VALUATION OF SCORPIO TANKERS

Master thesis

Cand.merc. Finance & Strategic Management

Copenhagen Business School, 2018

Author: Jonas Kaagaard Bro (Student number 24208)

Supervisor: Palle Nierhoff

Pages: 79

STU's: 139.723

Hand-in date: 17 September 2018

Abstract

Since the financial crisis in 2007-2008, the product tanker market has primarily been characterized by relatively low freight rates and left investors patiently waiting for the market to recover. Except for a good period in 2015, the market has now been so low for such a long time that some product tanker companies slowly are starting to feel that liquidity-problems are at their doorstep. The question is thus for a potential investor, if now is the time to invest in the product tanker market, as the expected market recovery must be near? Or if it is better to wait and see if any of the companies succumbs to the pressure from the market?

This research sets out to estimate the fair market value of equity of the product tanker company Scorpio Tankers as of 31-12-2017, and assess if potential investors should consider investing in the company. Scorpio Tankers is currently the largest owner of product tankers within the industry and is considered one of the leading figures. In 2017 they added 27 vessels to their fleet, by merging with a smaller product tanker company called Navig8 Product Tankers Inc. An aggressive strategy can although be costly if the timing is not right, which is relevant to have in mind as a potential investor.

Due to an industry outlook with low profitability, currently weak market conditions, and due to the fact that Scorpio Tankers is rather levered and have signs of liquidity problems, we estimate that the fair market value of equity is USD 1,74 per share as of end 2017, compared to an actual share price of USD 3,05 at end 2017. We thus also argue that potential investors should not consider investing in Scorpio Tankers, as the downside of an investment is considered larger than the potential upside.

Table of Contents

1. Introduction

If you have an interest in the product tanker industry, then you have without a doubt heard about Scorpio Tankers. The so-called 'champion' (their own words) within the industry has been the talk of the town in recent years, due to their aggressive fleet expansion and renowned senior management. In 2017 Scorpio Tankers merged with a smaller product tanker company, Navig8 Product Tankers Inc., and thus became the largest owner of product tankers within the industry. Not only do they have a large fleet, but also a very modern fleet with one of the lowest average ages in the industry. Having a modern and large fleet at the same time although requires a lot of capital – equity as well as debt – making Scorpio Tankers a rather levered company. Since the financial crisis in 2008, freight rates in the product tanker industry have primarily been in a trough, making it hard for companies to deliver positive returns. As well as it can be an advantage to be financially levered when times are good, it can also be costly when market conditions are not favorable. Therefore it is relevant for investors to turn their eyes towards Scorpio Tankers and ask themselves whether they believe that the potential upside of an investment in the company outweighs the potential downside.

This thesis will look into Scorpio Tankers' ability to deliver shareholder returns, and ultimately assess whether you as an equity investor should consider investing in the behemoth of the product tanker industry. In order to do be able to make a sound assessment, we will first investigate the product tanker industry's profitability level, and how Scorpio Tankers compete within the industry. Secondly, we will scrutinize financial aspects of the company, both profitability-wise and liquidity risk-wise. The strategic and financial analysis will make sure that we lay a solid foundation for the forecast to be built upon. With a solid forecast, we also give ourselves the best condition for making a fair valuation, which will serve as a guideline for the assessment of a potential investment in the company.

Before going straight into the matter, the remainder of this section will present some useful and necessary information to the reader about the thesis. This information is namely about the research questions, thoughts about the overall structure and the data collection, the choice of theory and delimitations and assumptions.

1.1 Research questions

The overall research question for the thesis is the following:

What is the fair market value of equity for Scorpio Tankers as of 31-12-2017, and should you as a potential investor consider investing in Scorpio Tankers?

In order to help us answer the overall research question, different sub-research questions will be answered. These will guide us in answering the overall research question, while also help us delimit and narrow down the scope. The sub-research questions are as stated below.

Strategic analysis

- What is the assessed degree of profitability within the product tanker industry?
- How does Scorpio Tankers seek to obtain a competitive advantage?

Financial analysis

- Have Scorpio Tankers generated shareholder value in the past?
- Is Scorpio Tankers in risk of having short- and long-term liquidity problems?

Valuation and sensitivity analysis

- By using a discounted cash flow to enterprise approach, what is the fair market value of the equity per share for Scorpio Tankers?
- What are the risk/reward prospects of an investment in Scorpio Tankers?

1.2 Structure of thesis

The structure of the thesis is illustrated in below "Figure 1: Structure of thesis". The structure makes sure that the research follows the natural steps in an analysis of the company – starting with an elaboration of the company, then an analysis of the strategic and financial aspects of the company, and lastly synthesizing the data in a forecast and valuation.

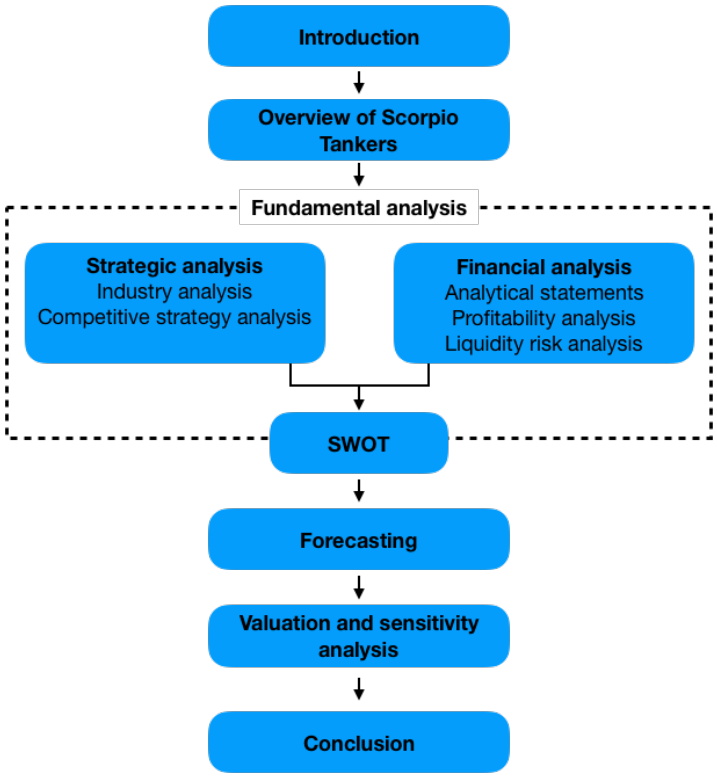

Figure 1: Structure of thesis

1.3 Data collection

All data collection is based on publicly available information, as the purpose of the thesis is to assess the fair market value of equity for Scorpio Tankers and evaluate whether you should invest in the company - seen from the perspective of an independent analyst. In other words, no insider-information has been used. The primary sources for this thesis are annual reports, company presentations and research databases, which lay the foundation for a solid analysis. Furthermore, there has generally been a focus on maintaining a critical attitude towards the sources and data used, especially towards secondary sources. This has been done, as secondary sources are more likely to be based on subjective opinions and interpretations.

1.4 Choice of theory

The focus in this thesis is of a more practical character, thus it will not focus as much on discussing different strategic and financial theories, or compare the various ways of valuating a company. With that said, the choice of theory is although important for the outcome of the

research. Therefore some brief thoughts on the choice of theory with respect to the strategic analysis, the financial analysis, and the valuation will be presented in the following.

The strategic analysis consists partly of an industry analysis and partly of a company strategy analysis. This way we start off by getting an overview of the industry, and secondly we will see how Scorpio Tankers fit their strategy within this industry. For making the industry analysis, the framework of Porters Five forces has been chosen. The reason for this is that it naturally covers various aspects of the industry, as you go through analyzing each of the five forces. Thus it provides both the reader and the researcher with a solid overview of the industry. Furthermore the framework is useful for determining the industry attractiveness and potential for profits, which will aid us when forecasting the financials of the firm. As for the company's competitive advantage analysis, a simple framework has been chosen, that helps us narrow down different strategies into two general types of competitive strategies. This way we can rather easy identify what type of competitive strategy Scorpio Tankers is seeking.

As for the financial analysis, financial ratios and metrics have been applied to get an overview of their profitability, liquidity risk and overall financial health. The reason for choosing financial ratios and metrics as a way of analyzing Scorpio Tankers financials is due to the relatively rich information they provide compared to the 'cost' of applying them. Furthermore ratios and metrics make it easy to compare the performance of a company to peers. The specific financial ratios and performance metrics applied are chosen based on their relevance in relation to an asset heavy company such as Scorpio Tankers, and also chosen based on how well they compliment each other. This makes sure that we get a well-rounded financial analysis. A potential caveat of applying financial ratios and metrics as a way of analyzing a company is that they are based on historical accounting figures, which does not always say something about the future.

When valuating a company there are generally two main ways of doing this, which is either through a present value approach or through a relative multiples approach. In this thesis the present value approach has been chosen - more specifically the discounted cash flow to enterprise value approach (as we want to estimate the fair value of the equity, we can deduct

the net-interest bearing debt from the enterprise value and derive the equity value). Typically the multiples approach is more convenient to apply in cyclical industries, as future earnings can be difficult to predict[1], but it although also requires many similar firms to compare to within the industry, as it is a relative valuation method. The discounted cash flow approach on the other hand, is more assumption driven in nature, which require us to analyze and assess many inputs into the model. This attention to assumptions can provide us with more flexibility in a scenario/sensitivity analysis, as we can isolate the most important drivers and see how a slight change impacts the overall value of the equity. Therefore this approach is chosen.

1.5 Delimitations and general assumptions

In order to strengthen the focus on specific parts of this thesis and not waste too much space on elaborating details, some delimitations and general assumptions have been made in the this research paper. The main delimitations and assumptions are stated below (specific assumptions with respect to forecasting and valuating are elaborated in their respective sections).

- The research is based on publicly available information. We are thus taking the perspective of an external analyst.
- The research paper assumes that the reader has a little background knowledge about the shipping industry, as not every concept will be elaborated and explained thoroughly.
- It is assumed that the reader is fairly familiar with the models, frameworks and the discounted cash flow approach to valuation, as these will only be presented briefly in their respective sections.
- The WACC will not be elaborated and discussed thoroughly in this research, as that is not intention. Instead we will rely on a WACC calculated by Bloomberg.
- The valuation will be done based on a discounted cash flow approach. Valuation using multiples or other methods will not be discussed in this research.
- The valuation date will be as of 31-12-2017, which means that we will take basis on the fleet composition and balance sheet as of that date, even though we might have

[1] Investopedia.com "DCF vs comparables"

never information available. Through the rest of the research we might use information that is of newer date.

- The financial covenants related to the debt facilities of Scorpio Tankers have not been taken into account in this analysis.

2. Overview of Scorpio Tankers and the product tanker market

Before diving into the strategic and financial analysis, it is relevant to have some background knowledge about the company in scope. Therefore this section will provide the reader with an overview of the Scorpio Tankers by presenting; when it originated, their chartering, commercial and technical strategy, the composition of the Board of Directors and key management, the ownership structure and company structure, the fleet composition, how the product tanker market works, the peers in the industry, and lastly the stock price development.

2.1 History of Scorpio Tankers

Scorpio Tankers is a relatively young company within the shipping industry with only 9 years of history. The company was incorporated in the Republic of the Marshall Islands in July 2009, and has since the beginning solely been in the business of transporting refined petroleum products worldwide. In April 2010 the company completed their initial public offering on the New York Stock Exchange and has since then traded under the ticker 'STNG'. During 2017, Scorpio Tankers acquired Navig8 Product Tankers Inc., and thereby added 27 young vessels to its existing large and young fleet (see section 2.6 for further on the merger)[2]. Today, Scorpio Tankers has two offices, with its head quarter located in Monaco and a branch office located on Manhattan in New York[3]

2.2 Chartering strategy, commercial and technical management

Scorpio Tankers employs its vessels in three ways; through commercial pools, on time charters, and directly in the spot market. 103 of Scorpio Tankers' 109 vessels in its operating

[2] Scorpio Tankers, Annual Report 2017, p. 21
[3] Scorpio Tankers "Office details"

fleet are traded in commercial pools, five vessels are on time charters and only one vessel is traded in the spot market[4]. Spot voyages are contract arrangements covering transportation of a specific cargo from A to B for a fixed price. The owners pay voyage expenses such as port and canal. As the voyage is contracted on the spot, spot charter rates are volatile and vary a lot due to seasonality and the general cycles in the product tanker freight market. Time charter voyages are typically longer-term contract arrangement lasting months or years, where the charter gains operational control of the vessel in this period. This means that the owner still manages and operates the vessel on a daily basis, but the charter dictates the direction of the vessel. On time charters the charter pays for voyage expenses[5]. Commercial pools consist of a fleet of similar vessel types with different owners, in order to centralize administration, increase competitiveness and utilize the fleet more effectively. The commercial pool is managed by pool managers, who market the vessels as a single fleet. The earnings of the pool are distributed among pool members according to a pre-determined distribution key reflecting each ships contribution to the revenue. Having vessels in a commercial pool is almost like having your vessels on time charter contracts, but with variable freight rates. Within the commercial pool, vessels can then be employed on time charters, on spot contracts or in any other way, like in a the normal freight market[6].

Scorpio Tankers employ their vessels in four different pools; the Scorpio Handymax Tanker Pool, the Scorpio MR Pool, the Scorpio LR1 Pool and the Scorpio LR2 Pool - all of which are classified as a 'Scorpio Group Pool', and all are related parties to the Scorpio Tankers Company. Within the Scorpio Group Pools, the vessels are mainly employed in the spot market, but may also be arranged on time charter agreements[7].

The daily commercial management of Scorpio Tankers' fleet is made by the company 'Scorpio Commercial Management', which is a related party to the Scorpio Tankers Company. They manage all of Scorpio Tankers' vessels and secures that they are employed - whether this is in the spot market, on time charter, or in one of the Scorpio Group Pools. Scorpio Tankers pay

[4] Scorpio Tankers, Annual Report 2017, p. 22-23
[5] Stopford, M., "Maritime Economics", 2009, p. 183-184
[6] Stopford, M., "Maritime Economics", 2009, p. 85 and 87
[7] Scorpio Tankers, Annual Report 2017, p. 23-25

Scorpio Commercial Management per vessel per day fees for having their vessels commercially managed. The fees per vessel for the vessels employed in one of the Scorpio Group Pools are $250/day for LR2s, $300/day for LR1s, $325 for MRs and Handymax', plus 1,5% commission on gross revenues per charter fixture. For the vessels not employed in a Scorpio Group Pool, the fees per vessel are $250/day for LR2s and LR1s, and $300/day for MRs and Handymax', plus 1,25% commission on gross revenues per charter fixture[8].

'Scorpio Ship Management' does the technical management of Scorpio Tankers' fleet, which also is a related party to Scorpio Tankers. They services include all aspects of technical management for a vessel such as, day-to-day operations, general maintenance, arranging and supervising dry-docking and repairs, purchasing of supplies and arranging the hiring of qualified officers and crew. Scorpio Tankers pay an annual fee of $175.000 per vessel, plus additional amounts for certain itemized services, to Scorpio Ship Management, for the technical management of their vessels[9].

2.3 Board of Directors composition and key Senior Management

Scorpio Tankers has nine Board of Director members, where three of them are directly related to Scorpio Tankers. Below is a list of the members of the board, their positions outside of the board, their position on the board, and for how long they have been member of the board[10]. Further below the figure is a description of the key Senior Management personnel.

Name	Position	Board position	Since
Emanuele A. Lauro	CEO of Scorpio Tankers	Chairman	April 2010
Robert Bugbee	President of Scorpio Tankers	Director	April 2010
Cameron Mackey	COO of Scorpio Tankers	Director	May 2013
Ademaro Lanzara	- Chairman of BPV Finance (Int.) PLC Dublin - Chairman of NEM Sgr SpA	Lead independent director	April 2010

[8] Scorpio Tankers, Annual Report 2017, p. 25 and F-8
[9] Scorpio Tankers, Annual Report 2017, p. 25
[10] Scorpio Tankers, Annual Report 2017, p. 99-102

	Vicenza		
Alexandre Albertini	- CEO Marfin Management SAM - Founder of Factor8 Shipping SARL	Director	April 2010
Marianne Økland	- Managing Director of Avista Partners	Director	April 2013
Jose Tarruella	- Founder and Chairman of Camino de Esles s.L.	Director	May 2013
Reidar Brekke	- Board member of Diana Containerships Inc. - Board member and President of Intermodal Holdings LP	Director	Dec 2016
Merrick Rayner	- Former broker at H. Clarkson & Company Limited shipbrokers	Director	Sep 2017

Figure 2: Overview of Board of Directors

Emanuele A. Lauro, CEO of Scorpio Tankers

39 years old, founder of Scorpio Tankers, and has since 2003 been part of the Scorpio Group and from 2004 been part of the Senior Management of the Group. Besides his positions at Scorpio Tankers and Scorpio Group, he also serves as Chairman and CEO of Scorpio Bulkers since its formation in 2013. He has also founded all of the Scorpio Group Pools and developed these over the last years[11]. As of March 22, 2018, Emanuele Lauro owned 5.701.439 Scorpio Tankers shares (incl. restricted stock from a 2013 Equity incentive plan), which equals to 1,72% of the common shares outstanding[12]

Robert Bugbee, President of Scorpio Tankers:

57 years old and has 30+ years of experience within the shipping industry. Joined the Scorpio Group in 2009 and has since then been part of the Senior Management. Together with Emanuele Lauro, he founded Scorpio Bulkers and also serves as President there as well. Prior

[11] Scorpio Tankers, Annual Report 2017, p. 100
[12] Scorpio Tankers, Annual Report 2017, p. 105

to Scorpio he held various positions within the industry, most notable is his partner position in Ospraie Management LLP from 2007-2008 and his employment with OMI Corporation (President from 2002) - the latter being a NYSE listed Tanker Company, which was sold in 2007[11]. As of March 22, 2018, Robert Bugbee owned 5.715.721 Scorpio Tankers shares (incl. restricted stock from a 2013 Equity incentive plan), which equals to 1,72% of the common shares outstanding[12].

Cameron Mackey, COO of Scorpio Tankers:

49 years old and has 20+ years of experience in the shipping industry. Mackey has a professional background much like Robert Bugbee, as they have been following each other. He joined the Scorpio Group in 2009 where he holds a Senior Management position and besides the Group and Tankers, he serves as COO for Scorpio Bulkers. Prior to joining the Scorpio dynasty, Mackey was a Senior Vice President at OMI Marine Services LLC from 2004-2007, and an equity and commodity analyst at Ospraie Management LLC from 2007-2008[11]. As of March 22, 2018, Cameron Mackey owned 5.066.341 Scorpio Tankers shares (incl. restricted stock from a 2013 Equity incentive plan), which equals to 1,53% of the common shares outstanding[12].

2.4 Ownership and company structure

According to a company presentation from June 2018 the top 10 shareholders of Scorpio Tankers are as following[13]:

Holder	Ownership
1. Dimensional Fund Advisors	6,6%
2. Wellington Management Company	5,9%
3. Scorpio Services Holding Limited	4,5%
4. Magallanes Value Investor	4,1%
5. Bestinver Gestión	4,0%
6. BlackRock Fund Advisors	3,3%
7. Fidelity Management & Research Company	3,0%
8. Hosking Partners	3,0%

[13] Scorpio Tankers, Company Presentation June 2018, p 3

9. BNY Mellon Asset	3,0%
10. Monarch Alternative Capital	2,8%

In total, institutional owners hold approximately 58% of the total outstanding shares[14].

Scorpio Tankers is in itself a rather small company employee-wise with only 22 shore-based employees as of December 2017[12], but it is only due to the related parties that it is possible for Scorpio Tankers to manage its large fleet. As mentioned earlier, both the commercial and technical management of Scorpio Tankers' vessels is outsourced to Scorpio Commercial Management and Scorpio Ship Management, respectively. Both of these related parties are part of the Scorpio Group, who is in charge of the Scorpio Group Pools where the vessels are employed. Furthermore Scorpio Tankers has an administrative service agreement with Scorpio Services Holding ltd., where Scorpio Tankers pay them fees for services such as accounting, legal compliance, financial, information technology services and provision of administrative staff and office space. Scorpio Services Holding Ltd. is also part of the Scorpio Group[15].

