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FINANCIAL CRISIS AND THE SHIPPING INDUSTRY

HOW AND WHY SHIPPING COMPANIES WERE AFFECTED BY THE CRISIS

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Masteroppgaven er gjennomført som ledd i utdanningen ved Universitetet i Agder og er godkjent som del av denne utdanningen. Denne godkjenningen innebærer ikke at universitetet innestår for de metoder som er anvendt og de konklusjoner som er trukket.

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1 Prologue

This thesis aims to reflect on the financial crisis, lasting from 2007-2009, and the impact it had on the shipping market. We are interested in finding out how and why the financial crisis affected the shipping market so hard.

The thesis is founded on a theoretical framework based on different subjects we have had in our time as Bachelor and Master Students. Though, we have also added relevant facts and information regarding the shipping market and the financial crisis to this foundation, in order to get a broader perspective on this topic.

In order to analyze the shipping market, we have chosen five shipping companies which operate in different segments. These five companies have been thoroughly analyzed and discussed in chapter 8 of this thesis. When analyzing the companies; the theory from the previous chapters should be recognized as foundation for our discussion and arguments which legitimize our findings. In the analysis we have tried to benchmark our chosen companies against comparable companies in the same industry and segment. By comparable; we imply the companies are operating within the same segment and the majority of cargo handled being the equivalent. The routes travelled and ports called upon may vary, as may operate speed and types of contracts and financial structure of the company. Needless to say; to find a perfectly comparable company is not possible, but also this is what makes for a discussion of this kind.

The conclusion of this thesis has been based upon the findings we have made in the analysis and the theoretical foundation.

While writing this thesis, we have been using EndNote X3, a reference manager tool, and we have chosen to use APA 5th as the style of reference. When analyzing the five shipping companies, we obviously had to go through numerous annual reports and financial statements. In order to keep it simple, we chose to list all the URLs to the annual reports 2004-2009 of a company under one single reference. The reason behind this is, not only to keep it simple, but also since we have analyzed the years 2004-2009 in relation to each other.

We would like to thank our advisor, Sigbjørn Sødal, for his support while writing this thesis. Also, we would like to thank the University's Academic Librarian, Henry Langseth, for his support regarding the use of EndNote and references in this thesis. Finally, we would like to thank our girlfriends and families for their support, not only during this semester writing the thesis, but all the previous years of our education.

2 Summary

The theoretical framework of this thesis includes macro arguments for trade, shipping theory and definitions, including Martin Stopford's comprehensive shipping market model, and some theory and definitions on some of the financial terms, such as gearing, financial and operating lease, used in this thesis.

The Baltic Dry Index (BDI) is a series of indices based on reports from independent and competitive shipbrokers. Its purpose is to provide the shippers and the ship-owners with unbiased information on freight rates, and it is thought to be one of the most accurate indicators of economic development in the shipping market.

Due to environmental considerations, new IMO regulations state that by the end of 2010 all single-hulled tanker vessels should be phased out of the market and only double-hulled vessels will be accepted. This will result in more ships being scrapped or repurposed.

The force behind the financial crisis was subprime mortgages sold to a higher rating than what they should have been, creating solvency and liquidity problems for the banks and the financial sector. It is reasonable to say the crisis started in the US, but it spread to other countries as well. The financial crisis led to a decline in world consumption, and thus world trade and the demand for shipping services decreased. The liquidity problems were faced by the shipping industry as well, with reduced attaining of debt due to interbank lending problems faced.

Frontline is one of the world's biggest tanker companies in the bulk trade. The Company has had a high debt to equity ratio during the period of 2004 to 2009 and the ratio peaked at 7.44 in 2007. The Company's net income decreased from $701M in 2008 to $105M in 2009 due to the decrease in voyage and time charters. Revenues were down 46,1% from 2008 to 2009, which amounted to a staggering $971M.

NAT operates in the tanker market and mainly transports crude oil. It is a fairly young company, which was founded in 1995, but has had a strong growth focus during its relatively short life. In contradiction to Frontline, NAT has a philosophy of low gearing and has financed their growth through issuance of common stock. Their debt to equity ratio was 0.2, 0.03 and 0.01 during the years of the financial crisis. Though, the net income of the Company plummeted from $119M in 2008 to $1M in 2009 due to low revenues and the cost of operating expense, including depreciation, amounting to $113M.

Wilh. Wilhelmsen is the market leading company in RORO shipping. Due to the recent financial crisis the Company has had to put 17 vessels into layup entering 2010. The debt to equity ratio has been relatively low; 1.17 in 2004, 1.90 by the end of 2009 and peaking in 2008 at 2.56 due to the issuance of new debt. The freight revenues of Wilh. Wilhelmsen were nearly halved from 2008 ($293M) to 2009 ($153M) due to the sharp decline in average freight rates and the low utilization of the fleet.

Odfjell is a worldwide provider of transportation and storage of bulk liquid chemicals, acids, edible oils and other special products. Odfjell's extensive new-building program resulted in an increase in the company's debt to equity ratio, which peak in 2008 at 2.59. The net result of the Company went from being negative in 2007 to a positive $110.5M in 2009 due to the repeal of the Norwegian tonnage tax system.

Golden Ocean is a dry bulk shipping company focusing on Panamax, Kamsarmax and Capesize vessels. The Company has had a high debt to equity ratio during the years 2004-2009, 5.52 in 2007 and 4.74 in 2008, but in 2009 it was down to just 1.06 due to a major increase in equity and a decrease in debt. Further, the Company has had a return on capital employed peaking at 28.50% in 2007, 20.79% in 2008 and 18.73% in 2009. The revenue in 2009 was $350M, which was a dismal result compared to $877M the year before.

Up until the crisis, the shipping industry saw a high degree of new-building, which created to large a supply of vessels during the decline and forced ships into layup.

The various segments have all experienced a decrease in freight rates, but the chemical tanker market experienced the least volatile rates, which in turn hurt the companies as they have had a large portion of their ships in the spot market. Bunker cost increased freight rates and companies with hedges on bunker incurred substantial losses when the crude oil price plummeted.

Chinese demand, especially for oil and iron ore, has been one of the main factors driving the increased and decreased demand for vessels, both prior to and during the financial crisis.

All the shipping companies analyzed, but NAT, have experienced prevailing low share prices when comparing towards the BDI, BDTI, BCTI, OSEBX and the NYSE. The NYSE and OSEBX did not incur as high a decline as the shipping companies, making us believe the shipping industry was one of the losers in the midst and end of the financial crisis.

3 Table of content

4 Theoretical framework

4.1 Trade theory

The following theory is based on the book *"Næringsstruktur og utenrikshandel: i en liten, åpen økonomi"* by Victor D. Norman (Norman, 2006, pp. 13-20 & 142-143).

In the 1700´s Adam Smith stated, that there is not only the capital gain from export, but also the increased access to a variety of goods that makes countries prone to international trade.

Through international trade a country will specialize in a variety of products, have a less specialized consumption, obtain a larger marketplace and reach a higher indifference curve, as we will describe in the following.

4.1.1 Comparative Advantages

Looking at the theory regarding comparative advantages presented by David Ricardo, a country should focus on producing what it is relatively better at producing compared to another country. If Norway is better at producing oil than China, and China is better at producing clothing relative to Norway, then Norway should produce oil and China clothing. By producing what they have a comparative advantage at, the total amount of oil and clothes will supersede what would be the case if either country produced both oil and clothing. Norway would have to enter into cross trade with China exchanging oil for clothing, or as the case is, selling oil internationally, receiving cash, and then purchase clothes from China and vise versa.

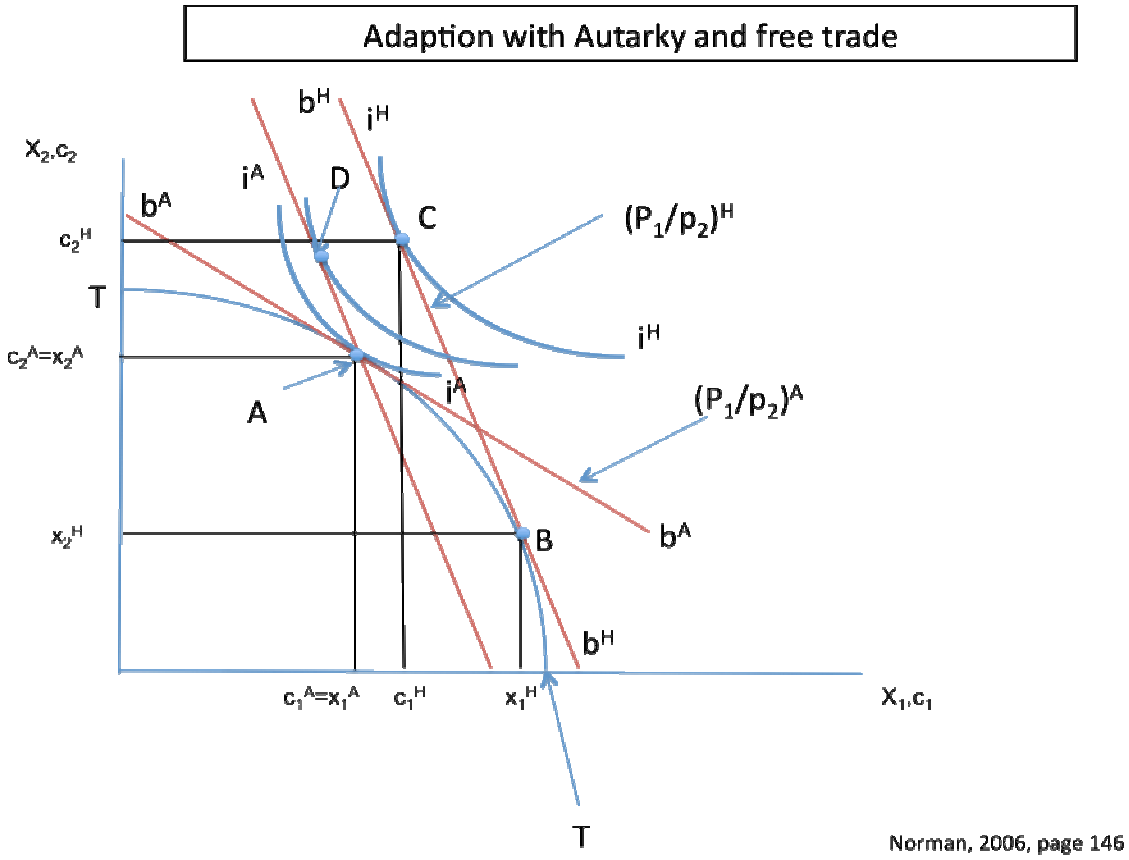
Every country may have (n-1) comparative advantages, where *n* represents the total amount of goods and services produced by a country. Hence, a country cannot have a comparative advantage in producing all products they are capable of. It is these advantages that will determine the composition of trade and what will be exported and what will be imported.

International trade is thought of as raising the standard of living in a country as products are made more efficiently, increasing profit margin, or in a larger quantity, increasing the total output and thus the profit if margins sustain. With larger revenues from international trade the inhabitants of a country is able to purchase more products they desire, be it domestically- or internationally produced. Rather than having a specialized consumption, as would often be the case of self-sufficient countries, the production and consumption relationship is decoupled.

The relationship between production capabilities and preferences of a country is intertwined with other countries production and preferences when trading internationally. When allowing for international trade, the utilization of respective comparative advantages and the more efficient employment of resources and knowledge will be utilized.

It is very unlikely that a country like Norway would be able to sustain such a high level of real wages, diversity of products and services if it weren't for the increased marketplace that free trade represents.

When considering a country in autarky state, compared to when open for international trade we clearly see the difference in production of product x_1 and x_2, and consumption c_1 and c_2 for the two goods in the following figure. We denote the curve TT as production possibilities for a country when only inhabited by one consumer, although, we assume it is organized as free competition.



(Graph cited from Norman, 2006, p. 146)

In autarky the consumer will adapt in A, where i^Ai^A -the indifference curve of highest level that tangent with the production possibility line TT and the budget constraint line b^Ab^A. Thus gaining maximum utilization of production and consumption, as they are equal and denoted by $c_1^A=x_2^A$ and $c_2^A= x_2^A$, with a price ratio of: $\left(\frac{p_1}{p_2}\right)^A$. Assuming free trade with the constraint of no transportation cost and a price ratio of: $\left(\frac{p_1}{p_2}\right)^H$, the production adaption will be in point B, but the consumption adaption from the budget line b^Hb^H, will be in point C. Thus giving the consumers a higher consumption level for both goods compared to autarky. The production of good x_1 is increased, and the production of good x_2 is reduced. As consumption of good 1 clearly is less than what is produced, the country will export x_1^H-c_1^H and import c_2^H-x_2^H as consumption succeeds what is produced.

By analyzing the effects of this beneficial trade, consumers have reached a higher indifference curve (the rotation of the budget line); as consumption is no longer bound to domestic production which is know as the decoupling from domestic production. With production locked in point A we assume the consumer would adapt in point D. Now also allowing for adaptive production we will get a shift in the budget line, also known as the utilization of comparative advantages, to where production is in B and consumption in C.

It is safe to assume a country will benefit on international trade as long as the international price ratio differs from the autarky price ratio.

4.2 Shipping theory and models

4.2.1 Why Shipping?

Shipping is a very old industry and the first cargoes were moved by sea more than 5,000 years ago (Stopford, 2009, p. 3). Trade extended itself over longer distances as time went on and the need for shipping increased. Adam Smith's book "The Wealth of Nations" was published in 1776 and is regarded as the centrepiece of economic literature. In the book he stressed the importance of shipping and its impact on the economy:

"As by means of water carriage a more extensive market is opened to every sort of industry than what land carriage alone can afford it, so it is upon the sea-coast, and along the banks of navigable rivers, that industry of every kind naturally begins to subdivide and improve itself, and it is frequently not until a long time after that those improvements extend themselves to the inland parts of the country" (Smith, 1998, cited in Stopford, 2009, p. 4).

Also, Adam Smith stated in his book that by the time a wagon drawn by eight horses could transport 4 tons weight of goods between London and Edinburgh, a

ship travelling between London and Leith, nearby Edinburgh, could carry 200 tons weight of goods (Smith, 1998, cited in Stopford, 2009, p. 4).

It is fair to say that shipping of goods made it easier to transport goods over distances not necessarily due to the speed of the transport, but rather the capacity of the cargo handling and the possibility of reaching markets that was more or less impossible by land transport.

Nowadays, there are various ways of transporting goods. Martin Stopford (Stopford, 2009, p. 4) finds the airline industry to be the closest counter part to the shipping industry, but also points out that it is has a very short history compared to the shipping industry. And even though air transport has made it possible to transport goods much faster, the shipping industry still accounts for around 90% of the world trade (Shipping Facts, 2010). This is most likely due to the economies of scale principle, which is "reduction in long-run average and marginal costs, due to increase in size of an operating unit (a factory or a plant, for instance)" (BusinessDictionary.com, 2010b). A ship can carry much more cargo than an airplane, though moving at a slower speed. Also, the ship is more fuel-efficient than the airplane.

Shipping has become an important factor in the modern economy and without the freight of goods by sea, the import and export of goods on the scale necessary for the modern world would not be possible (Shipping Facts, 2010). Shipping can be seen as a key factor to help countries engage in trade. As a matter of fact, 43 out of the 195 countries of the world are landlocked and have no direct access to the oceans. The landlocked countries have a disadvantage compared to the other countries since they have to rely on the neighbouring countries in order to trade by sea (Rosenberg, 2007) & (Rosenberg, 2009). Perhaps even more interesting; 31 out of the 43 landlocked countries are developing countries and 16 out of those 31 countries are among the poorest countries in the world (The World Bank, 2008). This statistic further underlines the importance of seaborne trade for countries in order to develop and grow economically.

4.2.2 The four markets of shipping

The following theory on the four markets of shipping is based on chapter 5 of (Stopford, 2009, pp. 175-214).

We usually divide the shipping industry into four markets:

- Freight
- Sale and purchase
- New-building
- Demolition

4.2.2.1 The freight market

The freight market is simply the market for sea transport. Nowadays, trade is being done between countries all over the world and the commodities are being transported by ships. Even though there is a single international freight market, there are separate markets within this sector. Also, these markets have different ships. This is due to the different characteristics of the commodities being traded (e.g. Oil, chemicals, food and technology).

There are two different types of transactions in this market; *freight contract* and *time charter. Freight contract* is transport at a fixed price per ton of cargo, whereas *time charter* is when a ship is hired by the day. When entering into a *freight contract* the shipper pay an agreed sum in order to get the cargo transported and leaves the management of the transport to the ship-owner. With a *time charter* agreement, on the other, the shippers are often experienced ship operators and are handling the transport management themselves.

4.2.2.1.1 Types of Charter

Bareboat Charter is such that the owner of the ship contracts the ship to a second party, usually for a long time, and the charterer then operates the ship as if he

owned it, paying for fuel, maintenance and so on, and the owner only paying the financial cost of the vessel (Stopford, 2009, p. 185).

Voyage charter, also known as *spot charter*, is somewhat different as the owner of the ship is also the one running it, with the charterer only paying a fee for the transport of the goods per ton, item or alike. The only additional cost may be that of cargo handling. Operational and shipping market risk is here transferred to the owner of the ship instead of the charterer as is in bareboat charter (Stopford, 2009, p. 183).

Contract of Affreightment (COA) allows the owner of the vessels to use the ship of his choice, as the only aim is to get the amount of goods from where it is to be delivered within the time agreed upon. This may be for multiple trips and a minimum of goods every trip. The risk is also here at the owner of the ship that has agreed to carry the goods (Stopford, 2009, pp. 183-184).

Time charter is an agreement in which grants the charterer operational control of the vessel transporting the cargo, but the ownership and management of the vessel remains in the hands of the ship-owner. Instead of agreeing upon a fixed number of voyages, the two parties agree on a period of time the ship will be under operational control of the charterer. The length of such an agreement can be everything from the days or weeks it takes to complete one voyage to as long as months or years. During the period of time charter the ship-owner will continue to pay all operating costs of the vessel, but the charterer will pay all the expenses concerning the voyage and cargo handling (Stopford, 2009, pp. 184-185).

4.2.2.2 The sale and purchase market

The sale and purchase market is basically the market for sale and purchase of used ships. A ship-owner, who wishes to sell his ship, puts it up for sale. Usually the ship will be sold cash, with prompt delivery, free of any charters, mortgages or maritime liens. Though, sometimes it may be sold with an ongoing time

charter. In some cases, ships are being sold to raise cash in order for the selling company to survive. These sales are often referred to as "distress sales". The purchasers, on the other hand, might be interested in such ships due to its specific type or capacity or just sees the deal as an investment. Brokers who specialize in one ship-segment usually carry out the sale and purchase of ships and facilitates such that buyers and sellers are connected.

4.2.2.3 The new-building market

The new-building market is closely related to the sale and purchase market, but, quite differently; it deals with ships that do not exist yet. Therefore, the process of buying and selling a ship in this market is much more complicated. The producer and the seller must agree with buyer on specifications of the ship. Shipyards usually wants the buyer to pick a yard standard design, which makes it easier to calculate the time and cost perspective of the ship building and also makes the building process easier due to the fact that they actually have built that kind of ship before. Buyers, on the other hand, may have special needs and may wish to make modifications to the standard design, though they will be charged extra for these changes. The shipyards normally prefer series orders. This is obviously due to the complexity of the market. The contractual process is time consuming. The future conditions are unpredictable and with the ships not being available for 2-3 years it is important for the buyer to have expectations of the further sustainability of the market.

4.2.2.4 The demolition market

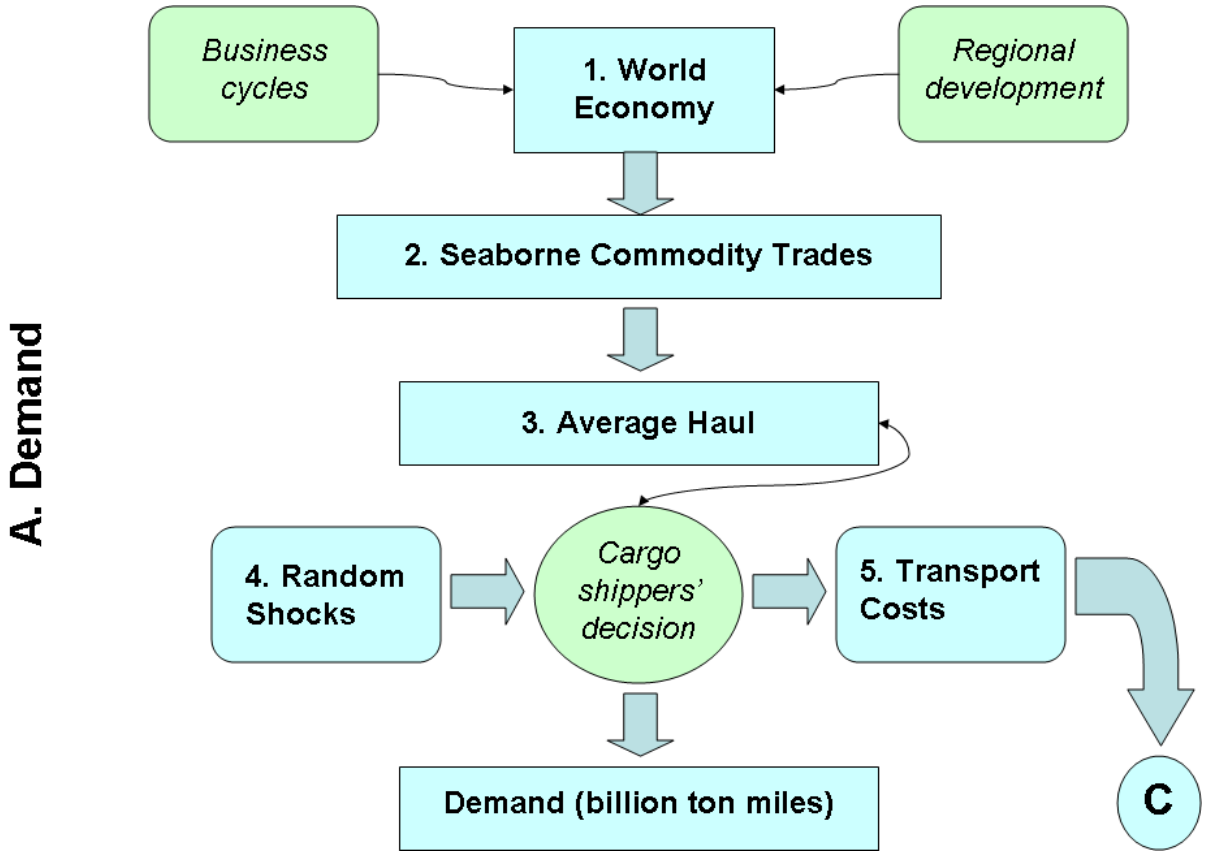
The demolition market is the market for recycling old, out-dated ships. When a ship is due for demolition, it is not like any other household item which you can just throw away. The process of demolishing a ship is costly and time consuming. The sellers in this market are ship-owners with out-dated ships that cannot be sold for continued trading, and the buyers are scrap yards that dismantle ships. Similarly to the second hand market, there are brokers that usually work as intermediaries in the process of selling and buying ships that are ready for

demolition. The prices of scrapping a ship can be very volatile due to state of the local steel markets, where the scrap metal ends up, and the availability of scrapping facilities.

4.2.3 Shipping market model

The shipping market model is a model made by economist Martin Stopford and consists of three main components; supply, demand and the freight market. The model is meant to simplify an otherwise enormously complex market and focuses on the most important drivers in the shipping market. The following theory concerning the *shipping market model* is based on chapter 4 of Martin Stopford's book, Maritime Economics (Stopford, 2009, pp. 135-174). Although the model is divided into three parts for simplicity, bear in mind that they are all connected and herein lays the difficulty of explaining the explicit reasons for change in the model.

4.2.3.1 Demand



(Model cited from Stopford, 2009, p. 137)

The demand in the shipping market is known to be very volatile. There can be short-term fluctuations as large as 10-20% in a year, but also long-term changes in the demand for shipping where ship demand has increased or decreased quickly over a longer period. There are five variables in Stopford's model that explain the demand function of the shipping market which are all numbered in the demand module of Stopford's model; the world economy, the seaborne commodity trades, the average haul, random shocks in the market and transport costs.

