 952
Present Value of EVA	3 293 913					
Present Value of CV	10 012 891					
Value of associates and jv's	1 483 742					
Estimated Enterprise Value	24 637 506					
Value of Debt	5 716 460					
Cash	223 585					
Short-term investments	1 686					
Value of Equity	19 146 317					
Value per share	168,99					

Source: Own research,

The same assumptions regarding the terminal growth rate are made in this valuation as in the DCFM valuation. The value per share calculated here is 168,99 NOK.

Both the DCFM and the EVA should give the same numbers and they do, both when using the salmon price from the regression forecast and when using the numbers from FPI, as is shown in the chapter regarding incidents after the valuation date, that follows later.

8.4 Comparative Valuation

All the numbers in the financial statements are gathered from the annual reports of the different companies using the annual report of 2015 and can be found in the appendices 3, 8, 9, 10, and 11. The balance sheet items that are relevant were listed in the regular income statement at the bottom. Debt being all current and non-current liabilities, and cash being cash and cash equivalents, not including restricted or withheld cash when it is associated with withheld taxes. Details regarding how much cash is restricted or withheld is found in the annual reports. The financial statements were reformulated to separate financing activities from operating activities and to include all comprehensive numbers (Penman, 2013). Comparative valuation is a simple valuation method which means it uses a limited amount of information. It is also known as the method of comparables or multiple comparison analysis as it uses pricing multiples to numbers in the financial statement. The first step to doing a comparable analysis is identifying comparable companies that are similar enough to the company you are trying to value. This was done in the peer group chapter, chapter 6. The second step is to identify measures from the financial statement that can be used with multiples and calculate those multiples. The measures chosen were sales, earnings, book value of equity, market value of equity, enterprise value, NOPAT, EBITDA and EBIT. The third step is to apply some form of mean or median of these multiples to the corresponding measures for the company you are trying to value and you can then take a center of mass from these results as your value of the company (Penman, 2013) (see tables 20 and 21).

Table 20 Input numbers comparative analysis

	Earnings	Book value	Market price
Lerøy Seafood Group	1 232 882	8 764 052	17 955 954
Grieg Seafood	4 366	2 237 511	3 422 772
Marine Harvest	2 095 400	18 187 200	53 830 244
Norway Royal Salmon	237 583	1 186 519	3 480 104
SalMar	1 128 796	5 227 039	17 561 500

Source: Own research, Annual reports

Table 21 Input numbers comparative analysis 2

	Enterprise Value	Sales	NOPAT	EBITDA	EBIT
Lerøy Seafood Group	23 927 991	13 450 725	1 144 976	2 002 376	1 568 460
Grieg Seafood	6 737 334	4 608 667	53 989	287 526	73 957
Marine Harvest	75 237 900	27 710 200	2 104 663	4 196 000	2 883 100
Norway Royal Salmon	4 962 491	3 210 548	165 206	280 007	226 310
SalMar	23 002 578	7 303 506	1 188 916	1 765 256	1 443 087

Source: Own research, Annual reports

8.4.1 Strength and Weaknesses of Different Metrics

The measures chosen were mentioned above and will be discussed in that order. Price to earnings has the benefit of having easily available data. It suffers from being unusable when earnings are negative which is true for many growth companies and is susceptible to differences in accounting practices. Price to book value has the benefit of being easy to use and accurate for many capital-intensive industries, like the salmon farming industry (Marine Harvest1, 2016). It suffers from potentially being highly impacted by differences in accounting practices. Enterprise value to sales has the benefit of being less susceptible to different accounting practices than many other metrics and being easy to calculate while remaining usable when earnings are negative. It suffers from disregarding costs and may be biased to discount sales and similar practices. Enterprise value to NOPAT has the benefit of being a good indicator of profitability of operations. It suffers from being applied inconsistently by analysts. Enterprise value to EBITDA has the benefit of being unaffected by depreciation practices and being widely used. It suffers from ignoring value from tax shields and the costs of depreciation. Enterprise value to EBIT has the benefit of incorporating depreciation. It suffers from being impacted by differences in depreciation policies and from ignoring value from tax shields.

8.4.2 Usage of Terms for Center of Mass

There are several terms for center of mass, median and means are often used, but we have chosen to use arithmetic mean, or just "mean", harmonic mean and geometric mean. The arithmetic mean will yield the highest result, the harmonic mean will yield the lowest result, and the geometric mean will fall in between.

Table 22 Comparative multiples

	P/E	P/B	EV/S	EV/NOPAT	EV/EBITDA	EV/EBIT
Lerøy Seafood Group	14,56	2,05	1,78	20,90	11,95	15,26
Grieg Seafood	783,96	1,53	1,46	124,79	23,43	91,10
Marine Harvest	25,69	2,96	2,72	35,75	17,93	26,10
Norway Royal Salmon	14,65	2,93	1,55	30,04	17,72	21,93
SalMar	15,56	3,36	3,15	19,35	13,03	15,94
Arithmetic mean	209,72	2,37	1,88	52,87	17,76	38,59
Harmonic mean	22,58	2,20	1,77	34,15	16,77	24,93
Geometric mean	45,53	2,28	1,82	40,91	17,27	29,86

Source: Own research, Annual reports

Table 23 Comparative valuation using different means

SalMar value using peers	arithmetic mean	harmonic mean	geometric mean
Earnings	236 726 156	25 490 499	51 391 920
Book value	12 376 800	11 484 181	11 937 939
Sales	8 256 052	7 477 213	7 833 757
NOPAT	57 415 829	35 160 966	43 194 822
EBITDA	25 907 878	24 158 143	25 047 250
EBIT	50 254 050	30 534 858	37 653 354
Average	65 156 128	22 384 310	29 509 840
Per share	575,08	197,57	260,46

Source: Own research, Annual reports

Research tends to support the use of harmonic means and finds that this generates more accurate value estimates than using mean, median or a value-weighted mean (Petersen, 2017). The value calculated using the method of comparables is 197,57 NOK per share.

9.0 Sensitivity analysis

During the valuation, there were made a set of assumptions that will now be tested to see how they impact the value of the company. The assumptions that are the most relevant are the ones that impact the drivers of value. A valuation should always be accompanied by a sensitivity analysis (Petersen, 2017).

The factors that will be looked at are the terminal WACC, which will be added as a second axis in the other analyses, the terminal growth rate, the terminal salmon price, and the terminal added cost per kg from increased price of feed and biology. This will be done by changing the calculated value of these metrics, not the input data itself. The number marked in green in the tables is the value using the assumptions from the valuation chapter. The numbers marked in yellow are one "step" different from the assumptions in the valuation chapter.

9.1 WACC and Terminal Growth Rate

The weighted average cost of capital (WACC) contains assumptions about the capital structure and the beta of the company. The terminal growth rate is the assumed growth rate in the steady state of the company, this is a growth rate that the company is assumed to be able to maintain forever. Both of these are uncertain values due to the extreme length of the time horizon they cover. The analysis will change these values by half a percent for each step taken for both of them.

Table 24 WACC and terminal growth sensitivity

	WACC						
Growth		0,00 %	0,50 %	1,00 %	1,50 %	2,00 %	2,50 %
	3,28 %	170,55	200,73	244,16	312,01	432,97	709,44
	3,78 %	147,26	169,56	199,88	243,52	311,70	433,25
	4,28 %	129,42	146,58	168,99	199,46	243,31	311,82
	4,78 %	115,31	128,95	146,20	168,71	199,32	243,38
	5,28 %	103,87	114,98	128,68	146,01	168,63	199,40
	5,78 %	94,41	103,64	114,80	128,57	145,99	168,71

Source: Own research

The table shows how strong of an impact a change of only half a percent in these metrics has on the value of the company. This is one of the reasons why the discounted cash flow model is often criticized, it shifts a lot of the value to the terminal period (Petersen, 2017).

9.2 Salmon Price

The importance of the salmon price has been mentioned in depth previously and it plays a vital part of any sensitivity analysis of a company in this industry. Unlike the other factors analyzed here, the salmon price is an external factor which we will continue to assume that SalMar can not control in any meaningful manner. This analysis is therefore more aimed at the strength of the forecast than at the successful management of the company.

Table 25 WACC and salmon price sensitivity

	WACC						
Salmon Price		48,66	50,93	53,20	55,48	57,75	60,02
	3,28 %	158,14	244,16	330,18	416,20	502,22	588,24
	3,78 %	129,01	199,88	270,76	341,64	412,52	483,40
	4,28 %	108,63	168,99	229,34	289,70	350,06	410,41
	4,78 %	93,58	146,20	198,81	251,43	304,05	356,67
	5,28 %	81,99	128,68	175,37	222,06	268,75	315,44
	5,78 %	72,80	114,80	156,80	198,81	240,81	282,81

Source: Own research

The number marked in blue is the value using the same assumptions as in the rest of the valuation, but with the terminal salmon price set equal to the terminal price retrieved from FPI, which is covered in the next chapter. The FPI number is biased upwards as it incorporates information after 31.12.15. The salmon price change per step in this table is set at 2.2733 NOK per kg to accommodate the numbers calculated using the regression numbers and the FPI numbers, and shows how the valuation changes drastically by incorporating new information. A change in the salmon price of 1 NOK can from this table be calculated to be approximately 26-27 NOK.

9.3 Cost per kg

The increase in cost per kg due to increased price of feed and biology was covered earlier, but how large of an increase this will be several years from now is difficult to accurately project, which is why it so important to analyze the sensitivity of the valuation to this metric.

Table 26 WACC and cost per kg sensitivity

	WACC						
Cost per kg		3,00	5,00	7,00	9,00	11,00	13,00
	3,28 %	395,53	319,85	244,16	168,47	92,78	17,09
	3,78 %	324,61	262,25	199,88	137,52	75,15	12,79
	4,28 %	275,20	222,10	168,99	115,88	62,78	9,67
	4,78 %	238,79	192,49	146,20	99,90	53,60	7,30
	5,28 %	210,85	169,76	128,68	87,60	46,52	5,44
	5,78 %	188,72	151,76	114,80	77,84	40,89	3,93

Source: Own research

Each step in the analysis is 2.00 NOK per kg to cover a wide variety of possible changes in costs. If the cost per kg rises 6 NOK more than projected the enterprise value becomes less than the debt of the company, which will mean bankruptcy if it becomes the new steady state. The increase in value based on reducing these costs changes based on the WACC, but at the WACC used in the valuation 1 NOK reduced costs increases share value by approximately 26-27 NOK from the share price calculated at 168,99 NOK.

10.0 Incidents after the Valuation Date

In this chapter we look on some incidents after the valuation date of 31.12.2015, this is because there has happened some changes in the outlook of the industry since the valuation date. We also do another valuation using a different forecasted salmon price.

10.1 Strategic changes

After the valuation date, the salmon price hit new highs at the end of 2016, but has gone down since then. Analysts in the industry suggest that there will be a drop in the salmon price of 40 percent (Fishfarmingexpert, 2016). This might be an effect of the correction of supply by the industry actors, that we discussed in chapter 7. In 2015, the actors in the industry were producing 5-6% below capacity due to sea lice (Fishmarketexpert, 2016). Another large change in the Norwegian salmon farming industry is the normalization of relationships between China and Norway. China is a potential large market for Norwegian salmon and can be of large importance for Norwegian salmon farmers in the coming years and be a source of large growth (Mikalsen, 2017).

10.2 Salmon Price

The second approach to forecasting the price of salmon involves using historical prices up to April 2017 and forward prices from fishpool after this point. The data gathered was a combination of weekly and monthly data which was then treated to be used as yearly data. Ideally, the approach would only use forward prices as they were at the end of December 2015, but due to not getting access to that data this approach was used instead to compensate for what material was actually available at the time of the writing of the thesis. This approach does not use a forecast of the supply of salmon in the future, but instead relies on forecasts done directly on the price of salmon instead.

Table 27 Salmon price development FPI

	2015	2016	2017	2018	2019	2020
SalMar salmon price	kr 48,72	kr 63,19	kr 62,32	kr 59,10	kr 57,75	kr 57,75
SalMar salmon price growth	5,34 %	29,69 %	-1,37 %	-5,17 %	-2,28 %	0,00 %

Source: Fishpool N.D. Own research

Comparing these two results it can be seen that the approach using FishPool numbers gives the higher price and this also results in giving the higher value in the valuation. The forecast using the FishPool numbers will not be used in the valuation itself, and is simply done to show that there are several approaches to the forecasting. Moreover, it uses information that is historical and not forecasted. In the conclusion, only our forecasted numbers, based on the information available in December 2015 are used. We do however, for the sake of completeness, show the FishPool calculations in this chapter (see tables 28 and 29).

10.3 Valuation Using the New Salmon Price

Repeating the valuations done in the valuation chapter using the salmon price from fishpool, the following valuation is created.

Table 28 DCFM calculations FPI

DCFM calculations						
Required rate of return	5,47 %					
Req rate of return terminal	4,28 %					
Growth rate	1,00 %					
		1	2	3	4	5
Year	2015	2016	2017	2018	2019	2020
EBITDA		3 551 130	3 539 931	3 137 493	3 025 125	3 112 914
Depreciation (tax deductible)		259 555	268 722	278 768	289 486	297 888
EBIT		3 291 575	3 271 208	2 858 725	2 735 638	2 815 026
Taxes		822 894	817 802	714 681	683 910	703 757
NOPAT		2 468 682	2 453 406	2 144 044	2 051 729	2 111 270
Depreciation (tax deductible)		259 555	268 722	278 768	289 486	297 888
Capital expenditures		166 493	171 703	172 449	176 045	208 922
Increase in Net Working Capital		524 370	557 873	285 429	494 589	501 528
Free Cash Flow		2 037 374	1 992 552	1 964 934	1 670 581	1 698 708
						52 342
Continuing Value						968
Discount factor		1,0547	1,1124	1,1733	1,2375	1,3052
Discounted Free Cash Flow		1 931 679	1 791 175	1 674 713	1 349 970	1 301 486
Present Value of Free Cash Flow	8 049 023					
Present Value of CV	40 103 213					
Value of associates and jv's	1 483 742					
Enterprise Value	49 635 979					
Cash	223 585					
Short-term investments	1 686					
Value of Debt	5 716 460					
Value of Equity	44 144 790					
Value per Share	389,63					

Source: own research

This gives a valuation of 389,63 NOK per share.

Doing the same for the EVA using the salmon price from FishPool, the following valuation is created.

Table 29 EVA calculations FPI

EVA calculations						
Required rate of return	5,47 %					
Req rate of return terminal	4,28 %					
Growth rate	1,00 %					
		1	2	3	4	5
Year	2015	2016	2017	2018	2019	2020
EBITDA		3 551 130	3 539 931	3 137 493	3 025 125	3 112 914
Depreciation (tax deductible)		259 555	268 722	278 768	289 486	297 888
EBIT		3 291 575	3 271 208	2 858 725	2 735 638	2 815 026
Taxes		822 894	817 802	714 681	683 910	703 757
NOPAT		2 468 682	2 453 406	2 144 044	2 051 729	2 111 270
		10 757	11 594	12 356	13 218	14 169
Invested capital	9 846 959	224	068	883	459	645
ROIC		22,95 %	21,16 %	17,35 %	15,52 %	14,90 %
WACC		5,47 %	5,47 %	5,47 %	5,47 %	5,47 %
Spread		17,48 %	15,69 %	11,88 %	10,05 %	9,43 %
EVA		1 880 081	1 819 017	1 467 915	1 328 458	1 335 953
						41 165
Continuing value						254
Discount factor		1,05472	1,11243	1,17330	1,23749	1,30521
Discounted EVA		1 782 546	1 635 178	1 251 104	1 073 506	1 023 557
Present Value of EVA	6 765 891					
Present Value of CV	31 539 269					
Value of associates and jv's	1 483 742					
Estimated Enterprise Value	49 635 861					
Value of Debt	5 716 460					
Cash	223 585					
Short-term investments	1 686					
Value of Equity	44 144 672					
Value per share	389,63					

Source: own research

As we can see, we get a much higher value with these numbers and both models give the same result of 389,63 NOK per share.