The Scorpio Group is owned and controlled by the Lolli-Ghetti family, of which Emanuele Lauro and the Vice President of Scorpio Tankers Filippo Lauro are members. In addition, and also earlier mentioned, a large part of Scorpio Tankers' Senior Management is also part the Senior Management in the Scorpio Group. Annalisa Lolli-Ghetti is majority owner of the Scorpio Group and as per Annual Report 2017, beneficially owns approx. 5,4% of Scorpio Tankers' shares[15].

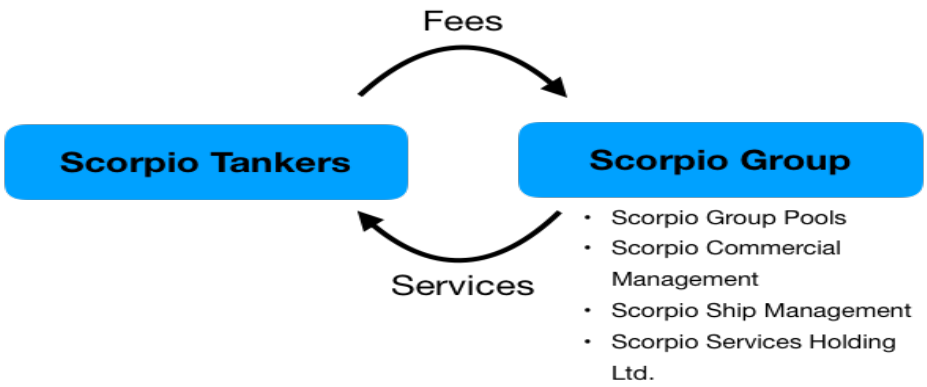

Figure 3: Scorpio Tankers service structure

[14] Nasdaq, Scorpio Tankers
[15] Scorpio Tankers, Annual Report 2017, p. F-8 and 108

2.5 Fleet composition

In the last five years, Scorpio Tankers have grown their fleet gradually, from an average of 38,8 vessels during 2013 (including vessels chartered-in) to an average of 106,5 vessels during 2017.

Scorpio Tankers	2013	2014	2015	2016	2017
Average number of owned/finance leased vessels	15,9	31,6	72,7	77,7	88,0
Average number of time chartered/bareboat chartered-in vessels	22,9	26,3	16,9	12,7	18,5
Total	38,8	57,9	89,6	90,4	106,5

Figure 4: Vessel development[16]

As of March 22 2018 Scorpio Tankers' fleet comprise 87 fully owned vessels, 22 financially leased vessels and 20 vessels on time or bareboat charter-in. See below "Figure 5: Fleet composition" for a breakdown of the fleet composition.

	Vessel size (dwt)	Fully owned	Financial lease	Total owned or fin lease	Bareboat or Time-charter	Total fleet
Handymax	< 25k	14	0	**14**	8	**22**
MR	25k - 60k	40	5	**45**	10	**55**
LR1	60k - 80k	10	2	**12**	0	**12**
LR2	80k - 120k	23	15	**38**	2	**40**
Total		**87**	**22**	**109**	**20**	**129**

Figure 5: Fleet composition[17]

As financially leased vessels are treated as owned vessels for accounting purposes, these will be referred to as owned vessels in this research paper.

Scorpio Tankers has a young fleet, with an average fleet age of 2,6 years as of march 22 2018[18]. All of Scorpio Tankers owned vessels are modern ECO-vessels, which means that they have reduced fuel consumption as a result of a more hydrodynamic hull, a proper sized engine and a good propeller[19].

[16] Scorpio Tankers, Annual Report 2017, p. 3
[17] Scorpio Tankers, Annual Report 2017, p. 22-23, and 87-89
[18] Scorpio Tankers, Annual Report 2017, p. 21-23
[19] Seatrade-Maritime.com

2.6 The merger with Navig8 Product Tankers Inc.

On May 23 2017, Scorpio Tankers announced that it had entered into agreement to merge with Navig8 Product Tankers Inc. and thereby to acquire 27 vessels. The merger was to be done through a couple of steps, first by acquiring four LR1 tankers for a cash consideration, and secondly by acquiring the remaining 23 vessels through issuance of 55mil STNG shares to the Navig8 Product Tankers shareholders. In connection with the announcement of the merger with Navig8 Product Tankers, Scorpio also announced a public offering of 50mil STNG common shares for $4,00 per share. The merger was subject to the completion of the public offering, which closed successfully at May 30 2017. According to Scorpio Tankers, the purpose of the offering was a strengthening of the balance sheet and enhancing liquidity ahead of the merger[20]. On August 29 2017, the shareholders of Navig8 Product Tankers Inc. had approved the merger with 94,25% votes in favor of the merger[21], and three days later on September 1 2017, it was announced that the merger officially and successfully had been closed. In connection with the merger, Merrick Rayner was appointed as a member of the Board of Directors as an independent director[22].

According to Scorpio Tankers there are several benefits from the completion of the merger. Adding 27 vessels (12 LR1 and 15 LR2) to the fleet, Scorpio will become the largest owner of product tankers listed on a US securities exchange, plus they will obtain presence in the LR1 segment, where they have not been present before. The scaling benefits of such a large and diverse fleet will secure enhanced customer relationships, increased vessel utilization, lower commercial and operating costs, and better availability, terms and quality of financing compared to its peers[20].

2.7 The product tanker market

The oil supply chain

The oil supply chain starts with drilling and exploration of crude oil in the underground. From here the crude oil is transported via crude tankers to refineries at various locations around

[20] Scorpio Tankers, Company Announcement, May 23 2017
[21] Scorpio Tankers, Company Announcement, August 29 2017
[22] Scorpio Tankers, Company Announcement, September 1 2017

the world. When the refinery has converted the crude oil into a range of consumable products, the product tankers transport the refined products to terminals, which are located closer to transportation hubs for further distribution. The product tankers thus take up a vital part in the oil supply chain[23].

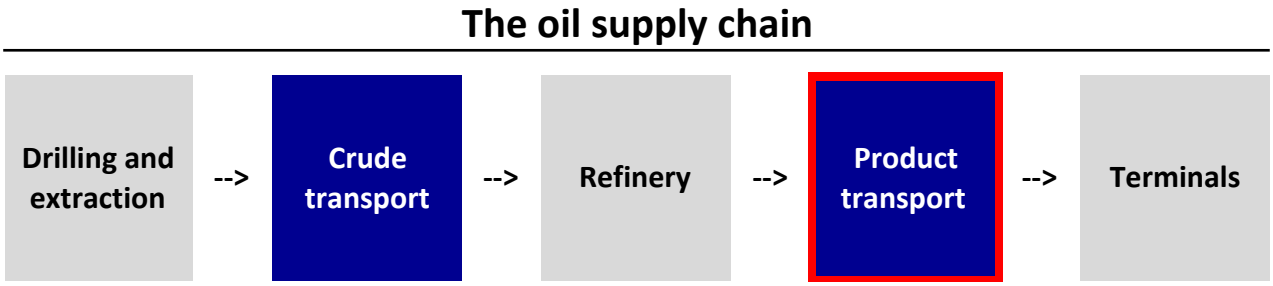

Figure 6: The oil supply chain

Trade patterns

The trade patterns for product tankers traditionally and generally depends on three factors, which are the refinery locations, surplus of production and deficit of refined products. First, the location of the refineries compared to terminals has an obvious influence on the trade pattern for product tankers. These locations change through time, and in the 2000's there had been a revival of construction of refineries in the Middle East, closer to producing areas. Secondly, the crude oil refined at a refinery does not always equal the demand for refined products in that area. This sometimes creates a surplus of refined products in one area, meaning that the surplus likely will be traded to another area. Thirdly, and also related to the second factor, a local shortage of refined products means that they must import from other regions. A shortage usually occurs when demand is higher than what the local refineries can produce[24].

In the time after World War II, the trade pattern of product tankers were mainly regional and characterized by shorter voyages, as the refineries were located close to demand centers in the developed countries. As the economies grew, the demand for refined oil products outgrew the production capacity of the refineries, and international trade started to emerge. The international trade was primarily driven by an increased demand for gasoline in the US and

[23] Scorpio Tankers, Company Presentation June 2018, p 4-5
[24] Stopford, M., "Maritime Economics", 2009, p. 442-443

Asia becoming a manufacturing hub. In modern times other aspects has made the trade patterns even more complex, as international pricing differences and arbitrage trading has occurred[25].

Drivers of demand and supply

To say that the maritime economy is simple would be a lie. In order to make something complex understandable, you sometimes have to simplify it, so you can look at general themes, instead of tiny details. According to Martin Stopford in his book "Maritime Economics" (2009), the drivers of demand and supply can be boiled down to five variables on each side. On the demand side the variables are; the world economy, seaborne commodity trades, average haul, random shocks and transport costs. On the supply side the variables are; world fleet, fleet productivity, shipbuilding production, scrapping and losses and freight revenue[26]. The variables on the demand and supply side respectively, should be seen as coherent and interdependent, rather than independent and incoherent. The way these variables work, affect each other and how they meet up in the freight market, will be described briefly.

Business cycles and regional development cycles in the world economy affects the short- and long-term cycles, respectively, in the seaborne commodity trades. In other words these cycles has an impact on the demand for commodities such as crude oil and oil products and determines the broad demand and general growth trends. Furthermore random shocks like nature catastrophes (hurricanes, tsunamis, etc.) and financial crisis might also cause sudden spikes in demand for such commodities. The average haul, which is the distance the cargo is shipped, is partly impacted by the seaborne commodity trades and partly impacted by the infrastructural changes in the sea transport (e.g. canals) and cargo shipper's decision. The average haul has an impact of the cost of transporting the cargo, and thereby also on demand. In the product tanker market, the average haul is of course also affected by the location of the refineries and the distribution hubs, where the vessels discharge their cargo. Lastly, the transport costs affects demand, as cargo will only be transported if the costs can be brought down to a reasonable level. The trade needs to be profitable. Transport costs are highly

[25] TORM PLC, Prospectus 2016, p. 84-86
[26] Stopford, M., "Maritime Economics", 2009, p. 136

affected by technological advancements of vessel design/construction and efficiency of shipping organizations. All of these variables affect the ultimate demand for shipping transportation, which is measured in ton-miles[27].

Contrary to the demand side, the supply side is much less agile and usually takes years to adjust to falls and rises in demand. This is mainly due to the fact that it takes between 1-3 years to build a new vessel, depending on business at the shipyard, and the lifespan of a vessel, which is 15-30 years (typically 25 years for product tankers). The world fleet is the overall supply capacity of shipping transport, which is rather fixed in the short run. The main way for supply to adjust to demand in the short run is by adjusting fleet productivity. Decreasing speed and increasing waiting time can for example decrease fleet productivity, thus decreasing supply. In the medium to long-run, the production of new vessels and the amount of scrapping done makes sure that the fleet capacity of the world fleet does not exceed demand radically. The variables scrapping and production are also impacted by political regulatory policies and bank lending (financing) policies and possibilities. The freight revenue is the predominant variable that impacts how supply adjusts in the short and the long run. In the short run companies can endure losses and tries to minimize these, but in the long run it has to be profitable for companies to transport cargo in order for them to exist[28].

The freight market and the freight rate

The abovementioned variables end up in a specific demand and supply, which link up in the freight market where the equilibrium is ultimately expressed as a freight rate. The shipper who acts as a medium of the demand side, and the ship-owner who acts as a medium of the supply side, together negotiates the freight rate for a specific voyage based on their perception of the current demand and supply (Note that we write 'perception of', because besides factual information about demand and supply, there is also human psychology that can impact the negotiation of freight rate). If demand is high and ship supply is low, the freight rate goes up and money flows from the shipper to the ship-owner. This makes the ship-owner look for additional supply, i.e. more vessels, making the price of second-hand vessels increase. The second-hand market increases until it becomes more advantageous to

[27] Stopford, M., "Maritime Economics", 2009, p. 137-150
[28] Stopford, M., "Maritime Economics", 2009, p. 137-138, 150-160

order newbuildings. When the new vessels are delivered the supply goes up, and the market reaches a new equilibrium between demand and supply. This description of the freight market mechanism is of course very simplistic, but that is nonetheless generally how the freight market works[29].

Scorpio Tankers' obtained freight rates and the historical freight market.

The last five years, Scorpio tankers have obtained the following average Time Charter Equivalent (TCE) earnings/day

Average TCE per day for Scorpio Tankers (USD)	2013	2014	2015	2016	2017
LR2	12.718	18.621	30.544	20.280	14.849
LR1	12.599	16.857	21.804	17.277	11.409
MR	16.546	15.297	21.803	14.898	12.975
Handy	12.862	14.528	19.686	12.615	11.706
Total	14.369	15.935	23.163	15.783	13.146

Figure 7: Scorpio Tankers' historical freight rates[30]

As can be seen, there has been some volatility in the obtained freight rates for Scorpio Tankers. Putting this into context with the market and comparing it to the average obtained freight rates in the market, we can see that the volatility in Scorpio Tankers' obtained freight rates matches the volatility of the general market. Below "Figure 8: Historical freight rates for benchmark routes" shows us the historical freight rates for the last 10 years in USD/day.

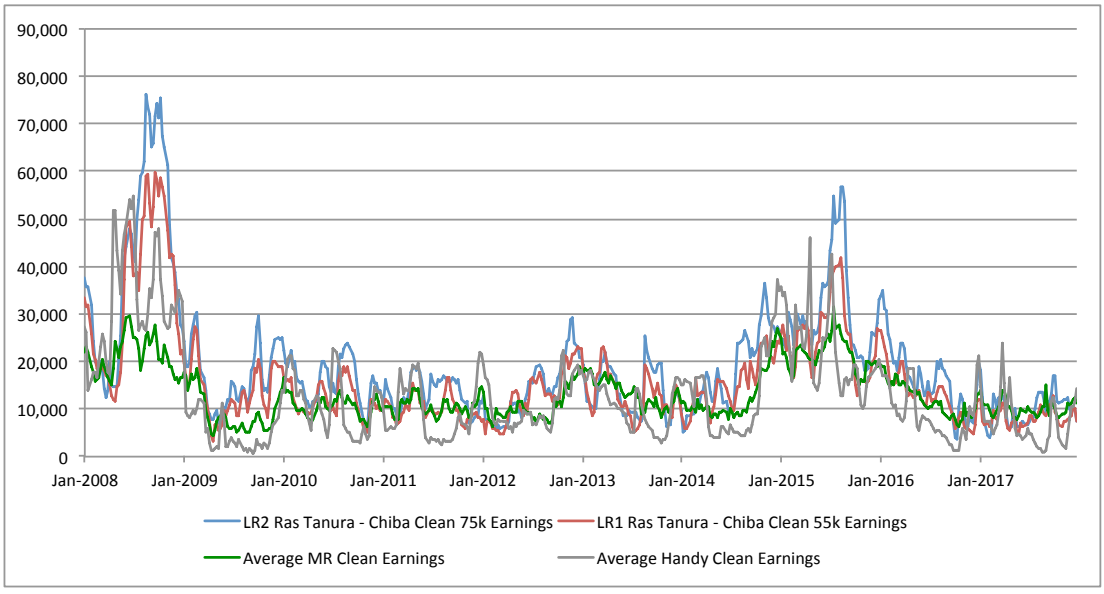

Figure 8: Historical freight rates for benchmark routes[31]

[29] Stopford, M., "Maritime Economics", 2009, p. 138-139
[30] Scorpio Tankers, Annual Report 2013-2017

2.8 Peers in the industry

In the product tanker market, there are several competitors to Scorpio Tankers. Not all product tanker companies are structured and organized the same way as Scorpio Tankers is. Some companies choose to own all of their vessels, some companies focus on chartering in vessels, and some companies have a mix between crude tankers and product tankers. In below "Figure 9: Overview of peers", key information on some of the largest pure product tanker peers to Scorpio Tankers is listed.

	TORM PLC	Ardmore	Hafnia Tankers	d'Amico Int. Shipping	Mærsk Tankers	BW Tankers
Listing	NASDAQ CPH & NASDAQ NY	NYSE	Norwegian OTC	Milan stock exchange	Private company	Private company
Market Cap*	$536 mil	$259 mil	$332 mil	$136 mil	N/A	N/A
Headquarter	Denmark	Ireland	Denmark	Luxembourg	Denmark	Singapore
Owned vessels						
LR2	10	-	-	-	N/A	-
LR1	7	-	6	2	N/A	19
MR	52	28	18	19	N/A	22
Handy	7	-	13	8	N/A	-
Total	**76**	**28**	**37**	**29**	**80**	**41**
TC/Bareboat-in						
LR2	2	-	-	-	N/A	
LR1	-	-	2	-	N/A	
MR	-	-	4	26	N/A	
Handy	-	-	-	2	N/A	
Total	**2**	**0**	**6**	**28**	**22**	**0**
Additional vessels in commercial managment by Company/Group	**-**	**-**	**83**	**-**	**62**	**N/A**
Newbuilds on order	**11**	**-**	**-**	**4**	**13**	**12**
Commercial management	In-house	In-house	Hafnia Pools	In-house	Mærsk Pools	In-house
Technical management	In-house	In-house	Outsourced	In-house	In-house	In-house

* Market Cap's has been translated to dollar amounts for comparison purposes. Market Caps are as of 18 July 2018

Figure 9: Overview of peers[32]

[31] Clarksons Shipping Intelligence Network
[32] Figure 9 sources:
TORM PLC, Q1 2018 excel back-up
Ardmore Shipping, Q1 2018 Report
Hafnia Tankers, Q1 2018 Report, and Hafniatankers.com
d'Amico International Shipping, Q1 2018 Report, and damicointernationalshipping.com
Mærsktanker.com
Bwtankers.com

Besides above product tanker companies, other notable companies that are in the product tanker market are Dampskibsselskabet Norden A/S, Teekay Tankers, and Ultratank.

2.9 Stock price development

Scorpio Tankers had its initial public offering in 2010 with 12,5 million shares at a share price of $13 each. Since the IPO, Scorpio Tankers' share price has not exceeded its initial $13 dollars, but mainly gone south. Scorpio Tankers has paid out dividends since June 2013, and cumulatively they have paid out dividends corresponding to $1,565 per share. As of December 29 2017 the share price was $3,05. Since the IPO Scorpio Tankers has done 12 public offerings to the capital markets, and exchanged shares for vessels three times.

Figure 10: Scorpio Tankers (STNG) Share price development[33]

3.0 Strategic analysis

The purpose of a strategy analysis in relation to a valuation is to make a qualitative analysis of the company in scope, thus making sure that the subsequent financial analysis takes place in business reality. Furthermore the purpose is also to identify key profit drivers, business risks and discover where the profit potential is. The strategy analysis will consist of two parts. First, an industry analysis where we use Porters five forces framework to assess the rivalry, threat of entrants, threat of substitutes, bargaining power of buyers, and bargaining power of suppliers within the industry. This will allow us to assess the future profitability of the product tanker market as these five forces have an influence on it. Secondly, we turn to a competitive strategy analysis where the intent is to discover which competitive advantage Scorpio Tankers pursue with their strategy.

[33] Google finance (STNG)

3.1 Industry analysis: Porters five forces

Rivalry among existing firms

In order to analyze the rivalry and competition for market shares among the existing firms within the product tanker industry, we will look at some specific parameters in our assessment. The parameters we will look for are, the industry growth rate, fragmentation and balance of the players within the industry, the degree of differentiation in products/services, scaling benefits, and exit barriers. These parameters will altogether provide us with a solid overview of the competition within the industry.

According to OPEC's 2017 world oil outlook report, the world oil demand will grow from 96,8 million barrels per day (mb/d) in 2017 to 104,3 mb/d in 2025 and 111,1 mb/d as of 2040. This increase in demand is primarily driven by an increase in consumption by developing countries, offset by a decrease in consumption by OECD countries.

Long-term oil demand (mb/d)	**2017**	**2020**	**2025**	**2030**	**2035**	**2040**
World	96,8	100,7	104,3	107,4	109,7	111,1
- of which OECD	47,3	47,5	45,5	43,0	40,5	37,9
- of which Developing countries	44,1	47,5	52,8	58,2	63,0	67,0
- of which other	5,4	5,7	6,0	6,2	6,3	6,2

Figure 11: OPEC Long-term oil demand[34]

The overall world consumption of oil is thus expected to increase, but as we have described earlier in section 1, the demand for product tankers is dependent on the trade flows of the refined oil products – although a general increase in world oil consumption should not be considered a bad thing for the product tanker industry. As for the product movements, OPEC forecasts a trade of 21 mb/d in 2020 (coming from 20 mb/d in 2016), 17 mb/d in 2025, and then a gradual increase again to 21 mb/d in 2040. US & Canada, Russia & Caspian, plus the Middle East are all expected to be net exporters of liquid products through 2040, while Latin

[34] Organization of Petroleum Exporting Countries, "World oil outlook 2017", p. 109

America, Africa and particularly Asia-Pacific are projected to be net importers[35]. This means that although the world oil consumption is expected to increase, the products movements are actually expected to remain generally stable for the next 22 years. The industry growth rate for the product tanker industry is thus not expected to substantial, meaning that the existing players primarily fight for market shares against each other.