Stopford declares the world economy to be the most important influence on ship demand. This is due to the fact that the world economy creates most of the demand for sea transport through the import of raw materials for manufacturing or the trade in manufactured products. In the Shipping Market Model above we

can see the world economy being affected by *business cycles* and *regional development*, and are factors that bring changes to the demand for shipping.

"The business cycle lays the foundation for freight cycles," Stopford states. This is easily seen when you compare the growth in world GDP and growth in sea trade over time. You will see that when the growth in GDP is down the growth of sea trade soon follows and likewise when it is up. This is due to certain internal and external factors. The external factors are events such as wars, weather changes and sudden commodity changes.

The internal factors, on the other hand, are more related to the dynamic structure of the world economy itself. Stopford claims there are four internal factors that cause these business cycles:

- The *multiplier and accelerator* theory is one of those internal factors. When the income (GNP) is spent on investing in for instance new roads, it creates new workplaces. The newly hired workers will be spending their newly earned wages and it will create even more demand. This is called the investment multiplier. The income accelerator is when the new demand ensures further economic growth and generates demand for even more investment. But eventually labour and capital will become fully utilized and the economy will over-heat, and the multiplier and accelerator will reverse.

- *Time lags* are another internal cause for the cyclical process. During upturns in the economy the shipowners order new ships to meet new demand, but it takes years until the ships are delivered and the market might have gone into recession when they are delivered.

- *Stockbuilding* is another internal factor which has a short-term effect on the cycles. During recessions manufacturers run down stocks, which intensify the downturn in demand for shipping, just to see a sudden explosion in demand when the economy recovers.

- *Mass psychology* is the fourth internal factor as people does not act independently, but in an imitative manner which is why one person's actions can spread throughout the whole market and affect the whole economic system. For instance, optimism or pessimism on the stock exchange can easily and quickly spread to all participants and affect their behaviour.

Seaborne commodity trade is the second variable in the demand module. The main commodities shipped by sea are; energy trades, metal industry trades, agricultural and forestry trades. There are both short and long-term variations in the demand for certain commodities. Some commodities are seasonal (e.g. fruit, vegetables and grain) and therefore the demand for those commodities can be very volatile in a short-term perspective. Trade in seasonal commodities can vary enormously during for instance a year and makes it difficult to plan shipping of such commodities, and thus, the shippers rely on the spot charter market. Long-term changes in world demand are due to more drastic changes in demand for a specific commodity. This may be due to technological development where one source of power replaces another and the demand for the one commodity shifts to the other. Also, it may be a relocation issue, for instance, if the source where the commodity is supplied from changes or the processing plant is relocated. Or it might just be a change in transport policy on the shipper's behalf.

Thirdly, the demand is affected by the average haul:

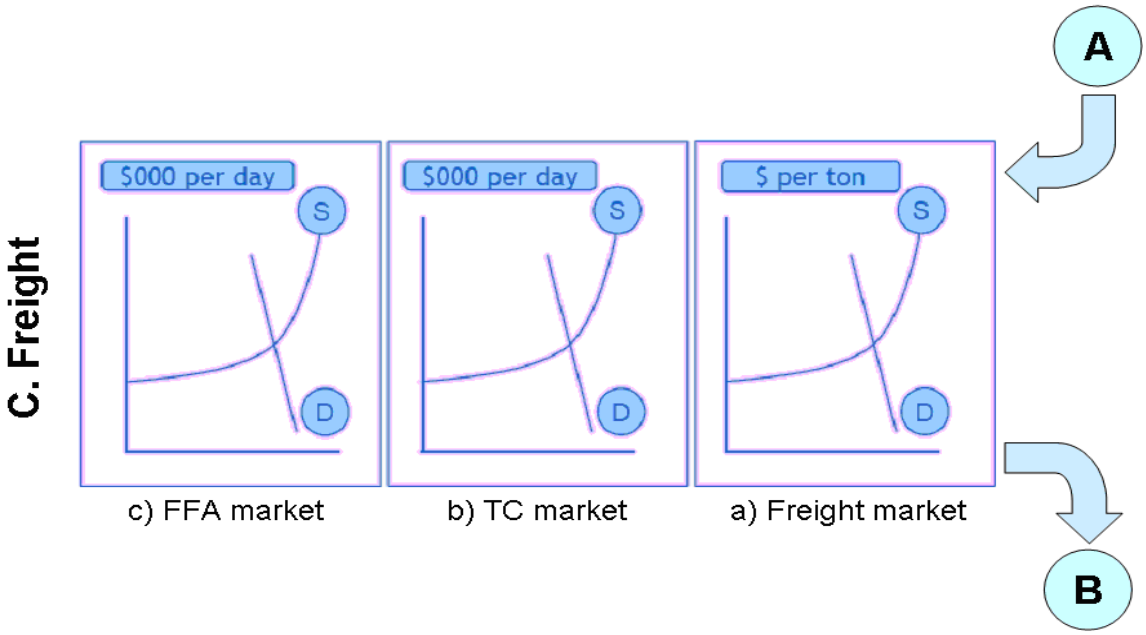
$$\text{Avg. haul} = \text{tonnage} \times \text{avg. distance}$$

The effect of average haul has on ship demand is best illustrated when one of the world's canals closes. For instance, if the Suez Canal was to close today it would mean that a ship carrying crude oil from the Arabic Gulf to Europe would have to travel nearly twice the distance it usually would. The average distance the cargo is shipped goes up, the average haul goes up and the demand for freight increases.

Random shocks are events that upset the stability of the economic system. They differ from the cycles by being unique and created by a particular event. These events can be for instance wars, commodity price changes, technological changes, weather changes and economic crisis. Evidently, such events can have dramatic impact on the shipping market and the demand for sea transport. If you look back at the happenings of the last century it is quite easy to find events such as the Wall Street Crash of 1929 that have caused these shocks, and you will also find that there normally is decline in trade and less demand for sea transport during these periods of turmoil.

Finally, transport costs influence the demand for sea trade. Meaning; commodities such as raw materials will only be shipped over long distances if the cost of shipping does not exceed the benefit of the operation. Ergo, the price of the commodity being shipped plus the transportation cost is still lower than the price of buying the commodity in the domestic market, or the quality of the product justifies the extra transportation cost.

4.2.3.2 The freight market

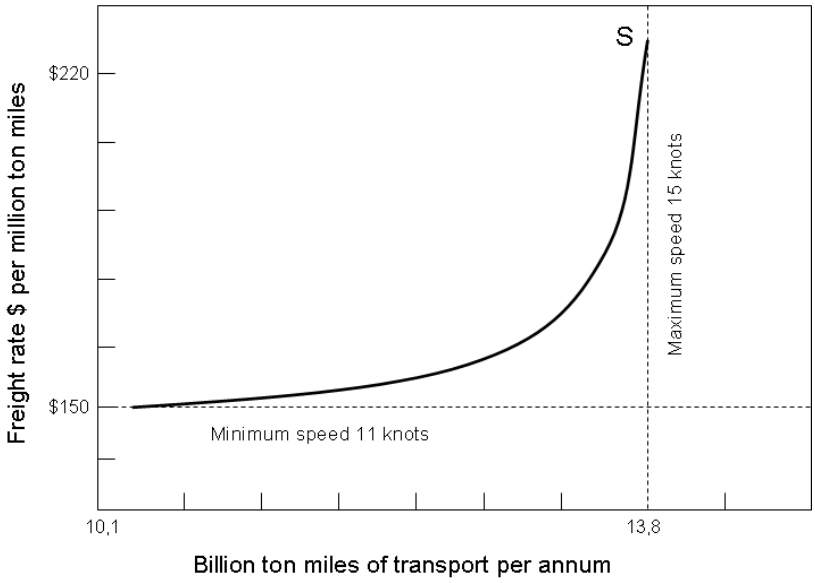


(Model cited from Stopford, 2009, p. 137)

The freight market is an essential part to the shipping market model. It works as a regulator that adjusts the supply and demand side of the model. In short; supply and demand are being balanced by the ongoing negotiation of freight rates between shipowners and shippers. The price of freight is dependent on the availability of ships and cargo. For instance, if there are few ships available, the freight rates will be higher, but too many ships will force the price of freight down.

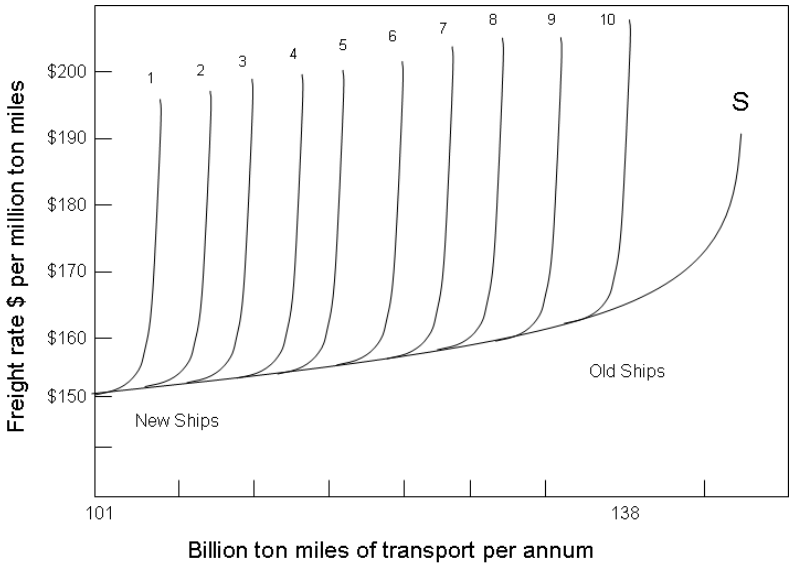
The following two subtexts, *freight supply* and *freight demand*, are examples of how the freight market works and do not constitute real-life prices and effects.

4.2.3.2.1 Freight supply



(Graph cited from Stopford, 2009, p. 161)

As seen in the graph above, the supply function for a ship is J-shaped. The ship breaks out of lay-up when the freight rate hits $150 per million ton miles since the price of freight then exceeds the operating costs, but the ship will run at the slowest possible speed in order to minimize the cost. At the other end of the scale, the ship will run at its full speed at 15 knots per hour and supply nearly 14 billion ton miles (btm) if the freight rates surpass $220 per million ton miles.



(Graph cited from Stopford, 2009, p. 161)

The aggregate of all the individual supply curves of ships in a fleet provides us with the fleet supply curve. The individual supply curves vary depending on the individual ships age and efficiency. New ships are more efficient than the older ships, and thus have lower operating costs. Differences in operating costs mean that the ships also will have different lay-up points, which also means the fleet supply function is sloping upwards.

The ship-owners respond to changes in freight rates by taking ships in and out of service. Ship number 10, which is the oldest ship in the fleet, has a lay-up point around $157 per million ton miles and this ship will be moved out of lay-up only if the freight rates exceed the operating costs. If the freight rates are $156 per million ton miles, only 9 out of 10 ships will be moved into service and it will continue like this until none of the ships are in service if the freight rates go below the $150 mark. On the other side of the scale; when all the ships are in service and are running at full steam, the fleet will have maximized its capacity. Then the only way to increase the supply of the fleet will be through building newer and more efficient ships and scrapping the older ships in a long run perspective.

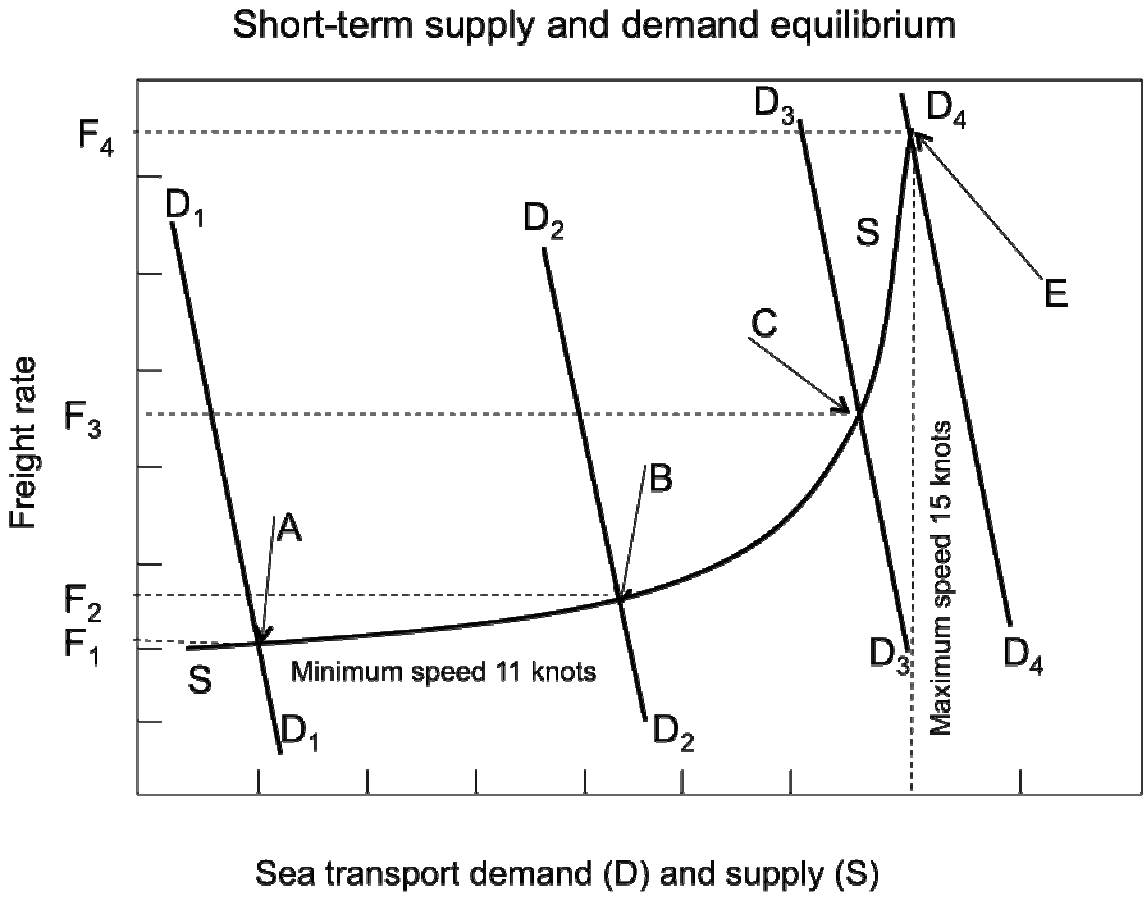
The slope of the supply curve is affected by the age and size of the ships and the relationship between speed and freight rates. Older ships tend to have higher

lay-up points due to them having higher operating costs. Older ships are also usually smaller than the newer ships and therefore have higher transport costs than the newer and bigger ships. Therefore, older ships will make the supply curve steeper. Finally, it is the relationship between speed and freight rates. In a perfect competitive market a shipowner maximizes his profit by letting his ship run at a speed which ensures that marginal cost equals the freight rate. Martin Stopford has in his book defined the relationship between speed and freight like this:

$$s = \sqrt{\left(\frac{R}{(3\ \text{p.k.d})}\right)}$$

S represents the optimal speed in miles per day, *R* the voyage freight rate, *p* the price of fuel, *k* is the fuel constant of the ship and is the distance travelled. These factors combined in this equation are defining the slope of the supply curve.

4.2.3.2.2 Freight demand



(Graph cited from Stopford, 2009, p. 165)

The demand function shows the shippers price elasticity. In shipping theory we normally reckon that the demand function is quite steep. Meaning; the shippers will buy the same amount of transport regardless of what the price is, this is due to the fact that there is no real alternative mode of transport in this price range. This is most likely due to the lack of competition, the time restraint and the need to get the cargo shipped regardless of the cost and very often the freight cost only amount to a small proportion of the total cost for the shipper.

The time frame is important in determining freight rates, as they consist of the present and belief of the future market, and will thus change as time goes by. We divide into the momentary, the short term and the long-term market.

The momentary market is the spot market and the shippers as well as the ship owners need to take into consideration the local demand and supply of ships in

their region and the price of freight to other regions, as it varies. The whole process is like an auction and a little change in the supply of ships or good to be freighted may adversely affect the rates obtained, in a positive or negative manner, depending on which side of the table on is at.

In the short-term market the owners of the ships may move vessels in and out of layup, and be able to respond to price changes. The figure above shows the supply offered in terms of thousands of billion ton miles per annum and the freight rate in dollars per thousand ton miles of cargo transported

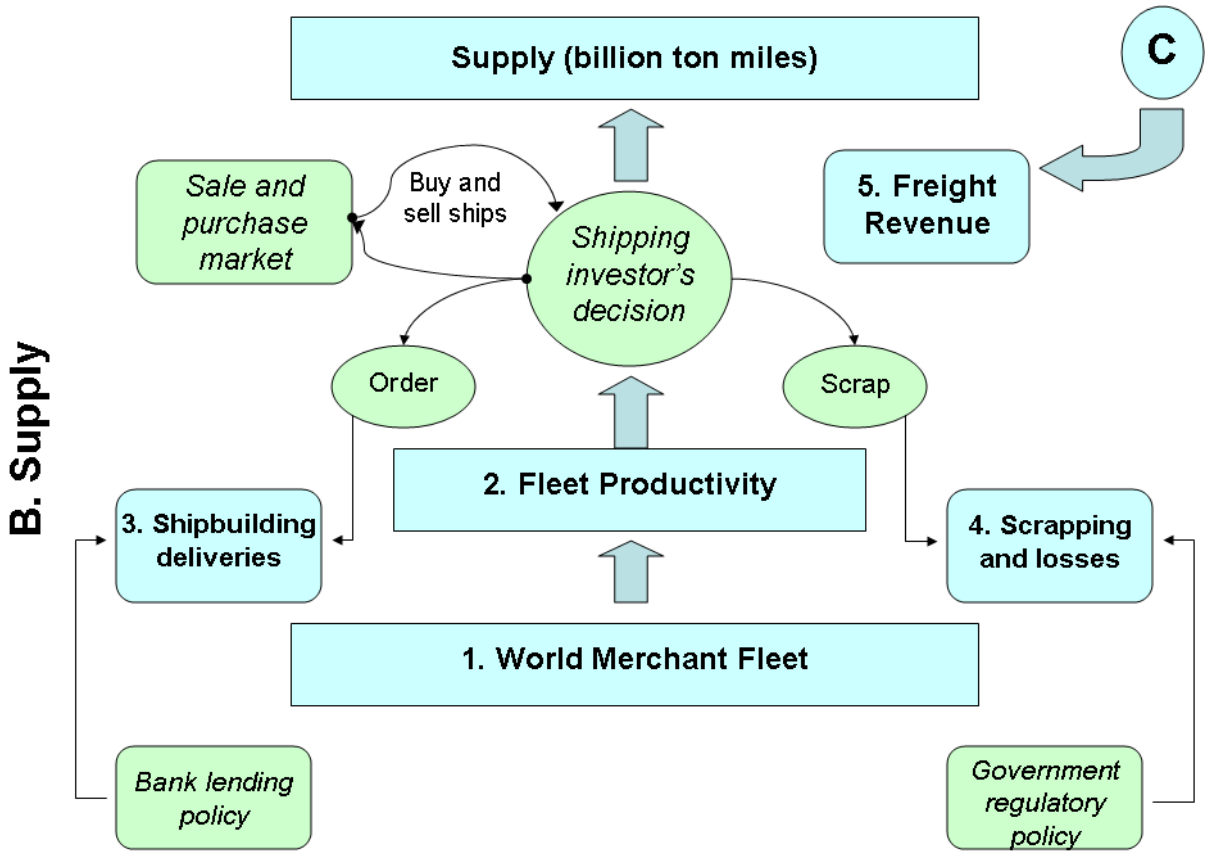
We have a movement from point A, where we are slow-steaming at 11knots, with low freight rates and only the most efficient fleet at sea. Moving to B there we expect a 50% increase in demand and the freight rate increase only slightly. The further increase in demand to point C will yield a dramatic effect of 270% increase in freight rates in relation to the 15% demand increase. In point D there will be full utilization of the fleet, with no more vessels to take out of layup and the vessels going at full speed. The reason for the small increase in freight rates from A to B is due to the less diversity of efficiency between the ships utilized while the efficiency of the ships and thus the cost of operating varies more significantly between the ships from B to C and similar form C to D.

The trouble with the freight rates reaching the level of C and D is that this auctioneer state is not stable, the rates will fall again, as the shippers are looking for alternate mode of transport and investments made by shippers and owners is frenzy like.

Finally, it is the long-term market. As the freight rates fall during a recession, so do the profitability and the second hand value of the vessels. Ships are scrapped, reducing the surplus supply. Or ships are converted from single hulled tankers to offshore vessels or grain carriers or utilized as storage facilities. The profitability that has prevailed in the market will seize when the delivery of new ships commence as the order-book will be larger than the actual demand in the market.

There are multiple ways the supply and demand can be affected in the long run with scrapping, higher demand for storage, time lags affecting the market balance with to much new-building and so forth. When describing this mechanism there are no clear-cut definition of how it will be, just simplifications of how it is intertwined.

4.2.3.3 Supply



(Model cited from Stopford, 2009, p. 137)

Whereas the demand in the shipping market is known to be very volatile, the supply works quite differently. It can take up to 2-3 years to get a new ship delivered and the ships have a lifespan from 15-30 years. This can make it very hard to respond to the volatile increase and decrease in demand. Stopford's shipping market model describes the supply side of the market having five variables that affects and determines the supply of shipping services to the

market. These variables are; the size of the world merchant fleet, the fleet's productivity, new-building, scrapping of ships and freight revenues.

The world merchant fleet is a collective term for all the ships available for sea transport and is an expression of the aggregate supply. The growth of the fleet is determined by the run of scrapping and deliveries of ships, but the delivery time for a new ship obviously makes it harder to dictate the run of new ships.

The productivity of the world fleet is variable. There can be variations due to how efficient the ships are being used. In downturns in the economy ships are often very cheap and carrying less cargo per deadweight ton. Also in such times, the ships spend longer time on non-trading activities than they normally would in better times where the ships would have more loaded days at sea. Additionally, the productivity is influenced by the speed of the ship, but also the time the ship spends docked in port and its deadweight utilization.

At last, the supply of sea transport is influenced by the freight rates. The freight rate mechanism works as a regulator between the supply and demand and motivates the suppliers to adjust the capacity in the short-term and to find ways of cutting their costs and improving their services in the long term.

4.3 Financing

The shipping industry is a capital-intensive industry and the need for financing to purchase a ship is crucial. The balance between obtaining capital as a mortgage, through issue of new shares or through leasing is a decision that will yield different outcomes when facing a financial crisis of the magnitude we have seen the recent years.

4.3.1 Gearing

Gearing is the financial measure of the ratio of debt to total assets. This means that the greater the amount of debt over assets; the larger the gearing. There are multiple reasons for a firm to acquire debt, the most common one being the need for cash to pay for an asset.

For a company paying dividend, the interest paid on a loan can be written off against the firm's revenues allowing it to generate more earnings without the corresponding increase in the equity capital requiring increased dividend payments, which cannot be written off against earning.

In general a higher debt to equity ratio represents a riskier company, but the industry standard should also be taken into account.

The benefits of having a debt in an economic upswing may be the downfall for a company when the tide is turning, as some companies are simply not making the revenues needed to cover their interest payments or liabilities. On the other hand, there might be those companies that were, and are, able to make the payments, but are unable to obtain a loan as the banks are limiting their exposure and are struggling with their own financial situation (Investorpedia, 2010b); (Investorpedia, 2010a) & (BusinessDictionary.com, 2010c).