11.0 Conclusion

Our objective with this thesis was to come up with an intrinsic value for SalMar ASA at 31.12.2015 and to come with a recommendation for trading strategies. To do so we had to conduct a strategic analysis and a fundamental valuation of SalMar ASA. Before we present our final trading strategy, we would like to summarize our findings. Through our research of the salmon farming industry and SalMar we found out that the industry has seen a large consolidation in the last years and that the price of salmon and the price of feed are large factors in the profitability of the companies. We also found out that there are large capital costs for entering the industry and that the business cycle can be upwards of 4 years. When it comes to the salmon sector as a whole, we found out that the market is to a degree geographically segmented, depending on whether the product being sold is frozen or fresh. Through our strategic analysis, we dive further into the findings from our research, and analyze the company and the market using different strategic analytical tools. We find that international trade agreements and diplomatic disputes have a strong effect on the profitability, and that local laws and regulations can also affect the profitability. We argue that in a world where sustainability is increasingly emphasized, the companies are inclined to consider environmental factors. We argue that the aquaculture industry is one of the future growth areas of food production and that we will see significant growth in the industry as a whole. However, we also see that because of rising prices of input factors, biological cost and environmental cost, not all of the growth will be translated to value for the salmon farmers. In our financial analysis, we go deeper into the importance of salmon and feed price, and explain that these are two of the most important factors for a salmon farming company. We look at the peers of SalMar and compare them to the seafood indexes to show how strongly the industry is tied together. We also find that SalMar is outcompeting their competitors in the key figures we analyzed, through a combination of lower costs and competitive asset turnover, but may have a less aggressive leverage policy. Using our findings in the first parts of the thesis, we conducted a forecast of the salmon price and other important numbers, these numbers were then used to conduct a valuation of SalMar using the DCFM, EVA model, and method of comparables. Using the DCFM and EVA models we got a value of 168,99 and using the comparables method we got a value of 197,57. We then did a weighting of the two with a weighting of 2/3 for fundamental valuation and 1/3 for comparable. We ended up with an intrinsic value of 178,51. The Oslo stock exchange price for SalMar stocks at 31.12.2015 was 155,00. The last step of a valuation is to recommend a trading strategy. (Penman, 2013).

The numbers we calculated imply a premium of 9.03 %, 27.46 %, and 15.17 % respectively. We recommend buying this stock up to a price of 178.51 NOK per share because up to this point the stock is, according to our valuation, undervalued.

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Annual Report SalMar 2015

Annual Report Marine Harvest 2015

Annual Report Grieg Seafood 2015

Annual Report Norway Royal Salmon 2015

Annual Report Lerøy 2015

List of Abbreviations

AEGM = Abnormal Earnings Growth Model

CAGR = Compound Annual Growth Rate

DDM = Dividend Discount Model

DCF = Discounted Cash Flow Model

EBT = Earnings before tax

EBIT = Earnings before interest and tax

EEA = European Economic Area

EFTA = European Free Trade Association

FAO = Food and Agriculture organization UN

FCA Oslo = Reference Price of Norwegian salmon

FOB Miami = Reference Price for Chilean Salmon

FPI = Fish Pool Index

GWE = Gutted Wight Equivalent

HBR = Harvard Business Review

HORECA = The Hotel Restaurant and Café industry

IAS = International Accounting Standard

IFRS = International Financial Reporting Standards

ISA = International Standards on Auditing

MAB = Maximum amount of biomass

NHH = Norwegian School of Economics

OBSFX = Oslo Børs Seafood index

OECD = Organization of Economic Co-operation and Development

OSLSFX = Oslo Seafood Index

REM = Residual Earning Model

ROCE = Return on Common Equity

SSB = Norway's Central institution for producing official statistics

VAP = Value Added Processing

WHO = World Health Organization

WTO = World Trade Organization

List of definitions

Akvafakta = Platform for statistic aquaculture industry

Alevin = A newly spawned salmon with yolk

Aquaculture = Farming of fish and other marine life for food

Broodstock = Mature fish used for breeding purposes

Continuing value/Terminal value = The value of the cash flows after the forecasting period

Fish fry = Juvenile fish that are capable of feeding themselves (no yolk)

Folketrygdfondet = The Norwegian Pension Administration

Secondary processing = Cutting into fillets and other types of fish products

Smolt = Juvenile salmon that are ready to move to seawater

Smoltification = The process where juvenile salmon adapt to living in seawater

Primary processing = Slaughtering and gutting the fish

Wrasse = Fish that eat lice

Appendix

Appendix 1 SalMar Reworked Income Statement

	2005	2006	2007	2008	2009	2010
Income from operations	871 451	1 248 564	1 677 687	1 714 256	2 377 304	3 429 432
Cost of Goods Sold	456 871	643 547	836 652	922 016	1 162 445	2 013 312
Gross Profit	**414 580**	**605 017**	**841 035**	**792 240**	**1 214 859**	**1 416 120**
Margin	*47,57 %*	*48,46 %*	*50,13 %*	*46,21 %*	*51,10 %*	*41,29 %*
Change in work in process inventory	(27 362)	(131 612)	(47 750)	(103 844)	(25 567)	(401 629)
Adjustments to result from operations	(40 785)	(63 676)	(94 234)	32 996	4 624	(177 388)
Inventory proceeds from acquisitions	0	8 617	17 641	9 303	0	33 587
Personnel expenses	119 766	131 913	217 808	240 393	265 517	313 290
Other operating expenses	85 220	110 851	191 270	253 701	311 973	402 456
Total SG&A	136 839	56 093	284 735	432 549	556 547	170 316
EBITDA	**277 741**	**548 924**	**556 300**	**359 691**	**658 312**	**1 245 804**
Margin	*31,87 %*	*43,96 %*	*33,16 %*	*20,98 %*	*27,69 %*	*36,33 %*
Depreciation and amortization	27 267	37 874	50 671	55 225	66 578	93 962
Impairment	0	0	0	0	11 600	1 668
Depreciation, amortization and impairment	27 267	37 874	50 671	55 225	78 178	95 630
Operating Profit (EBIT)	**250 474**	**511 050**	**505 629**	**304 466**	**580 134**	**1 150 174**
Margin	*28,74 %*	*40,93 %*	*30,14 %*	*17,76 %*	*24,40 %*	*33,54 %*
Financial Result, net	(4 998)	(25 485)	(55 969)	(82 012)	(2 801)	(40 393)
Result of associates & jv's	73 711	91 752	31 600	12 248	56 769	147 365
EBT	**319 187**	**577 317**	**481 260**	**234 702**	**634 102**	**1 257 146**
Tax expenses	66 966	132 231	129 431	65 874	163 217	302 667
Tax rate	*20,98 %*	*22,90 %*	*26,89 %*	*28,07 %*	*25,74 %*	*24,08 %*
Net Income	**252 221**	**445 086**	**351 829**	**168 828**	**470 885**	**954 479**
Net income margin	*28,94 %*	*35,65 %*	*20,97 %*	*9,85 %*	*19,81 %*	*27,83 %*
Attributable to Shareholders	252 224	445 019	351 878	168 579	470 869	946 818
Attributable to non-controlling interests	(5)	65	(49)	249	16	11 300
NOPAT	**180 341**	**367 956**	**364 053**	**219 216**	**417 696**	**828 125**

	2011	2012	2013	2014	2015
Income from operations	3 829 045	4 204 791	6 245 860	7 185 887	7 326 202
Cost of Goods Sold	2 373 168	2 715 056	3 376 109	3 337 411	3 809 523
Gross Profit	**1 455 877**	**1 489 735**	**2 869 751**	**3 848 476**	**3 516 679**
Margin	*38,02 %*	*35,43 %*	*45,95 %*	*53,56 %*	*48,00 %*
Change in work in process inventory	(395 900)	(390 297)	(324 914)	(162 119)	(246 712)
Adjustments to result from operations	413 128	(298 193)	(689 931)	232 349	(39 932)
Inventory proceeds from acquisitions	20 259	0	0	0	0
Personnel expenses	391 745	483 215	623 053	710 430	765 881
Other operating expenses	705 891	885 983	1 086 299	1 142 953	1 272 186
Total SG&A	1 135 123	680 708	694 507	1 923 613	1 751 423
EBITDA	**320 754**	**809 027**	**2 175 244**	**1 924 863**	**1 765 256**
Margin	*8,38 %*	*19,24 %*	*34,83 %*	*26,79 %*	*24,10 %*
Depreciation and amortization	132 000	169 621	220 820	275 765	307 280
Impairment	543	547	5 000	2 399	14 169
Depreciation, amortization and impairment	132 543	170 168	225 820	278 164	321 449
Operating Profit (EBIT)	**188 211**	**638 859**	**1 949 424**	**1 646 699**	**1 443 807**
Margin	*4,92 %*	*15,19 %*	*31,21 %*	*22,92 %*	*19,71 %*
Financial Result, net	(125 733)	(124 264)	214 666	(113 994)	(100 362)
Result of associates & jv's	97 999	93 909	157 980	96 136	40 242
EBT	**160 477**	**608 504**	**2 322 070**	**1 628 841**	**1 383 687**
Tax expenses	13 106	127 062	418 695	413 364	254 891
Tax rate	*8,17 %*	*20,88 %*	*18,03 %*	*25,38 %*	*18,42 %*
Net Income	**147 371**	**481 442**	**1 903 375**	**1 215 477**	**1 128 796**
Net income margin	*3,85 %*	*11,45 %*	*30,47 %*	*16,91 %*	*15,41 %*
Attributable to Shareholders	144 855	467 370	1 864 686	1 192 500	1 103 289
Attributable to non-controlling interests	2 517	14 072	113 335	22 977	25 506
NOPAT	**135 512**	**459 978**	**1 403 585**	**1 202 090**	**1 053 979**

Appendix 2 SalMar Reworked Income Statement Forecast

	2016	2017	2018	2019	2020
Income from operations	8 517 971	9 904 683	8 350 969	8 759 424	9 104 077
Cost of Goods Sold	4 824 162	4 994 553	5 181 269	5 380 481	5 536 640
Gross Profit	**3 693 808**	**4 910 129**	**3 169 700**	**3 378 942**	**3 567 437**
Margin	*43,36 %*	*49,57 %*	*37,96 %*	*38,57 %*	*39,19 %*
Change in work in process inventory	(407 553)	(421 948)	(437 722)	(454 552)	(467 744)
Adjustments to result from operations	0	0	0	0	0
Inventory proceeds from acquisitions	0	0	0	0	0
Personnel expenses	697 282	721 910	748 898	777 692	800 263
Other operating expenses	1 165 618	1 206 788	1 251 902	1 300 036	1 337 767
Total SG&A	1 455 347	1 506 750	1 563 078	1 623 177	1 670 286
EBITDA	**2 238 461**	**3 403 379**	**1 606 622**	**1 755 766**	**1 897 151**
Margin	*26,28 %*	*34,36 %*	*19,24 %*	*20,04 %*	*20,84 %*
Depreciation and amortization	0	0	0	0	0
Impairment	0	0	0	0	0
Depreciation, amortization and impairment	259 555	268 722	278 768	289 486	297 888
Operating Profit (EBIT)	**1 978 907**	**3 134 657**	**1 327 853**	**1 466 279**	**1 599 262**
Margin	*23,23 %*	*31,65 %*	*15,90 %*	*16,74 %*	*17,57 %*
Financial Result, net	(112 246)	(118 201)	(117 403)	(117 029)	(114 210)
Result of associates & jv's	98 845	93 940	93 929	93 420	88 058
EBT	**1 965 506**	**3 110 396**	**1 304 379**	**1 442 670**	**1 573 111**
Tax expenses	491 377	777 599	326 095	360 667	393 278
Tax rate	*25,00 %*	*25,00 %*	*25,00 %*	*25,00 %*	*25,00 %*
Net Income	**1 474 130**	**2 332 797**	**978 284**	**1 082 002**	**1 179 833**
Net income margin	*17,31 %*	*23,55 %*	*11,71 %*	*12,35 %*	*12,96 %*
Attributable to Shareholders	1 440 821	2 280 086	956 179	1 057 554	1 153 174
Attributable to non-controlling interests	33 309	52 711	22 105	24 449	26 659
NOPAT	**1 484 180**	**2 350 993**	**995 890**	**1 099 710**	**1 199 447**

Appendix 3 SalMar Income Statement

Income from operations and costs of operations			
	2005	**2006**	**2007**
Licenses		44	52
License growth			18,18 %
Production per license		773	1004
Harvest Volume abroad	10300	10000	11800
Harvest Volume in Norway	24700	34000	52200
Harvest volume tonnes GWE	35000	44000	64000
Harvest volume growth		25,71 %	45,45 %
Salmon supply growth	5,00 %	1,00 %	10,00 %
Price change on FCA Oslo	23,00 %	23,00 %	-21,00 %
Salmon price	kr 24,76	kr 28,20	kr 26,02
Salmon price growth		13,88 %	-7,71 %
Sales income	866 584	1 240 668	1 665 530
Other income	4 867	7 896	12 157
Sum income from operations	871 451	1 248 564	1 677 687
growth		*43,27 %*	*34,37 %*
Depreciations and amortizations	27 267	37 874	50 671
Impairments			
Depreciations, amortizations and impairments	27 267	37 874	50 671
Change in work in process inventory	-27 362	-131 612	-47 750
Inventory proceeds from acquisitions	0	8 617	17 641
Cost of goods sold	456 871	643 547	836 652
Cost of salaries	119 766	131 913	217 808
Other costs of operations	85 220	110 851	191 270
Increased price of feed and biology			
Sum costs of operations	661 764	801 191	1 266 292
growth		*21,07 %*	*58,05 %*
Result from operations before adjustments	209 687	447 373	411 395
Value adjustments from biomass/real value adjustments	40 785	63 676	94 234
Onetime profits associated with acquisitions			
Onerous contracts			
Extraordinary biological incidents			
Adjustments to result from operations	40 785	63 676	94 234
Result from operations	250 472	511 049	505 629
growth		*104,03 %*	*-1,06 %*
Income from financing and costs of financing			
Income on investments in associated company			
Income on investments in associated company	73 711	91 752	31 600
Other interest income	384	738	4 706