Below "Figure 12: World fleet" shows the composition of the world product tanker & product tanker/chemical tanker (the former being tankers that can freight both refined products and chemical products) fleet as of February 1, 2018, together with Scorpio Tankers' fleet as of March 22, 2018.

World Product tanker & Product/Chemical fleet	**Number of vessels**	**Scorpio Tanker vessels**
Long Range 3	16	-
Long Range 2	346	38
Long Range 1	359	12
Medium Range	1919	45
Handy	167	14
TOTAL	**2807**	**109**

Figure 12: World fleet[36]

As the largest player, Scorpio Tankers only owns approximately 3,9% of the world product tanker fleet. In "Figure 9: Overview of peers" we listed some of Scorpio Tankers' larger competitors, and we can see that neither of these players own more than 100 vessels (although some of them commercially employs more). This indicates a rather fragmented industry consisting of many smaller players, meaning higher rivalry and price competition among the players.

The degree of differentiation of products and services within the product tanker industry is arguably relatively low, and it is not very costly for customers to switch supplier. Sea transport is generally treated as a 'commodity' although it can be differentiated slightly in some ways. Reliability and service are likely some of the parameters that charterers are

[35] Organization of Petroleum Exporting Countries, "World oil outlook 2017", p. 279-280
[36] Scorpio Tankers, Annual Report 2017, p. 30

looking for when choosing a supplier[37]. TORM is for example focusing on their "one-TORM integrated platform" with in-house commercial and technical management, as a way to ensure even better service to their customers[38]. Scorpio Tankers on the other hand focuses on having the largest operating fleet with a young average age[39]. Having a critical mass in the product tanker industry is also somewhat important in order to be able to deliver the best service for customers, according to Jan Rindbo, CEO of D/S Norden[40]. That way you can obtain a global presence, and meet customer demands. All in all we can say that the relatively vague differentiation of products in the product tanker industry points towards high competition among the suppliers, as their products are widely interchangeable.

Related to the importance of the abovementioned critical mass also comes the question of scaling within the product tanker industry. Are scaling benefits substantial? If yes, then there should be an additional incentive for companies to compete for market shares. In the current market we are experiencing now, there are arguably three main benefits of scaling in the product tanker industry, which are; attracting investors, lowering costs, and obtaining a critical mass in order to provide better service to customers. The issue about attracting investors is that public product tanker companies need to have their market cap above a certain threshold, in order to attract the largest investors, and thereby making their shares more liquid. CEO's, analysts and investors have pointed towards this parameter as being vital[41]. Obtaining a large market cap of course requires that you scale the fleet by issuing equity or build it through retained earnings (and not just issue more debt or charter more vessel-in). A second benefit of scaling the fleet is that it potentially spreads the overhead and fixed costs out over more vessel earning days. Scorpio Tankers also mentions this as one of their benefits and motivation for the merger with Navig8 Product Tankers Inc.[42]. Lastly, and as also earlier mentioned, scaling the fleet can make you obtain a critical mass needed to provide better service for customers. As for the product tanker industry, this means that it is also necessary to scale the fleet across different segments (vessel types), and not just within

[37] Stopford, M., "Maritime Economics", 2009, p. 60-61
[38] TORM.com/about-torm
[39] Scorpio Tankers, Company Presentation June 2018, p 6-8
[40] Shippingwatch.com, 13 Nov 2017
[41] Shippingwatch.com, 13 Jun 2018
[42] Scorpio Tankers, Company announcement, May 23 2017

one segment. A benefit for Scorpio Tankers with the merger with Navig8 Product Tankers was that they would obtain significant presence across adjacent segments in order to enhance their customer relationships[42]. Scaling benefits in the product tanker industry are thus existing, but not ultimately necessary in order to be able to compete in the market.

Exiting the product tanker market is relatively easy, as the vessels are not highly specialized and are treated as a 'commodity' that can be traded in the sale and purchase market. The sufficient liquidity in the S&P market makes it easy trade the vessels, and thereby relatively easy to move out of the market[43]. In 2017 for example, 203 MR product tankers changed owners (including financial transactions)[44], which equivalents to +10% of the existing MR world fleet (comparing to "Figure 12: World fleet", showing the fleet as of February 2018). Generally one might think that low exit barriers will help regulate/reduce capacity within an industry, as a player exits the market supply is reduced, but when a product tanker company exits the market by trading its vessels (for example when Navig8 Product Tankers Inc. sells their vessels to Scorpio Tankers for an equity stake), the vessel capacity in the market remains the same. For supply to be reduced by an exit in the product tanker market, that would require the exiting entity to demolish its assets, which would arguably only be the case if the exiting entity only owns old vessels which are due to scrap in the near future. Therefore the low exit barriers in the product tanker industry should not have positive impact on the rivalry among the existing players in the industry, but rather a neutral effect.

The above-studied parameters collectively points towards a product tanker industry with a high intensity of competition between the existing players. A stable industry growth, a fragmented industry with many players, low differentiation of products/services and low switching costs, plus benefits of scaling all contributes to a competitive environment where companies fight for profit.

Threat of new entrants

The potential threat of new entrants can be determined by the height of the entry barriers of the industry. In order to assess the height of entry barriers of the product tankers market, we

[43] Stopford, M., "Maritime Economics", 2009, p. 771
[44] BRSBrokers Tanker Report, March 2018, p. 56-57

will look at some specific factors that can either keep potential competitors away from the industry or attract them. These are economies of scale, first mover advantage, legal barriers and capital requirements.

If there are substantial scaling benefits, then it can potentially keep new entrants away, as it will require them to make large initial investments in order for them to compete. As discussed above, scaling benefits in the product tanker market exists, although it is not a necessity to have the benefits of scaling in order to be able to compete. Each vessel is in itself a revenue-generating unit, meaning that it is possible only to own one vessel and still be able to generate revenue, plus it is not necessary to have an in-house technical and commercial management departments as this can be outsourced. Therefore there is no lower limit to how few vessels you can own and still be in the market. Neither is the product tanker an industry where it is required to continually spend large amounts in research and development or brand advertising, making it possible for small revenue-generating companies to exist.

In the product tanker industry there are arguably no first mover advantages substantial enough to keep potential followers away. The shipping industry is hundreds of years old and the product tanker industry specifically, began in the late 1800's[45], so the potential first mover advantages regarding product standards or exclusive arrangements there could have existed at that time, are non-existing now. If we are to talk about any advantage of early companies in the product tanker industry, then it is related to the knowledge, experience and expertise that the company has developed through the years.

In the shipping industry there are no legal entry barriers such as patents, copyrights or licensing regulation, preventing new competitors entering the market. On the other hand there are a lot of environmental and other regulation in the shipping industry, which companies in the product tanker industry are required to conform to, which does not particularly ease the daily operations of a company within the industry. Without going into more detail about it, as it is outside the scope of this research, regulation and restrictions that affects the maritime industry especially comes from the International Maritime Organization

[45] Eniday.com

(IMO) and the United Nations (UN). Furthermore there are regional regulations within the United States and the European Union[46].

Capital requirements for entering the product tanker market are although of a substantial character, which narrows down the pool of potential new entrants. The cost of a newbuilding Handy/MR/LR1/LR2 product tanker in January 2018 was USD 31m/33m/39m/44m[47], therefore the potential entrants must invest a large amount of capital themselves and/or get funding from banks, funds, or other investors. The initial capital injection should not purely consist of debt, as you also need an equity cushion on the balance sheet to withstand troughs in the market. Furthermore, starting a new company in the product tanker business, you need working capital to be able to run the daily operations. With all this said, you need to have some solid knowledge and know-how on how to run a product tanker business, and you need to have access to capital somehow, in order to be able to start a new company in the industry.

The potential threat of new entrants into the product tanker market can thus be assessed to be relatively medium/high, as you do not necessarily need to have a certain scale in order to set up a product tanker business, there are no first mover advantages, and no legal barriers preventing an entrance. The thing that offsets an easy entrance into the product tanker market, is the high capital requirements necessary to buy vessels and

Threat of substitute products

The threat of substitute products in the product tanker industry should be looked at from two different perspectives. One is the potential threat of substituting product tankers as a way of transporting refined oil products, and the other perspective is about the potential threat of substituting oil as an energy source, thereby making the transportation of refined oil products obsolete.

Starting with the latter perspective, we have shown in the analysis on rivalry within the industry that the long-term oil demand is projected to increase slightly towards 2040 and that the product movement is expected to remain stable towards 2040. Many other sources than

[46] Scorpio Tankers, Annual Report 2017, p. 35-42
[47] Scorpio Tankers, Annual Report 2017, p. 34

OPEC also backs up the expectation about the world oil demand in 2040, such as BP[48], Exxon[49] and the International Energy Agency[50]. So although renewables and natural gas are some of the fastest growing energy sources[50], we should not expect oil as an energy source to be obsolete for the next 20-30 years at least. This does not mean that the threat is not there, but it is most likely further ahead down the road. The threat of a substitute energy source ultimately depends on the relative price and performance of competing energy sources, so the faster an alternative energy source becomes efficient and cheap, the faster it will likely substitute oil as an energy source.

The other perspective is the threat of substituting product tankers as a way of transporting refined oil products. This could be done by increasing the number of refineries throughout the world, thereby shifting demand from product tankers to a mix of crude tankers and transport of refined oil products by truck, rail or pipeline. This scenario is although unlikely. In the 1960's the dominant strategy in the oil supply chain was to transport crude oil close to refineries located close to the market, due to political factors and economic factors. By the 2000's most of the refineries were constructed closer to the oil extracting areas such as the Middle East, thus bettering the conditions for product tankers[51]. If it were more economically profitable, better strategically, or simply more efficient locating more refineries closer to the market, that strategy would likely have persisted. Vessels are one of the least costly methods of transport[52], and they offer much more flexibility compared to constructing refineries and building more pipelines. Furthermore in modern times, where CSR claims a larger and larger agenda, matters such as safety and environmentally issues are important aspects to consider when comparing decisions. A Canadian study found that transporting oil by tankers is safer and results in less oil spills, compared to pipelines and rails[53].

For the next two decades at least, the threat of substituting products does not appear to be of substantial character - neither from substituting oil as an energy source, or by substituting

[48] BP Energy Outlook 2018
[49] Exxon Energy Outlook 2018
[50] International Energy Agency 2017
[51] Stopford, M., "Maritime Economics", 2009, p. 442
[52] Setxind.com
[53] Maritime-executive.com

product tankers with some other transportation method. There can always be unforeseen political decisions down the road, that prevent the industry to work the way it anticipates, but that is rather difficult to take into account.

Bargaining power of buyers

The bargaining power of buyers can be assessed by analyzing the price sensitivity of buyers and the relative bargaining power of buyers. The questions we want to ask are essentially "Are buyers price sensitive?" and "Even if buyers are price sensitive, are they able to achieve a low price?" These questions will be sought answered in the following section.

When the products in the industry are undifferentiated and switching costs are low, then buyers can generally allow themselves to be price sensitive, because if the price for freight is too high at one place, they can always seek out to another supplier who will likely cut the price just a little in order to make a deal. As we have already established that the product tanker industry contains of roughly undifferentiated products and that switching costs are low, we can from this fact say that the buyers must be price sensitive. Another aspect to consider when assessing if buyers are price sensitive, is how large a part the product take up in the buyers cost structure. In the product tanker industry for example, that means that if the cost of transporting the refined product take up a large part of the price that charterers can sell the refined product for - then they will likely try to minimize this cost. Oppositely, if the product the supplier delivers to the buyer only makes up a fraction of the total cost structure – let us for example say if the product is a tiny button for an expensive suit - then the buyer would likely not care as much if the button costs 10 cents or 30 cents. The transportation costs for a charterer must make up a substantial part of his cost structure, as it is arguably one of the only costs he has besides the refined oil product itself and some administrative costs. The importance of the transportation costs in the total cost structure for a charterer, contributes to the argument that buyers are price sensitive in the product tanker industry

We have now clarified that conditions in the product tanker industry tells us that buyers must be price sensitive, so the next question is now whether the buyers have the bargaining power to actually drive the price down. The service of transporting refined oil products for charterers is crucial to their business as they profit from buying products one place and

selling them at another place. When demand for refined oil products suddenly spike, this makes products-traders want to ship refined products to regions with high demand because they can obtain a good price, and thereby demand for product tanker also increases. As elaborated in section 2.7, supply is much less agile compared to demand in the product tanker industry, which explains why freight rates can skyrocket in times of sudden increase in demand (as can be seen in the 2015 freight rates in "Figure 8: Historical freight rates for benchmark routes"). These spikes are good examples of the importance of transportation of products for the products traders, and when a supplier's product/service is critical to a buyers business, then the buyer typically does not have as much bargaining power. On the other hand, in times of low demand for refined oil products, then products-traders exert higher bargaining power, when there is an excess supply of product tankers. So due to the fact that buyers' demand for transportation is not stable, the bargaining power of the buyer changes according to demand.

We can conclude that buyers of the product tanker services arguably must be price sensitive, but they do not at all times have the power to bargain prices, as the freight rate is primarily reflected by the balance of ships and cargoes available in the market[54]. Charterers are also just a small part in the supply chain of oil products, and as elaborated in section 2.7, there are many factors that influence the demand for oil in the world.

Bargaining power of suppliers

The analysis of the bargaining power of suppliers is almost a mirror image of the analysis on the bargaining power of buyers. Here we will assess the relative power of product tanker companies compared to their main suppliers. The most important resources for a product tanker company in order for them to be able to deliver their product/service (the transportation of refined oil products) are vessels and qualified labor (managers as well as mariners); therefore shipyards and qualified labor must be considered some of the main suppliers to the product tanker industry. If the numbers of shipyards that can offer product tanker vessels are few, and their products are highly differentiated, they are likely to possess relative power over the product tanker industry – and the same way with qualified labor.

[54] Stopford, M., "Maritime Economics", 2009, p. 160

The number of shipyards that builds product tankers (and vessels in general) varies according to the changes in demand over time. In January 2009, just months after the economic financial crisis had begun there were approximately 160 active tanker shipyards, while in July 2017, that number had declined to 89 shipyards[55]. In a little more than 8 years, the number of active shipyards has thus decreased with approximately 44%. Just as the number of active shipyards varies, so does the price of newbuilding vessels also. As can be seen on below "Figure 13: Historical MR vessel values", the MR newbuilding prices were around USD 50m in 2007-2008, whereas they were below USD 40m in 2017 (Newbuilding vessels are noted "NB" in below figure. "Resale" denotes vessels that have just launched). The price of vessels of course also impacts profitability of product tanker companies; therefore shipyards potentially have some degree of bargaining power over companies. When demand for freight is high, freight rates increase and so does the orders also for new tonnage, which equals in newbuilding prices increase. The vessel supplier bargaining power is thus generally higher when demand is high, and low when market is lower and activity on shipyards is lower. In current market, their bargaining power is assessed to be medium/low.

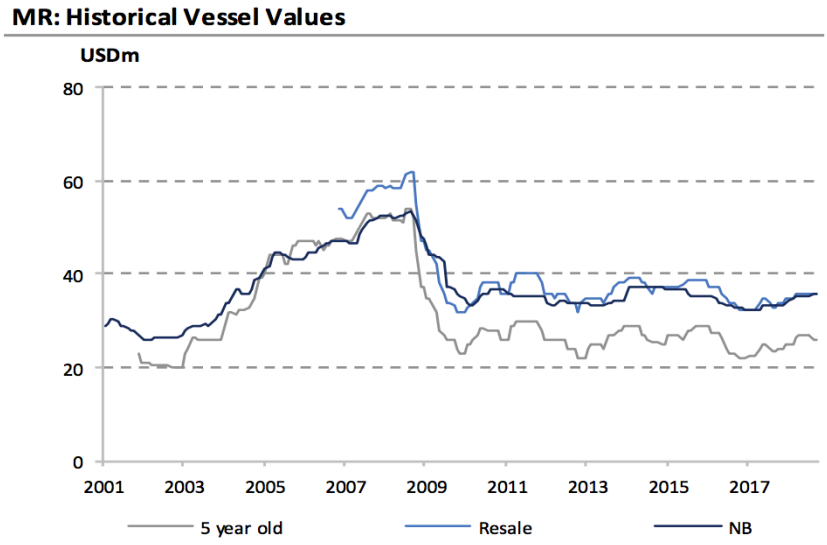

Figure 13: Historical MR vessel values[56]

With respect to the supply of labor, it is hard to find any data that says anything about this, neither have it been stated as an issue in recent times. According to an experienced working within the industry (a Tech/Finance Business Partner from TORM PLC), in recent times, it has

[55] Marinelog.com
[56] Pareto Securities AS Equity Research, Shipping Weekly, 4 Sep 2018

not been an issue to get enough labor to the industry – land based employees as well as mariners aboard the vessels[57]. So from this we can assess that the bargaining power of the labor as a supplier to the product tanker industry, is relatively medium/low.

Industry profitability

A summary of the industry analysis above has been made in below "Figure 14: Industry profitability"

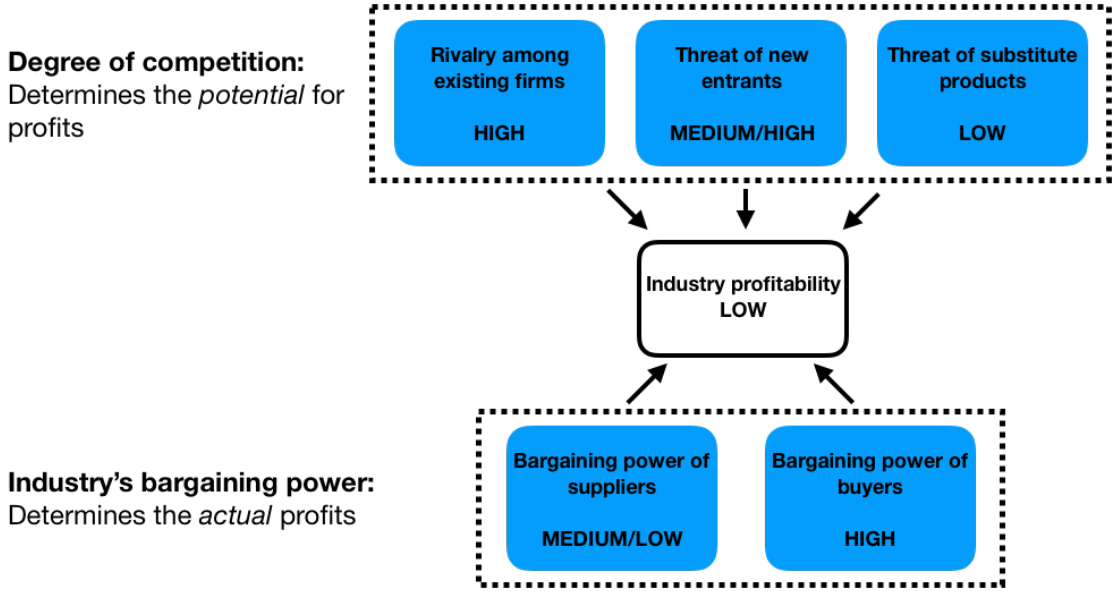

Figure 14: Industry profitability

The rivalry among existing firms, the threat of new entrants and the threat of substitute products, all together tells us something about the degree of competition within the industry and thereby can help us determine the future potential for profits. Although the threat of substitute products is assessed as relatively low, the degree of competition within the product tanker industry is still relatively high due to a rather high threat of new entrants and a rather high rivalry among the existing firms within the industry.

On the other hand we have the relative bargaining power of suppliers and buyers that can tell us something about the actual profits within the industry. The bargaining power of suppliers is medium to low and the bargaining power of buyers is high, therefore the actual profits in the industry are also assessed to be relatively low.