Gearing is often referred to as the debt to equity ratio and represents the liabilities of a company compared to the assets. A high level of gearing is often considered very speculative and banks that lend out money i.e. to buy a ship

often restrict the level of gearing allowed for that ship or company as a whole. One of the reasons for this is the fact that commercial banks usually lend out money at a rate of 1-2 percent points over the rate they borrow money at. Thus there is little margin of error and a bank must be certain that the company is able to make the payments. Seeing as shipping is such a volatile market and borrowers may face times when trading income does not cover the interest payments, clauses like the following may be embedded in the contract:

- Assignment of earnings and insurance
- The lender takes first mortgage on the ship, giving the first claim of proceeds when the ship is sold of
- Income from a long charter is assigned to the lender and provides assurance that the loan will be serviced
- A guarantee may be given from a third party, like the owner himself, government agency or Shipbuilding Company

As capital cost of a ship may account for as much as 80% of total cost for a company, the decisions of financial strategy are amongst the most crucial a shipping company make. But due to the international mobility of ships, the choice of legal jurisdiction, adoption of less formal corporate structures, largely volatile revenue flows and asset values, a lot of shipping companies does not meet the criteria's set by bankers and investors, thus creating a hard time for the companies to obtain long and short term financing (Stopford, 2009, pp. 40-42).

4.3.2 Financial parameters

When analyzing the shipping companies, we need to use some ratios for the sake of comparison as well as empirical evidence of the state of their financial performance. The companies are vast in the sense of magnitude of their liabilities as well as revenues, but also in the amount of financial derivatives and vehicles they use. We will use three main ratios as described below. These will

measure the profitability, solidity and liquidity of the companies. In the appendices we have calculated an array of ratios, used to various extend when comparing the companies. Some companies state these ratios in their financial statement, but we have chosen to calculate for each and every company so as to use the same figures to judge the performance.

- $\text{Return on total capital} = \frac{\text{EBIT} + \text{Financial Income}}{\text{Avg. Total Capital}}$

  - We have incorporated financial income in this ratio as these figures may have a large effect on the companies result.

- $\text{Debt to equity ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$

  - This ratio measure the amount of debt held against the total equity of the company. A ratio higher than 1.0 indicates debt to be the main source of financing.

- $\text{Quick ratio} = \frac{(\text{Current Assets} - \text{Inventories})}{\text{Current liabilities}}$

  - The reason for choosing the quick ratio rather than the current ratio is the withdrawal of inventories. As a company in distress may have problems selling their inventories, or at a substantially reduced price, it is highly speculative to include inventory when accounting for the liquidity of company.

(Ratios cited from 1881.no, 2010)

Simple-moving-average (Weissmann & Rosenfield) is "A simple, or arithmetic, moving average that is calculated by adding the closing price of the security for a number of time periods and then dividing this total by the number of time

periods. Short-term averages respond quickly to changes in the price of the underlying, while long-term averages are slow to react".

We have used a 50 day moving average when analyzing our companies in order to determine the long-term pattern in a stock price. By using a 50 day average we have eliminated some of the volatility we would have (Investorpedia, 2010d).

4.3.3 Financial lease

"Financial lease is the lease of an asset is similar to a purchase of an item, although the ownership of the item stays with the lessor for the lease period. The lessor is responsible for the purchase of the asset, while the lessee pays all the other costs like insurance, maintenance and taxes. The lessee acquires all economic benefits and risk such as depreciation and the potential loss of the leased asset" (BusinessDictionary.com, 2010a).

This type of leasing is very common in the shipping industry. In many cases the firm establishes a wholly owned subsidiary, performing a buy-lease-back transaction. A company sells the vessels they feel are not performing as well as they would like in their books. Reasons may be they are fully depreciated, getting old, thus not being in line with company policy of a young fleet, or tying up to much cash. With a sale to the financing company (often a subsidiary) they may enter into a financial lease with the benefits as described above while the control of the vessels are still within the group and cash is untied in the process (bdp1 Consulting Ltd., 2005).

4.3.4 Operating lease

Operating lease is different from financial lease in the way that the lessee is not able to take advantage of, especially, depreciation of the asset. The lessee is to use the item, in this case the ship for a period that is substantially shorter than

the ships useful life. Operating lease is not capitalized, but rather accounted for as a rental expense (Investorpedia, 2010c) & (InvestorWords, 2010).

5 Baltic Dry Index

The Baltic Exchange history reaches back more than 250 years with a humble start in the Virginia and Maryland coffee house in London where merchants and sea captains gathered to socialize and discuss business. In order to establish some regulations in the market, the coffee house regulars formed a committee in 1823. The rules applied by the committee made the Baltic Exchange an exclusive club with restricted access, and the members needed to have permission to join. From there on, the local coffee house developed into a major business centre for shipping which obviously outgrew the coffee house with respect to size, but also in the need for a more secluded location. In 1903, the Baltic Exchange moved into their first purpose built establishment.

In 1985 the so-called Baltic Freight Index, a series of freight indices, was launched. Since then more indices have been developed to meet the demand from an increasingly more complex and larger business venue (Baltic Exchange, 2010a).

Today there are 53 dry bulk and tanker routes. The indices are based on reports provided by independent competitive shipbrokers; know as *Panelists*. They calculate the cost on routes with a specified ship standard, loading and cargo conditions. These standard measures makes it is easier to calculate for cargo, time and route deviations for the actors in the shipping market.

The purpose of the Baltic Indices is to provide an independent party to deliver freight rates so as both parties of a contract may easily agree upon a fair freight rate, without the fear of the rate being manipulated.

The weight of the routes included in an index may change when it no longer depicts reality as the ship standard may change and the cargo specifications may

be altered over time. Furthermore, there are routes being added and removed in accordance with the developments in the shipping market (Stopford, 2009, pp. 195-197).

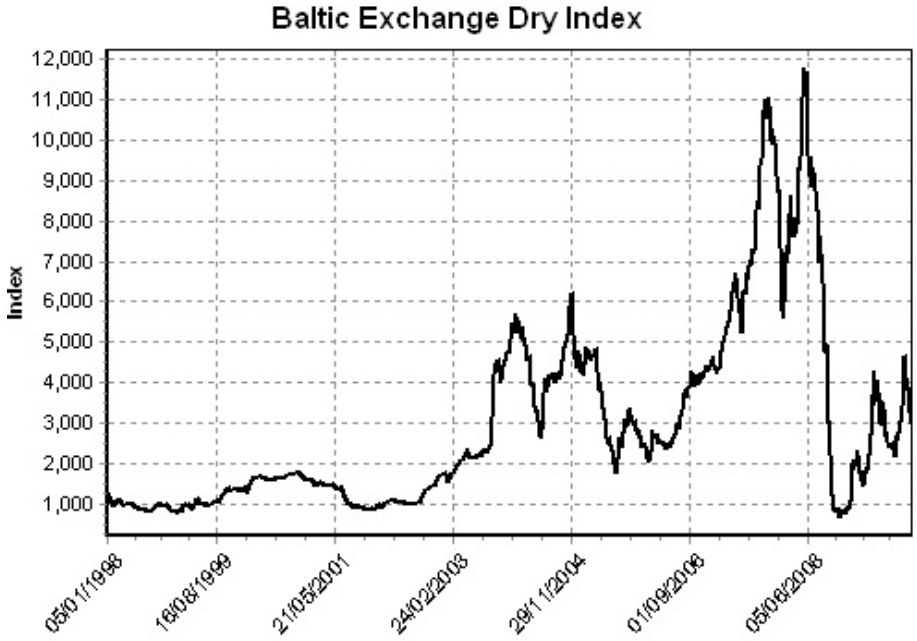
As the successor to the Baltic Freight Index (BFI), the Baltic Dry Index (BDI) was launched 1st of November 1999. The multiplier of the equation first came into play when the BDI replaced the BFI and has been modified throughout the years as the contributing indices have changed and the methods of calculations have been modified. Today the index is calculated based on the following formula:

$$\left(\frac{\text{Capesize TC avg.} + \text{Panamax TC Avg.} + \text{Supramax TC avg.} + \text{Handysize TC avg.}}{4}\right) * 0.113473601$$

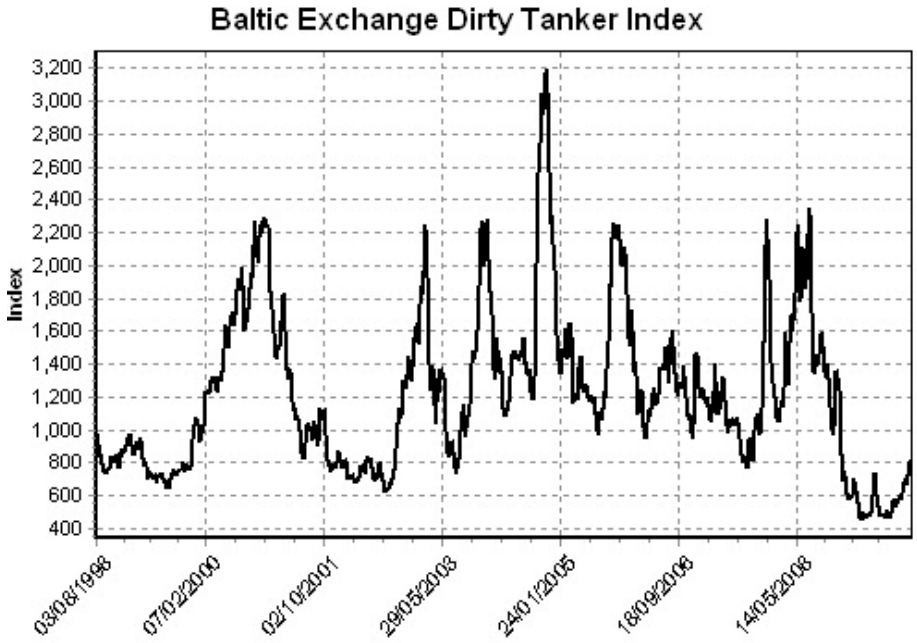
TC avg. = Time charter average

BDI is thought of as being a good indicator for economic growth or decline as it is a measure for the supply and demand of the shipping market, which in turn is a representation of the state of world demand. For instance, a shipper does not book a freighter unless he has cargo to move and a manufacturer would not order more raw material if the company has large quantities in stock that they are not able to sell (Gross, 2003).

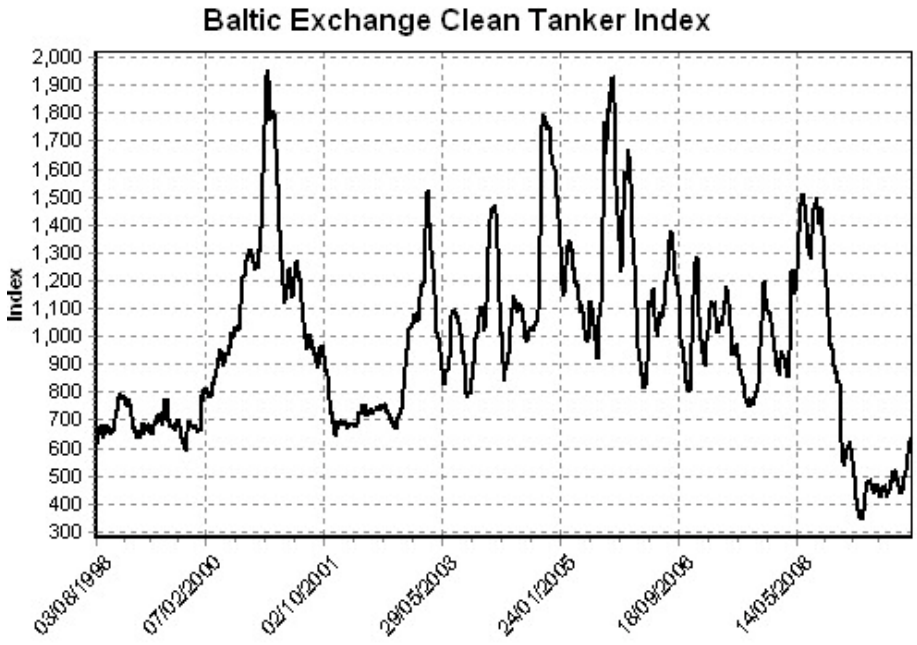
Beside the BDI, which is the most common index, the Baltic Exchange Dirty Tanker Index (BDTI) and the Baltic Exchange Clean Tanker Index (BCTI) are also established indicators. These indices are calculated using a basket of routes for their representative segment (Baltic Exchange, 2010b) & (Baltic Exchange, 2010d) & (Baltic Exchange, 2010c).



(Graph cited from Baltic Exchange, 2010a)



(Graph cited from Baltic Exchange, 2010d)



(Graph cited from Baltic Exchange, 2010c)

The volatility in the indices has been less than equal studying the following graphs. The BDI, which is the main indicator peaked at 11,793 points in May of 2008 and reached its trough in December of the same year, with a 94.4% decline.

The BDTI only declined 80.7% from peak to trough in July 2008 and April 2009 and the BCTI peak in April of 2008, with corresponding trough in April 2009, taking longer to reach the bottom. Both the BDTI and the BCTI are more volatile than the BDI, with seasonal peaks and trough, while the BDI has experienced more of a steady build up before 2005 and especially the crisis of 2008. This is believed to be due to the seasonality of the Oil trade and the freight rates as we will discuss later in the paper.

The BCTI have experienced the least peak to end of 2009 fall, with 48.7% and corresponding numbers for BDI and BDTI were 74.5% and 65.3%.

6 Single to double hull

The following information is collected from the official pages of the European Union (Europa.eu) and concerns the legislation regarding ship hulls (Europa.eu, 2007).

Until recent years most tanker ships carrying hazardous materials has been of a single-hull design. With such a design the cargo and the seawater are only separated by one piece of plating which makes it vulnerable should there be a collision or a stranding, and in such a situation there would be great risk of the cargo spilling into the sea and causing serious pollution to the nearby waters. A ship with a double-hull has less risk of spilling its cargo should it strand or collide since it is protected by a second layer of plating inside the outer layer and with sufficient distance between the two layers.

Following the Exxon Valdez accident in 1989, the United States imposed new requirements to ship standards for vessels operating in US waters. These new requirements would concern both new and old tankers and the goal was to phase out the existing single hull ship design and have the new ships designed with double hulls in order to prevent future ecological disasters. The deadlines set for the phasing out of the single hulled tankers were 2010 and 2015 dependent on the respective ships age.

In response to the American measure to reduce pollution, the International Maritime Organization (IMO) established new double hull standards in 1992 in the MARPOL Convention which stated that tankers with a deadweight tonnage (DWT) of 600 tonnes or more was to be constructed with a double hull and this rule would come into effect from July 1996. Also, single hulled tankers with a DWT of 20 000 tonnes or more and delivery date before July 1996 had to comply with the new standards no later than by the time they were 25 or 30 years, depending on whether they had segregated ballast tanks. Segregated ballast are tanks located on specific impact areas of the ships hull with the purpose of protecting the ship from collision or stranding and preventing possible emission of dangerous cargo.

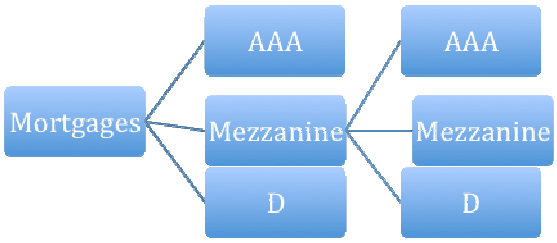
It is almost impossible, and not very economically efficient; to transform single hulled tankers into double hulled tankers in order to fulfil the new standards given. Meaning; that when a ship reaches the age limits set, its commercial life ends. The problem though has been the differences between the American and the international regulations, which lead to single hulled tankers being banned from US waters earlier than they were being banned from international waters. This meant that older and more accident prone, single hulled vessels would be sent to operate in other parts of the world, including the EU. Therefore, the process of phasing out the single-hulled ships was sped up by the EU Commission in regulation (EC) No 417/2002 from 2002. According to the new regulations single hulled tankers should be phased out no later than 2010. These rules would apply to all tankers of 5000 DWT or more.

7 Financial crisis 2007-2010

The financial crisis we have been in the midst of the last three years unfolded in the latter part of 2007 and intensified throughout 2008, leading to the collapse of Lehman Brothers and the near collapse of other financial mammoths.

7.1 Subprime

The US subprime mortgage market was the first to succumb to the crisis, as it should, being the cradle of bad financing. Mortgages were packed in so-called collateralized debt obligations (CDO) and sold to investors, much like bonds. Initially an investor owned a small part of the entire portfolio of mortgages, rated anywhere from AAA to D as a whole. In the Standard & Poor's rating system AAA is the best possible rating and D, on the other end of the scale, the worst rating given to mortgage (Standard & Poor's, 2010). Then, "clever" bankers started chopping up and restructure these packages of mortgages into new CDOs with a new credit rating. These CDOs were sold with the promise of yield and risk in accordance with their new credit rating, although they had been restructured from the mezzanine rating. The CDOs with the highest ratings were usually sold to pension funds, which are risk adverse. The mezzanine ones being sold to banks and re-structured, again. Lastly the poorest rated, being purchased by hedge funds and junk bond funds. The financial institutions selling these CDOs made billions of dollars in fees, which is safe to assume, motivated them to continue this sharade. When buying the CDOs to restructure, one used borrowed money, as well did the buyers of the restuctured products. This made for a highly leveraged product looking very attractive, on the paper. The fact we now know, is that even AAA rated investments stood to lose their value, which at the time was a total contradition of common belief. But non the less, the wave of subprime mortgage defaults sweapt the US like a domino, followed by the



demise of artificially high housing prices causing the CDOs to lose value. Since the CDOs had been purchased with debt and the value plummeted, institutions owning these instruments did not have assets corresponding to the level of debt.

When selling CDOs through national banks in countries like for instance Norway, Germany and in the UK, the countries mentioned became exposed to the downfall and thus creating a worlwide calamity (Carey & de Michelis, 2008) & (Pearlstein, 2007).

The credit crisis was not only caused, but also triggered, by the US. Though, the ramification of the crisis was further amplified by the loose lending policies of the banks and the subsequent real estate booms in the UK, Spain, Iceland and many Eastern European countries as well.

As an economy thrive the banks lending policy turn looser and subprime, as well as other borrowers, is allowed higher debt than they would be able to handle relative to a higher interest rate. Also, loans denominated in foreign currencies (Euro, Swiss Francs, and Yen) were commonplace in Eastern Europe, usually with lower interest rate than the domestic rate. Alas, with substantially higher risk for default as the ability to serve the loans depended on the continued exchange rate stability (Stijn Claessens, Giovanni Dell'Ariccia, Deniz Igan, & Luc Laeven, 2010).

7.1.1 Liquidity problems

During the second phase, some banks relied on loans from other banks to keep up their liquidity rather than deposits of funds. As the crisis was upon them, interbank and liquidity problems surfaced, making it harder to receive loans from one another. The interbank credit spreads increased from 150 basis points to close to 500 basis points for the American dollar and from 100 to 350 for the euro. The problems surfaced with a bank run on Northern Rock in the fall of 2007 (International Monetary Fund, 2010, p. 5) & (Stijn Claessens, Giovanni Dell'Ariccia, Deniz Igan, & Luc Laeven, 2010).

Credit agencies were criticized for their inability to accurately determine the risk of complex mortgage-related securities and to closely align with the issuer. In addition the outlook for an even deeper housing downturn and default on mortgages led to the downgrade of securities by major rating firms. Due to the downgrade, spreads increased, creating an even bigger liquidity problem in the interbank and commercial paper markets (Stijn Claessens, Giovanni Dell'Ariccia, Deniz Igan, & Luc Laeven, 2010, p. 13).

What is believed to be the second phase of spillover was transmitted through the asset market, with ill liquidity, credit freeze, stocks plummeting and foreign exchange fluctuations, especially in the U.K. Sterling, Euro and the Swiss Franc.

Central banks responded by making liquidity available to local banks. With the response varying in size and time of effect the end result seemed to work, but short lived as creditors and investors quickly lost confidence. Confidence was also lost in the credit default swaps market as it was highly unregulated and the question as to the security of the ultimate insurer raised unnerving answers.

Even though the central banks made efforts to limit the damages in the financial sector, it proved too difficult to contain the spillover to the real economy (Stijn Claessens, Giovanni Dell'Ariccia, Deniz Igan, & Luc Laeven, 2010).

7.1.2 Solvency

Solvency is considered the third phase of the crisis. Banks as well as financial institutions shifted their attentions to address this internal problem. Distress sales and growing need of recapitalization for major firms did not strengthen the confidence in the industry. When Lehman Brothers, with their international connections and exposures, filed for Chapter 11 bankruptcy in the fall of 2008, the market confidence was shocked on a global scale.

The major cause for the solvency problems was the massive build up of debt in the financial sector. As the value of financial vehicles dwindled the banks and corporations did not have assets corresponding to their liabilities.

While the governments tried to intervene with guarantees and rate cuts, the scope, coordination and speed did not suffice and was less then organized. Thus, the problems intensified through international channels and connections (Stijn Claessens, Giovanni Dell'Ariccia, Deniz Igan, & Luc Laeven, 2010).

7.2 The Governments role

Looking merely at the subprime trigger and the subsequent financial crisis can not be done without looking at what, or who, created a regulatory framework allowing for such, in retrospective, exploitation of the system.

With the repeal of the Glass-Steagall act in 1999, financial and commercial banks were now able to merge, making it easy to invest money from savings and checking accounts into mortgage-backed securities and credit default swaps.

In accordance with Financial Accounting Standard the same banks are allowed to hold, so called, special purpose vehicles (SPV) or special purpose entities (Fadnes & Bjerke), for the off-balance sheet holding of securitized mortgages. What this in fact means is that liabilities, which should force the banks to hold capital reserves in risk of default, do not report these liabilities in the company's financial statement. Alas, hiding liabilities and allowing for the capital reserves to be invested in, for instance, unsecured financial derivatives. The financial derivative market is unregulated, unlike derivatives of commodities that are regulated by the Commodity Futures Trading Commission (CFTC). Thus, allowing for the creation of the many obscure financial instruments that even CEOs of Merrill Lynch and Morgan Stanley did not comprehend.

Although trading in securities was to be seized if the banks reached a debt-to-net capital ratio of 12 to 1, the Security and Exchange Commission (SEC) decided in 2004 to allow for the banks to develop their own net-capital requirements in

accordance with the Basel Committee on Banking Supervision. This ultimately led to the banks being free to operate as they saw fit, and some banks reached a staggering ratio of 40 to 1 at some point.

It is a timely question to ask how this could happen, as the banking regulators have the power to act on predatory lending abuse. Only three formal actions against subprime lenders from 2002-2007 and a staff of 1,800, one can only ask what they were spending their time on. In 2003 Elliot Spitzer announced the FED used their time stopping the new laws prohibiting predatory lending. Also, due to the law prohibiting buyers of restructured subprime loans to sue anyone but the original lender, financial institutions and banks were free to sell and restructure anyhow they wanted without facing litigation.

Lastly, what also contributed to the crisis was the fact that banks, in light of mergers and acquisitions in the run up to 2007, had become megabanks. They had become front-runners in their field and alike to national institutions in terms of influence, which made some believe they should have been regulated thereof. The sheer thought of these banks succumbing to the burden of debt would create such a shock in the market that the US had to initiate a rescue package to save at least some of them, as for instance in the case of AIG. The rating agencies built a foundation for the banks, as they gave favorable credit ratings to companies they had good business with. In retrospective; it is to believe rating agencies should have done a better research to fully comprehend what they were rating (Weissmann & Rosenfield, 2009).

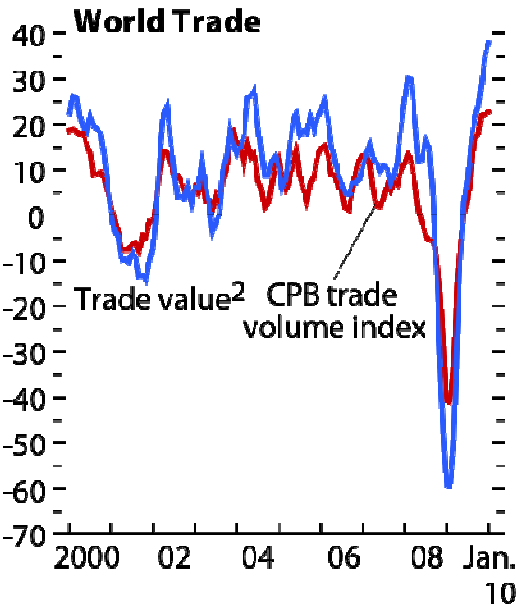
7.3 Crisis and shipping industry

Looking back at the financial crisis and the effect it's had on the shipping market; there are dramatic changes that have taken place and the forces behind this can represented by the decline in GDP and world trade.