Other financing income	16 460	12 223	364
Interest costs to company in the same conglomerate	-2 727	-7 226	0
Other interest costs	-18 671	-21 789	-47 104
Other financing costs	-443	-9 430	-13 935
Net result from financing	68 713	66 267	-24 369
growth		*-3,56 %*	*-136,77 %*
Ordinary result before tax cost	319 185	577 316	481 260
Tax cost	66 966	132 231	129 431
Result	252 219	445 085	351 829
Net income	252 219	445 085	351 829
growth		*76,47 %*	*-20,95 %*
Net income margin	*28,94 %*	*35,65 %*	*20,97 %*
Attributable to Shareholders	252 224	445 019	351 878
Attributable to non-controlling interests	-5	65	-49
Earnings per share	kr 2,52	kr 4,45	kr 3,45
Diluted earnings per share	kr 2,52	kr 4,45	kr 3,45
Expanded result			
Conversion differences and expanded result posts in associated companies			
Conversion differences in associated company			
Equity transfers in associated company			
Conversion differences in daughter companies			
Currency differences in net investments in foreign currency			
Change in real value of hedging instruments			
Reclassification of hedging instruments			
Estimation error for pension obligations			
Net total income			
growth			
Net income margin			
	252	445	351
Attributable to Shareholders	224,00	019,00	878,00
Attributable to non-controlling interests	-5,00	65,00	-49,00
Earnings per share	kr 2,52	kr 4,45	kr 3,45
Diluted earnings per share	kr 2,52	kr 4,45	kr 3,45
Number of shares	100 000 000	100 000 000	103 000 000
Share Price end of year			44,00
Market value of equity			4 532 000
Debt		1 384 288	1 571 165
Cash and marketable securities		1 382	41 277
Enterprise market value			6 061 888

Income from operations and costs of operations			
	2008	**2009**	**2010**
Licenses	54	56	66
License growth	3,85 %	3,70 %	17,86 %
Production per license	994	1148	983
Harvest Volume abroad	11400	13300	13600
Harvest Volume in Norway	53700	64300	64900
Harvest volume tonnes GWE	65100	77600	78500
Harvest volume growth	1,72 %	19,20 %	1,16 %
Salmon supply growth	5,00 %	3,00 %	-4,00 %
Price change on FCA Oslo	1,00 %	12,00 %	35,00 %
Salmon price	kr 26,18	kr 30,62	kr 43,31
Salmon price growth	0,60 %	16,97 %	41,44 %
Sales income	1 704 242	2 376 262	3 399 868
Other income	10 014	1 042	29 564
Sum income from operations	1 714 256	2 377 304	3 429 432
growth	*2,18 %*	*38,68 %*	*44,26 %*
Depreciations and amortizations	55 225	66 578	93 962
Impairments		11 600	1 668
Depreciations, amortizations and impairments	55 225	78 178	95 630
Change in work in process inventory	-103 844	-25 567	-401 629
Inventory proceeds from acquisitions	9 303	0	33 587
Cost of goods sold	922 016	1 162 445	2 013 312
Cost of salaries	240 393	265 517	313 290
Other costs of operations	253 701	311 973	402 456
Increased price of feed and biology			
Sum costs of operations	1 376 794	1 792 546	2 456 642
growth	*8,73 %*	*30,20 %*	*37,05 %*
Result from operations before adjustments	337 462	584 759	972 791
Value adjustments from biomass/real value adjustments	-32 996	-4 624	181 023
Onetime profits associated with acquisitions			
Onerous contracts			-3 635
Extraordinary biological incidents			
Adjustments to result from operations	-32 996	-4 624	177 388
Result from operations	304 466	580 135	1 150 179
growth	*-39,78 %*	*90,54 %*	*98,26 %*
Income from financing and costs of financing			
Income on investments in associated company			
Income on investments in associated company	12 248	56 769	147 365
Other interest income	3 485	3 485	5 639
Other financing income	364	30 066	18 495
Interest costs to company in the same conglomerate	0		

Other interest costs	-72 178	-32 078	-49 597
Other financing costs	-13 683	-1 119	-14 931
Net result from financing	-69 764	53 968	106 972
growth	*186,28 %*	*-177,36 %*	*98,21 %*
Ordinary result before tax cost	234 702	634 103	1 260 785
Tax cost	65 874	163 217	302 667
Result	168 828	470 886	958 118
Net income	168 828	470 886	958 118
growth	*-52,01 %*	*178,91 %*	*103,47 %*
Net income margin	*9,85 %*	*19,81 %*	*27,94 %*
Attributable to Shareholders	168 579	470 869	946 818
Attributable to non-controlling interests	249	16	11 300
Earnings per share	kr 1,64	kr 4,58	kr 9,19
Diluted earnings per share	kr 1,64	kr 4,58	kr 9,19
Expanded result			
Conversion differences and expanded result posts in associated companies			
Conversion differences in associated company	-15 953	-20 384	-27 546
Equity transfers in associated company	-3 121	4 076	158
Conversion differences in daughter companies	1 023	-658	416
Currency differences in net investments in foreign currency			
Change in real value of hedging instruments	0	2 205	0
Reclassification of hedging instruments			-6 899
Estimation error for pension obligations			
Net total income	150 777	456 126	924 246
growth		*202,52 %*	*102,63 %*
Net income margin	*8,80 %*	*19,19 %*	*26,95 %*
	150	456	912
Attributable to Shareholders	258,00	110,00	946,00
Attributable to non-controlling interests	249,00	16,00	11 300,00
Earnings per share	kr 1,64	kr 4,58	kr 9,19
Diluted earnings per share	kr 1,64	kr 4,58	kr 9,19
Number of shares	103 000 000	103 000 000	103 000 000
Share Price end of year	26,00	46,00	61,50
Market value of equity	2 678 000	4 738 000	6 334 500
Debt	1 753 247	1 850 531	3 363 505
Cash and marketable securities	15 792	140 191	85 069
Enterprise market value	4 415 455	6 448 340	9 612 936

Income from operations and costs of operations			
	2011	**2012**	**2013**
Licenses	71	81	81
License growth	7,58 %	14,08 %	0,00 %
Production per license	1310	1267	1420
Harvest Volume abroad	10900	13500	13350
Harvest Volume in Norway	93000	102600	115000
Harvest volume tonnes GWE	103900	116100	128350
Harvest volume growth	32,36 %	11,74 %	10,55 %
Salmon supply growth	12,00 %	22,00 %	2,00 %
Price change on FCA Oslo	-17,00 %	-14,00 %	42,00 %
Salmon price	kr 36,53	kr 36,01	kr 48,53
Salmon price growth	-15,65 %	-1,44 %	34,77 %
Sales income	3 795 746	4 180 414	6 228 305
Other income	33 299	24 377	17 555
Sum income from operations	3 829 045	4 204 791	6 245 860
growth	*11,65 %*	*9,81 %*	*48,54 %*
Depreciations and amortizations	132 000	169 621	220 820
Impairments	543	547	5 000
Depreciations, amortizations and impairments	132 543	170 168	225 820
Change in work in process inventory	-395 900	-390 297	-324 914
Inventory proceeds from acquisitions	20 259	0	
Cost of goods sold	2 373 168	2 715 056	3 376 109
Cost of salaries	391 745	483 215	623 053
Other costs of operations	705 891	885 983	1 086 299
Increased price of feed and biology			
Sum costs of operations	3 227 705	3 864 125	4 986 367
growth	*31,39 %*	*19,72 %*	*29,04 %*
Result from operations before adjustments	601 340	340 666	1 259 493
Value adjustments from biomass/real value adjustments	-356 693	290 417	528 176
Onetime profits associated with acquisitions		62 390	161 755
Onerous contracts	3 635		
Extraordinary biological incidents	-60 070	-54 614	0
Adjustments to result from operations	-413 128	298 193	689 931
Result from operations	188 212	638 859	1 949 424
growth	*-83,64 %*	*239,44 %*	*205,14 %*
Income from financing and costs of financing			
Income on investments in associated company		93 909	157 980

Income on investments in associated company	97 999		
Other interest income	5 276	2 956	9 958
Other financing income	2 774	50 177	374 357
Interest costs to company in the same conglomerate			
Other interest costs	-98 791	-150 224	-168 053
Other financing costs	-34 992	-27 173	-1 596
Net result from financing	-27 734	-124 264	214 666
growth	*-125,93 %*	*348,06 %* *Note: Δ in reporting*	*-272,75 %* *Note: one-time event*
Ordinary result before tax cost	160 478	608 504	2 322 070
Tax cost	13 106	127 062	418 695
Result	147 372	481 442	1 903 375
Net income	147 372	481 442	1 903 375
growth	*-84,62 %*	*226,68 %*	*295,35 %*
Net income margin	*3,85 %*	*11,45 %*	*30,47 %*
Attributable to Shareholders	144 855	467 370	1 864 686
Attributable to non-controlling interests	2 517	14 072	113 335
Earnings per share	kr 1,41	kr 4,20	kr 15,80
Diluted earnings per share	kr 1,41	kr 4,20	kr 15,80
Expanded result			
Conversion differences and expanded result posts in associated companies		-42 044	73 352
Conversion differences in associated company	1 544		
Equity transfers in associated company	-3 063		
Conversion differences in daughter companies	-82	-719	1 051
Currency differences in net investments in foreign currency	480		
Change in real value of hedging instruments			
Reclassification of hedging instruments	0		
Estimation error for pension obligations			242
Net total income	146 251	438 679	1 978 020
growth	*-84,18 %*	*199,95 %*	*350,90 %*
Net income margin	*3,82 %*	*10,43 %*	*31,67 %*
Attributable to Shareholders	143 735,00	424 607,00	1 864 686,00
Attributable to non-controlling interests	2 517,00	14 702,00	113 335,00
Earnings per share	kr 1,41	kr 4,20	kr 15,80
Diluted earnings per share	kr 1,41	kr 4,20	kr 15,80
Number of shares	103 000 000	113 299 999	113 299 999
Share Price end of year	30,00	44,70	74,00
Market value of equity	3 090 000	5 064 510	8 384 200
Debt	4 101 815	4 659 122	4 870 767
Cash and marketable securities	23 385	53 474	1 036 000
Enterprise market value	7 168 430	9 670 158	12 218 967

Income from operations and costs of operations		
	2014	**2015**
Licenses	100	100
License growth	23,46 %	0,00 %
Production per license	1410	1364
Harvest Volume abroad	13800	13500
Harvest Volume in Norway	141000	136400
Harvest volume tonnes GWE	154800	149900
Harvest volume growth	20,61 %	-3,17 %
Salmon supply growth	8,00 %	5,00 %
Price change on FCA Oslo	-5,00 %	-4,00 %
Salmon price	kr 46,25	kr 48,72
Salmon price growth	-4,68 %	5,34 %
Sales income	7 160 010	7 303 506
Other income	25 877	22 696
Sum income from operations	7 185 887	7 326 202
growth	*15,05 %*	*1,95 %*
Depreciations and amortizations	275 765	307 280
Impairments	2 399	14 169
Depreciations, amortizations and impairments	278 164	321 449
Change in work in process inventory	-162 119	-246 712
Inventory proceeds from acquisitions		
Cost of goods sold	3 337 411	3 809 523
Cost of salaries	710 430	765 881
Other costs of operations	1 142 953	1 272 186
Increased price of feed and biology		
Sum costs of operations	5 306 839	5 922 328
growth	*6,43 %*	*11,60 %*
Result from operations before adjustments	1 879 048	1 403 874
Value adjustments from biomass/real value adjustments	-232 349	39 932
Onetime profits associated with acquisitions	0	
Onerous contracts		
Extraordinary biological incidents		
Adjustments to result from operations	-232 349	39 932
Result from operations	1 646 699	1 443 806
growth	*-15,53 %*	*-12,32 %*
Income from financing and costs of financing		
Income on investments in associated company	96 136	40 242
Income on investments in associated company		
Other interest income	9 057	3 477
Other financing income	2 044	685
Interest costs to company in the same conglomerate		

Other interest costs	-124 193	-98 780
Other financing costs	-902	-5 744
Net result from financing	-113 994	-100 362
growth	*-153,10 %*	*-11,96 %*
Ordinary result before tax cost	1 628 841	1 383 686
Tax cost	413 364	254 891
Result	1 215 477	1 128 795
Net income	1 215 477	1 128 795
growth	*-36,14 %*	*-7,13 %*
Net income margin	*16,91 %*	*15,41 %*
Attributable to Shareholders	1 192 500	1 103 289
Attributable to non-controlling interests	22 977	25 506
Earnings per share	kr 10,53	kr 9,85
Diluted earnings per share	kr 10,53	kr 9,83
Expanded result		
Conversion differences and expanded result posts in associated companies	58 751	58 475
Conversion differences in associated company		
Equity transfers in associated company		
Conversion differences in daughter companies	3 312	4 705
Currency differences in net investments in foreign currency		
Change in real value of hedging instruments		
Reclassification of hedging instruments		
Estimation error for pension obligations	0	
Net total income	1 277 540	1 191 975
growth	*-35,41 %*	*-6,70 %*
Net income margin	*17,78 %*	*16,27 %*
	1 254	1 166
Attributable to Shareholders	563,00	469,00
Attributable to non-controlling interests	22 977,00	25 506,00
Earnings per share	kr 10,53	kr 9,85
Diluted earnings per share	kr 10,53	kr 9,83
	113 299	113 299
Number of shares	999	999
Share Price end of year	127,50	155,00
Market value of equity	14 445 750	17 561 500
Debt	4 987 130	5 716 460
Cash and marketable securities	130 668	225 271
Enterprise market value	19 302 212	23 052 689

Appendix 4 SalMar Income Statement Forecast

Income from operations and costs of operations			
	2016	**2017**	**2018**
Licenses	104	108	112
License growth	4,00 %	3,85 %	3,70 %
Production per license	1362	1362	1367
Harvest Volume abroad	13500	13500	13500
Harvest Volume in Norway	141657	147137	153143
Harvest volume tonnes GWE	155157	160637	166643
Harvest volume growth	3,51 %	3,53 %	3,74 %
Salmon supply growth	3,00 %	3,00 %	12,00 %
Price change on FCA Oslo	12,33 %	12,33 %	-18,80 %
Salmon price	kr 54,73	kr 61,47	kr 49,92
Salmon price growth	12,33 %	12,33 %	-18,80 %
Sales income	8 491 503	9 875 118	8 318 600
Other income	26 468	29 565	32 369
Sum income from operations	8 517 971	9 904 683	8 350 969
growth	*16,27 %*	*16,28 %*	*-15,69 %*
Depreciations and amortizations			
Impairments			
Depreciations, amortizations and impairments	259 555	268 722	278 768
Change in work in process inventory	-407 553	-421 948	-437 722
Inventory proceeds from acquisitions			
Cost of goods sold	3 738 062	3 870 092	4 014 771
Cost of salaries	697 282	721 910	748 898
Other costs of operations	1 165 618	1 206 788	1 251 902
Increased price of feed and biology	1 086 100	1 124 461	1 166 498
Sum costs of operations	6 539 064	6 770 026	7 023 116
growth	*10,41 %*	*3,53 %*	*3,74 %*
Result from operations before adjustments	1 978 907	3 134 657	1 327 853
Value adjustments from biomass/real value adjustments	0	0	0
Onetime profits associated with acquisitions			
Onerous contracts			
Extraordinary biological incidents	0	0	0
Adjustments to result from operations	0	0	0
Result from operations	1 978 907	3 134 657	1 327 853
growth	*37,06 %*	*58,40 %*	*-57,64 %*
Income from financing and costs of financing			
Income on investments in associated company	98 845	93 940	93 929
Income on investments in associated company			
Other interest income	6 174	6 174	6 286