[57] Bresemann, J. "Re: Qualified labor to the product tanker industry"

Altogether the five forces tell us something about the overall industry profitability, which is assessed to be relatively low. The only force that 'protects' the industry is the low threat of substitute products. This low threat of substituting products and the fact that supply is not at all as agile as demand, is also the reason why there can be obtained abnormal profits in some periods. The shipping industry in general (except perhaps the specialized and liner industry) has many characteristics that resemble the classical perfect competition business model[58]. The perfect competition model cannot say anything about the profit level in the industry, but just that in the long run profits are driven down by the rivalry and threat of new entrants towards a 'normal' level for the industry, which is the level needed to keep supply and demand in balance[59].

3.2 Competitive strategy analysis

The profitability of a company is partly impacted by the industry profitability and partly impacted by its competitive advantage that is obtained through a competitive strategy. Generally a company's strategy can fit into two different generic strategies, with the first one being a cost leadership strategy (also sometimes known as a 'comparative advantage' strategy), and the other one being a differentiation strategy. The cost leadership strategy means that the company is able to deliver the same product or service as other companies, but just for a lower price. Companies that pursue this strategy usually focus on things such as economies of scale, tight cost control systems and efficient production. The differentiation strategy on the other hand means that the company obtains a competitive advantage by supplying a unique product or service, which the customer is willing to pay a premium for. Companies seeking this strategy usually focus on things such as superior product quality, brand image and excellent customer service. In order for a company to obtain and sustain their competitive advantage through its choice of strategy, it furthermore needs to have the necessary skills and capabilities to be able to implement and carry out the strategy. For example, the company's core competencies need to match its key success factors in order to

[58] Stopford, M., "Maritime Economics", 2009, p. 337-338
[59] Stopford, M., "Maritime Economics", 2009, p. 325

be able to execute their strategy properly[60]. See below "Figure 15: Competitive strategies" for an overview of the two generic strategies.

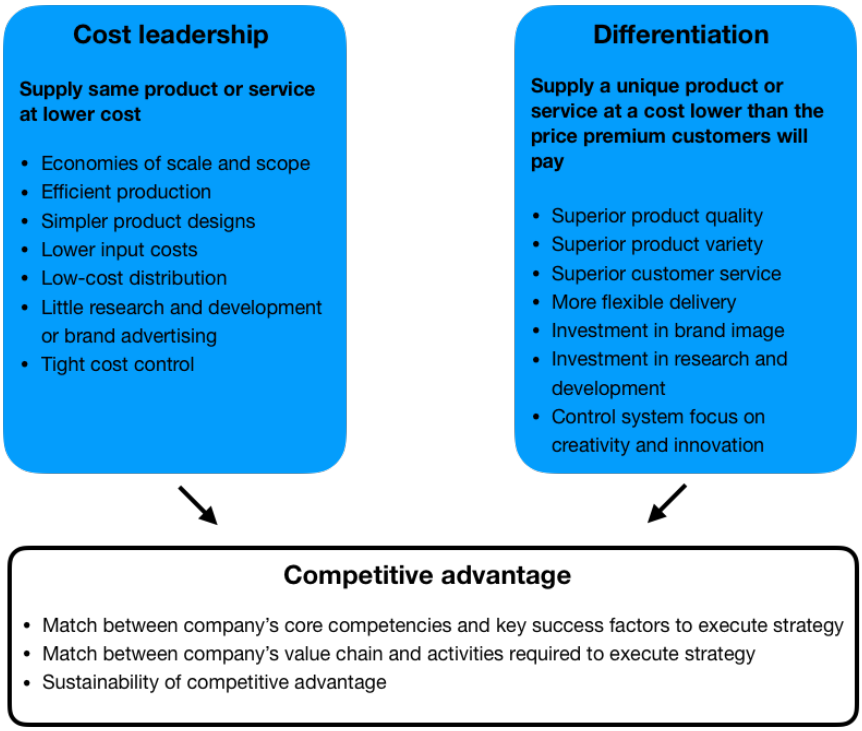

Figure 15: Competitive strategies

The remainder of this section will investigate what kind of strategy Scorpio Tankers primarily seeks to obtain a competitive advantage through. Furthermore the section will assess if the company has the capabilities necessary in order to sustain their competitive advantage into the future.

As elaborated earlier in the industry analysis, the degree of differentiation within the product tanker industry is rather low, as the transport of refined products is generally treated as a commodity, where the individual shipping companies are price takers. Therefore it would be almost impossible to successfully run a product tanker business on a differentiation strategy alone, as customers generally are not willing to pay a price premium for a superior service. The long-term most sustainable strategy within the product tanker industry thus seem to be a cost leadership strategy, where companies continually does an effort to cutting costs, while maintaining the same level of service. The difference with the cost leadership strategy in the

[60] Palepu, K., Healy, P. & Bernard, V., "Business Analysis & Valuation: Using Financial statements", 2004, p. 2-7 and 2-8

product tanker industry compared to other more traditional industries, is arguably that a cost leadership strategy in the product tanker industry does not necessarily make the company charge a lower price, but let them obtain more profits relative to their competitors, so they can endure and withstand troughs in the market better than them.

By glancing at Scorpio Tankers from the outside, it appears that Scorpio Tankers is seeking a cost leadership strategy as their way of creating a competitive advantage in the product tanker industry. Many factors points towards this; they have the largest owned fleet in the industry (possibility for economies of scale), they have a very modern fleet which use less bunker and have lower operational expenses compared to older vessels (efficient production/service), plus they have a market cap size that – according to themselves – should help them attract a larger investor base and higher quality and better terms of financing (as mentioned in section 2.6). In order to assess whether they are also good at transforming a cost leadership strategy into a competitive advantage, we will need to look into some of the abovementioned factors. This will be done by comparing Scorpio Tankers to TORM PLC, who is one of their larger competitors. TORM PLC and Scorpio Tankers are alike in many aspects, but one of the main differences is that the average age of TORMs vessels is approx. 10 years higher than Scorpio Tankers' vessels (see below "Figure 16: Operational expenses" for average vessel age per segment). The comparison with TORM is relevant, because a comparative advantage/cost leadership strategy is always relative and thus has to be seen in the light of another company.

As for operational expenses, we can see in below table that Scorpio Tankers manages to keep their average operational expenses (OPEX) per operating day, lower than their competitor TORM, for all segments, besides Handy vessels (operating days is the total number of days where the vessels are operative, for each vessel segment). The total OPEX/day for the whole fleet for Scorpio Tankers is actually only slightly lower than TORM PLCs, due to their relatively larger presence in the LR2 segment – whereas TORM PLC has a relatively large MR fleet. We can thus assume that Scorpio Tankers manages to keep lower OPEX through owning younger more efficient vessels.

FY 2017

	SCORPIO TANKERS			TORM PLC		
	OPEX/day (USD)	Operating days	Avg vessel age (years)	OPEX/day (USD)	Operating days	Avg vessel age (years)
LR2	6.705	10.030	2,6	7.608	3.650	11,3
LR1	7.073	1.776	2,1	7.286	2.555	13,9
MR	6.337	15.980	3,4	6.435	18.566	11,2
Handy	6.716	7.468	3,7	6.508	3.459	14,5
Total	**6.559**	**35.254**		**6.673**	**28.230**	

Vessel ages as of:
Scorpio Tankers, June 2018
TORM, June 2018

Figure 16: Operational expenses[61]

A way to measure a scaling effect on cost reduction can be to measure the total administration costs divided by the total number of earning days the fleet has (also known as 'revenue days' – the total number of days that the fleet has for potential revenue). The scaling effects on commercial cost reduction should make the admin cost per earning day relatively lower for Scorpio Tankers compared to TORM PLC. In 2017, Scorpio Tankers had a total of 38.415 earning days[62] and total administration costs of USD 47,511m[63], which leads to an average administration costs/earning day of USD 1.237. In 2017, TORM PLC had a total of 27.160 earning days[64] and total administration costs of USD 45,007m[65], which leads to an average administration costs/earning day of USD 1.675. We can see that Scorpio Tankers actually has managed to have administration costs that is almost equivalent as TORM's, but with relatively more earning days to divide those costs onto. The relatively lower administration costs for Scorpio Tankers thus shows that they have effectively scaled the fleet, while still maintaining a relatively low level of administration costs.

[61] Various sources:
Scorpio Tankers, Company Presentation June 2018
Scorpio Tankers, Annual Report 2017, p. 58
TORM PLC, Annual Report 2017, p. 46
TORM PLC, Q1 2018 Excel back-up.
[62] Scorpio Tankers, Annual Report 2017, p. 55
[63] Scorpio Tankers, Annual Report 2017, p. F-4
[64] TORM PLC, Annual report, p. 45
[65] TORM PLC, Annual report, p. 87

The same analysis as above can made with respect to the financing costs, in order to assess whether they are relatively cost-efficient on the financing side as well. The main difference is that, as we are looking at financial expenses we will have to divide this with the total number of 'owned days' instead of the total number of earning days ('owned days' is the number of earning days for vessels *owned* by the company). This is because the total number of earning days also includes the earning days from time charter-in vessels, and the cost of hiring these are part of the 'charter hire' line in the financial statement and not part of the financial expenses. TORM PLC has financial expenses of USD 40,601m[65] and dividing these costs with 25.770 owned days[64], this gives us financial expenses per owned day of USD 1.576. Scorpio Tankers has financial expenses of USD 116,240m[63] and an estimated 31.493 owned days[66], which give us financial expenses per owned day of USD 3.691. Here we really see a big difference between Scorpio Tankers' costs versus TORM PLCs. Scorpio Tankers have relatively much higher financial expenses measured on the number of owned days, compared to TORM PLC. Logically, this is also expected, as Scorpio Tankers has newer vessels, which naturally are financed with more debt compared to older vessels. From below "Figure 17: Overview of margins on facilities" we can see that Scorpio Tankers have equivalent margins on their debt facilities compared to TORM PLC (when excluding Scorpio Tankers' financial lease arrangements). Besides their credit facilities Scorpio Tankers although also have some type of debt in form of two types of senior notes with a quite higher margin (6,75% and 8,25%), but the amount of debt from these are 'only' approximately USD 111m as of end 2017[67]. The relative high financial expenses per owned day for Scorpio Tankers must thus be a product of their higher debt ratio on their vessels. The high total financial expenses as a result from a high debt does although not particularly go hand in hand with a cost leadership strategy, where the aim is to minimize costs in order to become relatively more profitable. It would at least require that the benefits of having newer vessels should outweigh the increase in costs.

[66] The number of owned days is not stated in their annual report, so it is estimated based on the total number of earning days, less the number of estimated earning days from the time charter-in fleet in 2017 (See Scorpio Tankers, Annual Report 2017, p. 61 for info on time charter-in fleet)
[67] Scorpio Tankers, Annual Report 2017, p. F-33

SCORPIO TANKERS	
Facility	**Margin**
KEXIM	3,25%
KEXIM Commercial Tranche	3,25%
KEXIM Guarantee Notes	1,70%
K-Sure	2,25%
K-Sure Commercial Tranche	3,25%
Credit Suisse Credit Facility	2,40%
ABN AMRO Credit Facility	2,15%
ING Credit Facility	1,95%
BNP Paribas Credit Facility	2,05%
Scotiabank Credit Facility	1,50%
NIBC Credit Facility	2,50%
2016 Credit Facility	2,50%
HSH Credit Facility	2,50%
2017 Credit Facility	2,02%
DVB 2017 Credit Facility	2,75%
Credit Agricole Credit Facility	2,75%
ABN AMRO/K-Sure Credit Facility	2,01%
Citi/K-Sure Credit Facility	1,80%
Ocean Yield Sale and Leaseback	5,40%
CMBFL Lease Financing	3,75%
BCFL Lease Financing (LR2s)	3,50%
CSSC Lease Financing	4,60%
Average	2,72%
Average excl Financial lease	2,37%

TORM PLC	
Facility	**Margin**
Term facility 1	2,50%
DSF facility (approx margin)	2,48%
CEXIM facility	2,25%
Term facility 2	2,75%
ING facility	2,05%
ABN Amro facility	2,10%
Average	2,36%

Figure 17: Overview of margins on facilities[68]

Below "Figure 18: Income statements for Scorpio Tankers and TORM PLC" shows an overview of the comparable income statements for both Scorpio Tankers and TORM PLC for the last three years. Although many parameters points towards Scorpio Tankers having a cost leadership strategy, we can see that in the two most recent years, they have not quite gotten the results out of the strategy on the bottom line. By comparing the two companies we can see that TORM PLC has managed to obtain a positive net profit in 2017, where Scorpio Tankers had a rather large deficit. Adjusting for TORM PLC's impairment charge in 2016, which was a result of an impairment test and thus 'only' a write-down of assets on paper, then TORM PLC also managed to obtain a positive net profit, in a market where Scorpio Tankers landed a negative net profit.

[68] Figure 17 sources:
Scorpio Tankers, Annual Report 2017, p. 106
Exhibit 4.2, 4.3, 4.5, 4.6, 4.8 and 4.11 from Amendment No. 1 to TORM PLCs Annual Report 2017 on Form 20-F (See reference "TORM PLC, Annual Report 2014, Amendment No. 1 to 20-F" for link).

	Scorpio Tankers			TORM PLC		
USDm	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**
Time Charter Equivalent (TCE)	**751,3**	**521,2**	**505,0**	**370,8**	**458,3**	**397,1**
OPEX	-174,6	-187,1	-231,2	-122,9	-195,2	-188,4
Charter hire	-96,9	-78,9	-75,8	-12,0	-21,5	-8,5
Gross Profit	**479,9**	**255,2**	**198,0**	**235,9**	**241,5**	**200,2**
Admin expenses	-65,8	-54,9	-47,5	-19,5	-41,4	-45,0
Other	0,4	-2,1	-54,0	-6,1	-0,1	2,3
EBITDA	**414,4**	**198,2**	**96,5**	**210,3**	**200,0**	**157,6**
Depreciation	-107,4	-121,5	-141,4	-67,3	-122,2	-114,5
Impairments on assets	0,0	0,0	0,0	0,0	-185,0	-3,6
EBIT	**307,1**	**76,7**	**-44,9**	**143,0**	**-107,2**	**39,5**
Financial Items	-89,3	-101,7	-113,3	-15,9	-34,5	-36,3
Tax	0,0	0,0	0,0	-1,0	-0,8	-0,8
Net profit	**217,7**	**-24,9**	**-158,2**	**126,0**	**-142,5**	**2,4**
Net profit adjusted for impairment	**217,7**	**-24,9**	**-158,2**	**126,0**	**42,5**	**6,0**

Figure 18: Income statements for Scorpio Tankers and TORM PLC[69]

In 2015 though, where freight rates had a spike, we see that Scorpio Tankers managed to land a solid positive net profit. Their levered fleet and benefits from scaling, really comes to effect in good markets, whereas they seem to struggle a little in more flat and weak markets (there are of course many other aspects that ultimately determine the profits for the firm, which require a deeper look into the financials (more on the financials in section 4).

We can conclude that Scorpio Tankers primarily seek a cost leadership/comparative advantage strategy, but that the strategy is more tied up on specific conditions that need to be met, in order for them to have a competitive advantage. Their strategy is more related to their large and young fleet, than any unique capability that only Scorpio Tankers possess, therefore the sustainability of their competitive advantage is not particularly difficult for competitors to neutralize over time. On the other hand, a fleet of more than owned 100 vessels requires a lot of capital, so it is not something that is just neutralized - or a strategy that is copied - over night.

[69] Figure 18 sources:
Scorpio Tankers, Annual Report 2017, p. F-4
TORM PLC, Annual Report 2017, p. 87

One of the more important conditions that need to be in place for them to have a competitive advantage is a high oil price. A high oil price means a high bunker price, and a high bunker price will affect Scorpio Tankers relatively less compared to other product tanker companies with older and less fuel-efficient vessels. During the last year, we have seen bunker prices steadily increase[70], and if this trend continues it can become a relative advantage for Scorpio Tankers.

Another factor in the near future that can provide some tailwind to Scorpio Tankers' strategy is IMO's regulatory sulfur emission limit that is implemented from January 2020. Briefly explained, the new 2020 sulfur regulation implies that vessels are prohibited from emitting more than 0,5% sulfur from their bunker consumption in most areas throughout the world[71]. Companies can comply with the new requirements in two ways; pay a premium on bunker by shifting to a compliant low sulfur fuel oil, or installing scrubbers that enables the vessels to still use a high sulfur fuel oil (a scrubber makes sure that the vessel only emit a certain level of sulfur). Scrubbers can cost around USD 3-5m depending on the size of the vessel[72]. As of now, Scorpio Tankers strategy is to shift to a compliant fuel oil, as their analysis of a potential scrubber investment favor liners and/or larger vessel types. The new sulfur regulation thus means that if other companies also chose to go for the compliant fuel oil, then Scorpio Tankers' will obtain an even larger comparative advantage by having ECO vessels. If the other companies chose to go for the scrubber solution on most of their vessels, then it will require them to make costly capital investments.

Finally, does Scorpio Tankers have the necessary capabilities to sustain their competitive advantage? In the short run, they will likely sustain their competitive advantage, which although is dependent on some market conditions, as it will be hard for competitors to acquire the same type of fleet and setup as Scorpio Tankers. In the longer run it will be possible for competitors to obtain the same kind of competitive advantage as Scorpio Tankers.

[70] Shipandbunker.com
[71] imo.org
[72] Scorpio Tankers, Company Presentation June 2018, p. 15

3.3 Sub conclusion

In section 3 we have investigated the competition and profitability in the product tanker industry, plus we have investigated more about Scorpio Tankers' strategy with a focus on how they seek to obtain a competitive advantage in this industry. The strategic analysis has showed us that Scorpio Tankers operates within an industry of generally low profitability due to rather intense competition. Although the profitability generally is low, the demand for product tanker services can vary much over time, whereas supply is slow to adjust – therefore there can be sudden periods where freight rates go rapidly up and profits are abnormal high. As for the competitive strategy, Scorpio Tankers seeks to obtain a competitive advantage through its large owned fleet of young ECO vessels. The large fleet enables them to obtain scaling advantages, and the ECO vessels give them a comparative advantage on bunker consumption, which becomes relatively more advantageous as bunker prices increase.

The strategic analysis together with the following financial analysis is important for the forecast in section 6, as the forecast needs to be based on industry and business reality in order to be reliable. Furthermore, the forecast is arguably the cornerstone of the valuation of the company; therefore we need to make it as realistic as possible.

4.0 Financial analysis

The purpose of this section is to determine Scorpio Tankers' financial health, which can help us predict the future financial performance for the company. In order to assess the financial health, we will take use of financial ratios, which are based on current and past performance. The advantage of using financial ratios is that they are relatively easy to calculate, and yet they serve as good indicators of a company's financial performance. Using financial ratios is thus a relatively cost-efficient method of assessing the financial health.

The financial analysis will be divided into a profitability analysis and a liquidity risk analysis. The focus in the profitability analysis is first most on operational performance, but also about the impact of financial leverage on profitability. In the liquidity risk analysis, the focus will be on assessing both the short- and long-term liquidity risk.

The analysis will be carried out as both a time-series analysis, in order to see the level and development over time, while also including a cross-sectional aspect, as we will compare the financial ratios to TORM PLC. The time period chosen for the time-series analysis of Scorpio Tankers is 5 years (2013-2017). Ideally we would want to cover a whole business cycle, which in the shipping industry typically is 8 years long[73], but it is assessed that if we go further back then 2013, the difference between Scorpio Tankers' business today and then would be too big. At the time of the 2013 annual report they owned 21 vessels, had 31 vessels on time charter-in contracts, and revenue of USD 208m, whereas in 2012 the revenue and fleet was almost half that size[74]. In the cross-sectional analysis where we compare Scorpio Tankers with TORM PLC, we will only use a time horizon of 3 years (2015-2017) for TORM PLC, as the company went through a larger debt restructuring in 2015 and is therefore not comparable before this year. Accounting wise, we assess that the companies are comparable, as they both use the IFRS as basis of accounting in preparation of their annual reports.

Lastly, it should be noted that Scorpio Tankers is a Marshall Island incorporated company, so they do not pay any tax. Therefore it is intentionally that we do not include any discussion or notions on tax matters for the company.