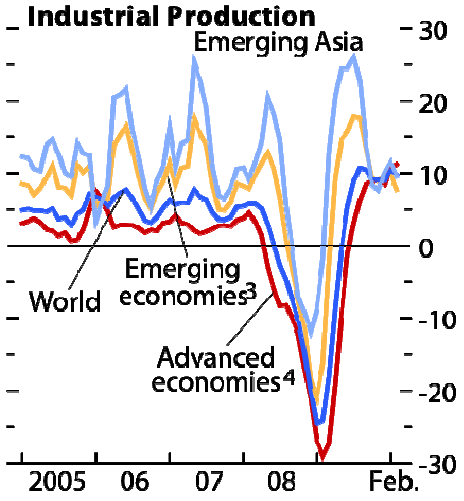
Different markets and regions of the world have been affected in a v variety of ways and with less than equal impact. The IMF measured an increase in world

GDP of 3% in 2008 and a decline of 0.6% in 2009. With the main driver being the emerging economies, yielding a 6.1% and 2.4% increase in the respective years. The decline of 2009 can be contributed to the advanced economies, who had a decline of -3.2% in 2009 and an increase of 0.5% in 2008.

World trade has declined with as much as 10.7% from 2008 to 2009 and grew by 2.8% in 2008. When breaking down these numbers to import and export from the advanced and emerging economies, the decline is mainly due to the advanced economies with import decline of 12% and export decline of 8.2% in 2009. Emerging economies incurred an import decline of 8.4% and 8.2% in export (Graph and numbers cited from International Monetary Fund, 2010, pp. 2-3).



The industrial production, which is the basis for much of the products carried by sea, saw a major decline in the midst of the financial crisis. Production has made a leap and is now back on a positive trend, which makes for a positive outlook for the world as a whole. Emerging markets were not as affected by the crisis when it came to output and experienced a less drastic decline than the advanced economies in industrial production as well. Output is now back to pre crisis levels and should further increase the trade amongst countries in the years to come (Graph and numbers cited from International Monetary Fund, 2010, pp. 2-3).



The interbank problems as described earlier are now less than during the crisis, as the represented by interbank spreads lower than before the crisis. Faith is also restored in the American bond yield as they are now closing in to the pre-crisis levels around 4%, with the euro crisis not under control the bonds are not yielding the returns as before the crisis, rater at the same level as in the midst of the turmoil.

Overall ton miles per deadweight ton of the world fleet has been falling in 2006-2009, where the expected numbers for 2009 are 27.4M, while 2008 figures were 29.2M. The surplus tonnage increased 26.6% from 2008 to 2009, calculating for numbers in April 2009, with the surplus tonnage representing 2.9% of the world fleet (International Monetary Fund, 2010, pp. 1-27).

Also, ports throughput has been drastically altered as we can see below from five of the busiest ports in the world. They enjoyed a steady increase with major plans of expansion in the years before the financial crisis hit, but comparing 2009 data to 2008 data the decline is in the range of 13,7%-21,7% as we can see from the table below.

Table 1. Cargo volume statistics from some of the world's busiest po

Port	**Statistic**	**Trend before 2008**	**2009 data, compared to 2008**
Singapore	Total cargo throughput	7% mean annual increase (2004–2008)	13.7% decline[b]
Hong Kong	Total cargo throughput	8.3% mean annual increase (2005–2008)	16.7% decline[c]
Busan (Korea)	Container throughput	9.6% annual increase (2000–2007)[a]	19.1% decline[d]
Long Beach (USA)	Container throughput	8.5% mean annual increase (1995–2007)	27.1% decline[e]
Hamburg (Germany)	Total cargo throughput	7.6% mean annual increase (2002–2007)	21.7% decline[f]

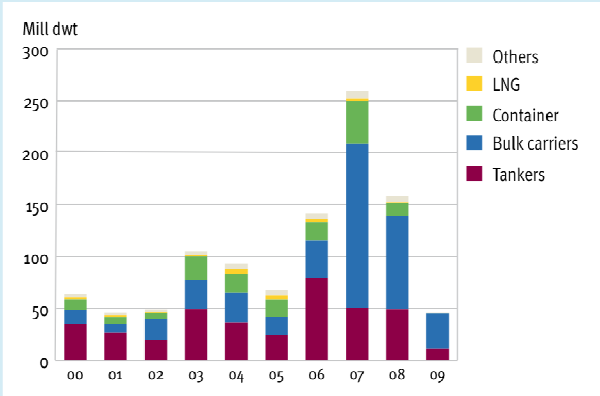
(Table cited from Floerl & Coutts, 2009)

Due to the absence of business, ships are forced to sit idle and wait for new contracts despite the decline in the global shipping rates of 74%, early 2009. The container traffic fell a staggering 20% and carrying capacity fell 15% from August 2008 to February 2009, along with the sharp fall in container rates. 24,3% of the reefer fleet was in February 2009 reported to be in lay up for more than a month. In the hope of a contract being imminent, 10% and 8,8% of the bulk and container vessels were laid up. Most ships were in layup in the waters outside Malaysia, Indonesia and the Philippines, due to the low anchor fees (Floerl & Coutts, 2009).

There is only one company that has seized operations as of the start of 2009, namely Senator Lines, while others, for instance Maersk, are not going forth with previously planned expansions or rerouting and are cutting back on existing operations. Maersk are rearranging their AE-5 and AE-8 lines as to reduce the toll fees being paid to enter multiple ports on one tour. They are also rerouting their eastbound traffic from Europe to Asia around the Cape of Good Hope as to avoid the fees that amount to $800,000 for passing the Suez Canal with a super post-panamax vessel (Slack, 2009).

The high freight rates, easy access to credit and increasing second hand prices for vessels have made for large investments in new ships. Thus the order-books for the segments have increased and are now larger than what is sustainable for the current market (RS Platou Group, 2010a, p. 12).

NEW ORDERS IN DWT 2000-2009



(Graph cited from RS Platou Group, 2010a, p. 12)

7.3.1 Lack of funding

Lack of funding has been a problem for many shipping companies. In regard to new-building, which is usually very high when reaching the peak of a boom, the inevitable downturn has created interbank funding problems, which in turn makes for less lending to customers to limit the banks exposure.

Due to the decline in freight rates and the over supply of vessels, the revenues have decreased substantially making it hard for some companies to pay their existing debt commitments, and thus making it hard to obtain new loans. In June 2008 the order book for new ships represented 53% of the existing fleet capacity. To absorb this; it is assumed that the total trade needs to grow at an annual rate of 15%, not the actual 10.2% it has decreased. This has forced many shipping companies to utilize their ships as storage facilities, in order to make at least some revenue to pay for their current liabilities (Slack, 2009) & (Floerl & Coutts, 2009).

As the shipping industry has experienced a lack of credit from their banks many ship-owners have tried to negotiate their way out of contracted ships under construction. Even though this may lead to financial trouble for the shipyards, it may save the industry as a whole from a long-term downturn as there are already to high supply of ships to meet the downfall in demand we have seen the last few years (de Lange, 2009).

The lack of credit from the purchasers of shipped goods, especially dry bulk, and have delayed many shipments, thus creating a decline in revenues for shipping companies. On the basis of limited revenues for shipping companies, banks are in turn skeptical to lend out money as forfeit has increased.

During the fiscal year of 2009 the big shipping banks in Germany has been remarkably reluctant at lending money leaving the stage to Mitsubishi UFJ Financial Group ($ 5.176B), DnB NOR($ 2.691B) and Nordea ($ 2.171B) as the top lenders. DnB NOR provided 60% of their lending to Norwegian companies although they only represent for a third of DnB NORs portfolio. This is due to the

importance of their proximity and the fact that a lot of Norwegian customers are building at Norwegian wharfs, thus being included in the state guarantee from *Eksportfinans og Garantiinstituttet for eksportkreditt (GIEK)* (de Lange, 2010).

During the Nor-Shipping week in Oslo, DVB Bank economist Sjur Agdestein stated that ship-owners wanting to invest in new ships would have to think otherwise since the banks would not lend them any money. Out of the previous fifty, there are only seven shipping companies doing active business as of 11.06.2009, and these banks will only lend money to a secluded group of their core customers (Becker, 2009a).

Although the situation has improved somewhat and the first initial public offering (IPO) in shipping is underway thanks to Nordea, there is still a long way to go for the shipping industry in means of restoring the accessibility of credit. The Norwegian Bank's leader, Svein Gjedrem, still urges to prudency when it comes to lending to the shipping industry as he believes they are not financially ready for an aftershock of the financial crisis (Becker, 2009b).

7.3.2 Crude oil and bunker price

Due to high demand for oil in 2004, the market experienced an increase in the demand for freight, led by China and the US as the major destinations for delivery. Bunker cost followed the oil prices quite closely.

2005 had lower demand for oil compared to 2004, but still China and the US represented the largest part of consumption with 55% of demand. The relative high oil prices of $70 a barrel was partly due to the hurricane season in the US and geopolitical instability in the Middle East and Nigeria. With abnormal prices the demand softened reaching years end.

2006 was a volatile year with bunker reaching a high of $76, only to fall to $56 in mid-October. This was mainly due to the high amount of storage before the hurricane season in the US.

In 2007 the oil price increased steadily throughout the years making a small seasonal dip in the late summer and closing at $85 at year's end.

Although 2008 had a good start for the industry, with oil peaking at a record high $143, world demand decreased in the second half of 2008 and oil prices plummeted to $38, at end of December, even though OPEC were trying to put less pressure on the prices and consecutively reducing oil production.

Oil demand increased 1.8% in 2009 and oil price as well as bunker has increased throughout the year. This is much caused by optimism, especially by the increased GDP in China and their need for oil (RS Platou Group, 2010c) & (OPEC, 2007).

7.3.2.1 Crude oil prices

Looking back at the shipping market model we note that the cost of transport and the increased demand for goods are two of the drivers for shift in the freight market. With the increased demand for oil we have seen in the years leading up to, and including, 2008 the oil prices have had a significant abnormal increase. Oil demand surpassed the supply for 2006 and 2007 creating an upward pressure on the oil price leading to an artificially high spot price before the vast downfall in summer of 2008.

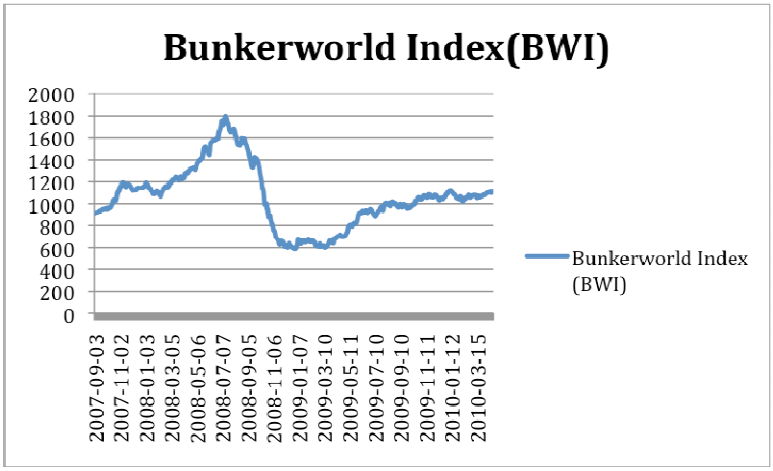
China is the third largest net importer of oil and the as the consumption has increased substantially from 2004 through 2008 the domestic production has had a relative standstill. As end of 2008 the import represented about half of domestic consumption of oil at 7.85mb/d with world consumption being 85.7 Mb/d. The US has also increased their consumption of oil, but not nearly in the range that China has. With

China still increasing their consumption as of 2009 and expected to do so in 2010 the US has reduced their demand of crude oil, thus creating somewhat of a shift where oil is transported (U.S. Energy Information Administration, 2010); (International Energy Agency, 2010) & (Graph cited from Oil-price.net, 2010).

7.3.2.2 Bunker

Crude oil prices are the key influence in bunker cost. The Bunkerworld Index (BWI) is comprised of 20 bunkering ports, weighted daily. Thus being a representative index for settling bunker contracts and futures in addition to being an indicator for price movements.

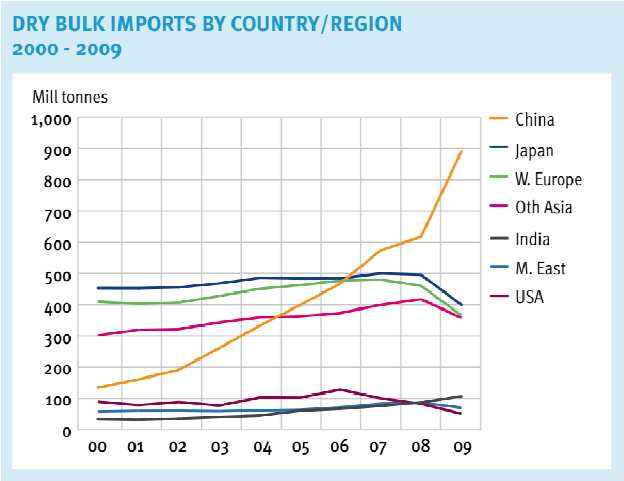
The bunker cost reached a high of 1799 points at 15.07.2008 and a record low at year's end of 589 points in 2008, falling 67% in just a few months. For those on spot purchase of bunker this was most welcome while those holding future contracts with higher strike price this discrepancy of cost created tremendous losses. (Bunkerworld.com, 2010).



7.3.3 Coal and steel

Ore and coal makes up for about half the demand for dry bulk cargo and is thus the main driver for these freight rates.

China is the world's largest consumer of coal, for use in their steel mills as well as for the production of energy. With an approximate 2B ton consumption in 2005 and a yearly average growth of 200M ton, the total import of coal is in the range of 150-200M ton per year, as of 2009 (Aden, Fridley, & Zheng, 2009).



(Graph cited from RS Platou Group, 2010a, p. 20)

With the increase in dry bulk import to China the last decade one can easily understand how the Chinese demand is a big driver for the world consumption of these products and how this affects the freight rates (RS Platou Group, 2010a, p. 20).

7.3.4 Stock exchanges

We will be looking at an array of stocks in this discussion and the majority of the stocks are listed either on the Oslo Stock Exchange (OSEBX) or the New York Stock Exchange (NYSE). The benchmarking towards these indices will give us an impression of the magnitude of crisis and the actual decline that took place, both with respect to the indices as well as the individual stocks. It will also exemplify the recovery, or lack thereof, that has taken place.

The OSEBX is the main index and is supposed to be a representative array of the stocks listed on the exchange. It is revised every six months, and adjustments to the composition are made when necessary.

The main index had a peak in the summer of 2007, followed by a decline towards January 2008. From late January to 16th of May the stock soared with an increase of 31%, followed by a 64.1% in the subsequent six months (Oslo Stock Exchange, 2010) & (e24.no, 2010f).

The NYSE composite index, in contrary to the OSEBX, measures the aggregate performance of *all* their listed stocks. Through various methods and calculations this is believed to be a good representation of the development.

With a steady increase in the years prior to, and including most of 2007 the NYSE composite index experienced a sharp decline in August of 2007. The index rose to an absolute peak of 10,312 points on the 31st of October following a, thought to be, major decrease through the first week in March 2008. Regaining some of its strength during the month of April and beginning of May the stock fell to its lowest level since 1997 at the 9th of March 2009 with a value of 4225.3 points. From this point the index has regained some of its previous value, but is still down 29.6% since its peak (NYSE, 2010) & (Yahoo! Finance, 2010d).

7.3.5 Segments

There has been a varied development within the different shipping segments as the commodities carried are of different value, demand and supply. In the following we have limited out research to the segments in which our companies trade within.

7.3.5.1 VLCC and Suezmax crude oil carriers

With the development of the prices in these markets the time charter equivalents (TCE) rate development of 2005 were between $24,000 and $130,000, and for Suezmax $23,000 and $107,000. The year started with high rates both for VLCC and Suezmax tankers at the rates of $81,000 and $70,000 respectively, but with the seasonal fall having its impact in April. In August the TCE reached $89,000 and $ 75,000 led by increase oil demand toward the hurricane season in the US and the high future prices on oil, which caused massive use of tankers for storage. Due to the large oil reserves the oil prices dropped causing the TCE to end at $63,000 and $50,000 for VLCC and Suezmax.

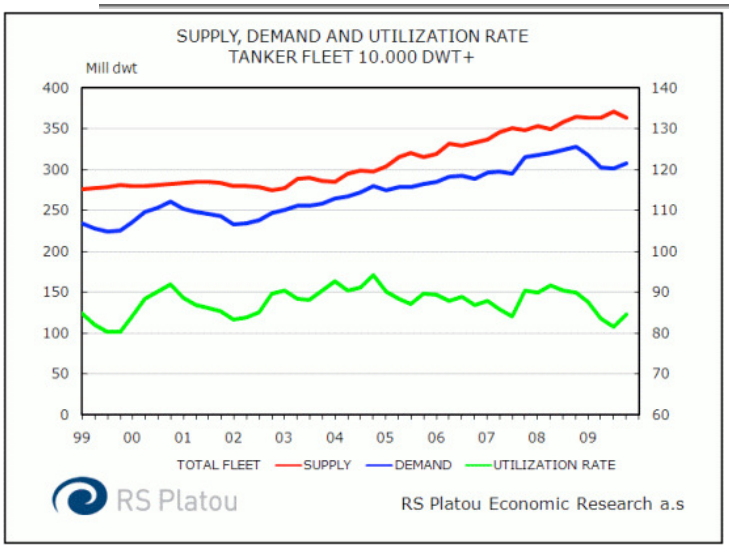
2007 started good for the Suezmax tankers as there were major delivery problems in France creating an upward surge in the prices to $70,700. VLCCs, on the other hand, experienced a smaller upswing to $47,000 and were now creating substantially lower revenues than usual, compared to the Suezmax fleet. Both segments declined throughout the year, until November when VLCCs experienced an increase in demand.

The price of oil continued rising in 2007, hurting the tanker owners and operators such that a joint decision was made to reduce the average speed from 15 knot to 12 and thus saving $20,000 a day in bunker cost and reducing total capacity by 10%. Capacity was also reduced as an estimated 10-15 VLCCs were marked for conversion, thus resulting in an increase in TCE.

In the beginning of 2008, the VLCC market reached its high of a daily TCE of $195,000, only to experience a decline throughout the year and the daily average ended on $95,000. There are various reasons for the high prices, but it was mainly due to the Iranians tying up 12-14 vessels for storage, the Chinese increased demand for oil in relation with the Olympic Games, various port strikes and increase in ton-mileage for US, China, Japan and Korea.

In the fourth quarter of 2008 the demand for vessels increased as contango, which is higher future price than the current spot price, prevailed in the future's market and 40 vessels were chartered under storage or voyage ending in storage. The financial crisis and thus the lower GDP growth slowed the demand for consumer products as well as for oil. Less export were undertaken as the oil prices were down and the belief of a fair price of oil being $75 a barrel, creating less profit for exporters with rates around $40.

Reaching 2009 contango was still in effect and there were respectable rates at $83,000 for a VLCC, although prices fell significantly reaching March and continued on a downward spiral through the third quarter. Though in spite of this development, at the end of the year, prices were up to $39,500, much due to a large number of vessels utilized as storage and less new deliveries. The delivery of new ships was 40% less than expected due to cancellation and



slippage. Rates fell on account of negative outlook for future demand, but to some extent China with their increase in import of oil, managed to put an upward pressure on the price.

The current fleet as of March 2009 was comprised of 18% single hull vessels even though they are discriminated when it comes to freight rates. The single-hulled vessels were still available and trading to some extent, which meant a larger pressure on the supply side of the industry. Though, these tankers are to be phased out within 2010 due to the IMO regulations. This may have a positive effect on the market since it will relieve some of the pressure put on the supply side (Frontline Ltd., 2005-2010) & (Graph cited from RS Platou Group, 2010d).

7.3.5.2 Pure Car Carrier (PCC), Pure Car & Truck Carrier (PCTC) and Roll-On-Roll-Off (RORO)

In 2004 the main drivers for the demand was the increase in vehicles worldwide with 3.8%. The export from Japan and Korea rose by 12.5% and 30% respectively. The depreciating American Dollar contributed to increased exports from and decreased import to the US. Heavy and agricultural machinery had a formidable increase especially to South and North America and Oceania. The world fleet had an increase of 25 PCC/PCTC for the year, increasing the total to 453 and expecting 33 vessels on delivery for 2005. The main driver behind the development in the segment was the increased demand from Asia (Annual report 2004 cited in Wilh. Wilhelmsen ASA, 2005-2010).

The demand for cars increased through the year of 2005 as well, with an overall increase of 3.2%. Korea increased their export of cars by 9% and in China there was an increased demand for heavy machinery, which meant a positive outlook

for the segment. High activity in the mining industry in South America further strengthened the demand for machinery. The world fleet is at this time around 470 vessels, which represents a net addition to the fleet of roughly 17 ships (Annual report 2005 cited in Wilh. Wilhelmsen ASA, 2005-2010).

Further delivery of heavy machinery to Australia and increased demand from Asia to America and Europe strengthened the segment in 2006.

The largest influence in the market this year was the big strike in Korea, which lead to utilization and dead-time for the companies transporting. The additional cost to secure the shipments of cargo in the time after the strike further increased costs and weakened margins for those involved (Annual report 2006 cited in Wilh. Wilhelmsen ASA, 2005-2010).

2007 saw record high bunker prices and the increase in demand for sea transport for cars, machinery and non-containerized equipment. The bunker prices increased due to the record high oil price, thus squeezing the margins for carriers. Freight rates also increased making it profitable to expand business (Annual report 2007 cited in Wilh. Wilhelmsen ASA, 2005-2010).

Higher freight for the majority of the first two quarters of 2008 strengthened revenues for the segment. The utilization though was less than perfect due to the undersupply of tonnage throughout the last few years, and increasing demand for transport. The need to perform ballast legs has also put a constraint on the revenues. The main drivers were the increase in transport of high and heavy and non-containerized cargo, but there was a setback in the transport of cars (Annual report 2008 cited in Wilh. Wilhelmsen ASA, 2005-2010).

The downward trend seen in late 2008 continued into 2009 and there was a decrease in worldwide demand for cars by 20%, which lead to a decline in the demand for RORO transport by 50%. According to RS Plateau this may be due to limited sea voyages and better logistic opportunities as the cars, to a larger extent, can be sold where they are made and the massive shipment of cars prior to the crisis, which are now sitting idle in ports of their destination country.

Both Korean and Japanese manufacturers have increased their market share in North America as of May 2009 (Annual report 2009 cited in Wilh. Wilhelmsen ASA, 2005-2010).

Japanese export significantly dropped during late 2008 and first half of 2009. As they are the largest exporting country of cars, their setback has seriously affected the segment. 14% of the RORO fleet was scrapped during 2008. Reduced vessel speed as well as longer journeys combined with the lay up of vessels had decreased the supply side of the market.

During the second half of 2009 export from Japan and Korea increased, much due to stronger signs in the economy and incentive packages around the world. Export is, as of February 2010, up 50% from mid 2009, but still 30% below peak in 2008.

The total order-book for PCC was 33% as of late 2009 and 14% for RORO cargo carriers. Thus being respectively in what Clarkson research denotes as high and low risk zones. The utilization of the PCTC fleet went from 93% to 60% from 2008 to 2009.

"Plateau mentions the fact that the deep sea automobile trade was hit much harder than global automobile sales, mainly because the trade had a lager exposure to regions where automobiles sales fell more than the global average, combined with manufacturers seeking to sharply reduce inventories" (RS Platou Group, 2010b, p. 1)

Regional development in the Middle East, Africa, Latin America and Eastern Europe, where one has experienced a major increase in import leading up to the crisis, has now experienced drastic reductions in import, although these countries have not been as severely hurt by decline in GDP. It is expected that these countries will be back to higher import relative soon, as to further strengthen the demand for transport.

Japanese car manufacturers have had some plans as to expand their production in the US as to utilize the plants that have been experiencing less production due

to the Chapter 11 filing of GM. This may seriously affect the future for car carriers as cars may be distributed throughout the US by rail rather than shipped from Japan (RS Platou Group, 2010b); (RS Platou Group, 2010a) & (RS Platou Group, 2009).