Other financing income	12 513	11 759	12 455
Interest costs to company in the same conglomerate			
Other interest costs	-119 166	-124 841	-126 903
Other financing costs	-11 766	-11 293	-9 241
Net result from financing	-112 246	-118 201	-117 403
growth	*11,84 %*	*5,31 %*	*-0,67 %*
Ordinary result before tax cost	1 965 506	3 110 396	1 304 379
Tax cost	491 377	777 599	326 095
Result	1 474 130	2 332 797	978 284
Net income	1 474 130	2 332 797	978 284
growth	*30,59 %*	*58,25 %*	*-58,06 %*
Net income margin	*17,31 %*	*23,55 %*	*11,71 %*
Attributable to Shareholders	1 440 821	2 280 086	956 179
Attributable to non-controlling interests	33 309	52 711	22 105
Earnings per share	kr 12,72	kr 20,12	kr 8,44
Diluted earnings per share	kr 2,69	kr 20,08	kr 8,42
Expanded result			
Conversion differences and expanded result posts in associated companies	0	0	0
Conversion differences in associated company			
Equity transfers in associated company			
Conversion differences in daughter companies	0	0	0
Currency differences in net investments in foreign currency			
Change in real value of hedging instruments			
Reclassification of hedging instruments			
Estimation error for pension obligations			
Net total income	1 474 130	2 332 797	978 284
growth	*23,67 %*	*58,25 %*	*-58,06 %*
Net income margin	*17,31 %*	*23,55 %*	*11,71 %*
	1 440	2 280	956
Attributable to Shareholders	820,75	085,77	178,99
Attributable to non-controlling interests	33 309,11	52 711,36	22 105,09
Earnings per share	kr 12,72	kr 20,12	kr 8,44
Diluted earnings per share	kr 12,69	kr 20,08	kr 8,42
	113 299	113 299	113 299
Number of shares	999	999	999
Share Price end of year			
Market value of equity			
Debt			
Cash and marketable securities			
Enterprise market value			

Income from operations and costs of operations		
	2019	**2020**
Licenses	116	120
License growth	3,57 %	3,45 %
Production per license	1375	1371
Harvest Volume abroad	13500	13500
Harvest Volume in Norway	159550	164572
Harvest volume tonnes GWE	173050	178072
Harvest volume growth	3,84 %	2,90 %
Salmon supply growth	6,27 %	6,27 %
Price change on FCA Oslo	1,01 %	1,01 %
Salmon price	kr 50,42	kr 50,93
Salmon price growth	1,01 %	1,01 %
Sales income	8 725 578	9 069 395
Other income	33 846	34 682
Sum income from operations	8 759 424	9 104 077
growth	*4,89 %*	*3,93 %*
Depreciations and amortizations		
Impairments		
Depreciations, amortizations and impairments	289 486	297 888
Change in work in process inventory	-454 552	-467 744
Inventory proceeds from acquisitions		
Cost of goods sold	4 169 133	4 290 134
Cost of salaries	777 692	800 263
Other costs of operations	1 300 036	1 337 767
Increased price of feed and biology	1 211 348	1 246 506
Sum costs of operations	7 293 144	7 504 814
growth	*3,84 %*	*2,90 %*
Result from operations before adjustments	1 466 279	1 599 262
Value adjustments from biomass/real value adjustments	0	0
Onetime profits associated with acquisitions		
Onerous contracts		
Extraordinary biological incidents	0	0
Adjustments to result from operations	0	0
Result from operations	1 466 279	1 599 262
growth	*10,42 %*	*9,07 %*
Income from financing and costs of financing		
Income on investments in associated company	93 420	88 058
Income on investments in associated company		
Other interest income	6 534	6 234
Other financing income	8 892	8 992
Interest costs to company in the same conglomerate		

Other interest costs	-124 663	-121 069
Other financing costs	-7 793	-8 367
Net result from financing	-117 029	-114 210
growth	*-0,32 %*	*-2,41 %*
Ordinary result before tax cost	1 442 670	1 573 111
Tax cost	360 667	393 278
Result	1 082 002	1 179 833
Net income	1 082 002	1 179 833
growth	*10,60 %*	*9,04 %*
Net income margin	*12,35 %*	*12,96 %*
Attributable to Shareholders	1 057 554	1 153 174
Attributable to non-controlling interests	24 449	26 659
Earnings per share	kr 9,33	kr 10,18
Diluted earnings per share	kr 9,32	kr 10,16
Expanded result		
Conversion differences and expanded result posts in associated companies	0	0
Conversion differences in associated company		
Equity transfers in associated company		
Conversion differences in daughter companies	0	0
Currency differences in net investments in foreign currency		
Change in real value of hedging instruments		
Reclassification of hedging instruments		
Estimation error for pension obligations		
Net total income	1 082 002	1 179 833
growth	*10,60 %*	*9,04 %*
Net income margin	*12,35 %*	*12,96 %*
	1 057	1 153
Attributable to Shareholders	553,65	173,65
Attributable to non-controlling interests	24 448,68	26 659,24
Earnings per share	kr 9,33	kr 10,18
Diluted earnings per share	kr 9,32	kr 10,16
	113 299	113 299
Number of shares	999	999
Share Price end of year		
Market value of equity		
Debt		
Cash and marketable securities		
Enterprise market value		

Appendix 5 SalMar Balance Sheet

Balance Sheet					
	2006	**2007**	**2008**	**2009**	**2010**
Assets					
Non-current assets					
Intangible assets					
Concessions, patents, etc.	711 503	1 009 335	914 116	935 916	1 406 483
Deferred non-current income tax benefits	0	0	0	0	0
Goodwill	56 155	69 139	196 932	205 458	306 999
Sum intangible assets	**767 658**	**1 078 475**	**1 111 048**	**1 141 374**	**1 713 482**
Fixed assets					
Property, buildings	50 674	58 342	66 864	102 624	179 364
Machinery, etc.	224 681	273 569	319 847	403 979	636 720
Ships, transport equipment, etc.	31 254	16 311	29 374	26 684	55 951
Sum fixed assets	**306 609**	**348 222**	**416 084**	**533 286**	**872 035**
Financial assets					
Investments in associated company	261 790	258 203	257 615	268 508	866 809
Investments in stocks and shares	762	1 001	975	1 025	1 426
Pension assets	301	1 119	1 637	4 904	3 901
Other non-current receivables	9 317	7 530	5 485	12 720	12 276
Sum financial assets	**272 170**	**267 853**	**265 712**	**287 157**	**884 412**
Sum non-current assets	**1 346 436**	**1 694 549**	**1 792 844**	**1 961 817**	**3 469 929**
Current assets					
Goods					
Biological assets	701 017	905 675	971 454	1 011 518	1 580 934
Other goods	53 398	63 979	97 768	103 176	128 973
Sum goods	**754 416**	**969 654**	**1 069 222**	**1 114 694**	**1 709 907**
Receivables					
Accounts receivable	110 156	124 325	148 596	252 155	409 717
Receivables from mother company	295	165	552	84	0
Other receivables	51 249	57 321	33 604	73 163	136 266
Sum receivables	**161 700**	**181 811**	**182 752**	**325 401**	**545 973**
Cash and cash equivalents	**6 950**	**47 809**	**23 541**	**148 424**	**107 062**
Sum current assets	**923 066**	**1 199 273**	**1 275 515**	**1 588 519**	**2 362 943**
Sum assets	**2 269 502**	**2 893 822**	**3 068 359**	**3 550 336**	**5 832 871**
	2 006	**2 007**	**2 008**	**2 009**	**2 010**
Equity and debt					
Equity					
Paid-in capital					

Share capital	25 000	25 750	25 750	25 750	25 750
Own shares			-150	-350	-350
Premium fund	0	112 880	112 880	112 880	11 288
Other paid-in capital	0	6 547	15 551	20 454	25 685
Sum paid-in capital	**25 000**	**145 176**	**154 030**	**184 734**	**163 964**
Retained earnings					
Fund	859 516	1 176 832	1 160 184	1 540 158	2 187 391
Sum retained earnings	**859 516**	**1 176 832**	**1 160 184**	**1 540 158**	**2 187 391**
Minority interest	698	649	898	914	118 011
Sum equity	**885 214**	**1 322 657**	**1 315 112**	**1 699 806**	**2 469 367**
Debt					
Provisions for liabilities					
Pension obligations	3 364	2 741	5 233	5 784	1 714
Deferred taxes	336 102	460 067	481 813	498 508	787 188
Sum provisions for liabilities	**339 465**	**462 808**	**487 046**	**504 292**	**788 902**
Other long-term debt					
Debt to credit institutions	525 498	687 336	758 171	746 071	1 760 567
Leasing debt			65 764	68 070	108 606
Other long-term debt	97 239	77 721			
Sum other long-term debt	**622 737**	**765 057**	**823 935**	**814 141**	**1 869 173**
Sum long-term debt	**962 202**	**1 227 865**	**1 310 981**	**1 318 433**	**2 658 075**
Short-term debt					
Debt to credit institutions	149 474	88 394	183 999	118 073	51 431
Accounts payable	148 380	98 713	133 022	204 394	351 042
Payable tax	79 007	89 867	46 271	146 293	148 088
Debt to mother company	0	0	0	0	0
Duties payable	11 364	22 076	19 137	19 710	48 023
Other short-term debt	33 860	44 250	59 837	43 627	106 845
Sum short-term debt	**422 085**	**343 300**	**442 266**	**532 098**	**705 430**
Sum debt	**1 384 288**	**1 571 165**	**1 753 247**	**1 850 531**	**3 363 505**
Sum equity and debt	**2 269 502**	**2 893 822**	**3 068 359**	**3 550 336**	**5 832 871**

Balance Sheet					
	2011	**2012**	**2013**	**2014**	**2015**
Assets					
Non-current assets					
Intangible assets					
Concessions, patents, etc.	1 483 752	1 702 152	2 030 710	2 451 271	2 466 171
Deferred non-current income tax benefits	0	0	0	0	0
Goodwill	433 348	433 348	433 348	447 372	447 372
Sum intangible assets	**1 917 100**	**2 135 500**	**2 464 058**	**2 898 643**	**2 913 542**
Fixed assets					
Property, buildings	206 409	233 372	473 408	489 496	617 182
Machinery, etc.	845 581	947 824	1 248 820	1 336 126	1 554 914
Ships, transport equipment, etc.	74 455	87 247	137 096	191 953	239 863
Sum fixed assets	**1 126 446**	**1 268 803**	**1 859 324**	**2 017 575**	**2 411 959**
Financial assets					
Investments in associated company	918 868	948 575	402 338	523 711	627 681
Investments in stocks and shares	726	15 760	384	519	289
Pension assets	2 023	2 492	802	1 592	1 397
Other non-current receivables	4 609	4 029	5 225	13 403	6 840
Sum financial assets	**926 262**	**970 856**	**408 749**	**539 225**	**636 206**
Sum non-current assets	**3 969 807**	**4 375 159**	**4 732 131**	**5 455 443**	**5 961 707**
Current assets					
Goods					
Biological assets	1 420 788	1 986 213	3 077 150	3 114 684	3 306 052
Other goods	227 935	303 682	171 539	206 454	328 216
Sum goods	**1 648 724**	**2 289 895**	**3 248 689**	**3 321 138**	**3 634 268**
Receivables					
Accounts receivable	505 280	660 944	662 149	888 219	815 540
Receivables from mother company	0	0	0	0	0
Other receivables	144 993	245 501	217 584	292 644	258 288
Sum receivables	**650 273**	**906 445**	**879 733**	**1 180 863**	**1 073 828**
Cash and cash equivalents	**47 621**	**55 336**	**1 070 998**	**166 963**	**273 696**
Sum current assets	**2 346 618**	**3 251 676**	**5 199 420**	**4 668 964**	**4 981 783**
Sum assets	**6 316 425**	**7 626 835**	**9 931 551**	**10 124 407**	**10 943 499**
	2 011	**2 012**	**2 013**	**2 014**	**2 015**
Equity and debt					
Equity					
Paid-in capital					
Share capital	25 750	28 325	28 325	28 325	28 325

Own shares	-325	-325	-325	-325	-295
Premium fund	112 880	415 286	415 286	415 286	415 286
Other paid-in capital	38 337	49 957	32 822	34 834	57 768
Sum paid-in capital	**176 642**	**493 243**	**476 108**	**478 120**	**501 084**
Retained earnings					
Fund	1 915 741	2 338 170	4 246 867	4 598 535	4 646 272
Sum retained earnings	**1 915 741**	**2 338 170**	**4 246 867**	**4 598 535**	**4 646 272**
Minority interest	122 228	136 300	337 808	60 622	79 684
Sum equity	**2 214 610**	**2 967 713**	**5 060 784**	**5 137 277**	**5 227 039**
Debt					
Provisions for liabilities					
Pension obligations	1 213	528	0	0	0
Deferred taxes	738 475	872 398	1 199 557	1 262 594	1 230 815
Sum provisions for liabilities	**739 688**	**872 926**	**1 199 557**	**1 262 594**	**1 230 815**
Other long-term debt					
Debt to credit institutions	2 028 537	2 098 240	1 974 521	1 780 174	2 371 338
Leasing debt	173 460	125 188	471 716	411 388	390 035
Other long-term debt					
Sum other long-term debt	**2 201 997**	**2 223 428**	**2 446 237**	**2 191 562**	**2 761 373**
Sum long-term debt	**2 941 685**	**3 096 354**	**3 645 794**	**3 454 156**	**3 992 187**
Short-term debt					
Debt to credit institutions	501 754	596 288	397 186	276 667	140 421
Accounts payable	412 802	762 765	515 856	409 485	649 274
Payable tax	66 399	7 008	25 843	321 839	292 320
Debt to mother company	0	0	0	0	0
Duties payable	52 980	43 192	93 532	134 757	153 262
Other short-term debt	126 195	153 515	192 556	381 226	488 996
Sum short-term debt	**1 160 130**	**1 562 768**	**1 224 973**	**1 532 974**	**1 724 273**
Sum debt	**4 101 815**	**4 659 122**	**4 870 767**	**4 987 130**	**5 716 460**
Sum equity and debt	**6 316 425**	**7 626 835**	**9 931 551**	**10 124 407**	**10 943 499**