4.1 Analytical income statement and balance sheet

Before diving directly into the actual profitability and risk analysis, we will revisit the income statement and balance sheet, in order to construct an analytical income statement and balance sheet that can aid us in the subsequent analysis. The analytical income statement and balance sheet helps us distinguish between and isolate operational activities and financial activities. The primary driving force behind value creation is the company's operational activities; therefore it is important to distinguish between these two activities, so we get better knowledge on the different sources of value creation in the firm. First off, we will start with the analytical income statement by considering specific accounting items that we need to pay attention to in the classification of operational and financial items. Likewise we will look

[73] Stopford, M., "Maritime Economics", 2009, p. 134
[74] Scorpio Tankers, Annual Report 2013, p. 2

at the balance sheet and classify the items as either operational or financial, while making sure that they match the classification we made in the income statement[75]

Analytical income statement

Below we will list and classify the accounting items from Scorpio Tankers' income statements that have particular ground for discussion, when distinguishing between operational and financial items.

Merger transaction related costs/bargain purchase gains

During 2017 Scorpio Tankers merged with Navig8 Product Tankers Inc. and in connection with this the company had some costs and a bargain purchase gain. The bargain purchase gain was a result of an increase in market prices of the four LR1 vessels Scorpio Tankers bought from Navig8 Product Tankers Inc., between the date of negotiating and the closing date of the vessel acquisition. Both the costs related to the merger and the bargain purchase gains are assessed to be part of Scorpio Tankers' operating activities as it is an expansion of their operating assets.

Gain on sale of VLGCs/VLCCs, Gain on Dorian Shares and Re-measurement of investment in Dorian

In 2013 Scorpio Tankers incurred some gains in their income statement from the sale of 11 Very Large Gas Carriers (VLGC) newbuilding contracts and an option to buy two additional VLGCs to Dorian LPG Ltd. In exchange Scorpio Tankers received 30% of Dorian's outstanding shares. During 2014 and 2015 Scorpio Tankers also had movements on the income statement related to re-measurement of the investment and sale of the Dorian shares. All of these accounting items will be classified as financial, as they are assessed not part of Scorpio Tankers pure product tanker business, as it is now.

[75] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 68-75

Share of profit from associates

The share of profit from associates accounting item, which incurred on the income statement in 2013 and 2014 are both related to Scorpio Tankers' investment in Dorian LPG Ltd. Therefore these will also be classified as a financial activity.

Based on the abovementioned adjustments, an analytical income statement for Scorpio Tankers for the last five years can be seen in below "Figure 19: Analytical income statement"

SCORPIO TANKERS ANALYTICAL INCOME STATEMENT (USDm)	2013	2014	2015	2016	2017
Vessel revenue	207,6	342,8	755,7	522,7	512,7
Voyage expenses	-4,8	-7,5	-4,4	-1,6	-7,7
Time Charter Equivalent (TCE)	**202,7**	**335,3**	**751,3**	**521,2**	**505,0**
Vessel operating expenses	-40,2	-78,8	-174,6	-187,1	-231,2
Charterhire	-115,5	-139,2	-96,9	-78,9	-75,8
Gross Profit	**47,0**	**117,3**	**479,9**	**255,2**	**198,0**
SG&A	-25,8	-48,1	-65,8	-54,9	-47,5
Profit/loss of sale on vessels	-21,2	-4,0	0,0	-2,1	-23,3
Operating profit before special items	**0,0**	**65,2**	**414,0**	**198,2**	**127,2**
Merger transaction related costs					-36,1
Bargain purchase gain					5,4
Write-off of vessel purchase options			-0,7		
EBITDA	**0,0**	**65,2**	**413,3**	**198,2**	**96,5**
Depreciation	-23,6	-42,6	-107,4	-121,5	-141,4
EBIT	**-23,6**	**22,6**	**305,9**	**76,7**	**-44,9**
Gain on sale of VLGCs/VLCCs and Dorian shares	41,4	48,4	1,2		
Share of profit from associate	0,4	1,5			
Financial instruments	0,6	0,3	-1,2	1,4	-0,1
Financial expenses	-2,7	-20,8	-89,6	-104,0	-116,2
Financial income	1,1	0,2	0,1	1,2	1,5
Other expenses	-0,2	-0,1	1,3	-0,2	1,5
Net income	**17,0**	**52,1**	**217,7**	**-24,9**	**-158,2**

Figure 19: Analytical income statement[76]

Analytical balance sheet

Likewise as the analytical income statement, below we will list and classify the accounting items from Scorpio Tankers' balance sheet that have particular ground for discussion, when distinguishing between operational and financial items.

[76] Scorpio Tankers, Annual Reports 2013-2017

Cash and cash equivalents

Cash and cash equivalents are usually considered as excess cash, which is not part of the daily operating activities, but to be paid out as dividends or used to buy back own shares. As the product tanker industry (and shipping in general) is a highly volatile and cyclical industry, having a cash cushion on the balance sheet, can be vital. Furthermore cash is needed for continual fleet renewal and continual maintenance/dry docking of the existing fleet. Therefore cash and cash equivalents will be classified as an operational item.

Other assets

The accounting item 'Other assets' is a non-current asset that primarily covers working capital contributions to the commercial pools that Scorpio Tankers employs their vessels in. This accounting item will therefore be classified as an operating item.

Available for sale investment & Investment in associate

These accounting items relates to the investment Scorpio Tankers had in Dorian LPG Ltd., as earlier mentioned in analytical income statement. It will therefore be classified as a financial activity.

Accrued expenses (Accrued interests)

Part of the accrued expenses is accrued interests. The accounting line accrued expenses has therefore been split into accrued expenses and accrued interests. The accrued expenses are thus treated as an operational activity, whereas the accrued interests are classified as a financial activity.

Below is the outcome of the reclassification of the accounting items – the analytical balance sheet for Scorpio Tankers.

SCORPIO TANKERS ANALYTICAL BALANCE SHEET (USDm)	2013	2014	2015	2016	2017
Non-current assets					
Goodwill					11,5
Vessels and drydock	530,3	1.971,9	3.087,8	2.913,3	4.090,1
Vessels under construction	649,5	404,9	132,2	137,9	55,4
Other assets	17,9	23,7	23,3	21,5	50,7
Restricted cash					11,4
Total non-current assets	**1.197,7**	**2.400,5**	**3.243,3**	**3.072,7**	**4.219,0**
Current assets					
Inventories	2,9	6,1	6,6	6,1	9,7
Accounts receivable	72,5	78,2	69,0	42,3	65,5
Prepaid expenses and other current asse	2,3	2,4	3,6	9,1	17,7
Vessels held for sale	82,6	70,9			
Cash and cash equivalents	78,8	116,1	201,0	99,9	186,5
Total current assets	**239,2**	**273,7**	**280,1**	**157,4**	**279,4**
Non-interest-bearing debt					
Accounts payable	20,7	14,9	25,7	9,3	13,0
Accrued expenses	6,2	47,4	21,5	11,8	19,8
Total non-interest-bearing debt	**26,9**	**62,3**	**47,2**	**21,1**	**32,8**
Invested Capital (net operating assets)	**1.409,9**	**2.611,9**	**3.476,3**	**3.209,0**	**4.465,6**
Total shareholders equity	**1.450,7**	**1.162,8**	**1.413,9**	**1.315,2**	**1.685,3**
Net-interest bearing debt					
Long-term debt	135,3	1.451,4	1.872,1	1.529,7	1.937,0
Long-term Finance lease liability					667,0
Derivative financial instruments	0,2		0,1		
Current portion of long-term debt	10,5	87,2	124,5	353,0	113,0
Debt related to vessels held for sale	21,4	32,9			
Finance lease liability			53,4		50,1
Accrued interest	1,0	7,8	11,2	11,2	13,1
Derivative financial instruments	0,7	0,2	1,2		
Interest-bearing debt	**169,0**	**1.579,5**	**2.062,4**	**1.893,9**	**2.780,3**
Derivative financial instruments				0,1	
Available for sale investment		130,5			
Investment in associate	209,8				
Interest-bearing assets	**209,8**	**130,5**	**0,0**	**0,1**	**0,0**
Net-interest bearing debt	**-40,8**	**1.449,0**	**2.062,4**	**1.893,8**	**2.780,3**
Invested Capital	**1.409,9**	**2.611,9**	**3.476,3**	**3.209,0**	**4.465,6**

Figure 20: Analytical balance sheet[77]

[77] Scorpio Tankers, Annual Reports 2013-2017

4.2 Historical performance and profitability analysis

As we have prepared the analytical income statement and analytical balance sheet for Scorpio Tankers, we can now turn to the profitability analysis. Examining the profitability in the past and present can aid us in determining the expectations for future profit. In order to analyze the profitability we will use the key performance metrics Return on Invested Capital (ROIC) and Return on Equity (ROE). ROIC is especially useful for analyzing operational profitability, whereas ROE is useful for examining the impact of financial leverage on profitability. Each of these performance metrics for Scorpio Tankers will be decomposed in their respective sections. An importance in a profitability analysis is to determine the *levels* of returns as well as the *development* over time[78], therefore we will also compare the metrics to TORM PLCs metrics[79].

Return on Invested Capital

The return on Invested Capital ratio will be defined as below, and is an important metric, as it measures the operational profitability as a percentage.

$$ROIC = \frac{Net\ operating\ assets\ (after\ tax)}{Invested\ capital}\ x\ 100$$

A higher ROIC will naturally lead to higher returns for the company, but in order to assess if the ROIC is good or bad, it should be compared to the Weighted Average Cost of Capital (WACC) for the company, which is the required rate of return, and with similar competitors. Comparing the ROIC with the WACC tells us if the company is actually creating value for shareholders (ROIC should be higher than the WACC), and comparing the ROIC of one company to another, tells us if the company is relatively good at generating operational profit. A company with a high ROIC will also likely be able to obtain cheaper financing[80]. The limitation with ROIC is that we are not able to determine whether the profitability comes from a good revenue to expense relationship or due to improved utilization of capital. Therefore we

[78] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 96
[79] TORM PLCs analytical income statement and analytical balance sheet can be found in Appendix 1
[80] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 94

will start off with decomposing the ROIC into a profit margin and turnover rate of invested capital analysis, before returning to an assessment of the overall ROIC.

Profit margin

Analyzing the profit margin will help us elaborate the relation between revenue and expenses, as the operating profit is expressed as a percentage of net revenues. The definition of profit margin we will use is:

$$Profit\ margin = \frac{Net\ operating\ profit\ after\ tax\ (NOPAT)}{Net\ revenues}\ x\ 100$$

A high profit margin all else equal is a positive thing – it means that expenses are relatively low[81]. Since Scorpio Tankers does not have any tax, the NOPAT is basically equal to the EBIT from the analytical income statement in "Figure 19: Analytical income statement". In the shipping industry, the most common and relevant expression of revenue is arguably the Time Charter Equivalent[82]. Therefore we will use TCE as the denominator when calculating the profit margin. For the past five years, the profit margin for Scorpio Tankers and TORM PLC have been:

Profit margin	2013	2014	2015	2016	2017
Scorpio Tankers	-12%	7%	41%	15%	-9%
TORM PLC	-	-	38%	-24%	10%

Figure 21: Profit margin

We can see that in three out of the five years, Scorpio Tankers has been able to obtain a positive profit margin, and in two of the years the profit margin has been negative. The negative profit margin in 2013 was caused by relatively low freight rates combined with a relatively large and costly time charter-in fleet, while also incurring some losses from the sale of vessels. In 2017, the negative profit margin was impacted by low freight rates, but also from loss on sale of vessels and merger transaction related costs. In general, when comparing to Scorpio Tankers' obtained freight rates from "Figure 7: Scorpio Tankers' historical freight rates", we can see that there is a almost direct correlation between the level of freight rates obtained and the level of profit margin from year to year.

[81] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 107
[82] Investopedia.com "Time Charter Equivalent"

It would have been ideal if we could see an increase in the profit margin over the years, but even though they have went from positive to negative, we cannot necessarily say that it is caused by bad performance. As discussed earlier it is practically impossible to adjust your overhead costs in the shipping industry according to the current market you are in, which is why in bad markets that profit margin becomes negative. Therefore it is mostly relevant to compare the performance to other competitors in order to assess if the performance is good. Comparing to TORM PLC we can see that Scorpio Tankers' profit margin gradually have moved from fairly positive in 2015 to negative in 2017, whereas TORM PLCs profit margin have went from positive to negative and back to positive again. Adjusting for TORM PLCs impairment in 2016, the profit margin would have been 17%. Assuming that the adjustment gives a more accurate picture of TORM PLCs actual profit margin, then Scorpio Tankers have only managed to have a better profit margin in 2015. This fits our earlier conclusion that Scorpio Tankers' strategy is mostly focused towards positive markets and higher freight rates, as this is where their competitive advantage really comes into play.

Turnover rate of invested capital

The turnover rate is an expression of how good the company is at utilizing its invested capital. It is defined as:

$$Turnover\ rate\ of\ invested\ capital = \frac{Net\ revenue}{Invested\ capital}$$

The turnover rate gives us a ratio, which tells us the how long the company has tied up its invested capital. The higher the ratio, the better it generally is. Again, as with the profit margin, we will use the TCE as the net revenue, and as for invested capital we will use the average invested capital for the period (e.g. for the financial year 2013, we will take the average of end 2012 invested capital and end 2013 invested capital). For the five-year period the turnover rate of invested capital for Scorpio Tankers and TORM PLC are:

Turnover rate of invested capital	2013	2014	2015	2016	2017
Scorpio Tankers	0,21	0,17	0,25	0,16	0,13
TORM PLC	-	-	0,31	0,28	0,26

Figure 22: Turnover rate of invested capital

In the past five years, we can see that Scorpio Tankers have had a turnover rate of invested capital between 0,25-0,13, which essentially means that the company has tied up its invested

capital for 1,5-2,8 years. Comparing to TORM PLC we see that TORM PLC beats Scorpio Tankers in every year on this metric. TORM PLC has an older fleet and thus less invested capital tied up compared to Scorpio Tankers. Relatively TORM PLC's invested capital is tied up for less time, and therefore they have a better utilization of their invested capital.

Return on invested capital: Drawing profit margin and turnover rate of invested capital together

Having decomposed the profit margin and the turnover rate of invested capital, we can return to looking at the ROIC.

ROIC	2013	2014	2015	2016	2017
Scorpio Tankers	-2%	1%	10%	2%	-1%
TORM PLC	-	-	12%	-7%	3%

Figure 23: Return on invested capital

Based on the profit margin and turnover rate of invested capital analysis, it is not surprisingly that TORM PLC obtains a higher ROIC in two out of the three comparable years, whereas they had a lower ROIC in 2016 where they took the USD 185m impairment. Adjusting for the impairment (both on the income statement and the balance sheet), TORM PLC's ROIC in 2016 would have been 4%. Generally the numbers indicate that Scorpio Tankers' operational profitability is slightly lower than TORM PLCs.

Comparing Scorpio Tankers' ROIC to a discount rate (WACC) of 7,4%, which we are going to use in the valuation (see section 7.1), and assuming that their WACC was also 7,4% in the past, we can see that in only one of the recent five years Scorpio Tankers have been able to obtain economic profits (also called 'Economic Value Added', where ROIC>WACC), and thus created shareholder value.

In order to investigate what it would have required for Scorpio Tankers to have obtained a ROIC = 7,4% in the years 2013-2014 and 2016-2017, we have made some sensitivity analyses with respect to the profit margin and turnover rate of invested capital in "Figure 21: Profit margin" and "Figure 22: Turnover rate of invested capital". As discussed earlier the market primarily determines the price, so the revenue (and TCE) is arguably one of the things a product tanker company has least influence over, therefore we have assumed that the TCE remains constant and instead looked at what it would require expense-wise and invested capital-wise to break-even with the ROIC.

Scorpio Tankers improvement of profit margin (maintaining turnover rate)	2013	2014	2015	2016	2017
Actual profit margin	-12%	7%	41%	15%	-9%
Required profit margin for ROIC = 7,4%	36%	44%	30%	47%	56%
Delta	48%	38%	-11%	33%	65%
Actual total operational expenses (excl. Depreciation) (USDm)	203	270	338	323	409
Operational expenses (excl. Depreciation) should be reduced with, for ROIC = 7,4% (USDm)	96	126	0	171	329

Figure 24: Profit margin sensitivity

The possibility of Scorpio Tankers obtaining a ROIC equal WACC by reducing operational expenses (all operational expenses including charter hire and admin costs – not only vessel operational expenses) is assessed rather unlikely. In year 2016 where they had a ROIC of 2% it would require them to cut costs with USD 171m (52%).

Scorpio Tankers improvement of turnover rate (maintaining profit margin)	2013	2014	2015	2016	2017
Actual turnover rate of invested capital	0,21	0,17	0,25	0,16	0,13
Required turnover rate for ROIC = 7,4%	n/a	1,10	0,18	0,50	n/a
Delta	n/a	0,93	-0,07	0,35	n/a
Actual avg Invested Capital (USDm)	984	2.011	3.044	3.343	3.837
Invested Capital should be reduced with, for ROIC = 7,4% (USDm)	n/a	1.706	0	2.305	n/a

Note: When profit margin is negative, the ROIC cannot be positive by making the turnover rate better

Figure 25: Turnover rate of invested capital sensitivity

With respect to the invested capital, we can see that in order to obtain a ROIC equal WACC it would be impossible to do it by somehow reducing the invested capital while maintaining the same TCE and operational expenses. As invested capital is the denominator in the ROIC equation, and it is relatively much larger than the numerator, the ROIC is much less sensitive to changes in the denominator compared to the numerator.

No one can foresee the freight rates in advance; therefore it is also practically impossible in reality to continually match expenses with the revenue year by year - especially in an asset heavy industry where expenses and supply are not easily adjusted. What we can deduct from a comparison with TORM PLC is that the method can be used to identify best practices. Here we can see that TORM PLC is slightly more profitable, which tells us that in current market conditions it is arguably better to own older vessels, as you have relatively less capital invested, and are still able to obtain a reasonable TCE.

Return on Equity

In the previous section on ROIC the focus was on operational performance, whereas in this section the focus is on financial leverage. ROE measures the profitability by taking both operating and financial leverage into account[83], and is defined as:

$$Return\ on\ Equity = \frac{Net\ earnings\ after\ tax}{Book\ value\ of\ equity}\ x\ 100$$

In order to examine the impact of financial leverage on the profitability, we will have to decompose the ROE equation even further. The factors that impact the level in ROE are the operating profitability, the net borrowing interest rate after tax, and the financial leverage[83]. Therefore ROE can also be calculated as:

$$Return\ on\ Equity = ROIC + (ROIC - NBC)\ x\ \frac{NIBD}{BVE}$$

Where NBC is Net Borrowing Cost after tax (in percent), NIBD is book value of Net Interest Bearing Debt, and BVE is Book Value of Equity. The way the equation works is that if NBC is lower than ROIC, then an increase in financial leverage, measured by NIBD/BVE, will have a positive impact on ROE. Vice versa, if the NBC is higher than ROIC, then increasing financial leverage will have a negative impact on ROE[84].

Scorpio Tankers	2013	2014	2015	2016	2017
ROIC	**-2,4%**	**1,1%**	**10,0%**	**2,3%**	**-1,2%**
NBC	-2,4%	1,4%	4,4%	5,4%	4,1%
ROIC-NBC	**0,0%**	**-0,3%**	**5,7%**	**-3,1%**	**-5,3%**
NIBD	-41	1.449	2.062	1.894	2.780
BVE	1.451	1.163	1.414	1.315	1.685
NIBD/BVE	**-0,03**	**1,25**	**1,46**	**1,44**	**1,65**
ROE	**-2,4%**	**0,8%**	**18,3%**	**-2,1%**	**-9,9%**

TORM PLC	2013	2014	2015	2016	2017
ROIC	**-**	**-**	**11,9%**	**-6,7%**	**2,6%**
NBC	-	-	2,0%	5,0%	4,8%
ROIC-NBC	**-**	**-**	**9,9%**	**-11,7%**	**-2,2%**
NIBD	-	-	788	694	756
BVE	-	-	976	781	791
NIBD/BVE	-	-	**0,81**	**0,89**	**0,96**
ROE	**-**	**-**	**19,9%**	**-17,0%**	**0,4%**

Figure 26: Return on Equity

[83] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 117
[84] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 118

Within the last five years, Scorpio Tankers has obtained a positive ROE two times, in 2014 and 2015, whereas it was only in 2015 they had a positive ROIC-NBC, meaning that ROE in that year would have been positively impacted by an increase in financial leverage. Comparing to TORM PLC in the years 2015-2017, we see that TORM PLC has obtained a better ROE in 2015 and 2017, whereas Scorpio Tankers has a better ROE in 2016. Adjusting for TORM PLCs impairment in 2016, the ROE would have been 3,2%. For TORM PLC the year 2015 was also the only year, where they would benefit ROE-wise from an increase in financial leverage. Furthermore, we can see from this, that Scorpio Tankers is a much more financially levered company compared to TORM PLC. From 2015-2017 their NIBD/BVE ratio was between 1,44-1,65, whereas TORM PLCs leverage was between 0,81-0,96.