7.3.5.3 Chemical tanker market

2004 was a good year for the shipping industry as a whole, although chemical tankers are a more isolated segment they have felt the ever-present interplay between the segments. The competition of the Handysize vessels is getting fiercer and the prices for building chemical tankers are rising due to the decrease in yards accepting to build them (Annual report 2004 cited in Odfjell SE, 2005-2010).

In 2005, rising freight rates had a positive effect on the chemical tanker market, but the rising oil price, as for all shipping segment, had a dampening effect on the result for the companies. Geopolitical problems and hurricane season also had a negative effect on the segment (Annual report 2005 cited in Odfjell SE, 2005-2010).

2006 had increasing bunker prices compared to 2005, the parcel tanker freight rates was somewhat weaker in Q2 and Q3 and a sluggish growth at the end of the year. The tanker storage business saw also an improvement during 2006. The parcel tanker segment experienced higher operating cost much due to bunker and the increase in maintenance and upgrades of the ship to the standard required. The chemical tanker market prospered, much due to the increasing demand of vegetable oil and input crops, also the cancellation and delay of new-buildings. Long-term charters were in demand as the charterers worried about the increase in freight rates (Annual report 2006 cited in Odfjell SE, 2005-2010).

The IMO MARPOL Annex II revision, which took effect as of 1st of January 2007, states the need for double hulled vessels for the carriage of certain chemicals. Thus creating the need to re-build or carry other types of products not classified

under the Annex II revision. The fleet growth of deep-sea chemical tankers grew of about 6-7% during the year, although less than previous years and the order-book include around 280 ships.

During 2007 the segment prospered on the rising freight rates, the increased demand in the Far East and a depreciating dollar enhancing competitiveness. The major downside is the downturn in demand for bio-fuel products as multiple products have been scrapped or delayed. The spot rates in the segment increased by 10-15%, much due to the increase in operating cost caused by increased oil prices. The COAs and time charter demand also increased.

The increase in the fleet is about 8% for 2007, with the total order-book increasing to 410 ships as high freight rates have seemed to boost the need for new ships. Demolition was 8 ships for the current year and 7 in 2006 for the deep sea chemical tankers, thus not nearly enough to balance the order-book of new vessels with main delivery in 2010-2011 (Annual report 2007 cited in Odfjell SE, 2005-2010).

2008 started of well for the chemical tankers, with rising rates towards the summer. With the financial crisis affecting the entire world economy, the oil prices plummeted and thus the further debate on biodiesel was put on hold. This created a massive drop in demand for such product carried by chemical tankers.

Although the financial crisis spilled over to the shipping industry in the summer of 2008, the chemical tanker segment did feel the serious effects until late 2008. Due to the high number vessels supplied, too little cargo to meet supply and a general high build up of inventory, which materialized in less demand for sea freight. The revenues for the shipping companies were high in 2008, although with fewer products to be carried, the decrease in bunker cost had a positive effect on the result.

The piracy attacks in the Gulf of Aden made for some shipping companies to sail around the Cape of Good Hope, which in turn increased average haul.

The chemical tanker fleet grew by 12% in 2008; with nearly no additions to the order-book, thus the outstanding order-book for the deep sea market is down to represent 37% of the current fleet (Annual report 2008 cited in Odfjell SE, 2005-2010).

2009 proved to be a tough year for the chemical tanker business, with the aftermath of the financial crisis the demand was still low. China increased their consumption considerably making for more demand into the Far East, but the return leg proved difficult, as the demand for product from China to Europe and the US were limited. The chemical tanker fleet grew by 9.2%, and even though demolition doubled from 2008 the increase in world fleet was more than the market could absorb, with limited demand.

The world fleet order-book fell to 26% for the deep-sea chemical tanker segment, thus a sharp fall from the previous high ratios in 2007 and 2008. This is generally seen as a good sign, even though the number of cancellations was lower than expected as many ships are reaching their completion and cancellation was hard to perform (Annual report 2009 cited in Odfjell SE, 2005-2010).

7.3.5.4 Panamax and Capesize segment

The segment has experienced a increase in value of fairly new ships, 5 years of age, with a 7% increase in 2006 the prices for a Panamax is $46 million and $81 million with newbuilding contracts respectively $38 million and $68 million, with delivery in 2010 (Annual report 2006 cited in Golden Ocean Group Ltd., 2005-2010).

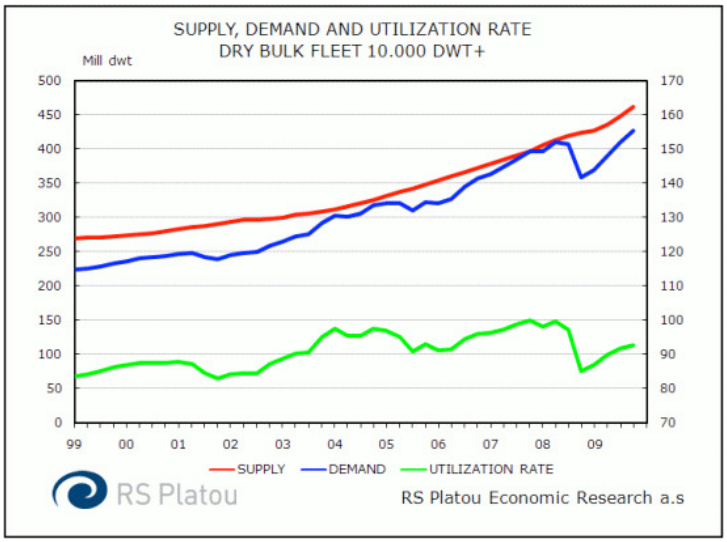
During 2007, the market increased substantially throughout the year mainly due to increased demand of iron ore to China. The daily rates for the year averaged $176,000 and $82,500 for Capesize and Panamax respectively, and there were a further surge in second hand prices reaching $135million for Capesize and $85million for Panamax at years end. The high utilization of the dry bulk fleet of

98.5% created a shortage of supply in some areas, putting further pressure on the freight price (Annual report 2007 cited in Golden Ocean Group Ltd., 2005-2010).

In 2008 the Baltic index plummeted and the average rates were down between 30-50% in the first quarter. The second quarter was substantially better, averaging in the range of Q407, and the Baltic Cape index reaching an all time high in June. This was much due to the 9% export of iron ore from Australia, and further export increase in Brazil and Canada. Slippage also increased, leading to less supply of vessels.

3Q08 was rather grim for the dry bulk segment. The rates ended at $41,159 and $19,294 for Capesize and Panamax, but in Q4, rates were at one point down to $2,316 for Capesize. Though, prices increased throughout the month ending at average earnings of $11,250 and $7,740 for Capesize and Panamax. Part of the decrease in freight rates were due to the halt in import of iron ore to China, caused by the prevailing spot prices that were lower than contractual prices, as well as the high inventory of iron ore in China. Steel also saw a general decrease in demand throughout the year. With lower trade volume, the port congestion and sailing distance were shorter, creating higher utilization of the vessels, which pushed the supply side of the fleet further up.

At years end of 2008 the prices of five-year-old ships were now, $30M for Panamax and $48M for Capesize, representing a drop of 60% the last quarter (Annual report 2008 cited in Golden Ocean Group Ltd., 2005-2010).



In light of the crisis in 2008, 2009 started well, with earnings ranging for a Capesize between $9,000 and $39,500 a day. The forces for this increase were the higher demand for iron ore

import to China, the higher availability of letters of credit and higher congestion in ports. In 2Q09 the market was still managing to keep an utilization of over 90%, much due to the port congestion problems in for example China and Australia tying up 5% of the Capesize fleet.

At years end 2009 the fleet was earning an amounted average of $27,600 for Panamax and $55,350 for Capesize vessels, thus a substantial increase compared to 4Q08.

The high order-book for the segments are a worry for the ship-owners, although the shipyards are experiencing slippage, the tonnage on order may be able to offset the supply and demand relationship and force prices back down (Graph cited from RS Platou Group, 2010c) & (Annual report 2009 cited in Golden Ocean Group Ltd., 2005-2010).

8 Five shipping companies

8.1 Frontline

Established in 1985 and listed on the Swedish stock exchange in 1989. After Hemen Holding Ltd., owned by John Fredriksen, became the largest shareholder in 1996; the decision was made in May 1997 to change Frontlines domicile from Sweden to Bermuda and to list its shares on the Oslo Stock Exchange. The stock is also listed on the New York Stock Exchange and the London Stock exchange (Frontline Ltd., 2010d).

"The company's vision is to provide the customers with flexible and reliable transportation service, and use this flexibility to develop unique industrial relations that will give material benefits to the customers as well as to the Company, Shareholders and employees" (Frontline Ltd., 2010f).

From the Frontline web page; it is also stated that Frontline's vessels mainly trade in the spot market, which usually turn a higher charter rate than time charter. This affects the continual employment and Frontline needs to efficiently charter its OBO carriers and tankers. Since Frontline seeks to maximize earnings in employing vessels they focus on operational safety and quality of maintenance, to comply with environmental regulations and the outsourcing of technical operations and crewing. To further strengthen their financial situation they minimize operational cost, focus on high utilization of their vessels and a good relationship to their main charterers as well as negotiating competitive financial agreements (Frontline Ltd., 2010f).

8.1.1 Operations

The Company, including its subsidiaries, is employing 51 persons as of 31.12.2009, in their offices in Bermuda, Oslo, London, Singapore and India.

Frontline Management AS is responsible for the commercial management of Frontlines ship owning subsidiaries, including chartering and insurance. The Management Company is a wholly owned subsidiary of Frontline Ltd. with domicile in Norway.

With an extensive outsourcing strategy independent ship management companies are taking care of Frontlines need for crewing, ship management and accounting services. Frontline benchmarks operational performance and cost level amongst the Company's ship managers and crews are usually from Russia, India or the Philippines (Frontline Ltd., 2010e).

8.1.2 Who controls the Company and what is their strategy

John Fredriksen controls the Company through Hemen Holding Ltd. and the aim is to have competitive returns to its shareholders, with quarterly dividend payments. To the furthest extent the Company is adjusting its fleet to be owned, leased or sold-and-leased-back through fully owned subsidiaries or partially owned companies.

Fredriksen's daughter Katrine Fredriksen is employed as a director in the Company and one is to believe she is learning the business, so as to one day take over the Company with her sister. This along with the great returns Mr. Fredriksen has received through the ownership of the Company; it is believed he is to be a long time owner (Annual report 2009 cited in Frontline Ltd., 2005-2010, pp. 74-75).

8.1.3 Segments

Frontline is a major company in the tanker business, with their main freight in oil. Their Oil/Bulk/Ore (OBO) tankers make the Company more flexible in the way they transport cargo; they may carry oil one way and ore or dirty bulk the other way. This allows Frontline to take advantage of the fluctuations in freight

rates for the various commodities the carriers are able to transport. Although it is expensive to clean the tankers between the shipments, they are binding less capital than by obtaining two different ships (Frontline Ltd., 2005-2010).

Frontline has 29 Suezmax tankers, 47 VLCCs and 8 OBOs, making it a total of 84 vessels. This includes vessels on commercial management and owned by Independent Tanker Corporation Ltd. (ITCL), which is a wholly owned subsidiary of Frontline Ltd.

Frontline takes pride in having one of the most modern fleets in the world, with nearly all of their ships being in accordance with the new IMO regulations. New ships allows for more efficient and reliable operations as well as being compliant with new maritime regulations as of 2010 and less of a hazard for marine life in the case of an accident (Frontline Ltd., 2010c).

The trade of Frontline is conducted worldwide, but in the last few years the trade in Asia has substantially increased, due to the higher demand for oil and ore to China (Annual report 2009 cited in Frontline Ltd., 2005-2010).

8.1.4 Fleet

Looking at the financial statements of Frontline, the acquisition of vessels and contracts to buy vessels are performed frequently. With the sale and purchase of options it seems like Frontline is using their skills of negotiation and foresight to create the best return whether that is to purchase a ship for their own usage or to make a profit on the option.

In 2006 Frontline entered into an agreement for the delivery of four VLCCs and an option for an additional two. As Frontline were able to sell two of the contracts with a gain of $9.8 million they entered into a new agreement for the delivery of additional two VLCCs. The options were exercised and the ships were sold to a third party.

The Company also entered into an agreement for the delivery of four Suezmax tankers with an option of further four vessels. Two of the contracted vessels were sold to Ship Finance Ltd (Annual report 2006 cited in Frontline Ltd., 2005-2010, pp. 16-17).

In 2007 the options for four Suezmax vessels were exercised and the delivery date of the now four VLCCs and eight Suezmax vessels were between 2008 and 2010. With 80% of the liabilities of $880 million being financed with new credit facilities (Annual report 2007 cited in Frontline Ltd., 2005-2010, pp. 18-19).

Frontline entered into further agreements of new-building with the delivery of four VLCC new-buildings and a fixed price option for further two, which were exercised in May of 2008. At the year's end, the contract for delivery consisted of ten VLCC and eight Suezmax vessels as the yard were not able to deliver the contracted three VLCCs for 2008 (Annual report 2008 cited in Frontline Ltd., 2005-2010, p. 19).

By 2009 the falling oil prices and the financial crisis had crept upon the shipping industry with falling rates and few obtainable credit facilities. The delivery of two VLCCs was completed, but due to the crisis Frontline negotiated the cancellation of two VLCC and four Suezmax new-buildings, with the already paid installments of $56 million to be set off against future payments on new-building. In March 2010 the delivery of two Suezmax vessels were undertaken, reducing the new-building in process to two Suezmax and six VLCCs (Annual report 2009 cited in Frontline Ltd., 2005-2010, pp. 30-31).

The general development of the Frontline fleet has been new acquisitions every year and a significant boost in chartered vessels during all the years up until and including 2008. The timing must at that time seemed perfect as the majority of dispositions were performed in 2007, leaving room for further commitments when freight rates boomed in 2008.

8.1.4.1 Disposition of vessels

Due to the IMO regulations, Frontline has long had a standing policy of disposing their single-hulled vessels. Furthermore, there has been a larger discrimination towards double-hulled vessels, thus creating two-tiers for freight rates. This discrimination against the single-hulled vessels has hurt the Frontline earnings in the years up to 2009 since more countries has started supporting the legislation of double-hulled vessels and limited the number of markets such a tanker can operate in.

Although Frontline has stated that they want to modernize their fleet, the acquisition of five single-hulled vessels was performed in 2004, but with the subsequent sale or termination of charter of eight single-hulled vessels in the years of 2006-2008. The majority of dispositions, nine altogether, was completed in 2007 (Frontline Ltd., 2010b).

8.1.5 Finance

Frontline had a debt to equity ratio of 3.37 in 2004 which increased steadily to 7.44 in 2007, but was down to 4.0 at the end of 2009. Total liabilities have not changed much during these years. They only made an increase of 10% from 2004 to 2005, and kept fairly steady until making a 10% decrease in 2009 (Calculations from Appendix 1 based on Frontline Ltd., 2005-2010).

8.1.5.1 Equity

Reviewing Frontline's balance sheets, the dividend payments are very much in correlation with net earnings for the Company. The payments of 2008 were to some extent lower with retained earnings of $45M compared to 2007 when no earnings were retained. This is believed to be due to the financial crisis and the outlook for a decrease in further revenue. In 2008 the Company issued new shares to obtain fresh capital in the amount of $211.1M, thus increasing their equity substantially.

2009 was a rather bleak year with net income in the amount of $105M, compared to 2008 when the net income was $701M, but nonetheless the Company paid cash dividend in the amount of $70M. This meant an increase in equity to $740M from $702M previous year (Balance sheets cited from Frontline Ltd., 2005-2010).

8.1.5.2 Debt

In 2003 Ship Finance Ltd. was formed as a fully owned subsidiary to take over the larger portion of Frontlines fleet and lease it back. During a four-year long share spin-off, dividend was paid through Ship Finance Ltd. as well as ordinary cash dividend. Through these transactions Frontline was no longer reporting the Ship Finance Ltd. ownership in their annual reports. The previously owned ships were now reported as financial lease in their books. This way Frontline have reduced their net vessels holdings at the end of 2007 and increased their holding of vessels under capital lease (Annual report 2007 cited in Frontline Ltd., 2005-2010, p. 20 & 61).

The long-term interest bearing debt of Frontline was $377M, $614M and $761M in 2007-2009, with the increase due to the new-building program (Annual report 2008-2009 cited in Frontline Ltd., 2005-2010).

Frontline managed to obtain credit facilities in 2008 with a pre-delivery secured term loan facility at the amount of $129.6M with due date in June 2009, for the purpose of financing a VLCC under construction. Further, the Company secured a $420M pre- and post-delivery secure loan facility, due in 2017, which they had drawn $137.8M on by the end of 2008. The third facilitation was a five-year $180M mortgage to support their new-building program (Annual report 2009 cited in Frontline Ltd., 2005-2010, p. 142).

With the spin-off of Ship Finance the liabilities due to capital lease of Frontlines 54 vessels was $2,325M at year's end 2007. Current liabilities ratio increase from 9.7% in 2006 to 15.7% and 17.7% in 2007 and 2008. The increase was

partly due to a 2-year debt of $80M entered into in 2006 to secure the financing of a new VLCC, due in mid 2008. This facility was renegotiated in 2008 with the result being extension of the payments until 2009 and a covenant of positive working capital and a set amount of free cash. Reaching 2009 the Company was still not as liquid as they had hoped for, and the payments with exception of $24M were set to be due in 2013 decreasing the current ratio to 16.3% (Calculations from Appendix 1 based on Frontline Ltd., 2005-2010).

Frontline have a strategy by obtaining new debt when the maturity dates are closing in, and it seems to have worked in the crisis as well, with facilities stretching from one year to nine years in 2008 (Frontline Ltd., 2005-2010).

The future liquidity of Frontline may be strained due to lessor's put options for five ships chartered in by the Company due in 2015 (Annual report 2009 cited in Frontline Ltd., 2005-2010, p. 64).

8.1.6 Revenue and results

Frontlines EBIT surged in 2008 from $519million in 2007 to $850million, followed by a drop in 2009 to $240million with the factors of lower freight rates and lower demand influencing the segments operation.

Return on total capital employed has had a volatile run since 2004, with 28% in 2004, decreasing steadily in the subsequent years to 16.85% in 2007. 2008 yielded substantial revenues for the shipping industry and Frontline's return on capital employed was 23%, followed by 6.9% in 2009. The strong returns in 2008 and 2007 were to some extend due to the sale of assets of $118M and $142M, positively affecting the result, compared to 2009 with sale of assets in the amount of $3M (Calculations from Appendix 1 based on Frontline Ltd., 2005-2010).

8.1.6.1 Operating income

Vessel's revenue is either from the spot market, pooling, time-charter or vessels on bareboat charter.

There has been a shift in the organization of the fleet distribution. With 66% and 69% in the spot and pool market in 2004 and 2005 the Company has held a relative stable composure from 2006 through 2009 with around 45% in the spot and pool market, roughly 35% on time charter and the remaining 20% on bareboat. The strategy for Frontline is to have at least 30% on medium to long charters with the rest in spot to utilize on the fluctuations in freight rates, as well as to serve core customers with variable need of transport (Frontline Ltd., 2005-2010).

While Frontlines revenues were halved from 2008 to 2009 the TCE has actually increased to 79% as seen in the table below:

TCE in $ a day	**2009**	**2008**	**2007**	**2006**
VLCC	38,300	74,500	45,700	56,800
Suezmax	25,300	55,200	33,000	37,800
Suezmax OBO	43,000	43,500	39,700	31,700
TCE%	79%	76.6%	77%	74%

(Annual report 2009 cited in Frontline Ltd., 2005-2010, p. 57)

Frontlines calculation of their TCE as noted above, gives us an impression of the magnitude of the decreasing rates. The corresponding TCE break-even rates were as of 2009 $32,100 and $25,200 for VLCCs and Suezmax vessels. These rates do not include capital expenses or balloon payments on loans, which historically have been refinancing of new loans (Annual report 2009 cited in Frontline Ltd., 2005-2010).

8.1.6.2 Voyage charter

Voyage charters, being the major income source for operations, has increased their revenues by 78% from 2007 to 2008, mainly due to the increase in freight rates represented through the spot market and an additional seven vessels trading. Though, the revenues decreased significantly in 2009 reflecting the major decline in freight rates which were significantly lower than the first half of 2008 (Annual report 2009 cited in Frontline Ltd., 2005-2010, p. 105).

The increase in voyage charter from $801M in 2007 to $1,426M in 2008 can be broken down into a few components, such as the major increase in trading days for VLCCs with the charter in of 11 new vessels in 2008 realizing a revenue stream of $213M higher than 2007. The TCE rates for these double-hulled vessels rose from $48,000 in 2007 to $90,000 in 2008, on average.

In 2009 the average TCE for vessels on voyage charter decreased to $38,000 and $23,200 for VLCCs and Suezmax.

Demurrage was a highly profitable business in 2008, but saw a decrease of $82.2M, from 2008 to 2009. This may be explained by the overall higher degree of layup in the market and lower utilization of ships, creating less congestion in ports.

Frontline experienced less trading days for vessels in 2009 with the redelivery of a vessel only chartered in for 2008. If trade had been like in 2008, revenues would have been $52.6M higher, not taking into account the falling spot prices. The transfer of three VLCCs and a Suezmax from voyage to time charter created another $166.5M reduction in revenues.

The Gemini pool, in which Frontline is a substantial contributor, incurred a serious revenue decrease compared to 2008. Delivery of eighteen double-hulled Suezmax vessels to the pool resulted in a reduced income for Frontline of $277.3M compared to 2008 earnings for the same vessels, as they were also trading in the spot market in 2008.

As the distribution of the fleet trading in the voyage charter market was roughly the same in 2008 and 2009, the percentage of total revenues represented 68% in 2008 and 50% in 2009, thus being adversely affected by the spot market trading (Annual report 2009 cited in Frontline Ltd., 2005-2010, pp. 55-57).

8.1.6.3 Time Charter revenues

The OBOs trading for Frontline had fixed rates during 2008. Only one of the vessels was dry-docked that year, compared to six in 2009, which estimated a decrease in revenues of $7.9M.

As the time charter contract for four of their vessels was up, the transfer to voyage and bareboat charter altered revenue streams with an estimate impact of negative $43.8M. Another two vessels fixed to the BDI, which fell during the beginning of 2009, realized earnings of $37.5M less than 2008.

Another six VLCCs were chartered out on floating time charter and these vessels created a reduced income of $121.4M compared to 2008.

A positive allocation of vessels to time charter from spot market increased revenues by $36.6M and increase in trading days for three Suezmax vessels creating an increase in revenues by $21.2M (Annual report 2009 cited in Frontline Ltd., 2005-2010, pp. 55-65).

8.1.7 Result

Frontline, albeit having an army of subsidiaries, does not report any substantial earnings or losses concerning their subsidiaries, nor from associates.

2008 was a good year for Frontline; taking into account the purchase of vessels representing an outflow of cash for new-building in the amount of $657M and the dividend paid of $642M. The Company had an increase in net cash holding at the year's end, mainly provided by the operating margin and proceeds from long

term debt with additional proceeds from issuance of shares, amounting to $208million.

For 2009 the cancellation of vessels, 75% reduction of payments for new-building progress and the obtaining of new debt did not prove sufficient to offset the decrease of net income from $701M in 2008 to $105M in 2009. Obligations for the repayment of debt in the amount of $267M and capital lease payments of $241M were twice as big as those incurred in 2008, straining on the cash holding of Frontline, which were reduced from $191M in 2008 to $83M in 2009.

Restricted cash, used for the payment of various debt, lease installments and other non-foreseeable obligations increased from $370M to $430M in 2009. This is a holding meant for their medium to long-term liabilities, otherwise taken out of the cash balance. Frontline is showing signs that they are increasingly worried about the future earnings and their obligations by increasing the restricted cash.

The main driver behind the poor result of Frontline in 2009 was the decrease in voyage charter, which was down 60.3% from 2008, and a 19.3% decrease in time charter revenues. Revenues fell in the amount of $971M which represents 46,1% decrease from 2008 (Annual report 2009 cited in Frontline Ltd., 2005-2010, pp. 107-109).