Appendix 6 SalMar Reworked Balance Sheet

	2006	2007	2008	2009	2010
Assets					
Non-current assets					
Intangible assets					
Concessions, patents, etc.	711 503	1 009 335	914 116	935 916	1 406 483
Deferred non-current income tax benefits	0	0	0	0	0
Goodwill	56 155	69 139	196 932	205 458	306 999
Sum intangible assets	**767 658**	**1 078 474**	**1 111 048**	**1 141 374**	**1 713 482**
Fixed assets					
Property, buildings	50 674	58 342	66 864	102 624	179 364
Machinery, etc.	224 681	273 569	319 847	403 979	636 720
Ships, transport equipment, etc.	31 254	16 311	29 374	26 684	55 951
Sum fixed assets	**306 609**	**348 222**	**416 085**	**533 287**	**872 035**
Investments in associated company	261 790	258 203	257 615	268 508	866 809
Other non-current receivables	9 317	7 530	5 485	12 720	12 276
Sum non-current assets	**1 345 374**	**1 692 429**	**1 790 233**	**1 955 889**	**3 464 602**
Current assets					
Goods					
Biological assets	701 017	905 675	971 454	1 011 518	1 580 934
Other goods	53 398	63 979	97 768	103 176	128 973
Sum goods	**754 415**	**969 654**	**1 069 222**	**1 114 694**	**1 709 907**
Receivables					
Accounts receivable	110 156	124 325	148 596	252 155	409 717
Receivables from mother company	295	165	552	84	0
Other receivables	51 249	57 321	33 604	73 163	136 266
Sum receivables	**161 700**	**181 811**	**182 752**	**325 402**	**545 983**
Restricted/withheld cash associated with tax	**6 631**	**8 652**	**10 361**	**14 162**	**27 320**
Cash and cash equivalents	**6 950**	**47 809**	**23 541**	**148 424**	**107 062**
Sum current assets	**923 065**	**1 199 274**	**1 275 515**	**1 588 520**	**2 362 952**
Sum assets	**2 268 439**	**2 891 703**	**3 065 748**	**3 544 409**	**5 827 554**
growth		*27,48 %*	*6,02 %*	*15,61 %*	*64,42 %*
Non-interest bearing debt					
Accounts payable	148 380	98 713	133 022	204 394	351 042
Payable tax	79 007	89 867	46 271	146 293	148 088
Duties payable	11 364	22 076	19 137	19 710	48 023
Sum non-interest bearing debt	238 751	210 656	198 430	370 397	547 153
Net operating assets	**2 029 688**	**2 681 047**	**2 867 318**	**3 174 012**	**5 280 401**
growth		*32,09 %*	*6,95 %*	*10,70 %*	*66,36 %*

Equity	885 214	1 322 657	1 315 112	1 699 806	2 469 367
Long-term debt					
Deferred taxes	336 102	460 067	481 813	498 508	787 188
Pension obligations	3 364	2 741	5 233	5 784	1 714
Debt to credit institutions	525 498	687 336	758 171	746 071	1 760 567
Leasing debt	97 239	77 721	65 764	68 070	108 606
Sum long-term debt	962 203	1 227 865	1 310 981	1 318 433	2 658 075
Short-term debt					
Debt to credit institutions	149 474	88 394	183 999	118 073	51 431
Other short-term debt	33 860	44 250	59 837	43 627	106 845
Sum short-term debt	183 334	132 644	243 836	161 700	158 276
Interest bearing debt	**1 145 537**	**1 360 509**	**1 554 817**	**1 480 133**	**2 816 351**
Interest bearing assets					
Investments in stocks and shares	762	1 001	975	1 025	1 426
Pension assets	301	1 119	1 637	4 904	3 901
Sum interest bearing assets	1 063	2 120	2 612	5 929	5 327
Net interest bearing debt	**1 144 474**	**1 358 389**	**1 552 205**	**1 474 204**	**2 811 024**
Net financing	**2 029 688**	**2 681 046**	**2 867 317**	**3 174 010**	**5 280 391**

	2011	2012	2013	2014	2015
Assets					
Non-current assets					
Intangible assets					
Concessions, patents, etc.	1 483 752	1 702 152	2 030 710	2 451 271	2 466 171
Deferred non-current income tax benefits	0	0	0	0	0
Goodwill	433 348	433 348	433 348	447 372	447 372
Sum intangible assets	**1 917 100**	**2 135 500**	**2 464 058**	**2 898 643**	**2 913 543**
Fixed assets					
Property, buildings	206 409	233 372	473 408	489 496	617 182
Machinery, etc.	845 581	947 824	1 248 820	1 336 126	1 554 914
Ships, transport equipment, etc.	74 455	87 247	137 096	191 953	239 863
Sum fixed assets	**1 126 445**	**1 268 443**	**1 859 324**	**2 017 575**	**2 411 959**
Investments in associated company	918 868	948 575	402 338	523 711	627 681
Other non-current receivables	4 609	4 029	5 225	13 403	6 840
Sum non-current assets	**3 967 022**	**4 356 547**	**4 730 945**	**5 453 332**	**5 960 023**
Current assets					
Goods					
Biological assets	1 420 788	1 986 213	3 077 150	3 114 684	3 306 052
Other goods	227 935	303 682	171 539	206 454	328 216
Sum goods	**1 648 723**	**2 289 895**	**3 248 689**	**3 321 138**	**3 634 268**
Receivables					
Accounts receivable	505 280	660 944	662 149	888 219	815 540
Receivables from mother company	0	0	0	0	0
Other receivables	144 993	245 501	217 584	292 644	258 288
Sum receivables	**650 273**	**906 445**	**879 733**	**1 180 863**	**1 073 828**
Restricted/withheld cash associated with tax	**26 985**	**20 114**	**36 184**	**38 406**	**50 111**
Cash and cash equivalents	**47 621**	**55 336**	**1 070 998**	**166 963**	**273 696**
Sum current assets	**2 346 617**	**3 251 676**	**5 199 420**	**4 668 964**	**4 981 792**
Sum assets	**6 313 639**	**7 608 223**	**9 930 365**	**10 122 296**	**10 941 815**
growth	*8,34 %*	*20,50 %*	*30,52 %*	*1,93 %*	*8,10 %*
Non-interest bearing debt					
Accounts payable	412 802	762 765	515 856	409 485	649 274
Payable tax	66 399	7 008	25 843	321 839	292 320
Duties payable	52 980	43 192	93 532	134 757	153 262
Sum non-interest bearing debt	532 181	812 965	635 231	866 081	1 094 856
Net operating assets	**5 781 458**	**6 795 258**	**9 295 134**	**9 256 215**	**9 846 959**
growth	*9,49 %*	*17,54 %*	*36,79 %*	*-0,42 %*	*6,38 %*

Equity	2 214 610	2 967 713	5 060 784	5 146 277	5 227 038
Long-term debt					
Deferred taxes	738 475	872 398	1 199 557	1 262 594	1 230 815
Pension obligations	1 213	528	0	0	0
Debt to credit institutions	2 028 537	2 098 240	1 974 521	1 780 174	2 371 338
Leasing debt	173 460	125 188	471 716	411 388	390 035
Sum long-term debt	2 941 685	3 096 354	3 645 794	3 454 156	3 992 188
Short-term debt					
Debt to credit institutions	501 754	596 288	397 186	276 667	140 421
Other short-term debt	126 195	153 515	192 556	381 226	488 996
Sum short-term debt	627 949	749 803	589 742	657 893	629 417
Interest bearing debt	**3 569 634**	**3 846 157**	**4 235 536**	**4 112 049**	**4 621 605**
Interest bearing assets					
Investments in stocks and shares	726	15 760	384	519	289
Pension assets	2 023	2 492	802	1 592	1 397
Sum interest bearing assets	2 749	18 252	1 186	2 111	1 686
Net interest bearing debt	**3 566 885**	**3 827 905**	**4 234 350**	**4 109 938**	**4 619 919**
Net financing	**5 781 495**	**6 795 618**	**9 295 134**	**9 256 215**	**9 846 957**

Appendix 7 SalMar Reworked Balance Sheet Forecast

	2016	2017	2018	2019	2020
Assets					
Non-current assets					
Intangible assets					
Concessions, patents, etc.	2 746 845	3 043 012	3 353 236	3 681 763	4 030 715
Deferred non-current income tax benefits					
Goodwill	447 372	447 372	447 372	447 372	447 372
Sum intangible assets	**3 194 217**	**3 490 384**	**3 800 608**	**4 129 135**	**4 478 087**
Fixed assets					
Property, buildings	640 990	665 811	693 012	722 036	744 798
Machinery, etc.	1 614 916	1 677 469	1 746 017	1 819 155	1 876 514
Ships, transport equipment, etc.	249 115	258 761	269 331	280 610	289 456
Sum fixed assets	**2 505 021**	**2 602 040**	**2 708 359**	**2 821 801**	**2 910 768**
Investments in associated company	714 664	689 306	651 046	601 458	634 644
Other non-current receivables	7 730	6 973	7 367	7 923	8 373
Sum non-current assets	**6 421 632**	**6 788 703**	**7 167 380**	**7 560 316**	**8 031 871**
Current assets					
Goods					
Biological assets	3 676 798	4 060 640	4 458 830	4 872 331	5 297 833
Other goods	365 023	403 129	442 661	483 712	525 955
Sum goods	**4 041 821**	**4 463 769**	**4 901 491**	**5 356 043**	**5 823 787**
Receivables					
Accounts receivable	948 207	1 102 574	929 618	975 088	1 013 455
Receivables from mother company	0	0	0	0	0
Other receivables	300 305	349 194	294 417	308 818	320 969
Sum receivables	**1 248 511**	**1 451 768**	**1 224 036**	**1 283 906**	**1 334 425**
Cash and cash equivalents	**318 219**	**370 025**	**311 981**	**327 241**	**340 117**
Sum current assets	**5 608 551**	**6 285 562**	**6 437 508**	**6 967 190**	**7 498 329**
Sum assets	**12 030 184**	**13 074 265**	**13 604 888**	**14 527 506**	**15 530 200**
growth	*9,95 %*	*8,68 %*	*4,06 %*	*6,78 %*	*6,90 %*
Non-interest bearing debt					
Accounts payable	754 894	877 790	740 095	776 295	806 840
Payable tax	339 873	395 204	333 210	349 508	363 260
Duties payable	178 194	207 203	174 700	183 245	190 455
Sum non-interest bearing debt	1 272 960	1 480 197	1 248 005	1 309 047	1 360 555

Net operating assets	**10 757 224**	**11 594 068**	**12 356 883**	**13 218 459**	**14 169 645**
growth	*9,24 %*	*7,78 %*	*6,58 %*	*6,97 %*	*7,20 %*
Equity	5 389 024	5 351 059	7 094 411	7 696 206	8 430 353
Long-term debt					
Deferred taxes	1 431 036	1 664 009	1 402 983	1 471 606	1 529 511
Pension obligations					
Debt to credit institutions	2 757 092	3 205 946	2 703 044	2 835 256	2 946 817
Leasing debt	453 483	527 310	444 593	466 339	484 688
Sum long-term debt	4 641 612	5 397 265	4 550 620	4 773 201	4 961 016
Short-term debt					
Debt to credit institutions	163 264	189 844	160 064	167 894	174 500
Other short-term debt	568 542	661 100	557 396	584 659	607 664
Sum short-term debt	731 807	850 944	717 461	752 553	782 165
Interest bearing debt	**5 373 418**	**6 248 209**	**5 268 081**	**5 525 755**	**5 743 180**
Interest bearing assets					
Investments in stocks and shares	3 184	3 477	3 936	1 965	2 228
Pension assets	2 035	1 723	1 673	1 537	1 660
Sum interest bearing assets	5 219	5 200	5 609	3 502	3 888
Net interest bearing debt	**5 368 200**	**6 243 009**	**5 262 472**	**5 522 253**	**5 739 292**
Net financing	**10 757 224**	**11 594 068**	**12 356 883**	**13 218 459**	**14 169 645**

Appendix 8 Lerøy Financial Statements

Income from operations and costs of operations			
	2011	**2012**	**2013**
Sales income	9 176 873	9 102 941	10 764 714
Other income		0	53 805
Sum income from operations	9 176 873	9 102 941	10 818 519
growth		*-0,81 %*	*18,85 %*
Depreciations and amortizations	271 899	291 768	307 175
Impairments		33 000	5 500
Depreciations, amortizations and impairments	271 899	324 768	312 675
Change in work in process inventory	-318 613	-57 449	-258 380
Cost of goods sold	6 184 793	6 499 768	7 039 813
Cost of salaries	967 789	1 031 872	1 094 464
Other costs of operations	858 107	853 884	1 004 148
Sum costs of operations	7 963 975	8 652 843	9 192 720
growth		*8,65 %*	*6,24 %*
Result from operations before adjustments	1 212 898	450 098	1 625 799
Value adjustments from biomass/real value adjustments	-615 767	294 735	764 229
Adjustments to result from operations	-615 767	294 735	764 229
Result from operations	597 131	744 833	2 390 028
growth		*24,74 %*	*220,88 %*
Income from financing and costs of financing			
Income on investments in associated company	19 741	24 831	192 188
Net result from financing	-81 884	-95 153	-101 840
growth		*16,20 %*	*7,03 %*
Ordinary result before tax cost	534 988	674 511	2 480 376
Tax cost	156 311	182 749	593 981
Result	378 677	491 762	1 886 395
Net income	378 677	491 762	1 886 395
growth		*29,86 %*	*283,60 %*
Net income margin	*4,13 %*	*5,40 %*	*17,52 %*
Attributable to Shareholders	382 705	480 797	1 733 352
Attributable to non-controlling interests	-4 028	10 963	153 043
Earnings per share	kr 7,01	kr 8,81	kr 31,76
Diluted earnings per share	kr 7,01	kr 8,81	kr 31,76
Number of shares	54 577 368	54 577 368	54 577 368
Share Price end of year	82,94	129,50	177,00

Book Value of Equity	5 797 766	5 963 956	7 548 947
	11 461	11 774	13 903
Book Value of Assets	847	419	731
Market value of equity	4 526 647	7 067 769	9 660 194
Debt	5 664 081	5 810 464	6 354 784
Cash and marketable securities	1 597 429	1 082 797	872 513
Enterprise value	8 593 299	11 795 436	15 142 465

Income from operations and costs of operations		
	2014	**2015**
	12 579	13 450
Sales income	465	725
Other income	117 409	34 206
	12 696	13 484
Sum income from operations	874	931
growth	*17,36 %*	*6,21 %*
Depreciations and amortizations	369 480	433 916
Impairments	1 982	
Depreciations, amortizations and impairments	371 462	433 916
Change in work in process inventory	-447 053	-465 960
Cost of goods sold	8 450 392	9 278 374
Cost of salaries	1 270 880	1 411 024
Other costs of operations	1 262 518	1 447 625
	10 908	12 104
Sum costs of operations	199	979
growth	*18,66 %*	*10,97 %*
Result from operations before adjustments	1 788 675	1 379 952
Value adjustments from biomass/real value adjustments	-327 414	188 508
Adjustments to result from operations	-327 414	188 508
Result from operations	1 461 261	1 568 460
growth	*-38,86 %*	*7,34 %*
Income from financing and costs of financing		
Income on investments in associated company	91 939	61 376
Net result from financing	-119 790	-128 728
growth	*17,63 %*	*7,46 %*
Ordinary result before tax cost	1 433 410	1 501 108
Tax cost	328 939	268 226
Result	1 104 471	1 232 882
Net income	1 104 471	1 232 882
growth	*-41,45 %*	*11,63 %*
Net income margin	*8,78 %*	*9,17 %*
Attributable to Shareholders	1 055 916	1 179 178
Attributable to non-controlling interests	48 557	53 165
Earnings per share	kr 19,35	kr 21,62
Diluted earnings per share	kr 19,35	kr 21,62
Number of shares	54 577 368	54 577 368

Share Price end of year	273,00	329,00
Book Value of Equity	8 079 596	8 764 052
Book Value of Assets	14 858 364	15 983 703
Market value of equity	14 899 621	17 955 954
Debt	6 778 768	7 219 651
Cash and marketable securities	1 360 272	1 247 614
Enterprise value	20 318 117	23 927 991