4.3 Liquidity risk analysis

Sufficient liquidity is a necessity for companies to be able to run their businesses. If a company runs out of cash and are unable to pay their bills or creditors, there if a certain risk that the company ends up in bankruptcy. Liquidity problems are something that shareholders are particularly interested and aware of, as they are the last in the priority order in case of bankruptcy. Other stakeholders are of course also affected in case of bankruptcy as suppliers and customers lose future business possibilities, and creditors can take losses on their loan commitments from the company. This section will therefore analyze the liquidity risk of Scorpio Tankers by looking at the short- and long-term liquidity risk, in order to assess their ability to meet future payment obligations[85]. Furthermore we will compare Scorpio Tankers to TORM PLC in order to assess if the trends are firm specific or more a result of the industry.

For the purpose of estimating short- and long-term liquidity risk, we will take use of some financial ratios that can help identify and predict future risks. For the short-term liquidity risk, we will look at two different ratios to help us assess the short-term risk, which are the quick ratio and the cash flow from operations to short-term debt ratio. For the long-term liquidity risk we look at the financial leverage and solvency ratio, and the capital expenditure ratio. The benefit of using financial ratios to measure liquidity risk is that they are easy to

[85] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 150-151

calculate and apply as they rely on historical figures. It therefore becomes a relatively cost-efficient way to measure the risk, which is also why financial institutions and rating agencies rely on this method[86].

Short-term liquidity risk

Quick ratio

The quick ratio is a conservative ratio (compared to the current ratio), which measures whether the most liquid current assets are able to cover the current liabilities in case of liquidation. It is defined as:

$$Quick\ ratio = \frac{Cash + securities + receivables}{Current\ liabilities}$$

The larger the ratio is, the lower the short-term liquidity risk is. Generally there is no rule of thumb that can tell us what level the quick ratio ideally should be at, as it varies from industry to industry. Service companies usually tend to have lower quick ratios compared to manufacturing companies, as the receivables tend to be larger for the latter. "Figure 27: Quick ratio" below, shows the quick ratio for Scorpio Tankers and TORM PLC.

Scorpio Tankers (USDm)	2013	2014	2015	2016	2017
Cash + securities + receivables	151,4	194,3	270,0	142,2	251,9
Current liabilities	60,5	190,4	237,4	385,3	209,1
Quick ratio	**2,50**	**1,02**	**1,14**	**0,37**	**1,20**
TORM PLC (USDm)	**2013**	**2014**	**2015**	**2016**	**2017**
Cash + securities + receivables	-	-	257,1	146,6	217,3
Current liabilities	-	-	115,9	151,8	156,1
Quick ratio	**-**	**-**	**2,22**	**0,97**	**1,39**

Figure 27: Quick ratio

Scorpio Tankers quick ratio went from a high level in 2013, and then took a large drop in 2014. From here it has been at a quite low level, with the lowest level in 2016. In 2016 Scorpio Tankers' cash position and receivables shrunk, while they had an increase in current liabilities due to many repayments on debt facilities the following year. The large drop from 2013 to 2014 and especially the drop from 2015 to 2016 indicate that the company could run into short-term liquidity problems. With TORM PLC we also see a large drop in the ratio from

[86] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 151

2015 to 2016, but the ratio is although still around 1 in 2016. Generally TORM PLC maintains its quick ratio at a higher level compared to Scorpio Tankers.

Cash flow from operations to short-term debt ratio

This second ratio also looks at the company's ability to cover its current liabilities, but instead of using the most liquid current assets, we use the cash flow from operations. The cash flow from operations arguably serves as an even better indicator of the cash available to cover the short-term liabilities, as we avoid the problem of converting receivables to cash. The ratio is defined as:

$$Cash\ flow\ from\ operations\ to\ short\text{-}term\ debt\ ratio = \frac{Cash\ flow\ from\ operations}{Current\ liabilities}$$

Scorpio Tankers (USDm)	2013	2014	2015	2016	2017
Cash flow from operations	-5,7	93,9	392,0	178,5	41,8
Current liabilities	60,5	190,4	237,4	385,3	209,1
CFO to short-term debt ratio	**-9%**	**49%**	**165%**	**46%**	**20%**
TORM PLC (USDm)	**2013**	**2014**	**2015**	**2016**	**2017**
Cash flow from operations	-	-	214,0	171,1	109,8
Current liabilities	-	-	115,9	151,8	156,1
CFO to short-term debt ratio	-	-	**185%**	**113%**	**70%**

Figure 28: CFO to short-term debt ratio[87]

We see a very large volatility in how well cash flow from operations can cover the current liabilities – from a negative cash flow in 2013 to USD 392m in 2015, which is 165% of the current liabilities. From 2016-2017 we see an increase in the current liabilities as a result of an increased debt, and as freight rates have been rather low in these years, we also see that the cash flow from operations have only been able to cover 46%-20% of the current liabilities. In the long run this is arguably not a viable level, as it would mean that the rest of the current liabilities should covered by financing activities – most likely an issuance of further debt or equity. For TORM PLC we see a stronger CFO to short-term debt ratio compared to Scorpio Tankers, but it although also dropped below 100% in 2017.

[87]Cash flow are from:
Scorpio Tankers, Annual Report 2013-2017
TORM PLC, Annual Report 2017

Concluding on short-term liquidity risk

The two financial ratios used to assess the short-term liquidity risk indicate that Scorpio Tankers' could run into liquidity trouble. This is arguably also what Scorpio Tankers also realized, as they made two equity offerings in the market during 2017 for a total net consideration of USD 288,3m (one of them condition to completion of the merger)[88], thus diluting the existing base of shareholders.

Long-term liquidity risk

Financial leverage and solvency ratio

The financial leverage ratio and the solvency ratio are two measures that provide identical information about the long-term liquidity risk. They are defined as:

$$Financial\ leverage = \frac{Total\ liabilities}{Equity} \qquad Solvency\ ratio = \frac{Equity}{Total\ liabilities + Equity}$$

In order to give the most accurate measure, we use the market value of equity instead of the book values, as the market values are closer to the realizable value[89]. A high financial leverage combined with a low solvency ratio is generally a sign of high long-term liquidity risk. Below "Figure 29: Financial leverage and solvency" show a historical overview of the financial ratios for Scorpio Tankers as well as for TORM PLC.

Scorpio Tankers (USDm)	2013	2014	2015	2016	2017
Equity, market value	2.343,8	1.430,2	1.406,2	791,1	995,8
Total liabilities	196,0	1.641,8	2.109,6	1.915,0	2.813,1
Financial leverage	**0,08**	**1,15**	**1,50**	**2,42**	**2,82**
Solvency ratio	**0,92**	**0,47**	**0,40**	**0,29**	**0,26**
TORM PLC (USDm)	**2013**	**2014**	**2015**	**2016**	**2017**
Equity, market value	-	-	911,3	558,3	534,0
Total liabilities	-	-	891,5	790,7	855,5
Financial leverage	-	-	**0,98**	**1,42**	**1,60**
Solvency ratio	-	-	**0,51**	**0,41**	**0,38**

Figure 29: Financial leverage and solvency

[88] Scorpio Tankers, Annual Report 2017, p. 67-68
[89] Ideally one should also take off-balance sheet liabilities into account, when measuring the total liabilities. For sake of simplicity, this has not been done here.

In the past five years, the financial leverage have increased from 0,08 in 2013 to 2,82 in 2017 while the solvency ratio slowly has dropped from 0,92 in 2013 to 0,26 in 2017. Both ratios thus indicate an enhanced long-term liquidity risk for Scorpio Tankers. Comparing to TORM PLC we can see that their financial leverage also has increased from 2015 to 2017, although not to as high a level compared to Scorpio Tankers (Scorpio Tankers will naturally have a little higher level of financial leverage, as their fleet is much younger).

Capital expenditure ratio

The capital expenditure ratio removes growth from the picture, and solely shows to what extent the company is able to finance its reinvestments from internal operations. It is meant to provide information on the sustainability of the business model. We have used depreciations as a proxy for reinvestments. Below is the definition of the financial ratio and the capital expenditure ratio in "Figure 30: Capital expenditure ratio"

$$Capital\ \ expenditure\ \ ratio\ =\ \frac{Cash\ \ flow\ \ from\ \ operations}{Reinvestments}$$

Scorpio Tankers (USDm)	2013	2014	2015	2016	2017	Average
Cash flow from operations	-5,7	93,9	392,0	178,5	41,8	
Reinvestments (depreciations)	23,6	42,6	107,4	121,5	141,4	
Capital expenditure ratio (reinvest)	**-0,24**	**2,20**	**3,65**	**1,47**	**0,30**	**1,48**
TORM PLC (USDm)	**2013**	**2014**	**2015**	**2016**	**2017**	**Average**
Cash flow from operations	-	-	214,0	171,1	109,8	
Reinvestments (depreciations)	-	-	67,3	122,2	114,5	
Capital expenditure ratio (reinvest)	-	-	**3,18**	**1,40**	**0,96**	**1,85**

Figure 30: Capital expenditure ratio

As the cash flow from operations vary over time primarily due to fluctuations in freight rates, we also see that the capital expenditure ratio has been very volatile in the past five years. Taking an average of the five years, we although see that the ratio is 1,48, which indicates some sustainability of they business model, as the ratio should generally be above 1,0. Taking an average of the last three years for TORM PLC indicates a higher level of capital expenditure ratio, and thus their business model appears more sustainable in the current environment.

4.4 Sub conclusion

From the above financial analysis we can draw a few conclusions on Scorpio Tankers. By decomposing ROIC and ROE we have seen that one of the most important drivers for value creation is the TCE that the company earns, whereas it is also one of the most volatile and uncontrollable drivers. We have also seen that Scorpio Tankers' strategy is best geared towards good market conditions, which is arguably due to their leverage. Furthermore we have seen that Scorpio Tankers have only been able to generate shareholder value in one of the past five years, and on average in these years they have not generated shareholder value. From the short- and long-term liquidity risk analyses, we have also seen the effects of Scorpio Tankers being a highly levered company. During 2017 they faced short-term liquidity problems, and if freight rates does not materialize on a higher level than the past two years, then they will likely run into further liquidity problems. Comparing to TORM PLC we can see that the ratios for both companies trends in the same directions so a big part of the development is impacted by the industry itself. The financial analysis should not stand alone, but should be put into perspective of the strategic analysis, in order to make a comprehensive analysis of the company. More on this in the following sections.

5.0 SWOT – Summarizing the strategic and financial analysis

This section will briefly summarize the fundamental analysis made in the two previous sections, by mapping it out in a 4-by-4 SWOT chart. This will provide an overview of some of the most important internal and external factors for Scorpio Tankers.

SWOT Analysis

Internal	
Strengths	**Weaknesses**
Fuel-efficient ECO vessels	High financial leverage
Large fleet	Indications on short- and long-term liquidity problems
Low operational expenses	High spot exposure
Economies of scale	Low profitability (No value creation recently)
Access to capital markets	Competitive advantage only under certain market conditions
External	
Opportunities	**Threats**
Increase in bunker price	High competition in the industry
IMO Sulphur regulation	Stringent political regulation
Increase in demand	Cyclical nature of the product tanker industry
Decrease in world fleet	Decrease in demand (lower freight rates)
No sign of substituting oil as an energy source the next decades	Increase in supply
	Substitution of refined oil products

Figure 31: SWOT

6.0 Forecasting

The purpose of this section is to take the knowledge from the two previous sections, and combine it into a forward-looking perspective on Scorpio Tankers. Therefore we will develop pro forma statements, which can help us get an even further insight into the prospects for the company. The forecasted pro forma statements will allow us to assess things such as, if the company is in need of raising capital in the nearest future and/or if they are able to generate shareholder value in the long run. Furthermore the forecasted pro forma statements will lay the foundation for the valuation of the company, which we will return to in section 7. This section will start out by defining the forecasting period, then we will elaborate on some of the drivers and assumptions behind the forecast, and lastly we will present the pro forma statements.

6.1 Forecasting period

In the following forecast, we will not follow the traditional doctrine where you differ between the pre-determined explicit forecasting period and the terminal period, as it will vary from each assumption and driver to what extent they are kept constant. We do not assume that the company continues to reinvest in new vessels, but look at the company on an 'as-is' basis. Therefore we do not work with a terminal period where the company goes on in perpetuity, but instead we forecast only until the newest vessel turns 25 years old, where it is assumed

scrapped and the company therefore no longer own any revenue generating assets (see more on this in the following elaboration on drivers and assumptions).

6.2 Value drivers and assumptions

Companies in the product tanker industry - and the shipping industry in general - are very reliant on vessels in order to generate revenue. The number of vessels that a firm own/operate also impacts the expenses the company incur, such as the operational expenses, administration expenses and financial expenses, as each vessel need things like crewing, operators and financing. Therefore the forecast will not be made based on applying growth/decreasing margins to the value drivers based on historical numbers, which is a typical way to do it, but instead we will take basis on the fleet as of end 2017, and forecast the value drivers and assumptions on a per-vessel basis. In other words, it will be a vessel-driven forecast approach we will apply. Below are a brief analysis of the value drivers and an elaboration of the assumptions made in the forecast.

Value drivers

Value drivers are basically the factors that influence value generation within a company, and they can generally be divided into three different categories: Growth drivers, efficiency driver and financial drivers[90]. Below "Figure 32: Main value drivers" shows an overview of the main drivers and following is a brief elaboration of the different drivers. The relative impact on value generation from each value driver will be discussed in the sensitivity analysis in section 7.

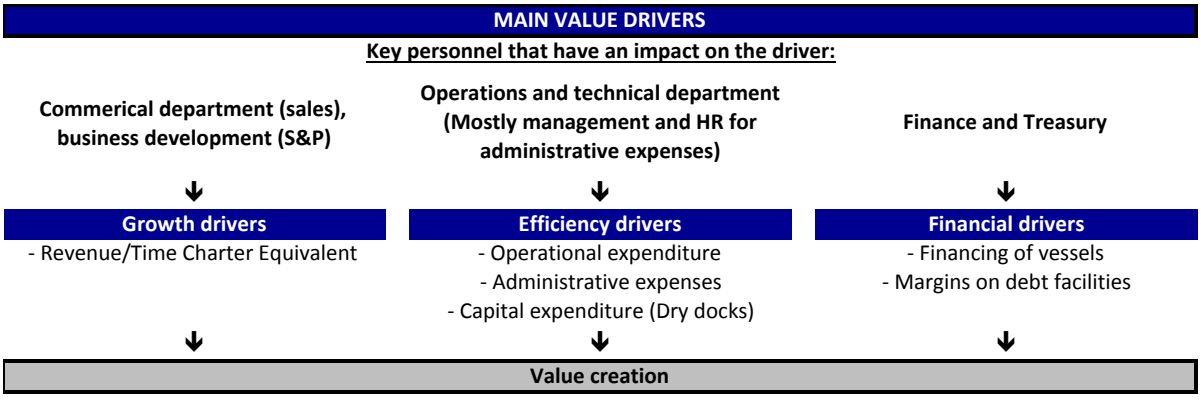

Figure 32: Main value drivers

[90] Lek.com "Executive insights – Identifying and managing key value drivers"

Growth drivers:

The primary growth driver in the product tanker industry is the TCE that the company obtains. The TCE is primarily driven by the freight rates obtained, the voyage costs and the number of earning days that the company have. The number of earning days is affected by the number of vessels that the company owns, and how much off-hire days the vessels have. The voyage costs are impacted by the fuel consumption and port/canal charges. The freight rates is much more complex as it is impacted by many different factors, such as the world economy and the supply of vessels (as elaborated in section 2.7). As the primary growth driver is very volatile in nature, some companies find it useful to hedge some of the earnings by employing vessels on time charter-out contracts. The commercial departments in a shipping company should generally work on the controllable parts of the growth drivers, such as minimizing the fuel consumption and maximizing the freight rate under the current market conditions.

Efficiency drivers:

A company like Scorpio Tankers has three primary efficiency drivers, which are the operational expenses, the administrative expenses and the capital expenditures on dry docks. All of these drivers can be further decomposed, as they each have their own factors that drive them. The operational expenses are typically driven by factors such as crewing costs, stores and lubricants, and daily repairs and maintenance (or from fees from having your vessels in technical management by another party). The administrative expenses are typically driven by the number of employees, their salary level, management compensation (or from fees from having your vessels in commercial management by another party) and insurance on the vessels. The capital expenditures on dry docks are driven by the amount of wear and tear the vessels have had and by how much the company decides to invest into repairing the vessels. Technical managers in shipping companies should work on creating value by keeping the costs of these drivers as low as possible, without letting it compromise performance.

Financial drivers:

The main financial drivers are the amount and type of debt that the company decides to have, and how much the cost of this debt is. The amount of debt that the vessel company decides to have is generally considered a management decision, but ultimately has an impact on the

shareholder generation. As also briefly discussed in the financial analysis, more leverage can sometimes have a positive impact on the return on equity. Financial leases are a great example of an agreement that gives you leverage, but usually also at a high cost. The margins and interests on the debt facilities is the other part of the debt equation, which should be kept as low as possible. Finance manager/treasury manager can also work on hedging interests and FX as a way of minimizing risk or maximizing earnings.

When we forecast the abovementioned drivers, it will be on an aggregated basis as seen in "Figure 32: Main value drivers". This is primarily due to the further complexity it would impose to the forecast if we were to decompose every driver. Furthermore it would increase the potential margin of error in the forecast.

Assumptions in the forecast

General assumptions

The forecast will be modeled on a yearly basis.

Inflation rate: For sake of simplicity this will be kept at 2% in the whole forecasting period, which is based on a FOMC forecast[91].

Fleet and vessels

The forecast is based on the fleet list as of end 2017. This means that it will include all known information from that date, with respect to vessel transactions, vessels on time charter-in and out contracts, and financially leased vessels. We also assume no fleet renewal during the forecasting period, but will instead depict a "as is" scenario, based on all known information at that time. The vessels time chartered-in are assumed kept in the contracted periods, and redelivered at the expiration of contracts. Financially leased vessels are also assumed kept until contracted redelivery date. All vessels are assumed trading spot, except for those vessels already on time charter-out contracts (which are assumed trading spot after expiration of contract). The vessels lifetime is assumed to be 25 years, which is in line with what Scorpio Tankers assumes in calculating the depreciation on their vessels[92].

[91] Knoema.com
[92] Scorpio Tankers, Annual Report 2017, p. F-17

Freight rates and TCE

The TCE that Scorpio Tankers achieves is partly driven by the freight rates and partly by the number of earning days available for the fleet. The spot freight rates for the first three years in the forecast are based on an average of what four research houses analysts[93] expect the TCE freight rates to be. Forecasting freight rates is a complex process, which is why we will rely on industry researchers. From year 2021 onwards we will use the 10-year average historical freight rates[94] as a proxy for future freight rates, and inflate them with the assumed inflation rate until end of the forecasting period. The rationale for choosing to apply a historical average as a proxy for future freight rates, is that we believe in some kind of mean reversion (It would be unlikely with abnormal high freight rates for a long time), and the 10 year average should be a long enough period to reflect a whole business cycle.