8.1.8 Benchmarking

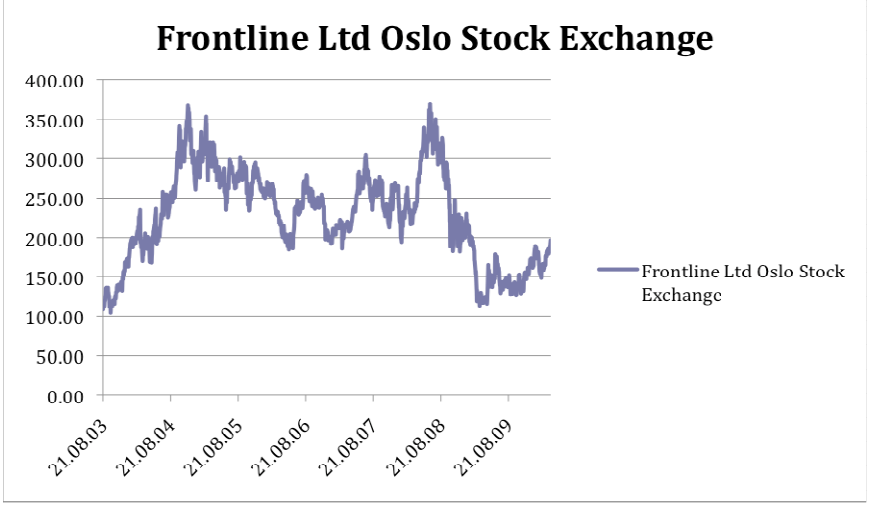
Tsakos Energy Navigation Ltd. (TEN) operates mainly in the carriage of crude oil. The Company has delivered a return on capital of 12.18%, 11.57% and 2.95% in the years of 2007-2009, showing a weaker return than Frontline has been able to produce. Tsakos is not as highly leveraged as Frontline with their corresponding figures of 1.79, 2.17 and 1.76 in 2007-2009 and the quick ratio shows that the Company has had a minimum ratio of 1.66 the last three years. Thus, maintaining a fair financial situation. Albeit showing some better signs of solvency and liquidity than Frontline the stock only up 16% from bottom and still down 80%

from top, not close to the recovery of Frontline (Calculations from Appendix 2 & 3 based on Frontline Ltd., 2005-2010).

Frontline has as we can see later in the paper obtained better return on capital employed than NAT, even with a higher gearing. NAT has in return a substantially higher quick ratio, which is a sign of strength in liquidity.

8.1.9 Share price

Looking at the development of Frontline and its share from 2007, the stock initiated at NOK196 following a quite volatile year, ending at a price of NOK 261, peaking at NOK 304 in mid July. This movement is very much alike that of the BDTI, which also peaked in the summer of 2007(e24.no, 2010a).



(Graph cited from e24.no, 2010a)

The SMA (50) for the last half-year of 2007 reveals a small downward trend in the stock price, but seemingly more volatile than actual decline in this period. This may be due to the mixed market signal with respect to freight rate decrease, the bleak revenue outlook as stated by Frontline and the sale of assets in Dockwise Ltd. as well as in IMAREX ASA. The stock experienced a sustainable, higher level of trading from the middle of 2007, which lasted until the end of 2008 (Yahoo! Finance, 2010a).

Frontline's share reached a peak in late June 2008, experiencing a significant up-swing from the beginning of the year. Freight rates reached a new high; John

Fredriksen and Frontline increased their holding in Overseas Shipping Group Ltd., which was a sign of their further belief in the crude oil carriage. Increased demand for oil by China and strong GDP were signs alongside the increase in oil price that the Company's underlying assets could generate increased revenues in the following months. However, the demand for oil decreased in 2Q08 and supply was higher than demand by 1.2(Tb/d), a new scenario for the industry considering the undersupply that had sustained the last few years (OPEC, 2008).

The bubble burst in the summer of 2008, with freight rates plummeting, fear of debt forfeit, the dollar reaching a new low against other major currencies and world stock markets being extremely bearish. Frontlines stock fell drastically, and perhaps more than what could be expected relative to the earnings potential of the underlying assets, with a larger percentage of their fleet on medium to long term charters. One of the major factors was the decline in prices for second hand vessels and steel prices, which in turn weakened the value of their vessels that debt was held against. As some of the earnings of the ships were also assigned to mortgage holders, the outlook seemed grim if the Company should not be able to obtain freight. The freight rates continued falling in August and throughout the fall, with earnings of the Company substantially lower than previous year much due to the lower freight rates and the $200M loss on the forward contract of Overseas Shipping Company. The new-building commitments proved to be a worry for the market as the price of the vessels were higher than the second hand prices one could obtain for similar vessels and the week before the quarterly report for Q3 the Frontline share fell 12.1%.

Dividend payments from Frontline have yielded sustainable results during the last few years and were expected to be in the amount of $1,50-$1,70 a share, but as expectations was not met on the 28.11.2008 the Frontline share fell significantly (Furuset, Wålen, Thyri, & Takla, 2008); (Takla & Lium, 2008); (Becker, 2008a) & (Becker & Eidem, 2008).

During the first months of 2009, liquidity problems due to their new-building commitments and decreased earnings became a thorn in the side for the

Company, and it is believed to have a dampening effect on the stock price. The ships were still believed to be too expensive at the price of $140M per VLCC while the prevailing market price was $115M. In the presentation for the first quarter the Company states they have only limited problems obtaining credit facilities for their program, as well as the new-buildings may be 5-9 months delayed, giving Frontline some more time to obtain this financing. At the same time the Company reported a high level of contractual coverage for their ships in 2009 at 39% (TDN Finans, 2009) & (Becker, 2009c).

Reaching the summer of 2009, Frontline's stock reacted strongly to the market signals. Due to the expectation of higher oil inventory in the US of 0.1M barrels, the news of a decrease of 4.4M barrels caused the Frontline stock to surge by 11.41% (Becker, 2009d).

Dividend was paid in second and third quarter of 2009, and the Company struck back against analysts who did not believe the Company could manage to pay dividend with the large liabilities and the weak cash flow that was expected. Despite dividend payments, which show the Company is making a profit, the share price had a sluggish and small growth during the last part of 2009. This was much due to the low freight rates of VLCC and the fact that shippers were reluctant undertake shipments (DN.no, 2009d).

Although freight rates for VLCCs and Suezmax vessels is back at the same level as beginning of 2007, the Frontline stock price is not, and thus this is only a partial explanation for the major fall in the stock price. The gloomy outlook for the future of the business, as well as the falling steel price, which Frontline need to take into consideration when four of their single-hulled vessels need to be scrapped or refitted is probably a factor in the price of the stock. As well are the new-building commitment and the order-book of the segments in general, as supply of vessels may supersede the demand for ships in the years to come.

The Frontline stock had a significant peak in late 2004 at roughly the same price of the 2008 peak, and as we compare to the results and debt degree they were much in line with the year of 2008. Keeping in mind that the Baltic Index also

reached a peak at this time, it should be an indicator of the correlation the stock price of Frontline has had to the freight index. When the index started its decline in the spring of 2008, so did the Frontline stock.

Since 2Q09 the stock has continued on a positive trend as the SMA (50) gives a good indication of. The stock has incurred some volatility, but the trend is positive, with increase in the freight rates, fewer new deliveries in the segment than expected and a more positive market outlook than what the latter part of 2008 consisted of (Yahoo! Finance, 2010a).

8.2 Nordic American Tanker Shipping

Nordic American Tanker Shipping Ltd. (NAT) was incorporated in Bermuda on June 12, 1995 under Bermudan laws for the purpose of acquiring and chartering three double-hull Suezmax tankers that were built in 1997. The shares are today trading at the New York Stock Exchange. The Company operates in the tanker market and transports crude oil (Nordic American Tanker Shipping Ltd., 2010a).

8.2.1 Strategy

"The Board has announced that it plans to grow NAT into a larger company in the tanker market business, and that it at all times will evaluate market opportunities and employment options to enhance the value of NAT and its dividend capability" (Nordic American Tanker Shipping Ltd., 2010a).

NAT has a self-declared unique business model providing the investors with high dividend at a low risk. The Company has now paid dividend for 50 consecutive quarters (Report Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, p. 1). Furthermore, growth has been an important component in their business model. From the start, the Company has had focus on growth and the fleet grew from 3 to 18 Suezmax crude oil tankers in less than five years (Nordic American Tanker Shipping Ltd., 2010c).

"The Company has a sustainable strategy when the spot market is strong and also in a weaker market environment. Thus, the Company essentially has the following strategic position going forward: If the market is firm, very good results and dividend can be expected" (Report Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, p. 1).

"In a weaker market, the dividend will be lower which is a minus. However, if rates are down for a while, the Company is in a position to buy ships inexpensively and accretively which is a plus. This plus can be expected to be larger than the minus. Several of our listed competitors have significant net debt which could make it difficult for them to buy vessels in a weak market. In this way, the Company has covered both scenarios." Financially the Company runs a strategy of low gearing. Their debt to equity ratio has been kept to a minimum with exception of a period in the middle of the last decade where they increased the debt in order to let their fleet grow, but this has since return to its normal state and according to the fourth quarterly report of 2009 the Company has no net debt (Report Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, p. 4).

Their charter policy is to operate their vessels in either the spot market, on time charters or on bareboat charters. Though, the Company's vessels are normally employed in the spot market with only one vessel engaged on a long term fixed bareboat charter. NAT states in their annual reports that it is their "goal to take advantage of potentially higher market rates with spot market related time charters although we may consider charters at fixed rates depending on market conditions" (Annual report 2008 cited in Nordic American Tanker Shipping Ltd., 2005-2009, p. 2).

8.2.2 Fleet

As of today, NAT's fleet consists of 16 operational Suezmax crude oil tankers, but further 2 Suezmax tankers are scheduled to be delivered in September and December of 2010 respectively which makes their fleet total 18 Suezmax tankers by the end of the year. Furthermore, on April 12th this year it was announced that there had been struck an agreement with Samsung Heavy Industries Ltd. for the acquisition of 2 new Suezmax vessels (Nordic American Tanker Shipping Ltd., 2010d). This increase will take their tally of ships up to 20 by the end of 2011 and underlines the Company's continuing focus on growth. The Suezmax tankers are capable of carrying between 147.000 to nearly 165.000 DWT (Nordic American Tanker Shipping Ltd., 2010b).

NAT being quite a young company (founded in 1995) combined with their massive focus on growth; means that their fleet consists of only newer, modern tankers which are more efficient and more reliable compared to the competing fleets. The oldest vessel in NAT's fleet was built in 1997 and half of today's fleet of 18 vessels is built since the turn of the millennia. This also means that the whole fleet is built in accordance with the new regulations regarding tanker hulls and all of the 18 Suezmax tankers are constructed with double hulls (Nordic American Tanker Shipping Ltd., 2010b).

In recent years, all but one of the vessels in NAT's fleet has been employed in the spot market. The one vessel has been on a fixed charter and will be until the end of 2010 (Nordic American Tanker Shipping Ltd., 2005-2009). NAT states in their annual report from 2008 states that tankers operating in the spot market are more likely to "generate increased profit margins during improvements in tanker rates, while tankers on fixed-rate time charters generally provide more predictable cash flows" (Annual report 2008 cited in Nordic American Tanker Shipping Ltd., 2005-2009, p. 3).

8.2.2.1 Disposition of vessels

In regard to disposition of vessel, it is unlikely to be any scrapping or reconstruction of ships due to the age and standard of the current fleet (Nordic American Tanker Shipping Ltd., 2010b). As of 4Q09 there was only one dry-docking scheduled, but this was only due to maintenance being performed on the ship. It is not unusual that vessels are sent to dry-docking in order to get repairs and upgrades during market recessions and NAT has planned for another ship to be dry-docked for maintenance during the first quarter of 2010 (Report Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, p. 3).

8.2.3 Finance

NAT has had a relative volatile return the last five years, with their best year in 2008 at 15.10% return on total capital employed. In 2009 this was down to a mere 0.29% as their EBIT plummeted to $2.4M versus $121M in 2008.

Debt to equity ratio of NAT has, compared to other companies in the industry a low value, with 0.36 and 0.31 in 2005 and 2006. In 2007-2009 it decreased to 0.2, 0.03 and 0.01.

The Company has an average break even rate of their vessels of $10,000 a day and is expected to pay dividend whenever this limit is not breached (Calculations from Appendix 1 based on Nordic American Tanker Shipping Ltd., 2005-2009).

8.2.3.1 Equity

Due to the strategy of limited debt, the Company has issued common stocks every year since 2005 rather than obtaining more mortgages in order to finance their ships. The net income increased from $44M in 2007 to $119M in 2008, increasing their equity even though the Company paid a dividend of $166M. In 2009 the Company paid a dividend of $95M and sold common shares to the

amount of $237M, increasing their equity and investing $167M in new vessels (Annual report 2008 cited in Nordic American Tanker Shipping Ltd., 2005-2009, pp. 11-13) & (Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, p. 6).

It seems the Company is not facing hard times obtaining new equity and financing in the private market, rather than relying on the banks to be facilitators in the need for financing. With the issuance of common stock that has taken place since 2005, the number of total shares outstanding has increased from 13M to 42.2M. The dilution and thus the possible subsequent fall of share price may to some extend explain the rockiness of the stock. Although NAT has been widely applauded for their cheap, so-called, "over the night offerings" which are swift and stingy on the Company's pockets (Nordic American Tanker Shipping Ltd., 2009-2010) & (Nordic American Tanker Shipping Ltd., 2005-2009).

8.2.3.2 Debt

In 2005 the restructuring of the business into an operational company changed the need for long-term financing, as they wanted to purchase new vessels. The Company entered into a revolving credit facility in 2005 with due date in 2010 at an amount of $300M, which was increased in 2006 to $500M. This is for the purpose of obtaining new vessels and will be drawn on when needed. The lender of this facility does not have the power to cancel the agreement as long as the Company is within their covenants. For the lender the facility is secured through first priority mortgages on the vessel, assignment of earnings and insurance. Dividend is allowed paid in accordance with their dividend policy as long as it is not in default under the Credit Facility.

Through 2005 and 2006 the increase in long term debt and thus the gearing ration is the use of the credit facility for the purpose of paying for ships in the making.

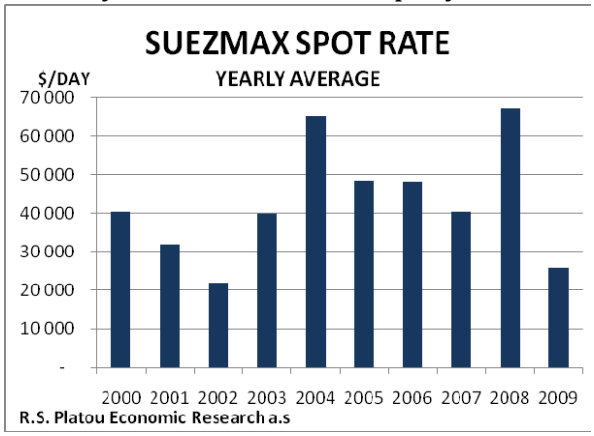
As the Company found the situation to be somewhat bleaker, income and result wise in 2007, an agreement was reached for the postponing of the maturity of the credit facility. With a cost of $2.1 million the default of debt was extended to the year 2013, not 2010 as previously agreed upon. Following this new time limit and the fact that the Company had repaid most of its facility in 2008 the Company was in good shape before the crisis reached the shipping industry and in line with its strategy they could obtain vessels when the price was falling (Annual report 2008 cited in Nordic American Tanker Shipping Ltd., 2005-2009, pp. 4-5).

The Company is to take delivery of two ships in 2010 and two in 2011, which will increase their liability for a short period as the aim is to finance these acquisitions through further issuance of shares and intermediate use of credit facility.

The Company has of end 2009 no net debt and find themselves in a good position as to take advantage of acquisition of vessels as well as the upswing in the spot market, which they expect is imminent (Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, pp. 2-3).

8.2.3.3 Operating income and results

NAT's operating income has been steadily growing since 2004, but following the record year of 2008 the Company suffered a significant set-back in 2009. The net income during these two years went from staggering $119M to a lowly $1M. One of the major reasons behind this was the decline in voyage revenues, which was nearly halved during that year. As mentioned earlier, the Company is mainly operating in the spot market and therefore has felt the effects of the downturn in freight revenues harder than those who have employed their vessels on long-term charters. The graph above further illustrates the Suezmax average spot rates and shows reason behind the sudden drop in voyage revenues. The Suezmax spot market is very volatile. From reaching the highest average freight rates of the decade in 2008, the average freight rates more than halved in 2009. Though, it is likely that this graph is somewhat incorrect due to time lags. The downturn in the economy had already started in 2008, but it takes time for the effects to show since the voyages are usually lengthy and the ships operating in the market are not immediately out of service (Graph cited in report Q4 from Nordic American Tanker Shipping Ltd., 2009-2010); (Report Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010) & (Nordic American Tanker Shipping Ltd., 2005-2009).



Evaluating the Company and its result, the net voyage revenues were almost halved from 2008 to 2009, but the expenses increased as a main result of the new-delivery of vessels, which did not get a full trading year in a weak market. Voyage expenses decreased substantially in 2008 and 2009 from the year of 2007, without the reports showing any indication why. The decrease in oil prices and the fact that NAT does not undertake any derivative hedges or likewise may be an explaining factor as the expenses comprise of bunker, canal tolls, brokerage commission and port fees (Annual report 2008 Nordic American

Tanker Shipping Ltd., 2005-2009, p. 5) & (Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, p. 6).

Net income was $1M in 2009 compared to $119M in 2008 due to the low revenues and the relative fixed cost of operating expense, including depreciation, which amounted to $113M.

Cash flow from operating activity was $45M in 2009 compared to $128M the previous year, and the cash balance stayed fairly unchanged although the repayment of debt, purchase of new vessels and dividend payment were a zero sum game towards the issuance of new shares and use of the credit facility (Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, pp. 6-7).

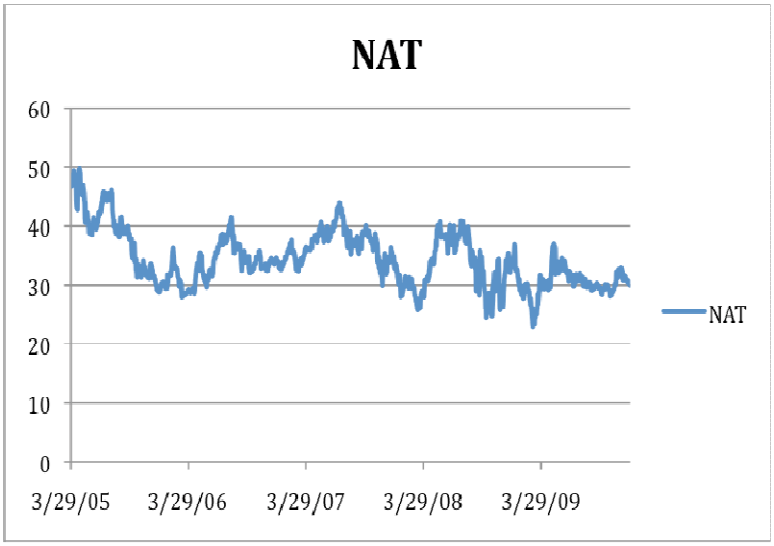
The trading days for the fleet in 2007 represented a 100% utilization of the bareboat charter and a 94.75% utilization of the spot market fleet of 11 boats. Trading days in 2008 were a 100% for the one ship employed on bareboat charter and 90% for the ships on the spot market, which is in correspondence with the segment standard for the current year. Following the 2009 reports of NAT, their employment was 100% for the ship on bareboat charter and 97.6% for the vessels operating in the spot market, thus substantially better than 2008, and a lot better than the market average. This should be affected by the relative young fleet employed by NAT with respect to for instance maintenance and the fact that they do not have to worry about the segregation in the market with single versus double-hulled vessels. In fact this has been an advantage as the market has priced the double-hulled vessels higher with regards to freight rates (Annual reports 2007-08 cited in Nordic American Tanker Shipping Ltd., 2005-2009, p. 5).

8.2.4 Benchmarking

Looking at Tsakos Energy Navigation Ltd. (Tenold) and Frontline compared to NAT as somewhat done in the Frontline chapter, NAT when reaching October of 2008 did not continue the fall as the two other companies did. It flattened out. This we believe is much due to the rising spot prices that prevailed in the market and the fact that NAT managed to obtain freight. Frontline showed poor results and were in a liquidity squeeze. NAT, on the other hand, had an equivalent of zero debt and cash in hand if times should get tougher. The market was experiencing an increase in Suezmax tanker rates in the end of 2008 and the Company paid dividend, which further strengthened the belief in the NAT stock (DN.no, 2008k).

8.2.5 Share price

NAT nearly quadrupled the stock price through 2004, but the peak did not last



for long and the share price has been going trough some turmoil during the last few years. The "financial crisis peak" was at $40.69 on 20.05.2008 following a rocky decline until it ended at $22.86 the 03.03.2009, climbing to $30.07 as end of 2009. This represent a 43.8% fall from the top to bottom and, only, in retrospect to other shipping companies, a fall from top to end of 2009 of 26% (e24.no, 2010c) & (Graph cited from e24.no, 2010c).

By analyzing the stock price with an overlay of a simple moving average (50), we can see a trend from 2005 through 2009 with the stock bottoming out in April and rising to a top in July/August each year. This trend is not as significant for the years prior to 2005, but as we believe this can to a large extend be corresponding to the rising spot rates that usually prevail in the start of a year, that will materialize in revenue increase and thus share price increase the following quarter.

It seems like the stock has a tendency of falling the day after dividend payment, as described in basic financial theory. After the stock fell to $26.40 in the second week of March 2008, dividend payment and announcement should be a small key explaining variable along with rising spot prices in the following quarter, as well as dividend outlook were substantially better than 4Q07. The stock surged and volume traded of the stock was quadrupling. The increased trading activity is believed to put a significant upwards pressure on the stock in this period. Analyst coverage changed from neutral to "hold" and "overweight" in the six months of January through June 2008, which indicates a stronger belief in the stock as the freight rates were strengthening and the NAT fleet were mainly trading in the spot market (Yahoo! Finance, 2010c).

Following the turmoil in September and October 2008 the stock fell tremendously as spot prices followed the BDTI and market outlook were gloomy. With an order-book that would indicate a daunting increase in supply of vessels, not nearly corresponding to the current market, nor the future market where the "multiplier and accelerator" effect was believed to kick into reverse and decrease demand. The stock was traded at a higher volume than previous year's average, and was highly volatile and seemingly more fragile to market changes. In mid 2009 the SMA (50) has flattened out and the stock seems to have adjusted to a level around $30. NAT has a break-even cost of their ships of $10.000, and with the spot rates that has prevailed, the Company has managed to make money and subsequently pay dividend, which further strengthens the belief in the Company. "While there is no financial risk in the Company, there is high operational risk, states CEO Herbjørn Hansson" (Takla, 2010).

NAT explains their lack of exposure to the credit squeeze as a variable positively affecting their Company's performance. Without any debt to default the main worry is to obtain voyages at a positive rate, in which they have succeeded. The Company has cash holding in the amount of $30M, which is backed up by credit facility that is possible to use if the Company should face troubles obtaining contracts in the future. As the Company has limited outlays to administrative, interest and operating expenses relative to the income the past years we believe that when the world economy recovers, the demand will increase. NAT is in a unique position with no ships that are single-hulled and need not worry about the sale of such vessels, in respect to decreasing steel prices and falling second hand value. As we have seen less delivery of new vessels than feared, due to delays, cancellation and an artificially high order-book with respect to engines sold. Platou has a notion in their report that the actual vessels in order-book may be less due to resale of contracts that are double-booked in the companies' statements. The "proof" of this is; the sale of engines has not been as high as the number of new-buildings reported. Thus, the recovery might be swifter than expected (Q4 cited in Nordic American Tanker Shipping Ltd., 2009-2010, pp. 1-5).

We believe NAT will be able to gain momentum out of the crisis and serve their shareholders and customers in a positive manner, both with respect to share price, dividend payments and delivery of crude oil.