Reworked Income statement	2011	2012	2013	2014	2015
Income from operations	9 176 873	9 102 941	10 818 519	12 696 874	13 484 931
Cost of Goods Sold	6 184 793	6 499 768	7 039 813	8 450 392	9 278 374
Gross Profit	**2 992 080**	**2 603 173**	**3 778 706**	**4 246 482**	**4 206 557**
Margin	*32,60 %*	*28,60 %*	*34,93 %*	*33,45 %*	*31,19 %*
Change in work in process inventory	(318 613)	(57 449)	(258 380)	(447 053)	(465 960)
Adjustments to result from operations	615 767	(294 735)	(764 229)	327 414	(188 508)
Personnel expenses	967 789	1 031 872	1 094 464	1 270 880	1 411 024
Other operating expenses	858 107	853 884	1 004 148	1 262 518	1 447 625
Total SG&A	2 123 050	1 533 572	1 076 003	2 413 759	2 204 181
EBITDA	**869 030**	**1 069 601**	**2 702 703**	**1 832 723**	**2 002 376**
Margin	*9,47 %*	*11,75 %*	*24,98 %*	*14,43 %*	*14,85 %*
Depreciation and amortization	271 899	291 768	307 175	369 480	433 916
Impairment	0	33 000	5 500	1 982	0
Depreciation, amortization and impairment	271 899	324 768	312 675	371 462	433 916
Operating Profit (EBIT)	**597 131**	**744 833**	**2 390 028**	**1 461 261**	**1 568 460**
Margin	*6,51 %*	*8,18 %*	*22,09 %*	*11,51 %*	*11,63 %*
Financial Result, net	(81 884)	(95 153)	(101 840)	(119 790)	(128 728)
Result of associates & jv's	19 741	24 831	192 188	91 939	61 376
EBT	**534 988**	**674 511**	**2 480 376**	**1 433 410**	**1 501 108**
Tax expenses	156 311	182 749	593 981	328 939	268 226
Tax rate	*29,22 %*	*27,09 %*	*23,95 %*	*22,95 %*	*17,87 %*
Net Income	**378 677**	**491 762**	**1 886 395**	**1 104 471**	**1 232 882**
Net income margin	*4,13 %*	*5,40 %*	*17,44 %*	*8,70 %*	*9,14 %*
Attributable to Shareholders	382 705	480 797	1 733 352	1 055 916	1 179 178
Attributable to non-controlling interests	(4 028)	10 963	153 043	48 557	53 165
NOPAT	**435 906**	**543 728**	**1 744 720**	**1 066 721**	**1 144 976**
	4,75 %	5,97 %	16,13 %	8,40 %	8,49 %

Appendix 9 Grieg Financial Statements

Income from operations and costs of operations			
	2011	**2012**	**2013**
Sales income	2 046 991	2 050 065	2 404 215
Other income	16 769	28 164	20 827
Sum income from operations	2 063 760	2 078 229	2 425 042
growth		*0,70 %*	*16,69 %*
Depreciations and amortizations	140 206	161 345	136 037
Impairments			
Depreciations, amortizations and impairments	140 206	161 345	136 037
Change in work in process inventory	-197 753	0	0
Cost of goods sold	1 087 430	1 202 314	968 978
Cost of salaries	238 382	276 103	302 223
Other costs of operations	603 585	642 374	675 156
Increased price of feed			
Sum costs of operations	1 871 850	2 282 136	2 082 394
growth		*21,92 %*	*-8,75 %*
Result from operations before adjustments	191 910	-203 907	342 648
Value adjustments from biomass/real value adjustments	-395 180	98 063	267 450
Adjustments to result from operations	-395 180	98 063	267 450
Result from operations	-203 270	-105 844	610 098
growth		*-47,93 %*	*-676,41 %*
Income from financing and costs of financing			
Income on investments in associated company	38 869	11 831	7 889
Other financing income	31 141	3 173	33 381
Other financing costs	61 963	111 520	106 437
Net result from financing	-30 822	-108 346	-73 056
growth		*251,52 %*	*-32,57 %*
Ordinary result before tax cost	-195 224	-202 358	544 931
Tax cost	-72 064	-55 170	113 945
Result	-123 159	-147 188	430 985
Net income	-123 159	-147 188	430 985
growth		*19,51 %*	*-392,81 %*
Net income margin	*-6,02 %*	*-7,18 %*	*17,93 %*
Attributable to Shareholders	-123 159	-147 188	430 985
Attributable to non-controlling interests			

Earnings per share	kr	-1,11	kr -1,33	kr 3,90
Diluted earnings per share	kr	-1,11	kr -1,33	kr 3,90
Number of shares		110 412 000	110 412 000	110 412 000
Share Price end of year		4,33	12,35	24,50
Book Value of Equity		1 690 150	1 513 230	1 988 557
Book Value of Assets		4 172 197	4 070 279	4 590 593
Market value of equity		478 084	1 363 588	2 705 094
Debt		2 482 048	2 557 050	2 602 036
Cash and marketable securities		147 158	233 186	155 482
Enterprise value		2 812 974	3 687 452	5 151 648

Income from operations and costs of operations				
			2014	**2015**
Sales income			2 665 284	4 608 667
Other income			73 758	29 703
Sum income from operations			2 739 042	4 638 370
growth			*12,95 %*	*69,34 %*
Depreciations and amortizations			140 609	167 374
Impairments			0	46 195
Depreciations, amortizations and impairments			140 609	213 569
Change in work in process inventory			0	0
Cost of goods sold			1 153 526	2 738 926
Cost of salaries			339 592	409 432
Other costs of operations			774 460	1 235 695
Increased price of feed				
Sum costs of operations			2 408 187	4 597 622
growth			*15,65 %*	*90,92 %*
Result from operations before adjustments			330 855	40 748
Value adjustments from biomass/real value adjustments			-127 108	33 209
Adjustments to result from operations			-127 108	33 209
Result from operations			203 747	73 957
growth			*-66,60 %*	*-63,70 %*
Income from financing and costs of financing				
Income on investments in associated company			12 867	10 136
Other financing income			50 758	38 056
Other financing costs			106 480	131 357
Net result from financing			-55 722	-93 301
growth			*-23,73 %*	*67,44 %*
Ordinary result before tax cost			160 892	-9 208
Tax cost			22 806	-13 574
Result			138 086	4 366
Net income			138 086	4 366
growth			*-67,96 %*	*-96,84 %*
Net income margin			*5,18 %*	*0,09 %*
Attributable to Shareholders			138 806	-6 626
Attributable to non-controlling interests			5 588	10 992
Earnings per share	kr	1,25	kr	-0,06
Diluted earnings per share	kr	1,25	kr	-0,06

		110 412
Number of shares	110 412 000	000
Share Price end of year	28,50	31,00
Book Value of Equity	2 221 919	2 237 511
Book Value of Assets	5 042 172	5 935 777
Market value of equity	2 820 253	3 422 772
Debt	3 110 146	3 698 264
Cash and marketable securities	137 026	383 702
Enterprise value	5 793 373	6 737 334

Reworked Income statement	2011	2012	2013	2014	2015
Income from operations	2 063 760	2 078 229	2 425 042	2 739 042	4 638 370
Cost of Goods Sold	1 087 430	1 202 314	968 978	1 153 526	2 738 926
Gross Profit	**976 330**	**875 915**	**1 456 064**	**1 585 516**	**1 899 444**
Margin	*47,31 %*	*42,15 %*	*60,04 %*	*57,89 %*	*40,95 %*
Change in work in process inventory	(197 753)	0	0	0	0
Adjustments to result from operations	395 180	(98 063)	(267 450)	127 108	(33 209)
Personnel expenses	238 382	276 103	302 223	339 592	409 432
Other operating expenses	603 585	642 374	675 156	774 460	1 235 695
Total SG&A	1 039 394	820 414	709 929	1 241 160	1 611 918
EBITDA	**(63 064)**	**55 501**	**746 135**	**344 356**	**287 526**
Margin	*-3,06 %*	*2,67 %*	*30,77 %*	*12,57 %*	*6,20 %*
Depreciation and amortization	140 206	161 345	136 037	140 609	167 374
Impairment	0	0	0	0	46 195
Depreciation, amortization and impairment	140 206	161 345	136 037	140 609	213 569
Operating Profit (EBIT)	**(203 270)**	**(105 844)**	**610 098**	**203 747**	**73 957**
Margin	*-9,85 %*	*-5,09 %*	*25,16 %*	*7,44 %*	*1,59 %*
Financial Result, net	(30 822)	(108 346)	(73 056)	(55 722)	(93 301)
Result of associates & jv's	38 869	11 831	7 889	12 867	10 136
EBT	**(195 223)**	**(202 359)**	**544 931**	**160 892**	**(9 208)**
Tax expenses	(72 064)	(55 170)	113 945	22 806	(13 574)
Tax rate	*36,91 %*	*27,26 %*	*20,91 %*	*14,17 %*	*147,42 %*
Net Income	**(123 159)**	**(147 189)**	**430 986**	**138 086**	**4 366**
Net income margin	*-6,02 %*	*-7,18 %*	*17,93 %*	*5,18 %*	*0,09 %*
Attributable to Shareholders	(123 159)	(147 188)	430 985	138 806	(6 626)
Attributable to non-controlling interests	0	0	0	5 588	10 992
NOPAT	**(148 387)**	**(77 266)**	**445 372**	**148 735**	**53 989**
	-7,19 %	-3,72 %	18,37 %	5,43 %	1,16 %

Appendix 10 Marine Harvest Financial Statements

Income from operations and costs of operations			
	2011	**2012**	**2013**
Sales income		15 420 400	19 177 300
Other income		43 200	22 100
Sum income from operations	16 132 800	15 463 500	19 199 400
growth		*-4,15 %*	*24,16 %*
Depreciations and amortizations	666 700	677 200	762 500
Impairments	67 000	500	65 000
Depreciations, amortizations and impairments	733 700	677 700	827 500
Cost of goods sold	8 398 600	9 666 500	9 998 500
Cost of salaries	2 177 800	2 418 600	2 674 300
Other costs of operations	2 063 200	2 163 600	2 581 900
Sum costs of operations	13 373 300	14 926 400	16 082 200
growth		*11,61 %*	*7,74 %*
Result from operations before adjustments	2 759 500	537 100	3 117 200
Value adjustments from biomass/real value adjustments	-1 514 000	350 200	1 794 600
Onerous contract provision	-5 800	-6 100	-124 700
Adjustments to result from operations	-1 519 800	344 100	1 669 900
Result from operations	1 239 700	881 200	4 787 100
growth		*-28,92 %*	*443,25 %*
Income from financing and costs of financing			
Income on investments in associated company	-8 500	88 300	221 800
Restructuring costs	21 800	800	272 800
Other non-operational items		0	-74 400
Other financing income	342 900		
Other interest costs	405 800	382 800	640 200
Net currency effects	236 400	523 300	-311 700
Other financing costs		320 000	252 400
Net result from financing	173 500	-179 500	-1 204 300
growth		*-203,46 %*	*570,92 %*
Ordinary result before tax cost	1 382 900	789 200	3 457 400
Tax cost	261 700	376 500	1 026 800
Result	1 121 200	412 600	2 430 600
Profit after tax from discontinued operations		0	91 900
Other comprehensive income	-24 200	-408 700	581 200
Net income	1 096 900	3 900	3 103 700
growth		*-99,64 %*	*79482,05 %*
Net income margin	*6,80 %*	*0,03 %*	*16,18 %*

Attributable to Shareholders	1 091 700	3 900	3 091 400
Attributable to non-controlling interests	5 200	0	12 300
Earnings per share	kr 0,31	kr 0,11	kr 0,67
Diluted earnings per share	kr 0,31	kr 0,11	kr 0,67
Number of shares	3 581 140 543	3 748 341 597	4 103 777 581
Share Price end of year (after reverse stock split)	26,27	51,20	73,85
Book Value of Equity	10 842 200	11 688 700	16 346 300
Book Value of Assets	22 788 600	23 317 400	33 727 700
Market value of equity	9 407 656	19 191 509	30 306 000
Debt	2 905 700	11 628 800	17 381 400
Cash and marketable securities	244 000	299 400	565 900
Enterprise value	12 069 356	30 520 909	47 121 500

Income from operations and costs of operations		
	2014	**2015**
Sales income	25 300 400	27 710 200
Other income	230 900	170 500
Sum income from operations	25 531 300	27 880 700
growth	*32,98 %*	*9,20 %*
Depreciations and amortizations	966 800	1 252 000
Impairments	24 100	60 900
Depreciations, amortizations and impairments	990 900	1 312 900
Cost of goods sold	13 677 400	15 858 400
Cost of salaries	3 320 900	3 825 500
Other costs of operations	3 350 000	3 969 900
Sum costs of operations	21 339 200	24 966 700
growth	*32,69 %*	*17,00 %*
Result from operations before adjustments	4 192 100	2 914 000
Value adjustments from biomass/real value adjustments	-510 800	90 300
Onerous contract provision	23 700	-6 600
Adjustments to result from operations	-487 100	83 700
Result from operations	3 705 000	2 997 700
growth	*-22,60 %*	*-19,09 %*
Income from financing and costs of financing		
Income on investments in associated company	149 500	209 700
Restructuring costs	52 900	136 300
Other non-operational items	-168 200	21 700
Other financing income		
Other interest costs	544 600	416 500
Net currency effects	-388 400	37 700
Other financing costs	1 213 700	473 800
Net result from financing	-2 146 700	-852 600
growth	*78,25 %*	*-60,28 %*
Ordinary result before tax cost	1 486 700	2 240 200
Tax cost	752 000	820 500
Result	734 700	1 419 700
Profit after tax from discontinued operations	204 800	-2 100
Other comprehensive income	827 700	677 800
Net income	1 767 200	2 095 400
growth	*-43,06 %*	*18,57 %*
Net income margin	*6,98 %*	*7,56 %*
Attributable to Shareholders	1 767 200	2 093 700

Attributable to non-controlling interests		0		1 700
Earnings per share	kr	2,28	kr	3,21
Diluted earnings per share	kr	2,28	kr	3,21
Number of shares		410 377 759		450 085 652
Share Price end of year (after reverse stock split)		102,90		119,60
Book Value of Equity		14 718 200		18 187 200
Book Value of Assets		36 974 300		40 260 100
Market value of equity		42 200 000		53 800 000
Debt		22 256 200		22 072 900
Cash and marketable securities		1 365 200		635 000
Enterprise value		63 091 000		75 237 900