The 10-year historical average freight rates from benchmark routes are:

LR2 = 19.081 USD/day LR1 = 15.770 USD/day

MR = 13.193 USD/day Handy = 13.079 USD/day

Scorpio Tanker has modern consumption-friendly vessels, therefore we will apply an ECO-premium on top of the freight rates projected by the analysts, which reflects the less bunker consumed compared to the general market (The ECO premium is heavily determined by the bunker price, but we will assume that this is constant in the whole forecast). The ECO-premium should naturally fade over time, when ECO-vessels become the new norm. Therefore we will apply an ECO premium to the forecasted freight rates from 2018 and gradually fade it out over the next 10 years. The ECO-premium assumptions are based on an average of the ECO premiums that various research houses apply to the 3-year time charter rates[95]. *The ECO premiums are:*

LR2 = 2.000 USD/day LR1 = 1.500 USD/day

MR = 1.167 USD/day Handy = 1.000 USD/day

[93] An average of the expected TCE freight rates for 2018, 2019 and 2020 from:
- Pareto Securities AS Equity Research, Shipping Weekly, 4 Sep 2018
- Fearnresearch by Fearnleys, Tanker Market Outlook, April 2018
- JP Morgan North America Equity Research, Oil Tanker Earnings Preview, 20 April 2018
- Clarksons Platou Securities, Shipping quarterly sector report, Feb 2018

[94] Clarksons Shipping Intelligence Network, As of Sep 11 2018

[95] An average of estimates from BreamarACM, Potens&Partners and Clarksons Shipping Intelligence Network, as of Week 36 2018

As the vessels go through scheduled special surveys and periodic maintenance once in a while to get something repaired/fixed on the vessel, they do not usually have 365 earning days available in every single year, throughout the vessels lifetime. In order to reflect the periodic special surveys and repair into the number of available earning days, we will adjust the yearly earning days by assuming an average annual off-hire of 8 days throughout both the explicit forecasting period and the terminal period. This number is based on the number of docking days for a standard capsized dry-bulk carrier[96] divided by its lifetime, plus an additional 2 days per year, to reflect unforeseen repairs and breakdowns.

OPEX

The OPEX is driven by the daily operational expenses and the number of operating days the company have. The OPEX/day assumption will be based on Scorpio Tankers average OPEX/day per vessel type from 2017 (which can be seen in "Figure 16: Operational expenses"). These averages per type will be applied from 2018 on a per vessel basis and inflated by 1%, which is lower than the normal applied inflation rate due to an assumed offset effect from technological advances.

The number of operating days differs from the earning days, as the vessels generally also incur some operational costs, even when the vessel is off-hire. Therefore we assumed vessels have operating costs 365 days per year.

Administrative expenses

The administration costs are based on the 2017 administration costs per earning day of USD 1.237 (as described in section 3.2). This assumption will be applied from 2018 and inflated with 2% hereon. The admin cost per day will be multiplied by the total number of earning days the company have in the given year.

Financial expenses

For sake of simplicity the financial expenses are assumed to be 5% of the forecasted net interest-bearing debt, throughout the whole forecasting period. This assumption is based on

[96] Stopford, M., "Maritime Economics", 2009, p. 232

the average financial expenses in relation to the net interest-bearing debt for the last three years, which averages 5%.

Depreciation and scrap values

As noted under the fleet and vessels assumption, the vessels are assumed to have a lifetime of 25 years, and therefore they are also assumed depreciated over a 25 years. The book value per vessel as of end 2017 is based on the stated carrying values from the 2017 Annual Report[97]. The vessels are linearly depreciated to their scrap values, which are stated below.

Scrap values:[98]

LR2 vessels = USD 7,50 mil LR1 vessels = USD 6,07 mil

MR vessels = USD 4,11 mil Handy vessels = USD 3,47 mil

The scrap values are also assumed inflated with an annual 2%.

Dry-docking costs

Throughout a vessels lifetime it goes through several special surveys/dry docks, where the vessel is inspected and bigger repairs are made. As these repairs are of a larger size, they are accounted for as a capital expenditure. Below is the assumption that will be used in the forecast, which are based on estimates from an industry expert. The assumptions are made based on a 'best guess' from the expert, as the cost of the dry dock typically depends on the company's strategy with respect to the vessels. Each dry dock is assumed depreciated over three years.

Dry dock type	**Age**	**LR2**	**LR1**	**MR/Handy**
		Cost (USDm)	*Cost (USDm)*	*Cost (USDm)*
Special Survey 1	5	1,00	1,00	0,90
Special Survey 2	10	1,50	1,50	1,40
Special Survey 3	15	1,70	1,60	1,50
Intermediate Spec. Survey 4	17,5	1,00	1,00	0,90
Special Survey 4	20	1,80	1,70	1,60
Intermediate Spec. Survey 5	22,5	1,50	1,50	1,40

Figure 33: Dry dock costs[99]

The dry dock costs reflects estimated costs as of end 2017, and are therefore inflated with an annual 2%.

[97] Scorpio Tankers, Annual Report 2017, p. 50-52
[98] Clarkson's Shipping Intelligence Network, as of Sep. 11, 2018
[99] Von Wartburg, N. "Re: Estimates on dry docks"

Dividends

Scorpio pays out dividends on a quarterly basis. During 2015 and 2016 they paid approx. USD 0,125 per share every quarter, and during 2017 they lowered their quarterly dividend payout to USD 0,010 per share. In this forecast, we will assume a dividend payout of USD 0,010 per share per quarter (yearly dividend payout of USD 13 mil.) if the cash balance is below USD 300 mil. Whenever it is above USD 300 mil, we will assume that everything above that will be paid out as dividends. We assume no fleet renewal so there is no need for excessive cash amounts at hand.

Net working capital

The net working capital, which consists of inventory, receivables, prepaid expenses, less payables and other operating liabilities, is driven primarily by the TCE that the company earns. Therefore we have looked at how large each of the components in the working capital has been relative to the TCE earnings, in the past three years (where the fleet was of a substantial size), and taken an average of this. The inventory is assumed to be 1% of the TCE, receivables 10%, prepaid expenses 2%, payables 3% and other operating liabilities 3%.

Net interest-bearing debt

In the forecast the net interest-bearing debt will be driven by the development in vessel values (book values). We assume a target net interest-bearing debt to vessel values of 60% in the forecast period (for the past three years, Scorpio Tankers have had an average net interest-bearing debt to vessel values (book values) of 64%). In 2017 the ratio was 67%, therefore we will assume a gradual decrease with 1% yearly, until 2024 where it stay constant at 60% until end of forecast period.

Other assets

Primarily consist of pool working capital deposits, goodwill and restricted cash. For sake of simplicity this aggregated accounting line will be assumed to be constant throughout the whole forecasting period.

Special items

We assumed no 'special items' movements, such as merger related costs in the forecast period.

6.3 Pro forma statements

In below forecasted pro forma statements we only show the first five years, but the whole forecasts runs until 2043 where the last vessel is assumed scrapped.

Forecasted freight rates and earning days

TCE earnings (USD/day)	2018	2019	2020	2021	2022
LR2	16.439	23.545	28.650	20.481	20.662
LR1	14.909	20.325	24.575	16.820	16.986
MR	14.331	17.275	20.709	14.010	14.157
Handy	10.980	13.945	18.300	13.779	13.940
Weighted average	**14.456**	**19.230**	**23.516**	**16.478**	**16.640**

Total earning days	2018	2019	2020	2021	2022
LR2	13.782	13.568	13.603	13.566	13.566
LR1	4.284	4.284	4.296	4.284	4.284
MR	18.668	17.167	17.183	17.136	17.136
Handy	7.749	5.616	5.012	4.998	4.998
Total	**44.483**	**40.634**	**40.094**	**39.985**	**39.985**

TCE (USDm)	2018	2019	2020	2021	2022
LR2	227	319	390	278	280
LR1	64	87	106	72	73
MR	268	297	356	240	243
Handy	85	78	92	69	70
Total	**643**	**781**	**943**	**659**	**665**

Figure 34: Forecasted TCE rates and earning days

Note that above TCE earnings (USD/day) is a mix of the spot freight rates including an ECO-premium, and the TC-out freight rates. As mentioned earlier, the spot freight rates from 2018-2020 are based on the various analytics estimates of freight rates for that period. From 2021 onwards they are based on the 10-year historical average freight rates from benchmark routes, inflated over the years.

Forecasted Income Statement

Income statement (USDm)	2018	2019	2020	2021	2022
TCE	643	781	943	659	665
Charter hire	-55	-14	-10	-10	-10
OPEX	-286	-276	-275	-277	-280
Admin expenses	-53	-51	-52	-52	-54
EBITDA	249	440	606	319	322
Depreciation and amortization	-143	-157	-166	-174	-169
EBIT / NOPAT	106	283	440	145	153
Financial items	-133	-127	-121	-114	-108
Net income	**-27**	**156**	**319**	**31**	**45**

Figure 35: Forecasted Income Statement

Forecasted Balance Sheet

Balance sheet (USDm)	2018	2019	2020	2021	2022
Assets					
Vessels and dry dock	4.027	3.906	3.768	3.620	3.470
Other assets	74	74	74	74	74
Cash and cash equivalents	157	293	300	300	300
Net working capital	45	55	66	46	47
Invested capital (Net operating assets	**4.303**	**4.327**	**4.207**	**4.039**	**3.890**
Equity and Liabilities					
Equity, beginning of period	*1.685*	*1.645*	*1.788*	*1.796*	*1.759*
Net income	*-27*	*156*	*319*	*31*	*45*
Dividends	*-13*	*-13*	*-311*	*-68*	*-66*
Equity, end of period	**1.645**	**1.788**	**1.796**	**1.759**	**1.739**
Net interest-bearing debt	**2.658**	**2.539**	**2.411**	**2.280**	**2.151**
Invested capital (Equity + NIBD)	**4.303**	**4.327**	**4.207**	**4.039**	**3.890**

Figure 36: Forecasted Balance Sheet

Forecasted Cash Flow statement

Cash Flow Statement	2018	2019	2020	2021	2022
EBITDA	**249**	**440**	**606**	**319**	**322**
Delta NWC	15	-10	-11	20	0
Net investments (non-current assets)	-25	-35	-28	-26	-19
Scrappings	0	0	0	0	0
Free cash flow to the firm (FCFF)	**239**	**395**	**567**	**313**	**302**
New net financial liabilities	-122	-119	-127	-131	-129
Net financial expenses after tax	-133	-127	-121	-114	-108
Free cash flow to equity holders (FCFE)	**-16**	**149**	**319**	**68**	**66**
Dividends	-13	-13	-311	-68	-66
Cash surplus	**-29**	**135**	**7**	**0**	**0**

Figure 37: Forecasted Cash Flow statement

Forecasted performance metrics

Performance metrics	2018	2019	2020	2021	2022	Average whole forecast
Profit margin	16%	36%	47%	22%	23%	23%
Turnover rate on invested capital	0,15	0,18	0,22	0,16	0,17	0,25
ROIC	**2,4%**	**6,6%**	**10,3%**	**3,5%**	**3,9%**	**5,7%**
ROE	**-1,8%**	**8,8%**	**17,4%**	**1,6%**	**2,4%**	**6,3%**

Figure 38: Forecasted Performance Metrics

Above forecasted performance metrics works as a good 'sanity check' to the overall forecast with respect to potential errors. We can see that we have forecasted a ROIC below the current WACC, meaning that the company is not generating shareholder value. Relating this to the results of the previous financial and strategic analyses, this is fairly in line with what those analysis showed us about the industry and the company.

7.0 Valuation of Scorpio Tankers

Making a discounted cash flow valuation requires first of all a discount rate in order to discount the future cash flows back to the present. Furthermore the answer of a valuation is typically not always the definitive truth, so an assessment of the derived value would also be appropriate to make afterwards. This section will therefore firstly elaborate on the discount rate used in the valuation, and secondly it will present the answers of the discounted cash flow analysis. Lastly we will discuss the answer by adding some sensitivity analysis and

develop some alternative scenarios, which will help us make an all-round assessment of the potential investment case.

7.1 Discount rate

As noted in the beginning of the thesis in the delimitations section, this thesis will not go into details about calculating a specific WACC. The purpose is to estimate a plausible fair market value of equity, and make an overall assessment if Scorpio Tankers is a good investment. In case of an actual merger or acquisition of the company, it would be required to calculate an exact WACC.

The WACC we will apply in the valuation is 7,4% which is based on an estimated WACC by Bloomberg for Scorpio Tankers for 2017[100]. According to Aswath Damodaran (Professor of Finance at Stern School of Business at New York University), the average WACC for the oil/gas distribution industry as of January 2018 was 8,68%[101]. Therefore a WACC of 7,4% seem reasonable to apply. In the sensitivity analysis in section 7.3 we will look at how much the value changes when the WACC changes.

7.2 Discounted cash flow analysis

As mentioned earlier we will apply an enterprise value approach to our discounted cash flow model. This means that we will firstly derive the total enterprise value by taking the total free cash flow to the firm (FCFF) for every year in the forecast period, and discount them back to present value with the WACC. After the enterprise value is derived, we deduct the net-interest bearing debt[102] and thereby derive at the market value of the equity. The market value of the equity will be divided by the total number of outstanding shares, which gives the estimated

[100] Retrieved at 12 September 2018 via Bloomberg LP Terminal data base
[101] Damodaran online
[102] Note that ideally the market value of the net interest-bearing debt should be used. Instead we will use the book value

market value per share[103]. The results can be seen in below "Figure 39: Discounted cash flow analysis".

Discounted Cash Flow Analysis (USDm)	2018	2019	2020	2021	2022	2023-2043
EBITDA	**249,1**	**439,8**	**606,1**	**319,2**	**321,9**	**5.360,4**
Delta NWC	15,1	-9,7	-11,3	19,9	-0,5	46,1
Net investments (non-current assets)	-25,3	-35,4	-28,2	-26,0	-19,2	-853,0
Scrappings	0,0	0,0	0,0	0,0	0,0	651,7
Free cash flow to the firm (FCFF)	**238,9**	**394,7**	**566,6**	**313,1**	**302,3**	**5.205,1**
Discount factor	0,93	0,87	0,81	0,75	0,70	
Present value of cash flow	**222,4**	**342,2**	**457,4**	**235,4**	**211,5**	**1.878,8**

Discounted cash flow valuation (as of end 2017)		
Estimated enterprise value	**3.348**	USDm
Net-interest bearing debt	**2.780**	USDm
Estimated market value of equity	**567**	USDm
Shares	**327**	Mil
Estimated value per share	**1,74**	USD
Share price as of end 2017	3,05	USD

Figure 39: Discounted cash flow analysis

The above results shows that the estimated value per share is USD 1,74 as of end 2017, which is well below the share price at that moment of USD 3,05. This indicates a potential downside of 43%. The above-derived value is based on a various set of assumptions and modeling, therefore it should not necessarily be seen as the definitive truth. It should rather be seen as an input to the considerations about a potential investment in the company. Together with the following sensitivity analysis and the other scenarios, we will assess the plausibility of the above result.

7.3 Sensitivity analysis and other scenarios

Sensitivity analysis

When making a discounted cash flow valuation, it is relevant to make some additional sensitivity analysis, as this helps us getting an understanding of how much the value changes when some of the assumptions are changed slightly. Below "Figure 40: Value per share

[103] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 216

sensitivity" illustrates a sensitivity matrix, where you can see how it impacts the value per share, if you change the WACC and/or the TCE rates[104].

NPV sensitivity: Value per share (USD)						
		TCE rate sensitivity (USD/day)				
		-2.000	-1.000	0	1.000	2.000
WACC sensitivity	-2%	0,51	2,08	3,64	5,21	6,77
	-1%	-0,24	1,19	2,62	4,05	5,49
	0%	-0,89	0,42	1,74	3,05	4,37
	1%	-1,46	-0,25	0,97	2,18	3,39
	2%	-1,96	-0,83	0,29	1,42	2,54

Figure 40: Value per share sensitivity

If the TCE rates decreased with USD/day 1.000, the discounted cash flow value would change from USD 1,74 to USD 0,42 per share! This emphasizes how big an impact freight rates have – especially on a company that have such a large fleet and many earning days. If the WACC is increased with 1% - from 7,4% to 8,4%, which almost equivalents the industry WACC – the value decreases with approximately 45% to USD 0,97 per share.

In below figure we show the impact on the value by changing other assumptions in the forecast, such as the OPEX, admin cost, CAPEX and the scrap value.

Driver	Change in assumption		Impact on DCF
	Assumption change	Rationale	
OPEX	Inflation from 1% to 0%	Reflecting a more aggressive improvement in technological advances	Present value: Increase USD 200m Value per share: Increase USD 0,61
Admin cost	Inflation from 2% to 1%	The inflation reduction reflects an offset effect from automation of administrative tasks	Present value: Increase USD 41m Value per share: Increase USD 0,13
CAPEX	10% reduction in CAPEX costs	Assuming that Scorpio Tankers' vessels don't need as much repairs as initially assumed	Present value: Increase USD 39m Value per share: Increase USD 0,13
Scrap value	Scrap value increase with 10%	To reflect an increase in steel value	Present value: Increase USD 13m Value per share: Increase USD 0,04

Figure 41: DCF impact from change in assumptions

As can be seen, the impact from changes to other assumptions does arguably not impact the discounted cash flow value nearly as much, as the freight rates does (It of course depends on

[104] The TCE rates sensitivity shows the impact of lowering/increasing the TCE rates (across all segments) with USD/day X.XXX for the analyst rates in the first three years, and the 10-year historical average.

how much you change that driver assumption). With this said, this although shows that there is some value to be gained from continuously striving to keep the OPEX costs as low as possible. If technological advancement continues at the rapid pace we are experiencing right now in the world, it is not impossible to imagine that automated vessels is going to be a thing, and that many administrative tasks (financial, commercial and technical) will be replaced by software/AI – which would lead to lower OPEX and administrative expenses. Therefore these kind of sensitivities are not irrelevant to make, and should be taken into consideration.

Turning back to the 'base case' scenario as shown in the forecast and in section 7.2, another important aspect to consider about this, are the break-even rates - more specifically the cash break-even rates and the income statement (P&L) break-even rates. An overview of these for the following five years can be seen in below two figures.

Cash break-even rates		**2018**	**2019**	2020	**2021**	**2022**	**Average**
Number of earning days		44.483	40.634	40.094	39.985	39.985	
Charter hire	*USDm*	55	14	10	10	10	
OPEX	*USDm*	286	276	275	277	280	
Admin	*USDm*	53	51	52	52	54	
CAPEX (maintenance)	*USDm*	25	35	28	26	19	
Debt repayments	*USDm*	122	119	127	131	129	
Debt interests	*USDm*	133	127	121	114	108	
Total costs	*USDm*	**674**	**623**	**613**	**611**	**599**	
Dividends*	*USDm*	13	13	13	13	13	
Total costs incl. dividends	*USDm*	**687**	**636**	**626**	**624**	**612**	
Cash break-even rate	***USD/day***	**15.159**	**15.336**	**15.288**	**15.274**	**14.986**	**15.209**
Cash break-even rate incl. Dividends	***USD/day***	**15.453**	**15.658**	**15.614**	**15.601**	**15.313**	**15.528**
Forecasted TCE rates	*USD/day*	**14.456**	**19.230**	**23.516**	**16.478**	**16.640**	

Scorpio Tankers would have to earn a TCE rate of at least USD/day 15.159 in 2018 to remain cash neutral**

* Assuming a quarterly dividend payout of USD 0,01 per share
**Disregarding cash gain from working capital improvements

Figure 42: Cash break-even rates

P&L break-even rates		2018	2019	2020	2021	2022	Average
Number of earning days		44.483	40.634	40.094	39.985	39.985	
Charter hire	*USDm*	55	14	10	10	10	
OPEX	*USDm*	286	276	275	277	280	
Admin	*USDm*	53	51	52	52	54	
EBITDA	*USDm*	**394**	**342**	**337**	**340**	**343**	
Depreciation	*USDm*	143	157	166	174	169	
EBIT (NOPAT)	*USDm*	**537**	**498**	**503**	**514**	**512**	
Financial items	*USDm*	133	127	121	114	108	
Net income	*USDm*	**670**	**625**	**624**	**628**	**620**	
EBITDA break-even rate	***USD/day***	**8.855**	**8.407**	**8.287**	**8.358**	**8.452**	**8.472**
NOPAT break-even rate	***USD/day***	**12.079**	**12.268**	**12.379**	**12.648**	**12.609**	**12.397**
Net income break-even rate	***USD/day***	**15.067**	**15.392**	**15.346**	**15.453**	**15.256**	**15.303**

Figure 43: P&L break-even rates

As cash is a very important concern in a cyclical industry, the cash break-even rates are arguably the most important break-even rates to consider. The cash break-even rates shows the required TCE rate the fleet has to obtain, in order for the cash position to remain neutral in that year. Assuming that Scorpio Tankers decides to pay out quarterly dividends of USD 0,01 per share in 2018 no matter what, they need to obtain an average TCE rate of USD/day 15.453 in order for their cash position to remain neutral. The cash break-even rate is especially important to consider in a downside freight rate scenario or in markets where freight rates are low, as these can be used to assess how long time the company can endure low freight rates before they need to raise cash or sell vessels.