8.3 Odfjell Group

Odfjell was set up in 1916, and pioneered the development of the parcel tanker trades in the middle and late 1950s as well as the tank storage business in the late 1960s. Currently they are a global provider of transportation and storage of bulk liquid chemicals, acids, edible oils and other special products. The latest breaking news for Odfjell was the Norwegian Supreme Court decision in favor of the shipping companies with respect to the retroactive tax imposed in 2007 for the years 1996-2006. For Odfjell this means an increase in equity of about $110 million and the reduction of the interest cost on the tax debt for 2010 by about $5 million (Odfjell SE, 2010c) & (Odfjell SE, 2010a).

8.3.1 Strategy

Their strategy is "(..) to continue developing our position as leading logistics service provider for customers worldwide". Through the efficient and safe operation of deep-sea and regional parcel tankers and tank terminals Odfjell aims at maintaining this position. Odfjell realizes the fact that scale is needed to offer an efficient trading pattern in a global transportation context, thus gaining maximum fleet utilization. With their current size Odfjell states they obtain significant purchasing benefits (Odfjell SE, 2010a).

8.3.2 Operations

"Our operations are fully integrated, with in-house functions for chartering, operations and ship management" (Odfjell SE, 2010d).

Due to the fact that intelligence and market knowledge became important competitive elements Odfjell started their internalization of operations in 1963 by establishing Minde Chartering, a brokering firm. Also, terminals were bought to enhance the competitiveness in the market for chemical transport (Tenold, 2006, p. 194).

With their fleet currently consisting of 96 specialized ships at a total capacity of 2.6 million dwt, they generated a turnover of $1,247M in 2008, excluding tank terminals.

Odfjell's tank terminal business consists of fully owned, partially owned and associated companies which generated a turnover of $232M in 2008. Odfjell states their "(..) terminal operations yield synergies with transportation activities and enhance quality and efficiency control throughout the transportation chain" (Odfjell SE, 2010d).

8.3.3 Company structure

Odfjell SE is listed on the Oslo stock exchange. As is the case of many other shipping companies, the structure of subsidiaries and ownership structure is less than straight forward. Odfjell has 21 subsidiaries and when Odfjell states that their operations are in-house, the terminology is also including their subsidiaries. In this paper we will focus on the Odfjell Group as a whole. Odfjell SE is the ultimate company, which is traded on the Oslo stock exchange and is reported in the consolidated financial statements. In 2008 Odfjell SE became purely a holding company, with Odfjell Chemical Tankers as the largest subsidiary and the operator and owner of the majority of the group's vessels (Annual reports 2008-2009 cited in Odfjell SE, 2005-2010).

8.3.4 Who controls the Company and what is their strategy

The extended Odfjell family still has control over the Company although it is publically traded.

In the 2009 March edition of *the Quarterly*, the in-house magazine of Odfjell, Mr. Bernt Daniel Odfjell, at that time the CEO of Odfjell, is baffled by the sheer magnitude of the financial crisis and its effect on the shipping market. Although, he believes the Company is well equipped to weather the storm. With all-round

skilled personnel they will continue to expand both in ships and terminals. The financial situation he believes is good, although with a slightly low equity ratio. The Norwegian Supreme Court decision on the retroactive tax imposed should further strengthen their financing abilities.

With the retrospective view of 2009, the new CEO Mr. Jan A. Hammer seems to have a somewhat different view of the future than the previous CEO, Mr. B. D. Odfjell. Almost a year has passed and the financial situation is bleaker, the organization needs to be trimmed and ships that are out of date needs to be decommissioned, as they are no longer profitable.

The Odfjell family has been a long time investor and the major shareholder of the Company since its founding. It is to believe the family is to maintain control and steer the Company out of the storm with a good foundation and expansion so as to be able to gain significant market shares when the shipping business is gaining momentum again (Odfjell SE, 2009b); (Odfjell SE, 2009a) & (Proff.no, 2010).

8.3.5 Segments

Odfjell's fleet consists of 96 ships with a capacity from 4,000 to 50.000 DWT, currently 54 of the ships are owned by Odfjell and 42 are on time-charter. Odfjell has been listed on the Oslo Stock Exchange since 1986.

Odfjell is operating in two segments, parcel tankers and tank terminals. By combining the two it is to believe they are realizing bigger potential and operating more efficiently (Annual report 2009 cited in Odfjell SE, 2005-2010, pp. 7-12) & (Odfjell SE, 2010b).

The effect of this combination may be twofold, as a downturn in the parcel tanker segment may result in less transport activity, thus reducing the need for storage in the storage and processing facilities, creating a double dip or a double upside if times are good.

Transportation services are offered in all major trade lanes throughout the world supplemented with regional transport in Europe, Asia and South America. For storage needs this is provided through their terminals located in Europe, North America, the Middle East as well as Asia. Through arrangements with members of the Odfjell family, Odfjell SE has also easy access to terminals in South America. The strategy is to further develop the scope of tank storage facilities throughout the major shipping lanes of the world (Odfjell SE, 2005-2010, pp. 9-11).

With trading routes all around the world Odfjell's ships are affected by regional as well as world changes, business cycles and local supply and demand for products. Odfjell have the past few years obtained the largest revenue from the geographical segment of Middle East and Asia, USA, Netherlands, Brazil and Africa. The largest part of Odfjell fleet in the under COAs which make for easy planning and scheduling both for the customer as well as Odfjell. With 500 different generic products carried each year, with parcel size ranging from 100 ton to 40,000 ton the scheduling is crucial to obtain positive results. A substantial part of the ships are on the spot where trading companies take advantage of the arbitrage opportunities in the commodity market (Odfjell SE, 2005-2010).

8.3.6 Fleet

Odfjell has been in the process of renewing their fleet; replacing their older vessels with newer models. This is to a large extent to be in compliance with the customer demand, as some of the older ships are less sought after. The first delivery of Parcel tankers to Odfjell commenced in 1975 and the fleet has served Odfjell well since then, but by 2005 the Company stated that it was time to renew their fleet (Annual report 2005 cited in Odfjell SE, 2005-2010, p. 10).

In 2005 Odfjell had a new-building program comprised of 27 vessels including two options, at what was then referred to as favorable prices, with delivery

through 2011. The Company has since then not increased the fleet they operate by more than two ships, from 93 in 2005 to 95 in 2009. The composition of the fleet have although shifted towards newer vessels. With the serious commitment of renewing their fleet, four ships were to be on variable time charter, ten ships on long-term time charter and the last thirteen including two options to be purchased by Odfjell (Annual report 2005 cited in Odfjell SE, 2005-2010, p. 91) & (Annual report 2009 cited in Odfjell SE, 2005-2010, p. 3).

The ships on order have mainly been delivered on time, at the cost agreed upon and employed at favorable rates which has secured the income of the Company. In 2005 Odfjell entered into an agreement to enter six ships into a pool with delivery through 2007, so as to take advantage of hopefully increasing spot rates.

The Company has sold older vessels in 2006-2008 with the bareboat-charter-back in order to free cash. This has been done to renew their fleet by taking advantage of the increasing second hand prices corresponding to the increased cost of the new-buildings of this segment (Annual report 2009 cited in Odfjell SE, 2005-2010, p. 4).

In 2008 Odfjell purchased Flumar, a Brazilian based company owning four vessels 50/50 with Odfjell. The need to operate under local flag along the coast of Brazil, combined with the Odfjell management expertise was believed to further strengthen the synergy effects along with Odfjell terminals in the area (Annual report 2009 cited in Odfjell SE, 2005-2010, pp. 5-8).

The new-building program of Odfjell lost some of its momentum due to the slippage from the Russhian wharf Sevmash, following the cancellation of the entire contract by Odfjell. A contracted eight vessels with option of up to twelve was signed in 2004, with delivery staring in 2007 through 2011. The vessels, 45.000 dwt IMO type II boats with an estimated cost of $500M, were cancelled due to the time overrun, cost overrun and cooperation problems faced. The installments paid including interest were repaid in full in 2008. Followed by a compensation of $43M after a trial in Sweden. Odfjell was not pleased about the compensation, nor the failure of delivery, as they were a long-term investor in

the industry. Although this failure of delivery may seem timely as in the midst of a financial crisis, Odfjell, did in 2008, place an order at a Chinese wharf for a series of six 9,000 dwt stainless steel chemical tankers and one 8,200 dwt coated chemical tanker with delivery from 2010 through 2012 (Annual report 2009 cited in Odfjell SE, 2005-2010, p. 4).

During 2009 Odfjell entered into a 50/50 joint venture with National Chemical Carriers Ltd. (NCC) in Dubai to pool althogether fifteen vessels with common operation of their IMO II and III tankers. This agreement was reached following the charter of three IMO III tankers from NCC (Annual report 2009 cited in Odfjell SE, 2005-2010, p. 17).

Odfjell has continued to sell older ships. Seven ships in the time period of 2005-2009 were sold for demolition of to third party. Another seven ships were sold to third party with the time or bareboat-charter-back to Odfjell.

In 2009 Odfjell reached *agreements* to sell a grand total of four outdated ships for recycling in India. Odfjell has stated that they are willing and able to further invest in new-buildings as well as charters in the midst of the crisis and at end of 2009 the Company had six vessels on order through 2012, with the first new-building being delivered in 2011 (Annual report 2009 cited in Odfjell SE, 2005-2010, p. 4).

8.3.7 Finance

The Odfjell Groups main debt driver was the investment in new vessels and terminals. Odfjell's debt does not put any restrictions on the dividend or financing policy of the firm, other than; book debt ratio should at all times be less than 75% (excl. deferred taxes from debt) and liquidity must be the highest of $50 million or 6% of interest bearing debt. All of which has been in compliance the last five years.

The long-term debt had as of 2005 an average time to maturity of 4.9 years with all debt and revenues denominated in USD, except for their tank terminals, which receive income in other currencies. By 2007 the average maturity of long-term debt had increased to 6.5 years and was down to 5.6 by 2009, thus a fairly steady performance. Bonds issued in NOK or SGD are swapped to USD so as to secure their exposure towards exchange rate fluctuations. The portion of long-term debt on floating USD LIBOR has remained fairly consistent around 80% the past few years (Odfjell SE, 2005-2010).

The debt to equity ratio has increased somewhat from 2005 onward. From 1.89 in 2005, the top was reached in 2008 with 2.59 and down to 1.98 in 2009 (Calculations from Appendix 1 based on Odfjell SE, 2005-2010).

8.3.7.1 Equity

As cash flow hedges are reported in the equity statement for current years, the positive net result for 2008 of $163M was offset to a large extent by the major write-down of the value of the hedges by negative $87M as well as dividend payments of $33M. The hedges was mainly due to the less than one-year maturity of bunker which had a negative fair value of $60M as the Rotterdam bunker plummet to $200-a-ton reaching the year's end. As well as negative $16M of interest rate swaps and negative $11M on currency swaps.

Taking into account the increasing bunker cost in 2009 and the appreciation of the dollar, the equity increased to $906M from the $721M level of 2008. The increased fair value of hedges increased by $85M, currently driven by the $61M increase of bunker value and $22M in currency hedge value.

The ruling against the Norwegian tax on tonnage system increased the comprehensive income on fair value of other reserves from a negative $92M in 2008 to a positive $113M at end of 2009, thus further increasing the equity of Odfjell. The Company provided a positive net result as to be written against comprehensive income in the equity statement, of $121M. The negative input on

the equity was the major repurchase of own shares, in accordance with the cancellation of the three different total return swap (TRS) agreements with DnB NOR. In addition to the dividend paid amounting to $36.4M and $12.3M for 2008 and 2009 respectively (Annual report 2009 cited in Odfjell SE, 2005-2010, pp. 22-27).

8.3.7.2 Debt

The long-term debt over assets ratio has fluctuated between 0.52 and 0.57 from 2004-2009, thus sustaining at a level that Odfjell is comfortable with. Short-term debt has decrease somewhat from the 14% level it had in 2007, both due to the decrease in current liabilities and the increase in assets held by the group (Calculations from Appendix 1 based on Odfjell SE, 2005-2010).

In 2007 the Company performed their third bond issue, acquiring NOK 201M of NOK 300M offered through the issue. In addition to this the firm entered into a financial lease of three vessels amounting to $320M on a long-term financial agreement. $150M of the proceeds was used to finance the financial lease of three vessels as well as the purchase of a vessel, and to repay revolving credit facilities. The long-term debt increased by $140M in 2007 with overall debt increase of $325M. The year saw a strain on the liquidity, but the obtaining of new undrawn credit facilities in the amount of $49M made up for this (Annual report 2007 cited in Odfjell SE, 2005-2010, p. 17 & 29).

Further increase of debt was mainly due to the long-term debt obtained through two different long-term secured bank facilities with the value of $40M and $135M in 2008. This was in accordance with the previous mentioned new-building program in China, sat in effect after the cancellation of the Sevmash contract. In addition the Odfjell Terminal obtained new loan facilities of €60M so as to repay intercompany debt and to finance the expansion that was to be undertaken at the facility. Repayment of debt amounted to $120M, as well as the repurchase of $11.7M bond liability due in 2011 at a rate yielding a positive result of $1.2M. Additional draw facilities were non-existent at end of 2008 as

they were fully constrained (Annual report 2008 cited in Odfjell SE, 2005-2010, p. 9).

In 2009 Odfjell entered no less than five long-term secured bank facilities, which amounted to $135M, despite being a year where credit facilities were hard to come by. $83M was drawn from these facilities at year's end, where the aim of the facility was for general corporate purposes, as stated in the annual report. Also one of Odfjell's subsidiaries in Singapore pursued a loan of SGD 200M for general purposes as well as the expansion at Jurong Island.

Following the restructuring of debt in the bond market which Odfjell successfully has performed in the past, the Company successfully performed $88M issuance of unsecured bonds with maturity in 2013. The issuance was accompanied with the repurchase of earlier bonds with the current outstanding $18M in 2010 and $9M due in 2011 (Annual report 2009 cited in Odfjell SE, 2005-2010, p. 18).

Through the facilitation of debt, the Company has managed to increase their long and short-term credit through a time where credit has been hard to come by. Although this debt to some extent has been used to cover their increase in assets, the ratio measuring how the Company has financed their vessels and tank terminals through either long term debt or equity has decreased from 2007 when the ratio was 1.0. In 2009 the ratio was 0.91 which isolated indicates that more of the long-term debt is used for operational purposes, which was explained earlier. Odfjell's operation cash flow ratio took a dive in 2009 measuring 0.37 contrary to the previous five years, were the ratio has been 1.10, 0.54, 1.07, 1.02, and 0.83 for 2008-2004. While the cash held by the Company has not substantially changed the proceeds from operation does not cover current liabilities to the same extend. Thus the Company may find it increasingly difficult to cover these liabilities if the banks or the bond market were to dry up.

The quick ratio for Odfjell has been somewhat volatile. It has been changing from 1.02 in 2004 and peaking at 1.39 in 2006 with the increase in cash holding. The ratio made a dip in 2007 as the current portion of long-term debt was due, but in 2008 and 2009 the ratio has leveled out at 1.11 and 1.04, leaving us with the

impression that Odfjell has the ability to cover their current liabilities for 2010 as the debt maturing is reported to be $163M (Calculations from Appendix 1 based on Odfjell SE, 2005-2010).

8.3.8 Revenue and results

The return on total capital employed in Odfjell has been fairly steady in 2004-2008 from 7.61% to 9.11%, followed by the gloomy year of 2009 where they on a positive note managed to obtain a positive return of 2.88%.

EBIT has increased from $114M in 2004 to $198M in 2008, making a drop in 2009 to $61M. With operating expenses in terms of operating revenue for 2007-2009 of 65%, 73% and 77%, the margins have been closed-in substantially (Calculations from Appendix 1 based on Odfjell SE, 2005-2010).

8.3.8.1 Terminal segment

The terminal segment has obtained a larger share of the total operating income for the group, in the four year period from 2006. This is believed to have a correlation with the relative higher investments in terminals during the last four years. Carrying amount of tanker terminals at end of 2009 has more than doubled from 2006 in line with Odfjell strategy of being able to deliver more storage and processing facilities along their shipping routes worldwide.

Terminal Segment	**2009**	**2008**	**2007**	**2006**
Operating Revenue	$244.5M	$232.2M	$179.9M	$151.6M
Carry Amount	$691.2M	$633.8M	$480.5M	$340.1M
Net cash flow op. act.	$114M	$52.9M	$222M	$43.4
Operating Revenue in % of group total	19.3%	15.5%	14.2%	13.9%

(Table made from Annual reports cited in Odfjell SE, 2005-2010)

The terminal segment has increased its capacity 45.7% since 2007 with EBIT result over operating cost decreasing the last years, but still sustaining at relative steady and profitable level compared to the shipping segment of Odfjell. The ratio would have been 4 percentage points higher if it were not for impairment charges for 2009, thus EBIT would have been close to 2006 level where capital gain increased the ratio by 7.8 percentage points. Operating expenses are relative steady for the segment as it to a large extend incorporates manpower and maintenance after the structure is set up.

Odfjell has had an increased demand for storage through the crisis as demand for end products of consumers experienced a downfall. Products already in transit or en-route to storage did not have an end destination, thus storage was the only viable solution. Hence the terminal segment sustained its position through the financial crisis and seriously supporting the operational result for the group with net cash flow more than doubled from 2008 (Calculations from Appendix 1 based on Odfjell SE, 2005-2010).

8.3.8.2 Shipping segment

Odfjell has major trading lanes in deep-sea transport worldwide, with smaller vessels operating out of their terminal facilities. The geographical segments generating the largest revenues have not changes, with Middle East and Asia still representing the largest portion of revenue. This is also the segment that represented half the decline in operation revenues from 2008-2009, followed by Brazil and the Netherlands.

Shipping Segment	**2009**	**2008**	**2007**	**2006**
Operating Revenue	$1020.6M	$1247.4M	$1063.2M	$928.6M
Carry Amount	$1349.7M	$1392.7M	$1438.5M	$1373.5M
Net cash flow op. act.	$76.4M	$190.7M	$77.7M	$165.1M
Operating Revenue in % of group total	80.7%	84.5%	85.8%	86.1%
EBIT in % of Gross Revenue	-0.006%	10.35%	14.09%	11.24%

(Table made from Annual reports cited in Odfjell SE, 2005-2010)

The shipping segment of Odfjell has reduced its earnings without the corresponding reduction in expenses, much due to the time charter revenues being down 19% from 2008 and the cost of bunkers being relative high. Odfjell reports a bunker cost of $100-a-ton reduction will induce an increase in net result before taxes of $60M whereas an increase in freight rates of 4% will increase the net result before tax by roughly $25M. The following being extremely simplified; Odfjell reported a reduction of bunker cost by $40-a-ton from $460 to $420 and the decrease in time charter revenues with 19% year-to-year end 2008-2009, this should represent a decrease in bunker cost by of $24M and a decrease in time charter revenues by $118.75M, yielding a negative net result before tax of $94.5M from end 2008-2009. Thus with the large portion of their fleet on the spot market and the COAs only partially protecting the

Company against fluctuations in the bunker cost, this explains a large portion of the higher operating expenses relative to operating revenue.

Odfjell reported a negative EBIT of $6million for the year in its shipping segment, including the $43M compensation from Sevmash, due to the failure of delivery. The corresponding operating result for 2008 and 2007 were $129M and $150M, with larger number of ports called and fewer ships used.

Net result of $82.5M for 2009 were a result of the recording of taxes in the positive amount $108.6M.

The volume shipped in 2009 decreased from 2008 and 2007 with less parcels shipped as well as fewer ports called with an increase of ships and total deadweight, much due to the decline in demand for the older vessels operated and the high exposure to the spot market for clean petroleum products which is represented by the decrease in revenue from the Middle East (Calculations from Appendix 1 based on Odfjell SE, 2005-2010).

8.3.9 Revenue and result cont´d

The net result for 2007 were in fact negative due to the Norwegian tax on tonnage imposed. This resulted in a discounted tax liability for Odfjell of $140M. In 2008 the tonnage tax system changed the rules for investments in environmental friendly solutions, which companies could undertake as to write off 33% of the tax payable. As the rules were changed from 15 years maturity to infinite, the Company booked a result of positive $32.8M in taxes for 2008. For the year of 2009 a gain of $110.5M was reported as payable due to the Norwegian Supreme Court decision that the tonnage tax system was unconstitutional.

The net holding of cash did only change marginally from end of 2007($98M) through 2009 ($103M). This has been a result of:

- Obtaining new debt has been larger than the repayment of old debt with a net result in 2008 with $143M and 2009 with $73M.
- The $192M income from sale of assets in 2008.
- Decline in payment on vessels and new-building contracts from $405M to $174M in 2008 and 2009 respectively.
- The exchange rate fluctuations Odfjell is exposed to made for a $5M positive result in 2009 compared to negative $10M in 2008.

The chemical tanker market is less exposed to fluctuations as can be exemplified by the freight rate in stainless steel grade chemicals from Houston to Rotterdam which have had a top to bottom fall of around 35% compared to the major decline in the BCTI index which amounted to 72.2% from top to bottom (Odfjell SE, 2005-2010).

We believe the lower utilization of the fleet in combination with lower freight rates and relative high bunker cost are the main drivers behind the poor result of the group. Although, it seems the tank terminal segment has not moved in correlation with the shipping segment and has to some extent offset the poor the result from shipping segment.

8.3.10 Benchmarking

Eitzen Chemical is a fairly young company and has been listed on the stock exchange since 2006, but in spite of their age they managed to turn a profit in the first full year of trading in 2007 with a total return on capital employed of 3.53%, following two rather gloomy years with -18.99% and -3.71%. The Company has increased its gearing from 1.50 in 2006 and 2007 to 3.81 and 3.48 in subsequent years. For the year of 2008, the Company did not have liquidity in the range they needed and the quick ratio at years end was 0.15, although up to 2.04 in 2009. Eitzen's share saw a slower decrease than Odfjell's prior to April 2009. At that point, the share experienced a mammoth price decline, mainly due to the

revenue decrease and high degree of gearing in regard to commitments to their new-building program. With 66% of their fleet in the spot market, the Company has not managed to obtain enough freight or as good rates needed to pay their liabilities. The stock continued its fall throughout 2009 and is down 90% since the start of 2008 (DN.no, 2009c) & (Calculations from Appendix 2 & 3 based on Eitzen Chemical ASA, 2010).

Stolt-Nielsen has managed to keep their return on the positive side in the amount of 7.94%, 7.71% and 4.31% with a gearing of 0.83, 1.34 and 1.12 for the years 2007-2009. The return in 2009 was better than Odfjell's, but with twice the gearing. The Company had a relative high quick ratio showing signs of poor liquidity, in the range of 0.40 for each year. Stolt-Nielsen saw a major decline in stock prices reaching March 2008 and did not manage to recoup this towards Odfjell. They have underperformed during 2008 and 2009, the only exception being the start of 2009. At the year's end of 2009 the Company has not managed to tangent Odfjell's performance although not lagging to far behind with a top-to-end-2009 fall of 62,15% towards Odfjell's 56.3% and Eitzen's 59.8% (Yahoo! Finance, 2010e) & (Calculations from Appendix 2 & 3 based on Stolt-Nielsen S.A., 2010).

8.3.11 Share price

Odfjell has not had the same increase in share price in the run up to the summer of 2008 as many of the other companies we have been analyzing in this paper. The Company had somewhat of a peak in the beginning of the summer 2007, and a falling trend, when analyzing the SMA (50), from late July and bottoming out in April 2009. The share price peaked at NOK 119.00 in June 2007, but the stock closed at NOK 52.00 at the end of 2009. This represents a 56.3% fall in the share price, although the Company has regained 49.9% from the bottom in April 2009 (Yahoo! Finance, 2010e).

In 2007 Odfjell was adversely affected by the dollar price as they had to pay salary in NOK, as well as the increased bunker price affected their bottom line. On account of the future outlook in the world economy, Odfjell did not want to pay dividend for 2007, which signals a prudent company with lower than expected earnings (Becker & Bjørndal, 2007).

The dollar price continued falling in the first half of 2008 and the net result was weaker than for 1Q07 although the revenues were higher, which contributed to the further decline of the share price (DN.no, 2008i).