Reworked Income statement	2011	2012	2013	2014	2015
Income from operations	16 132 800	15 463 500	19 199 400	25 531 300	27 880 700
Cost of Goods Sold	8 398 600	9 666 500	9 998 500	13 677 400	15 858 400
Gross Profit	**7 734 200**	**5 797 000**	**9 200 900**	**11 853 900**	**12 022 300**
Margin	*47,94 %*	*37,49 %*	*47,92 %*	*46,43 %*	*43,12 %*
Restructuring costs	21 800	800	272 800	52 900	136 300
Other non-operational items	0	0	-74 400	-168 200	21 700
Adjustments to result from operations	1 519 800	(344 100)	(1 669 900)	487 100	(83 700)
Personnel expenses	2 177 800	2 418 600	2 674 300	3 320 900	3 825 500
Other operating expenses	2 063 200	2 163 600	2 581 900	3 350 000	3 969 900
Total SG&A	5 760 800	4 238 100	3 586 300	7 158 000	7 711 700
EBITDA	**1 951 600**	**1 558 100**	**5 267 400**	**4 474 800**	**4 196 000**
Margin	*12,10 %*	*10,08 %*	*27,44 %*	*17,53 %*	*15,05 %*
Depreciation and amortization	666 700	677 200	762 500	966 800	1 252 000
Impairment	67 000	500	65 000	24 100	60 900
Depreciation, amortization and impairment	733 700	677 700	827 500	990 900	1 312 900
Operating Profit (EBIT)	**1 217 900**	**880 400**	**4 439 900**	**3 483 900**	**2 883 100**
Margin	*7,55 %*	*5,69 %*	*23,13 %*	*13,65 %*	*10,34 %*
Financial Result, net	173 500	(179 500)	(1 204 300)	(2 146 700)	(852 600)
Result of associates & jv's	(8 500)	88 300	221 800	149 500	209 700
EBT	**1 382 900**	**789 200**	**3 457 400**	**1 486 700**	**2 240 200**
Tax expenses	261 700	376 500	1 026 800	752 000	820 500
Tax rate	*18,92 %*	*47,71 %*	*29,70 %*	*50,58 %*	*36,63 %*
Profit after tax from discontinued operations	0	0	91 900	204 800	-2 100
Other comprehensive income	-24 200	-408 700	581 200	827 700	677 800
Net Income	**1 097 000**	**4 000**	**3 103 700**	**1 767 200**	**2 095 400**
Net income margin	*6,80 %*	*0,03 %*	*16,17 %*	*6,92 %*	*7,52 %*
Attributable to Shareholders	1 091 700	3 900	3 091 400	1 767 200	2 093 700
Attributable to non-controlling interests	5 200	0	12 300	0	1 700
NOPAT	**889 067**	**642 692**	**3 241 127**	**2 543 247**	**2 104 663**
	5,51 %	4,16 %	16,88 %	9,96 %	7,55 %

Appendix 11 Norway Royal Salmon Financial Statements

Income from operations and costs of operations			
	2011	**2012**	**2013**
Sales income	1 734 022	1 744 266	2 603 712
Other income			
Sum income from operations	1 734 022	1 744 266	2 603 712
growth		*0,59 %*	*49,27 %*
Depreciations and amortizations	26 043	30 449	33 728
Impairments			
Depreciations, amortizations and impairments	26 043	30 449	33 728
Cost of goods sold	1 549 263	1 540 290	2 137 934
Cost of salaries	60 595	71 764	85 627
Other costs of operations	53 365	71 428	90 422
Sum costs of operations	1 689 266	1 713 931	2 347 711
growth		*1,46 %*	*36,98 %*
Result from operations before adjustments	44 756	30 335	256 001
Value adjustments from biomass/real value adjustments	-70 627	49 428	94 725
Extraordinary biological incidents		-9 919	
Adjustments to result from operations	-70 627	39 509	94 725
Result from operations	-25 870	69 844	350 726
growth		*-369,98 %*	*402,16 %*
Income from financing and costs of financing			
Income on investments in associated company	-1 689	10 464	28 834
Proceeds from financial assets	41 608		49 497
Other interest income	338	422	338
Other financing income	1 407	244	88
Other interest costs	28 363	35 928	31 321
Other financing costs	4 597	4 298	1 870
Net result from financing	10 393	-39 560	16 732
growth		*-480,64 %*	*-142,30 %*
Ordinary result before tax cost	-17 166	40 748	396 292
Tax cost	-15 548	9 130	80 487
Result	-1 618	31 618	315 805
Net income	-1 618	31 618	315 805
growth		*-2054,14 %*	*898,81 %*
Net income margin	*-0,09 %*	*1,81 %*	*12,13 %*
Attributable to Shareholders	2 140	28 191	302 434
Attributable to non-controlling interests	-3 759	3 428	13 371

Earnings per share	kr	0,06	kr	0,66	kr	6,96
Diluted earnings per share	kr	0,06	kr	0,66	kr	6,96
Number of shares		39 611 083		43 572 191		43 542 106
Share Price end of year		6,48		15,30		37,00
Book Value of Equity		532 662		607 769		868 989
Book Value of Assets		1 467 292		1 675 526		2 051 612
Market value of equity		256 680		666 655		1 611 058
Debt		934 630		1 067 757		1 182 624
Cash and marketable securities		6 205		9 854		53 732
Enterprise value		1 185 105		1 724 558		2 739 950

Income from operations and costs of operations		
	2014	**2015**
Sales income	2 599 799	3 210 548
Other income		
Sum income from operations	2 599 799	3 210 548
growth	*-0,15 %*	*23,49 %*
Depreciations and amortizations	41 412	53 697
Impairments	0	0
Depreciations, amortizations and impairments	41 412	53 697
Cost of goods sold	2 175 278	2 707 071
Cost of salaries	104 557	113 268
Other costs of operations	120 488	134 618
Sum costs of operations	2 441 735	3 008 654
growth	*4,00 %*	*23,22 %*
Result from operations before adjustments	158 064	201 894
Value adjustments from biomass/real value adjustments	57 456	24 416
Extraordinary biological incidents		
Adjustments to result from operations	57 456	24 416
Result from operations	215 520	226 310
growth	*-38,55 %*	*5,01 %*
Income from financing and costs of financing		
Income on investments in associated company	27 136	22 754
Proceeds from financial assets	100 262	47 404
Other interest income	935	882
Other financing income	418	26
Other interest costs	22 434	24 859
Other financing costs	1 130	2 436
Net result from financing	78 051	21 017
growth	*366,48 %*	*-73,07 %*
Ordinary result before tax cost	320 707	270 081
Tax cost	52 422	32 498
Result	268 285	237 583
Net income	268 285	237 583
growth	*-15,05 %*	*-11,44 %*
Net income margin	*10,32 %*	*7,40 %*
Attributable to Shareholders	254 348	229 633
Attributable to non-controlling interests	13 936	7 950
Earnings per share	kr 5,85	kr 5,28
Diluted earnings per share	kr 5,85	kr 5,28

Number of shares	43 538 456	43 501 306
Share Price end of year	64,75	80,00
Book Value of Equity	1 013 907	1 186 519
Book Value of Assets	2 599 462	2 870 245
Market value of equity	2 819 115	3 480 104
Debt	1 585 556	1 683 726
Cash and marketable securities	61 494	201 339
Enterprise value	4 343 177	4 962 491

Reworked Income statement	2011	2012	2013	2014	2015
Income from operations	1 734 022	1 744 266	2 603 712	2 599 799	3 210 548
Cost of Goods Sold	1 549 263	1 540 290	2 137 934	2 175 278	2 707 071
Gross Profit	**184 759**	**203 976**	**465 778**	**424 521**	**503 477**
Margin	*10,65 %*	*11,69 %*	*17,89 %*	*16,33 %*	*15,68 %*
Adjustments to result from operations	70 627	(39 509)	(94 725)	(57 456)	(24 416)
Personnel expenses	60 595	71 764	85 627	104 557	113 268
Other operating expenses	53 365	71 428	90 422	120 488	134 618
Total SG&A	184 587	103 683	81 324	167 589	223 470
EBITDA	**172**	**100 293**	**384 454**	**256 932**	**280 007**
Margin	*0,01 %*	*5,75 %*	*14,77 %*	*9,88 %*	*8,72 %*
Depreciation and amortization	26 043	30 449	33 728	41 412	53 697
Impairment	0	0	0	0	0
Depreciation, amortization and impairment	26 043	30 449	33 728	41 412	53 697
Operating Profit (EBIT)	**(25 871)**	**69 844**	**350 726**	**215 520**	**226 310**
Margin	*-1,49 %*	*4,00 %*	*13,47 %*	*8,29 %*	*7,05 %*
Financial Result, net	10 393	(39 560)	16 732	78 051	21 017
Result of associates & jv's	(1 689)	10 464	28 834	27 136	22 754
EBT	**(17 167)**	**40 748**	**396 292**	**320 707**	**270 081**
Tax expenses	(15 548)	9 130	80 487	52 422	32 498
Tax rate	*90,57 %*	*22,41 %*	*20,31 %*	*16,35 %*	*12,03 %*
Net Income	**(1 619)**	**31 618**	**315 805**	**268 285**	**237 583**
Net income margin	*-0,09 %*	*1,81 %*	*12,13 %*	*10,32 %*	*7,40 %*
Attributable to Shareholders	2 140	28 191	302 434	254 348	229 633
Attributable to non-controlling interests	(3 759)	3 428	13 371	13 936	7 950
NOPAT	**(18 886)**	**50 986**	**256 030**	**157 330**	**165 206**
	-1,09 %	2,92 %	9,83 %	6,05 %	5,15 %

Appendix 12 Financial Analysis Tables

EBITDA margin	2011	2012	2013	2014	2015
SalMar	8,38 %	19,24 %	34,83 %	26,79 %	24,10 %
Lerøy Seafood	9,47 %	11,75 %	24,98 %	14,43 %	14,85 %
Grieg Seafood	-3,06 %	2,67 %	30,77 %	12,57 %	6,20 %
Marine Harvest	12,10 %	10,08 %	27,44 %	17,53 %	15,05 %
Norway Royal Salmon	0,01 %	5,75 %	14,77 %	9,88 %	8,72 %

EBIT margin	2011	2012	2013	2014	2015
SalMar	4,92 %	15,19 %	31,21 %	22,92 %	19,71 %
Lerøy Seafood	6,51 %	8,18 %	22,09 %	11,51 %	11,63 %
Grieg Seafood	-9,85 %	-5,09 %	25,16 %	7,44 %	1,59 %
Marine Harvest	7,55 %	5,69 %	23,13 %	13,65 %	10,34 %
Norway Royal Salmon	-1,49 %	4,00 %	13,47 %	8,29 %	7,05 %

Profit margin	2011	2012	2013	2014	2015
SalMar	3,54 %	10,94 %	22,47 %	16,73 %	14,39 %
Lerøy Seafood	4,75 %	5,97 %	16,13 %	8,40 %	8,49 %
Grieg Seafood	-7,19 %	-3,72 %	18,37 %	5,43 %	1,16 %
Marine Harvest	5,51 %	4,16 %	16,88 %	9,96 %	7,55 %
Norway Royal Salmon	-1,09 %	2,92 %	9,83 %	6,05 %	5,15 %

Appendix 13 Regression Output Beta Calculation SalMar

SUMMARY OUTPUT 3-YEAR SALM VS OSEBX

Regression Statistics	
Multiple R	0,386606478
R Square	0,149464569
Adjusted R Square	0,14832749
Standard Error	0,016998789
Observations	750

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,037982487	0,037982487	131,4460205	3,79578E-28
Residual	748	0,216141197	0,000288959		
Total	749	0,254123684			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,001472797	0,000621488	2,369792692	0,018050884	0,000252729	0,002692865	0,000252729	0,002692865
OSEBX	0,763570905	0,066600218	11,46499108	3,79578E-28	0,632825318	0,894316491	0,632825318	0,894316491

SUMMARY OUTPUT 3-YEAR SALM VS OBX

Regression Statistics	
Multiple R	0,35935748
R Square	0,129137798
Adjusted R Square	0,127973544
Standard Error	0,017200715
Observations	750

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,032816973	0,032816973	110,9188951	2,79632E-24
Residual	748	0,221306711	0,000295865		
Total	749	0,254123684			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,001552991	0,00062863	2,470435306	0,01371682	0,000318901	0,00278708	0,000318901	0,00278708
OBX	0,670894546	0,063701769	10,53180398	2,79632E-24	0,545839022	0,79595007	0,545839022	0,79595007

SUMMARY OUTPUT 2-YEAR SALM VS OSEBX

Regression Statistics	
Multiple R	0,398028114
R Square	0,15842638
Adjusted R Square	0,156739859
Standard Error	0,017650802
Observations	501

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,029266099	0,029266099	93,93683636	1,81448E-20
Residual	499	0,15546386	0,000311551		
Total	500	0,184729959			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,001465768	0,000788841	1,858128124	0,063739531	-8,40914E-05	0,003015627	-8,40914E-05	0,003015627
OSEBX	0,744229281	0,076787192	9,692101751	1,81448E-20	0,593363227	0,895095334	0,593363227	0,895095334

SUMMARY OUTPUT 2-YEAR SALM VS OBX

Regression Statistics	
Multiple R	0,370580112
R Square	0,137329619
Adjusted R Square	0,135600821
Standard Error	0,01787067
Observations	501

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,025368895	0,025368895	79,43645875	9,3714E-18
Residual	499	0,159361064	0,000319361		
Total	500	0,184729959			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,001535216	0,00079853	1,922551312	0,055105338	-3,36805E-05	0,003104112	-3,36805E-05	0,003104112
OBX	0,653222562	0,0732911	8,912713321	9,3714E-18	0,509225384	0,79721974	0,509225384	0,79721974

Appendix 14 Salmon Price

SUMMARY OUTPUT ALL YEARS

Regression Statistics	
Multiple R	0,787923169
R Square	0,62082292
Adjusted R Square	0,591655452
Standard Error	0,130510625
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,36254403	0,36254403	21,28477267	0,000485599
Residual	13	0,221429303	0,017033023		
Total	14	0,583973333			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,210718905	0,051890831	4,060811965	0,001348712	0,098615582	0,322822229	0,098615582	0,322822229
X Variable 1	-2,600746269	0,563720042	-4,613542313	0,000485599	-3,818589379	-1,382903158	-3,818589379	-1,382903158

SUMMARY OUTPUT 2001-2011

Regression Statistics	
Multiple R	0,92559679
R Square	0,856729417
Adjusted R Square	0,840810464
Standard Error	0,078890633
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,334950048	0,334950048	53,81819913	4,39194E-05
Residual	9	0,056013588	0,006223732		
Total	10	0,390963636			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,238099668	0,037881043	6,285457008	0,000143442	0,152406795	0,323792541	0,152406795	0,323792541
X Variable 1	-3,498671096	0,476912314	-7,336088817	4,39194E-05	-4,577521704	-2,419820488	-4,577521704	-2,419820488

SUMMARY OUTPUT 2001-2011+2014-2015

Regression Statistics	
Multiple R	0,913837328
R Square	0,835098663
Adjusted R Square	0,820107632
Standard Error	0,077297888
Observations	13

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0,332844632	0,332844632	55,70655417	1,25561E-05
Residual	11	0,065724599	0,005974964		
Total	12	0,398569231			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0,227014925	0,035959549	6,313063837	5,73204E-05	0,147868493	0,306161358	0,147868493	0,306161358
X Variable 1	-3,458264234	0,463345581	-7,463682346	1,25561E-05	-4,478080983	-2,438447486	-4,478080983	-2,438447486

Salmon price forecast	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Salmon supply tonnes GWE	2 200	2 266	2 334	2 614	2 778	2 952
Salmon supply growth	5,00 %	3,00 %	3,00 %	12,00 %	6,27 %	6,27 %
Price change on FCA Oslo	-4,00 %	12,33 %	12,33 %	-18,80 %	1,01 %	1,01 %
SalMar salmon price	kr 48,72	kr 54,73	kr 61,47	kr 49,92	kr 50,42	kr 50,93
SalMar salmon price growth	5,34 %	12,33 %	12,33 %	-18,80 %	1,01 %	1,01 %