Alternative scenarios

In addition to the sensitivity analyses, we have developed two additional freight rate scenarios to see how these would affect Scorpio Tankers' financials. As freight rates are the most volatile, but also one of the most important profit drivers, we have chosen to focus the scenarios solely on this driver, thus assuming all other factors and assumptions to remain as in the base case. The two scenarios have been developed as scenarios that could potentially be realistic, with one being a bear scenarios and the other being a bull scenario. The scenarios will be elaborated in the following.

Bear scenario

The bear scenario reflects an environment where low freights is the new normal due to declining demand in transportation of refined products. The spot freight rates used in this

scenario are based on an average of the historical benchmark freight rates from Clarkson (as seen in "Figure 8: Historical freight rates for benchmark routes") from the years 2009-2014. On top of the freight rates we will still apply the same ECO premiums as in the base case, but they will remain un-inflated through the whole forecast period (the existing TC-out contracts also remain unaffected). We are also assuming no dividend payouts in the period.

Selected key financials	2018	2019	2020	2021	2022
Average TCE rates (USD/day)	14.199	13.935	13.810	13.663	13.517
Net income (USDm)	-39	-59	-70	-82	-79
Dividends (USDm)	0	0	0	0	0
Cash position, end of period (USDm)	160	107	49	-15	-73
ROIC	**2,2%**	**1,6%**	**1,3%**	**0,8%**	**0,8%**
ROE	**-2,4%**	**-3,8%**	**-4,7%**	**-5,7%**	**-5,9%**

Figure 44: Bear scenario key financials

In the bear scenario Scorpio Tankers would run out of cash during 2021, meaning that they would have to have to raise cash, sell vessels or renegotiate debt, in order to not go bankrupt. The estimated market value of equity is irrelevant in this case as it mathematically turns out negative.

Bull scenario

The bull scenario reflects a scenario where Scorpio Tankers benefit greatly from the 2020 Sulfur emission regulation. More specifically we assume a scenario where most players in the product tanker market choose to switch to a compliant fuel oil instead of installing scrubbers, and as a result of this Scorpio Tankers gains a relatively larger ECO premium, due to an increased bunker price. Instead of assuming the ECO premium fade over the first 10 years, we assume that it peaks in 2020, remains flat here until 2025, and then slowly fades until 2030. All other assumptions remain the same. See below figures for ECO premiums comparison and financials from the bull scenario.

Base case

ECO premiums (USD/day)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LR2	2.000	1.800	1.600	1.400	1.200	1.000	800	600	400	200	0	0	0
LR1	1.500	1.350	1.200	1.050	900	750	600	450	300	150	0	0	0
MR	1.167	1.050	934	817	700	584	467	350	233	117	0	0	0
Handy	1.000	900	800	700	600	500	400	300	200	100	0	0	0

Bull case

ECO premiums (USD/day)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LR2	2.000	2.000	4.000	4.000	4.000	4.000	4.000	3.333	2.667	2.000	1.333	667	0
LR1	1.500	1.500	3.000	3.000	3.000	3.000	3.000	2.500	2.000	1.500	1.000	500	0
MR	1.167	1.167	2.334	2.334	2.334	2.334	2.334	1.945	1.556	1.167	778	389	0
Handy	1.000	1.000	2.000	2.000	2.000	2.000	2.000	1.667	1.333	1.000	667	333	0

Figure 45: ECO premiums in base case vs. bull case

Selected key financials	2018	2019	2020	2021	2022
Average TCE-rates (USD/day)	14.456	19.375	25.274	18.381	18.690
Net income (USDm)	-27	162	390	107	127
Dividends (USDm)	13	13	383	144	147
Cash position, end of period (USDm)	157	298	300	300	300
ROIC	2,4%	6,7%	11,9%	5,4%	5,9%
ROE	-1,8%	9,1%	21,2%	5,8%	7,1%

Figure 46: Key selected financials bull scenario

In the bull scenario for the first five years we see a dividend payout of USD 700m, compared to a dividend payout of USD 471m in the base case. Furthermore it would lead to an increase in estimated market value of equity per share from USD 1,74 to USD 2,96, and a ROIC for the whole forecast period of 6,3%.

Likelihood of scenarios for Scorpio Tankers: Risk/reward of an investment?

Having introduced some sensitivity analyses to the original base case and looked at a bear and bull freight rate scenario for Scorpio Tankers, it is appropriate to reflect a little on the likelihoods of various scenarios for Scorpio Tankers. Relating the scenarios to the strategic and financial analyses, neither of the forecasted scenarios appears highly unlike. The bear scenario is probably a little too pessimistic to assume low and flat rates in the whole forecasted period until 2043, but the point is although that Scorpio Tankers cannot endure many more years of low freight rates, before they are in liquidity problems and potentially go bankrupt. Below we have listed the scenarios to get an overview of the risk/reward compared to the share price as of end 2017.

Scenario	Est. value per share (USD)	Risk/reward compared to share price end 2017: USD 3,05
Bear	n/a	**Potentially -100%**
Base case	1,74	**-43%**
Bull	2,96	**-3%**

Figure 47: Risk/reward of scenarios

As can be seen, all three forecasted scenarios results in an estimated market value per share that is below the actual market value per share. Referring to "Figure 40: Value per share sensitivity" the spot freight rates would have to increase with USD/day 1.000 in the base case in order for the estimated market value per share to equal the actual market value per share, whereas a USD/day 2.000 increase in spot freight rates in the base case would result in an estimated market value per share of USD 4,37 – which is a lot over the course of 25 years. While we believe that all three scenarios depict somehow likely scenarios for Scorpio Tankers, we assess that the initial forecast (base case) is the most likely scenario. The main point is although that all three of the scenarios tells us that currently the downside of an investment in Scorpio Tankers appears larger than a potential upside.

8.0 Conclusion

Concluding on the research

This research set out to investigate more about the product tanker company Scorpio Tankers, estimate the fair market value of the equity for the company, and assess whether potential investors should consider investing in it. Why has this been relevant to investigate? It is because the company has just been through a merger with another product tanker company; it is the largest product tanker company in the industry and arguably one of the most mentioned companies within the industry. In our research we found that, subject to our assumptions in the forecast, the estimated fair market value of equity per share for the company is USD 1,74 which is 43% below the current share price of USD 3,05 as of end 2017. Generally we *do not recommend* potential investors to invest in Scorpio Tankers, as the potential reward does not outweigh the risk of an investment in the company. Based on the research made in this paper, the following sums up what we believe potential investors should be aware of before considering an investment in the Scorpio Tankers:

- The product tanker industry is characterized by high rivalry and low profitability prospects.
- Scorpio Tankers' competitive advantage is conditioned to specific market conditions.
- Relatively poor financial performance the last five years.
- A relatively highly levered company, that is vulnerable to weak markets.
- Liquidity problems in the past and potential liquidity problems in the future. This also implies a potential risk of further dilution of the existing shareholders.
- All three forecasted scenarios valuate the equity to be less worth than the market value as of end 2017.

An investment in Scorpio Tankers is not for the risk averse investor, as it more resembles a lottery ticket - where the chance of winning is low, but if the outcome falls in your favor you might also gain well from it.

Finally, things worth mentioning since the valuation as of end 2017 until September 2018 are that Scorpio Tankers have obtained average TCE rates of USD/day 12.816 for the first six months[105], they have announced 32 sale and leaseback agreements[105] (meaning they have increased their indebtedness further), and their shares are now trading at USD 1,91 as of 14 September 2018[106].

Thesis in perspective

Some choices regarding delimitation and scope were made throughout the process of writing this thesis, which lead to this specific outcome of the research. Every research has its own weaknesses and therefore we will briefly discuss other perspectives that could be taken into consideration in further research about Scorpio Tankers. With this said we *do not* believe that had we chosen a different kind of valuation method, the recommendation regarding a potential investment in Scorpio Tankers should have been different.

[105] Scorpio Tanker, Q2 2018 Report
[106] Google finance (STNG)

As liquidity and debt are of important concern to Scorpio Tankers there are two things regarding the debt that could have been looked more into. The first thing is the financial covenants, which the debt is subject to. This aspect has completely been disregarded in this thesis, but is of importance in the daily operations of a shipping company. As it is a highly levered company, Scorpio Tankers is arguably not be far from breaching some of these covenants, which could lead to restrictions or potentially repeal their loan agreement. The second thing is a more detailed view on their debt with respect to timing and schedule of the repayments on the different facilities. This is especially relevant as the company is running tight on liquidity, and therefore we could forecast even more detailed when they would run into liquidity trouble.

Some alternative approaches to valuation could potentially also be made, to provide a more well rounded picture of the valuation of Scorpio Tankers. More specifically it could be a relative valuation approach by using multiples from Scorpio Tankers and relating them to their peers, or a liquidation approach where the equity is estimated by the net proceeds the company would obtain through a liquidation process[107]. The last-mentioned approach is particularly of interest, as the research in this paper has shown that the company could be on the verge to bankruptcy if freight continues to remain low.

Lastly, a Monte Carlo simulation could be applied in calculating the probabilities of various valuation outcomes for Scorpio Tankers, as there are many random variables in the equation. A Monte Carlo simulation could thus also help us understand the impact of risk an uncertainty in the forecasting model[108].

[107] Petersen, C., & Plenborg, T. – "Financial statement analysis: Valuation, Credit analysis and executive compensation", p. 211
[108] Investopedia.com "Monte Carlo Simulation"

Table of figures

Literature list

Books:

- Palepu, K., Healy, P. & Bernard, V., "Business Analysis & Valuation: Using Financial statements", 2004, 3rd edition, South-Western.
- Petersen, Christian V., & Plenborg, Thomas, "Financial statement analysis: Valuation, Credit analysis and executive compensation", 2012, Pearson Education Limited
- Stopford, Martin, "Maritime Economics", 2009, 3rd edition, Routledge

Analytic/Broker reports:

- BRSBrokers Tanker Report, March 2018
- Clarksons Platou Securities, Shipping quarterly sector report, Feb 2018
- Fearnresearch by Fearnleys, Tanker Market Outlook, April 2018
- JP Morgan North America Equity Research, Oil Tanker Earnings Preview, 20 April 2018
- Pareto Securities AS Equity Research, Shipping Weekly, 4 Sep 2018

Research databases:

- Bloomberg LP, Bloomberg terminal data base
- BraemarACM, at: https://braemaracm.com/research/
- Clarksons Shipping Intelligence Network, at: https://www.clarksons.net/portal
- Potens&Partners, at: http://www.poten.com

Financial reports, company presentations, company announcements and prospectus:
(All online sources last accessed at 16 Sep 2018)

- Ardmore Shipping, Q1 2018 Report, found at: http://ardmoreshipping.investorroom.com/download/ASC+1st+Quarter+Earnings+Presentation.pdf

- D'Amico International Shipping, Q1 2018, found at: http://investorrelations.damicointernationalshipping.com/files/Bilanci%20e%20Relazioni/ENG/2018/DIS_Q1%202018_EN.PDF
- Hafnia Tankers, Q1 2018, found at: http://hafniatankers.com/pressroom/Lists/PressArticles/Attachments/39/Q1%202018%20-%20Hafnia%20Tankers%20Ltd.%20-%20Consolidated%20Financial%20Statement.PDF
- Scorpio Tankers, Annual Report 2017, found at: http://www.scorpiotankers.com/~/media/Files/S/Scorpio-Tankers/Annual%20Reports/Scorpio%20Tankers%20Inc%202017%20Annual%20Report.PDF
- Scorpio Tanker, Annual Report 2016, found at: http://otp.investis.com/clients/us/scorpio_tankers_inc1/SEC/sec-show.aspx?FilingId=11937605&Cik=0001483934&Type=PDF&hasPdf=1
- Scorpio Tanker, Annual Report 2015, found at: http://otp.investis.com/clients/us/scorpio_tankers_inc1/SEC/sec-show.aspx?FilingId=11268104&Cik=0001483934&Type=PDF&hasPdf=1
- Scorpio Tanker, Annual Report 2014, found at: http://otp.investis.com/clients/us/scorpio_tankers_inc1/SEC/sec-show.aspx?FilingId=10600628&Cik=0001483934&Type=PDF&hasPdf=1
- Scorpio Tankers, Annual Report 2013, found at: http://otp.investis.com/clients/us/scorpio_tankers_inc1/SEC/sec-show.aspx?FilingId=9891840&Cik=0001483934&Type=PDF&hasPdf=1
- Scorpio Tankers, Company Announcement, May 23 2017, found at: http://www.scorpiotankers.com/media/company-news/2017/05-23-2017-213137001
- Scorpio Tankers, Company Announcement, August 29 2017, found at: http://www.scorpiotankers.com/media/company-news/2017/08-29-2017-213742238

- Scorpio Tankers, Company Announcement, September 1 2017, found at: http://www.scorpiotankers.com/media/company-news/2017/09-01-2017-110141409
- Scorpio Tankers, Company Presentation June 2018, found at: http://www.scorpiotankers.com/~/media/Files/S/Scorpio-Tankers/Company%20Presentations/STNG%20Company%20Presentation%20June%2021%202018.pdf
- Scorpio Tankers, Q2 2018 Report, found at: http://www.scorpiotankers.com/tools/viewpdf.aspx?page={54E87F42-DBF8-4BF8-BA8F-E924B5C84E9F}
- TORM PLC, Annual Report 2017, found at: https://torm.gcs-web.com/static-files/7261690e-5c2f-49cd-8996-f8a61ffc6346
- TORM PLC, Annual Report 2017, Amendment No.1 to 20-F, found at: https://investors.torm.com/static-files/e4bb1dd3-259c-471c-bfea-8bea2040551d
- TORM PLC Prospectus 2016, found at: http://torm.gcs-web.com/static-files/52d02e5a-3ead-4449-acb3-724d4d6f69cd
- TORM PLC, Q1 2018 excel back-up, found at: https://investors.torm.com/static-files/f3203d1e-dc96-468a-9769-ad709e274ba0

Online sources: (All online sources last accessed at 16 Sep 2018)

- BP Energy Outlook 2018, found at: https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/energy-outlook/bp-energy-outlook-2018.pdf
- Bwtankers.com, found at: http://www.bwtankers.com
- Damicointernationalshipping.com, found at: https://en.damicointernationalshipping.com
- Damodaran online, found at: http://pages.stern.nyu.edu/~adamodar/

- Eniday.com, found at: https://www.eniday.com/en/sparks_en/oil-tanker-future/
- Exxon Energy Outlook 2018, found at: https://cdn.exxonmobil.com/~/media/global/files/outlook-for-energy/2018/2018-outlook-for-energy.pdf
- Google finance, found at: https://finance.google.com
- Google finance (STNG), found at: www.google.com/finance?q=NYSE:STNG
- Hafniatankers.com, found at: http://hafniatankers.com/fleet/Pages/default.aspx
- Imo.org, found at: http://www.imo.org/en/mediacentre/hottopics/pages/sulphur-2020.aspx
- International Energy Agency 2017, found at: https://www.iea.org/weo2017/
- Investopedia.com "DCF vs comparables", found at: https://www.investopedia.com/articles/professionals/072915/dcf-vs-comparables-which-one-use.asp
- Investopedia.com "Time Charter Equivalent", found at: https://www.investopedia.com/terms/t/time-charter-equivalent-tce.asp
- Knoema.com, found at: https://knoema.com/kyaewad/us-inflation-forecast-2018-2019-and-up-to-2060-data-and-charts
- Lek.com "Executive insights – Identifying and managing key value drivers", found at: https://www.lek.com/sites/default/files/insights/pdf-attachments/1936_Identifying_and_Managing_Key_Value_Drivers_LEK_Executive_Insights.pdf
- Marinelog.com, found at: https://www.marinelog.com/index.php?option=com_k2&view=item&id=26694:clarksons-says-number-of-active-shipyards-is-lowest-in-years&Itemid=257
- Maritime-executive.com, found at: https://www.maritime-executive.com/article/canada-tankers-safer-than-pipelines-rail#gs.C=GlKuo

- Mærsktankers.com, found at: https://maersktankers.com/fleet
- Nasdaq, Scorpio Tankers, found at: https://www.nasdaq.com/symbol/stng/institutional-holdings
- Organization of the Petroleum Exporting Countries, "World Oil Outlook 2017", found at: https://www.opec.org/opec_web/flipbook/WOO2017/WOO2017/assets/common/downloads/WOO%202017.pdf
- Scorpio Tankers "Office details", found at: http://www.scorpiotankers.com/contact-us/office-details
- Seatrade-Maritime.com, found at: http://www.seatrade-maritime.com/news/europe/what-is-an-eco-ship.html
- Setxind.com, found at: http://setxind.com/midstream/pipeline-ship-rail-benefits-needs-different-oil-gas-transport-methods/
- Shipandbunker.com, found at: https://shipandbunker.com/prices/emea/nwe/nl-rtm-rotterdam#IFO380
- Shippingwatch.com, 13 Jun 2018, Found at: https://shippingwatch.com/carriers/Tanker/article10683039.ece
- Shippingwatch.com, 13 Nov 2017, found at: https://shippingwatch.com/carriers/Tanker/article10024336.ece
- TORM.com/about-torm, found at: http://www.torm.com/about-torm

E-mail interviews:

- Bresemann, Jakob "Re: Qualified labour to the product tanker industry", Message to Jonas Bro, 13 Sep 2018, E-mail.
- Von Wartburg, Nikolaj "Re: Estimates on dry docks", Message to Jonas Bro, 14 Sep 2018, E-mail.

Appendix 1:

TORM PLCs reformulated analytical income statement and analytical balance sheet

TORM PLC analytical income statement (USDm)	2015	2016	2017
Revenue	540,4	680,1	657,0
Port expenses, bunkers and commissions	-169,6	-221,9	-259,9
TCE	**370,8**	**458,3**	**397,1**
Charter hire	-12,0	-21,5	-8,5
OPEX	-122,9	-195,2	-188,4
Gross profit	**235,9**	**241,5**	**200,2**
Profit from sale of vessels			2,8
Administrative expenses	-19,5	-41,4	-45,0
Other operating expenses	-6,3	-0,3	-0,4
Operating profit before special items	**210,1**	**199,8**	**157,5**
Impairment losses on tangible and intangible assets	0,0	-185,0	-3,6
EBITDA	**210,1**	**14,8**	**154,0**
Depreciation	-67,3	-122,2	-114,5
EBIT	**142,8**	**-107,4**	**39,5**
Tax	-1,0	-0,8	-0,8
NOPAT	**141,7**	**-108,1**	**38,7**
Share of profit/loss from JV's	0,2	0,2	0,0
Financial income	1,0	2,8	4,3
Financial expenses	-16,9	-37,3	-40,6
Net income	**126,0**	**-142,5**	**2,4**

TORM PLC Analytical Balance Sheet	2015	2016	2017
Non-current assets			
Goodwill	11,4		
Vessels and drydock	1.492,0	1.343,8	1.294,5
Prepayments on vessels	72,5	44,0	88,4
Other plant and operating equipment	2,5	1,8	1,9
Total non-current assets	**1.578,5**	**1.389,7**	**1.384,8**
Current assets			
Bunkers	25,6	31,6	33,2
Freight receivables	83,1	62,5	71,3
Other receivables	5,8	8,1	11,8
Prepayments	5,9	3,0	4,4
Vessels held for sale			6,6
Cash and cash equivalents	168,3	76,0	134,2
Total current assets	**288,6**	**181,3**	**261,5**
Non-interest-bearing debt			
Deferred tax liabilitiy	45,1	45,0	44,9
Trade payables	22,3	28,5	26,2
Current tax liability	1,8	0,8	1,4
Other operating liabilities	33,6	21,8	26,2
Deferred income	0,4	0,2	0,1
Total non-interest-bearing debt	103,2	96,2	98,8
Invested Capital (net operating assets)	**1.763,9**	**1.474,7**	**1.547,5**
Total shareholders equity	**976,0**	**780,6**	**791,1**
Net-interest bearing debt			
Long-term debt	717,5	593,9	629,2
Long-term Finance lease liability	12,9		25,3
Mortgage debt and bank loans (current)	48,7	75,7	91,7
Finance lease liabilities (current)	0,6	13,6	2,9
Other liabilities	8,5	11,3	7,6
Interest-bearing debt	**788,3**	**694,4**	**756,7**
Other investments	0,0	0,0	0,0
Investment in joint ventures	0,3	0,3	0,3
Interest-bearing assets	**0,3**	**0,3**	**0,3**
Net-interest bearing debt	**787,9**	**694,1**	**756,4**
Invested Capital	**1.763,9**	**1.474,7**	**1.547,5**