Appendix 15 SalMar Financial Statement FPI

	2016	2017
Income from operations	9 830 639	10 041 234
Cost of Goods Sold	4 824 162	4 994 553
Gross Profit	**5 006 477**	**5 046 681**
Margin	50,93 %	50,26 %
Change in work in process inventory	(407 553)	(421 948)
Adjustments to result from operations	0	0
Inventory proceeds from acquisitions	0	0
Personnel expenses	697 282	721 910
Other operating expenses	1 165 618	1 206 788
Total SG&A	1 455 347	1 506 750
EBITDA	3 551 130	3 539 931
Margin	36,12 %	35,25 %
Depreciation and amortization	0	0
Impairment	0	0
Depreciation, amortization and impairment	259 555	268 722
Operating Profit (EBIT)	3 291 575	3 271 208
Margin	33,48 %	32,58 %
Financial Result, net	(112 246)	(118 201)
Result of associates & jv's	98 845	93 940
EBT	3 278 175	3 246 948
Tax expenses	819 544	811 737
Tax rate	25,00 %	25,00 %
Net Income	2 458 631	2 435 211
Net income margin	25,01 %	24,25 %
Attributable to Shareholders	2 403 077	2 380 185
Attributable to non-controlling interests	55 555	55 025
NOPAT	2 468 682	2 453 406

	2018	2019	2020
Income from operations	9 881 841	10 028 783	10 319 841
Cost of Goods Sold	5 181 269	5 380 481	5 536 640
Gross Profit	**4 700 572**	**4 648 301**	**4 783 201**
Margin	47,57 %	46,35 %	46,35 %
Change in work in process inventory	(437 722)	(454 552)	(467 744)
Adjustments to result from operations	0	0	0
Inventory proceeds from acquisitions	0	0	0
Personnel expenses	748 898	777 692	800 263
Other operating expenses	1 251 902	1 300 036	1 337 767
Total SG&A	1 563 078	1 623 177	1 670 286
EBITDA	3 137 493	3 025 125	3 112 914
Margin	31,75 %	30,16 %	30,16 %
Depreciation and amortization	0	0	0
Impairment	0	0	0
Depreciation, amortization and impairment	278 768	289 486	297 888
Operating Profit (EBIT)	2 858 725	2 735 638	2 815 026
Margin	28,93 %	27,28 %	27,28 %
Financial Result, net	(117 403)	(117 029)	(114 210)
Result of associates & jv's	93 929	93 420	88 058
EBT	2 835 250	2 712 029	2 788 874
Tax expenses	708 813	678 007	697 219
Tax rate	25,00 %	25,00 %	25,00 %
Net Income	2 126 438	2 034 021	2 091 656
Net income margin	21,52 %	20,28 %	20,27 %
Attributable to Shareholders	2 078 389	1 988 061	2 044 393
Attributable to non-controlling interests	48 049	45 960	47 263
NOPAT	2 144 044	2 051 729	2 111 270

Income from operations and costs of operations		
	2016	2017
Licenses	104	108
License growth	4,00 %	3,85 %
Production per license	1362	1362
Harvest Volume abroad	13500	13500
Harvest Volume in Norway	141657	147137
Harvest volume tonnes GWE	155157	160637
Harvest volume growth	3,51 %	3,53 %
Salmon supply growth	3,00 %	3,00 %
Price change on FCA Oslo	12,33 %	12,33 %
Salmon price	kr 63,19	kr 62,32
Salmon price growth	29,69 %	-1,37 %
Sales income	9 804 171	10 010 926
Other income	26 468	30 308
Sum income from operations	**9 830 639**	**10 041 234**
growth	34,18 %	2,14 %
Depreciations and amortizations		
Impairments		
Depreciations, amortizations and impairments	259 555	268 722
Change in work in process inventory	-407 553	-421 948
Inventory proceeds from acquisitions		
Cost of goods sold	3 738 062	3 870 092
Cost of salaries	697 282	721 910
Other costs of operations	1 165 618	1 206 788
Increased price of feed and biology	1 086 100	1 124 461
Sum costs of operations	**6 539 064**	**6 770 026**
growth	10,41 %	3,53 %
Result from operations before adjustments	**3 291 575**	**3 271 208**
Adjustments to result from operations	0	0
Result from operations	**3 291 575**	**3 271 208**
growth	127,98 %	-0,62 %
Income from financing and costs of financing		
Income on investments in associated company	98 845	93 940
Other interest income	6 174	6 174
Other financing income	12 513	11 759
Other interest costs	-119 166	-124 841
Other financing costs	-11 766	-11 293

Net result from financing	**-112 246**	**-118 201**
growth	11,84 %	5,31 %
Ordinary result before tax cost	**3 278 175**	**3 246 948**
Tax cost	819 544	811 737
Result	**2 458 631**	**2 435 211**
Net income	**2 458 631**	**2 435 211**
growth	117,81 %	-0,95 %
Net income margin	25,01 %	24,25 %
Attributable to Shareholders	2 403 077	2 380 185
Attributable to non-controlling interests	55 555	55 025
Earnings per share	kr 21,21	kr 21,01
Diluted earnings per share	kr 21,17	kr 20,97

Income from operations and costs of operations			
	2018	2019	2020
Licenses	112	116	120
License growth	3,70 %	3,57 %	3,45 %
Production per license	1367	1375	1371
Harvest Volume abroad	13500	13500	13500
Harvest Volume in Norway	153143	159550	164572
Harvest volume tonnes GWE	166643	173050	178072
Harvest volume growth	3,74 %	3,84 %	2,90 %
Salmon supply growth	12,00 %	6,27 %	6,27 %
Price change on FCA Oslo	-18,80 %	1,01 %	1,01 %
Salmon price	kr 59,10	kr 57,75	kr 57,75
Salmon price growth	-5,17 %	-2,28 %	0,00 %
Sales income	9 848 578	9 993 624	10 283 670
Other income	33 263	35 159	36 170
Sum income from operations	**9 881 841**	**10 028 783**	**10 319 841**
growth	-1,59 %	1,49 %	2,90 %
Depreciations and amortizations			
Impairments			
Depreciations, amortizations and impairments	278 768	289 486	297 888
Change in work in process inventory	-437 722	-454 552	-467 744
Inventory proceeds from acquisitions			
Cost of goods sold	4 014 771	4 169 133	4 290 134
Cost of salaries	748 898	777 692	800 263
Other costs of operations	1 251 902	1 300 036	1 337 767
Increased price of feed and biology	1 166 498	1 211 348	1 246 506
Sum costs of operations	**7 023 116**	**7 293 144**	**7 504 814**
growth	3,74 %	3,84 %	2,90 %
Result from operations before adjustments	**2 858 725**	**2 735 638**	**2 815 026**
Adjustments to result from operations	0	0	0
Result from operations	**2 858 725**	**2 735 638**	**2 815 026**
growth	-12,61 %	-4,31 %	2,90 %
Income from financing and costs of financing			
Income on investments in associated company	93 929	93 420	88 058
Other interest income	6 286	6 534	6 234
Other financing income	12 455	8 892	8 992
Other interest costs	-126 903	-124 663	-121 069
Other financing costs	-9 241	-7 793	-8 367

Net result from financing	**-117 403**	**-117 029**	**-114 210**
growth	-0,67 %	-0,32 %	-2,41 %
Ordinary result before tax cost	**2 835 250**	**2 712 029**	**2 788 874**
Tax cost	708 813	678 007	697 219
Result	**2 126 438**	**2 034 021**	**2 091 656**
Net income	**2 126 438**	**2 034 021**	**2 091 656**
growth	-12,68 %	-4,35 %	2,83 %
Net income margin	21,52 %	20,28 %	20,27 %
Attributable to Shareholders	2 078 389	1 988 061	2 044 393
Attributable to non-controlling interests	48 049	45 960	47 263
Earnings per share	kr 18,34	kr 17,55	kr 18,04
Diluted earnings per share	kr 18,31	kr 17,51	kr 18,01

Reflection Paper Jakob Gulgazarian

The following thesis is in the field of valuation. We have tried to find the intrinsic value of a listed Norwegian company called SalMar ASA. SalMar ASAs main business is cultivation of Atlantic salmon. They are what's called an aquaculture company. The aquaculture industry is of a large importance for countries like Norway with a large coastline and limited amount of land based resources. In the thesis, we found out that the salmon cultivation industry is mainly dominated by four countries. It is a very capital-intensive industry with large initial costs. The industry is also somewhat geographically segmented, which means that producers mainly sell to their close geographic proximity. This is due to the nature of fresh products, especially fish. We also found out how important the input factor of feed price, government regulations though licensing and the selling price of salmon is for the survival of these firms. We valuated SalMar ASA to be worth substantially more than the market value of the stock at that time. This might be because of our positive attitude of the future of the aquaculture industry and our positive outlook on growth coming from the developing world.

International trends and international forces are discussed thoroughly in our thesis. The aquaculture industry even if geographically segmented, is still dependent on selling internationally. Most of Norwegian salmon is for instance sold to the European market. With the opening of the chines market to Norwegian salmon, we can expect there to be more revenue from the international market. Because of this, I believe international trade agreements are of utter importance for companies like SalMar. In a constantly globalizing world, companies have to concentrate not only on the regulations of their host countries but also all other countries where they sell their product. In addition, many protectionist ideas are on the rise around the world, and governments supporting protectionist ideas might be elected and push for more tariffs on goods from foreign countries. This is especially bad for companies like SalMar because they are so dependent on international trade, due to a small domestic market. In addition, exchange rate fluctuations can be an issue when selling products internationally, this risk can be managed by a foreign exchange hedge and is being done by SalMar.

Innovation in the salmon farming industry has also been discussed in the thesis. Salmon Cultivation itself is a rather innovative form of food production and is only around 50 years

old. The actors in the industry are continuously trying to improve the methods of cultivation by developing new industrial machinery and new types of cages. The most important problems they are trying to address are the control of sea lice and other diseases, and fish escapes. These two are closely connected to environmental responsibility. Because of fears that the escaped salmon can mix with the wild salmon and spread diseases, resulting in the extinction of wild salmon. However, researched and development is sometimes done to maximize the production of Salmon within the limits of the licenses that exist. This is often done be cramming together a large population of salmon, which in turn may be a risk for diseases and even more escapes. Because of this, the government of Norway has for example put forward incentives for the farmers to develop more environmentally friendly production methods, by giving them access to cheaper development licenses that can only be obtained if the company does a certain type of development in the field. Also "green licenses" are given out for a discounted price but with certain limitations for environmental friendliness.
These steps form the government are in my opinion a very effective way of pushing the companies from developing irresponsible methods of production to developing a much more green and responsible production methods. There are certainly more steps that can be taken to push the companies to more responsible production, however this will often make the companies less profitable and they will have difficulties competing with companies outside of Norway who are not subject to these limitations.

Reflection Paper Magnus Øvrebø Øksenholt

The research question of this master thesis is "*what is the intrinsic value of SalMar ASA stock on 31.12.2015?"* and the theme is that of valuation. This means I have drawn upon what I have learned throughout my time at the University of Agder, partly from my bachelor's program, but even more so from my master's program. The theme of the paper fits well with my education within the fields of accounting and auditing, as well as within finance. I feel that the courses offered at UiA has prepared me well for such a thesis.

Throughout the research period we found how volatile the stock price of a specialized company is to swings in the price of their main product, in the case of SalMar this is salmon. This creates vulnerabilities that are very difficult to combat, but also offers a large upside should the price increase. Through the FishPool forward prices approach discussed in chapter 10 and the sensitivity analysis in chapter 9, we saw how impactful this can be. We also found in our financial analysis in chapter 6 that the costs of biological threats, such as fish escapes and disease outbreaks, can be very important. We found other difficulties with forecasting the future, an important note here was the size of the anticipated increase in costs, again covered in the sensitivity analysis. The crystal ball economists must look into gives a blurry image indeed.

Our conclusion is a trading strategy, as is suitable when the theme is valuation, one does not only want to know what something is worth, one also wants to know if one should buy it. We concluded with a recommendation to buy the stock, a recommendation I fully support as some of the assumptions we made were conservative by recommendation of Penman (2013), our growth was only set at 1 %. Our forecast of increased costs also gave a conservative estimate of the value. All this being said, we are still confident that these assumptions are reasonable.

Internationalization

Norway is a very important country for the salmon farming industry and the most direct competition comes from other Norwegian companies. Norway is however not completely dominant among the producing countries, and the consumers in the market is by a clear majority non-Norwegian. This means SalMar is beholden to changes at the international stage to a significant degree. Examples discussed in the thesis is the trade embargoes resulting from the conflict between Russia and Ukraine, both the Crimea issue and the heavy skirmishes in

the Russian speaking parts of Ukraine, and the embargo of Norway by China resulting from the Nobel Peace Price being awarded to Chinese dissident, who the government of China views as a criminal, Liu Xiaobo in 2010. Furthermore, the price of salmon, which has previously been mentioned as very important to stock price of the company, is not a result of a fully segmented and isolated Norwegian market, but is primarily a world market with part segmentation into regions for fresh salmon only. SalMar also has a lot of its income derived from foreign currencies while the costs are in NOK. This makes SalMar exposed to fluctuations in currencies which are international by nature. All in all SalMar is heavily influenced by international forces in its operating environment.

For the incident with Russia, SalMar wrote in their annual report that they were able to shift their export to different markets outside Russia. Being able to accomplish such shifts is important to safeguard against threats posed by trade restrictions and international event that limit trade. The spot price of salmon is highly volatile and subject to international forces, but the forward prices offered by FishPool can protect against shocks in the price of salmon, and SalMar makes use of such forward contracts to reduce risk. SalMar also makes use of currency derivatives such as currency exchange contracts to safeguard against the threats of sudden currency fluctuations. SalMar shows through these actions that it is actively safeguarding itself against international forces to ensure that it not only survives, but also prospers going forward.

Innovation

It can be difficult to predict what innovations will be made in the future, but they will usually try to meet a gap that exists in the current environment. Gaps in the salmon farming industry can be difficult to spot as a layperson when it comes to fish farming, but an approach is to see what they are working on.

Fish escapes, as previously discussed, can be quite costly and limiting these can give a competitive advantage. Several suggestion have been made regarding how best to deal with this issue, but a couple stand out. One suggestion is to fully enclose the fish farms in a physical structure, something that allows complete control of feeding patterns. Another suggestion is to move the fish farms on land, just like the smolt is currently being handled, but with salt water and potentially larger containment units. A newer suggestion is to move the fish farms far out to sea where recapture is easier, new research licenses have been awarded to see if this is a viable approach. A different approach has recently been conducted using gene modification to make the salmon sterile while keeping a separate strain as broodstock.

Approaching innovation from a different perspective is also being done by chefs worldwide as they try to create new recipes. Some of these new recipes might increase demand for salmon, but this is extremely difficult to predict. SalMar could also do more of the Value Adding Processes themselves, but this is currently difficult to do in a cost-efficient manner as more processed food is often subject to more import taxes.

Accountability and responsibility

Ethical challenges are posed to all the actors within the salmon farming industry, some are specific to the industry, while others are more general in nature. Preventing corruption, disloyal employees, and similar threats are both an ethical and a financial challenge. Fish escapes, as mentioned previously, is also both an ethical and a financial challenge. Dealing with these challenges could be considered a competitive advantage or risk mitigation. SalMar could give additional courses to employees to further imprint a good corporate culture.