Reaching the end of 2008 the Company decided to re-route their ships around the Cape of Good Hope in order to avoid the pirates in the Gulf of Aden. This was a decision that increased the ton-mile for the Company as well as the operating cost and delays the cargo delivery. Thus another sign of weakness for the Company and its share price when looking at it in an isolated manner. The Company's share fell by 4.80% without any news in late 2008, and has been taken off the OSEBX, main index in Oslo, due to low trading in the stock (DN.no, 2008e); (Bjørndal, 2008b) & (DN.no, 2008a).

Odfjell had to sell their ship "Bow Sky" in order to finance their payment of the Norwegian tonnage tax. This financing has been a problem for the Company in the recent years and has most definitely put some restrain on the positives around the stock (DN.no, 2008j).

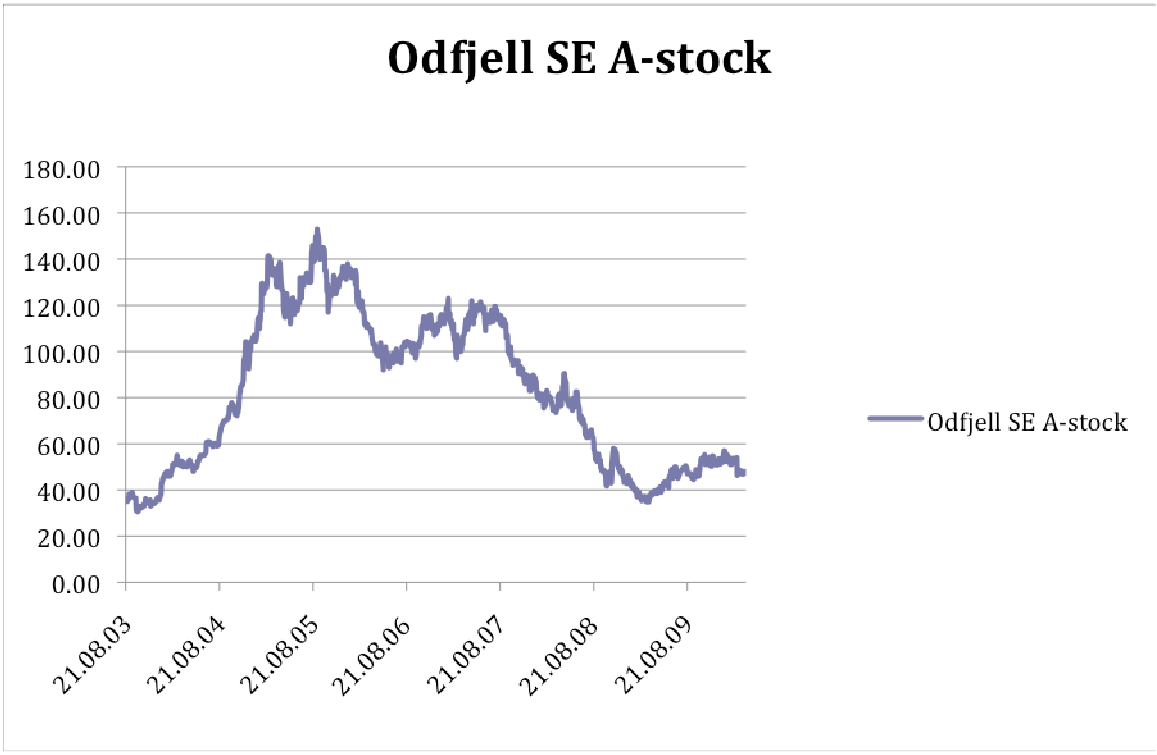
One of the big drivers putting pressure on the Company is the large world order-book for chemical tankers which as of 1st of March 2009 were 42% of the current fleet. If there is sustained market over-capacity the freight rates will be lower yielding lower profit margins. With the increasing oil prices we have seen the last year the bunker cost has seriously affect the earnings for the companies as seen for Odfjell where a time chartered vessel in 2007 had 20% of their earnings allocated to bunker cost. In 2009 they saw an increase to 26%, of an average Odfjell tanker.

The market for demolition and scrapping has not been as expected and only 2% of the fleet has been scrapped during 2009. Odfjell expects more scrapping in 2010, but it remains to be seen, with the low prices of steel and less new-delivery than expected.

In 2009 Odfjell saw an increase in the A-stock of 21.8% adjusted for dividend, which was paid in the amount of NOK1 per share. As Odfjell benchmarks itself against the Oslo Børs Benchmark Index, the marine index and the transportation index that increased 64.8%, 25.5% and 30.1% respectively for the current year, Odfjell has not managed to turn the Company around to reflect these figures.

In February 2008 the Company ended their contract with Sevmash, a deal which would have secured extra tonnage for the Company. Odfjell was not pleased with the compensation received from the Swedish court, as the price of the ships that should have been delivered had well exceeded the contractual price from 2004. Although these ships would have made revenues for Odfjell, we believe there to be some uncertainty if the Company would have performed better if the vessels being were to be delivered. The Company recuperated the installments paid and as the Company had liquidity problems reaching the end of 2008, we believe the Company was actually better off, as the price for a second hand ship plummeted in late 2008 along with the freight rates. Though, it is a highly speculative notion; alas the Company did not enter into the purchase of similar ships when the contract reached an end. This, in fact, tells us that the Company actually might be

pleased to focus on the short sea segment rather than deep sea in the current turmoil (Bjørndal, 2008c) & (Annual report 2009 cited in Odfjell SE, 2005-2010).



(Graph cited from e24.no, 2010d)

8.4 Wilh. Wilhelmsen

The Wilh. Wilhelmsen Group (WW) is a leading group within the maritime industry. The Company is based in Norway and is listed on the Oslo Stock Exchange. As of today, they have approximately 330 offices in about 72 countries all over the globe, but the head office is located in Oslo. Their main activities are shipping, logistics and maritime services (Wilh. Wilhelmsen ASA, 2010d).

Wilh. Wilhelmsen is conducting advanced industrial shipping activities and is the market leader for RORO shipping. They have about 145 RORO carriers operating in the market and their customers are the leading manufacturers of cars, constructional and agricultural machinery. The group owns and charters ships that transport approximately 5 million cars by sea every year. The transporting activity is handled by the group's three subsidiaries; Wallenius Wilhelmsen Logistics (WWL), EUKOR Car Carriers and American Roll-on Roll-off Carrier (ARC). The cargo being shipped is divided into three classifications; cars, high and heavy cargo (e.g. Buses, trucks, trailers, harvesters etc.) and non-containerized cargo (e.g. Machine parts, generators, turbines etc) (Wilh. Wilhelmsen ASA, 2010a).

The Wilhelmsen group not only provides shipping by sea, but also an overall-transport solution for their customers in order to serve each customer's specific needs. Therefore, the logistic services also include supply chain management for vehicles, terminal services, technical services and inland distribution (Wilh. Wilhelmsen ASA, 2010c).

8.4.1 Strategy

"We are shaping the maritime industry: Our revised corporate vision reflects clearly how we see our role in the industry. Shaping means being a pioneer. It means willingness to lead. It means maximising every opportunity to innovate and meet the ever-changing needs and expectations from our stakeholders. It involves risk to go where others have not been. It means accessing and freeing up the creative potential in each of our thousands of employees. People, who are willing to step up, contribute and take responsibility – people who want to be shapers." (Wilh. Wilhelmsen ASA, 2010e)

8.4.2 Operations

According to WW's articles of association; the Company's object is to engage in shipping, maritime services, aviation, industry, commerce, finance business, brokerage, agencies and forwarding, to own or manage real estate, and to run business related thereto or associated therewith.

Within this object, the business concept is to be a leading international supplier of maritime services, based on expertise and a focus on customer requirements (Annual report 2009 cited in Wilh. Wilhelmsen ASA, 2005-2010, p. 44).

8.4.3 Fleet

The Company has an extensive new-building strategy. The Wilh. Wilhelmsen Group had an extensive new-building program as of the end of 2005 comprised of 43 car carriers, in which 11 are on the account of Wilh. Wilhelmsen. The delivery dates were set from 2006 through 2009. Six new-buildings were delivered in 2006 and the order-book was as of end of 2006 comprised of 8 new-buildings for WW and 44 for the operation group as a whole.

In 2007, 9 vessels were delivered to Wallenius Wilhelmsen Logistics (WWL) and EUKOR, with an additional 45 due within 2008-2012 were 12 is on the account for WW.

During 2008 16 vessels were delivered to the Company and its joint ventures. In the following years until 2012 another 9 car carriers will be delivered to WW with a total of 32 new deliveries for the Wilhelmsen group. Leaving the calendar year of 2008 the group had secured the financing for the vessels being delivered in 2009 and most of its vessels being delivered through 2011.

WW had 3 new deliveries in 2009 with additional 6 for delivery through 2012. Out of the 6 outstanding deliveries, only three vessels had secured financing, but we are to believe that believe that financing is to be secured within the year of 2010. The extended group took delivery of 9 new vessels, but still had 22 outstanding.

The operation group had control over 166 vessels in 2008 and at the end of 2009 they only had 136, with 80 owned and 56 chartered in. This was mainly due to the delivery of vessels back to third party owner by EUKOR. Also, the group as a whole disposed a total of 15 vessels in 2009 following the substantial over-capacity of tonnage. WW and the other companies try to balance the tonnage amongst them and, as a result of this, the scrapping and redelivery of tonnage is performed when suitable.

The Company experienced extensive layup sin 2009 with 17 vessels entering into 2010, thus not utilizing the fleet to the maximum potential (Wilh. Wilhelmsen ASA, 2010b).

8.4.4 Finance

Return on capital employed for the Wilh. Wilhelmsen group showed a decrease from 2005 through 2009, with a marginal upswing in 2008. The Company has more than doubled the capital employed from $1,517million in 2004 to $3,684 in

2009 with financial income fluctuating between $19million for 2004 and $83milion in 2008. EBIT also increased in 2008 resulting in 10,7% return, but fell to 7,9% in 2009. The peak was in 2005 when the ratio was at 14,4% (Calculations from Appendix 1 based on Wilh. Wilhelmsen ASA, 2005-2010).

8.4.4.1 Equity and debt

The Wilh. Wilhelmsen group had, compared to many other companies, a fairly low debt to equity ratio at 1.17 in 2004. For the year of 2005 the ratio increased to 1.71 due to the delivery of new ships with corresponding financing.

In 2007 the total debt increased, although the Company reduced interest-bearing debt by $100M. This was due to the increase in deferred tax of $170M on account of the Norwegian tonnage tax, which was previously believed to be not payable.

In 2008 the Company increased their long-term liabilities with the issuance and attainment of new debt. This meant a marginal decrease in equity, and the gearing ratio increased to 2.56.

When reaching 2009 the ratio fell to 1.90, although with further issuance and attainment of long-term debt. As the outlook for the industry was bleak, the Company paid less dividend and increased the holding of retained capital.

The ratio of current liabilities had a positive development from 2006 to 2009 for Wilh. Wilhelmsen, and it is now down to 0.13 in contrast to the 0.31 high, three years ago. Long-term financing is the main driver behind this development, as the equity ratio has had a setback to 0.34 in 2009 from 0.46 in 2004 reaching a low of 0.28 in 2008.

The Company states that attainment of financing for their vessels prove difficult before 2008. But for the year of 2009, only 50% of the ordered vessels had the proper financing in place.

The long-term interest bearing debt amounted to $941M, $1249M and $1602M for the years 2007-2009. The current liabilities of the mortgages were, as end of the previous year, $198M due in 2008 and $204M in 2009 following $191M and $287M for 2010 and 2011. Although current liabilities have increased substantially and more than doubled compared to 2004, they do not seem to have had any immediate troubles repaying their financial commitments although their quick ratio has been below 1.0 in the years prior to 2009.

What seemed to be more troubling, were the hedges undertaken in order to secure the stable payments of interest bearing debt in 2008. The group's strategy is to have a minimum of 30% and a maximum of 67% of the debt portfolio to have fixed rates. They managed to do this through various hedging techniques, and with current levels of 50% in both 2008 and 2009. At the year's end of 2008, the exposure was negative $163M, but due to the improving conditions in the financial market in 2009, the on-paper loss was now down to just $79M. The maturity for these hedges is mainly due from 2011 and onward, thus leaving some time for the economy to strengthen and limiting their exposure.

Due to the main currency of trade being USD and liabilities in NOK, the transaction exposure is reduced hedging the cash flow. As the NOK appreciated against the USD the Company incurred a gain of $18.8M in 2008 and $19M in 2009. This might change as the dollar may gain some momentum in the years to come.

Through 2004-2009 Wilh. Wilhelmsen's quick ratio has substantially increased due to their holding of cash and cash equivalents over the relative increase in current liabilities. The ratio of 1.45 in 2009 is substantially higher than the 0.44 in 2006 and nearly doubled from 2008, where it measured 0.77. This is a good sign since one might account for less operating income in the following years. Wilh. Wilhelmsen has a considerable cash balance and they have another $150M available under their credit facilities, if they find themselves in a liquidity squeeze (Calculations from Appendix 1 based on Wilh. Wilhelmsen ASA, 2010b).

8.4.4.2 Operating income and results

In comparison to the year of 2008 where operating revenue was $1,296M, the year of 2009 yielded $1,015M due to extensive layup and redelivery of chartered vessels to third party owners. Freight revenues plummeted from $293M in 2008 to $153M in 2009 as a result of the sharp decline in average freight rates and the low utilization of the fleet. This was contributed by the financial crisis and the effect it has had on the world economy and thus aggregate demand. The main driver for operating income is the ship services and it yielded revenues of $560M for 2009, which was only a mere $34M decline from the previous year. This represented a negative 6% decrease in comparison to the decrease in *total operating income* which was 22%.

Total capital employed has increased disproportionate to the EBIT. The main driver behind the increase in total capital was the purchase of vessels. While the EBIT has sustained the same level, mainly due to the increasing oil price creating a surge in the bunker cost and the result of slow steaming making the vessels entering fewer ports with less volume and number of parcels than in previous years. The positive effect on the profit margin in 2009 can be contributed to the sale of assets during the year. WW sold 5% of the ownership of Glovis, a Korea based logistic Company, yielding an income of $48M and performed a sale-and-leaseback agreement for its head office with gain of $46.5M.

Following years of high demand, the cargo volumes for the extended group had a variable year in 2009. WWL experienced a decline of 43%; EUKOR volume fell by 16% and ARC delivered a 12% increase in their volumes following the focus on US preference Cargo. Terminal services experienced a 37% decline in throughput due to fewer deliveries from EUKOR and WWL. Though, they had higher revenues due to long lead time, as demand for cars decreased, and the cars were stored at the terminals.

Amidst the financial turmoil, the need for ship management services for laid up vessels increased. In 2009, 14% of the Wilhelmsen Ship Management (WSM) revenues stemmed from this activity. Together, the contribution from associates

and joint ventures realized a profit of $132M on the income statement, which is up from $82M in 2008 and $80M in 2007. Other income contributed to total income of 11% in 2009 from 6% and 9% previous two years.

Wilh. Wilhelmsen is of the belief that they have been able to significantly reduce the downside in the wake of the financial turmoil, much due to their end-to-end services with logistics provided (Wilh. Wilhelmsen ASA, 2010b).

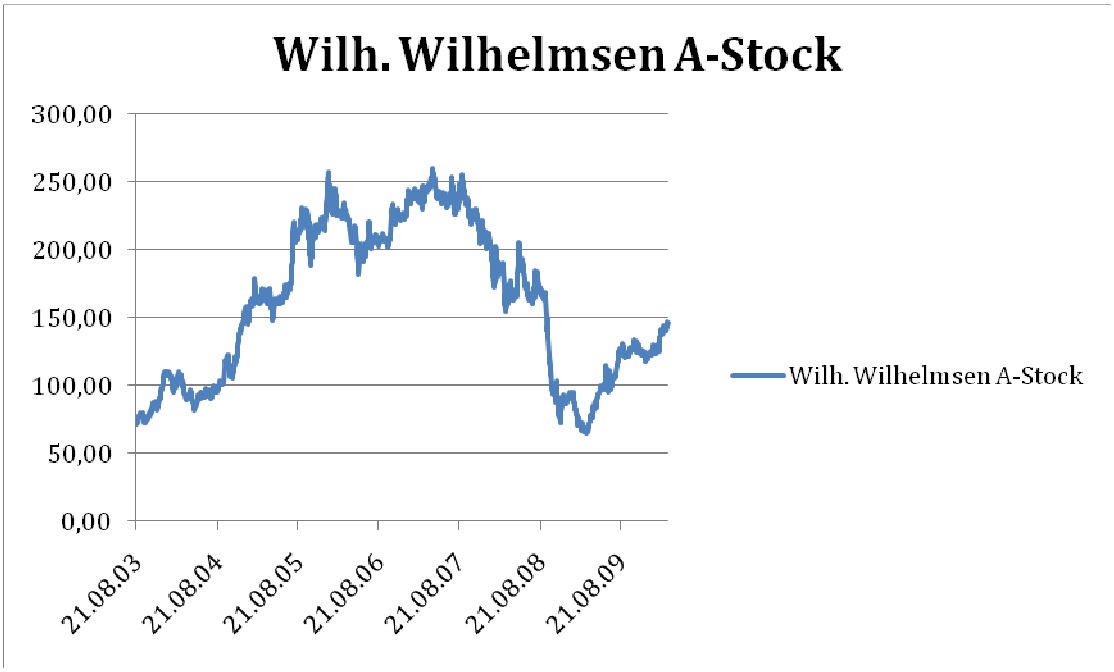
8.4.5 Benchmarking

Mitsui O.S.K. Lines is a Japanese company operating in the carriage of cars as well as for instance LNG, crude oil and container shipping. The Company has performed well with regards to returns in 2007 and 2008, with 21.23% and 12.91%, following a rater dismal year of 2009 with return of 2.21%. With the exception of 2009, the Company performed better than Wilh. Wilhelmsen. Mitsui's gearing ratio during the years 2007-2009 was 1.79, 1.53 and 1.56. Their gearing ratio was lower than Wilh. Wilhelmsen's, which in turn may explain the better quick ratio of 0.96, 0.97 and 0.99 for the years of 2007-2009.

Mitsui has been more a volatile stock than the Wilh. Wilhelmsen stock; probably due to the divergence in their operating activities. Wilhelmsen has outperformed the Mitsui stock as end of 2009 (Calculations from Appendix 2 based on Wilh. Wilhelmsen ASA, 2005-2010) & (Calculations from Appendix 2 & 3 based on Mitsui O.S.K. Lines Ltd., 2010).

8.4.6 Share Price

The stock peaked at the end of April 2007 at NOK 260. From the peak, a steady decline followed, and in spite of some positive trends in 2008, the stock price on 16th of March 2009 was 75.1% below trading in April 2007. The stock has strengthened towards the end of 2009, but is still down 53.1% from the peak in 2007.



(Graph cited from e24.no, 2010e)

When analyzing for the SMA (50), we find that the stock has been steadily declining since May 2007, only with a small upswing in the summer of 2008.

The Wilh. Wilhelmsen stock fell by 15.6% from the start of 2008 and had an intraday decline of 5.8% the 7th of February 2008, despite any indication or breaking news stating that the stock should fall (DN.no, 2008d).

The Wilhelmsen stock fell from NOK 190 to NOK 162.5 in three short days, without any explicit news to explain the sudden reaction from the market as of 11th of March 2008. This was according to experts not a suitable price as the underlying assets and earnings should justify a price of NOK 250 a share, as noted by Mr. Jarl Ulcin (DN.no, 2008d) & (Becker, 2008b).

In spite of the stock price failings, the Company presented very good results for 1Q08 and also presented a contract amounting to $12-14B with Hyundai and Kia Motors lasting through 2016-2020. This news made the stock spike for about a week before eventually starting to decline again (DN.no, 2008h) & (DN.no, 2008g).

The stock took a further dip on the 23rd of June 2008 due to Mr. Wilhelmsen announcing the moving of the Company abroad in reaction to the Norwegian tax tonnage system. However, this means that the Company still has to pay their part of $200M in deferred tax, but also that they cannot take advantage of the environmental effects that could reduce this bill (DN.no, 2008f).

Negative earnings before tax amounting to $94.1M in Q408, released in February 2009, did not help strengthening the stock, but only put further negative pressure on the stock (DN.no, 2009g).

Reaching mid March 2009, the Company had passed the bottom of the share downturn and the share had regained some of its former value. The Company is putting 15-20% of their vessels into layup, mostly due to the decrease in demand for car transport which amounted to 30-40%. The layups gave the Company a higher utilization of their operating fleet and reduced the operating cost. The share price is on the rise after this news and has according to the SMA (50) been on a positive trend towards 2010, with a small dip reaching years end (DN.no, 2009h) & (DN.no, 2009a).

The dividend policy of the Company has not been sustained at the same level as in previous years. In 2007 the Company paid NOK 9.00 per share, and the subsequent years the paid NOK 7.00 and NOK 2.00 per share. When the Company states they have a policy of paying higher dividends each year, it sends a signal to the market that they are a company with substantially lower earnings and is less solid than in previous years (Annual report 2009Wilh. Wilhelmsen ASA, 2005-2010, p. 47).

8.5 Golden Ocean

Golden Ocean Ltd. is a dry bulk shipping company based in Bermuda, which demerged from Frontline in the end of 2004 based on Frontline's decision to become purely a tanker company (Golden Ocean Group Ltd., 2010c).

8.5.1 Strategy

The Golden Ocean Ltd. strategy is to become one of the leading suppliers of dry bulk and serve their customers and investors in the best way possible, by allowing for efficient deliveries and high returns on investments.

With the goal of becoming one of the leading suppliers, they need to grow, both through acquisitions of new vessels as well as chartering of ships on both short and long-term contracts (Golden Ocean Group Ltd., 2010a).

8.5.2 Operations

The Company will focus on the Panamax and Capesize market and have a fully integrated commercial management responsibility for vessels and contracts.

Golden Ocean is organized much in the same way as Frontline Ltd. since the same group of people set it up. The Golden Ocean Management Ltd., a wholly owned subsidiary, runs the management of the Company, while Frontline Management Ltd. performs the technical support. This has been done in order to stay competitive and target low overhead and daily ship operating costs.

Mr. John Fredriksen is the major shareholder in Golden Ocean with around 40% of the shares. In order to be able to deliver on the promises of high return on investment and continued growth, all available instruments in the dry bulk market is used. Additionally, the restructuring of the fleet and the establishment of subsidiaries is undertaken when necessary (Annual report 2009 cited in Golden Ocean Group Ltd., 2005-2010).

8.5.3 Segments

The Company has control over 60 vessels; they currently own 31, charter 19, with three on bareboat and sixteen on a minimum of three-month charter, and an additional 10 under commercial management. Golden Ocean is operating in four segments with 22 Capesize, 8 OBO´s, 15 Panamax and 15 Kamsarmax (Annual report 2009 cited in Golden Ocean Group Ltd., 2005-2010) & (Golden Ocean Group Ltd., 2010b).

8.5.4 Fleet

As of the beginning of 2005 the Company only owned two vessels, but further purchases and a leasing agreement made with Louis Dreyfus Corporation for ten Panamax vessels further ensured their fleet growth. Six leases were delivered and four new-buildings were outstanding with delivery due in 2007 (Annual report 2005 cited in Golden Ocean Group Ltd., 2005-2010).

Golden Ocean further expanded its operations and investments in 2006. A new-building contract for six ice-class Panamax vessels was entered into, with delivery in 2008 and at a contractual amount of $34.5M per vessel. The Company also sold two fully owned subsidiaries each owning a new-building contract, creating a revenue stream of $3.8M.

Four new-building contracts for Capesize vessels were entered into in 2006, with delivery between mid 2008 and early 2009, each contract amounting to $72.25M. Two of these contracts were sold to Ship Finance with a back-to-back lease agreement (Annual report 2006 cited in Golden Ocean Group Ltd., 2005-2010).

Golden Ocean sold two of the Panamax vessels ordered in 2006, yielding a positive result of $17M. They also entered into new contracts for four Panamax vessels, and an option for further two, at a purchase price of $35.5M per vessel.

Also, the Company made an order for four Capesize vessels with delivery between late 2008 and 2009 for the hefty sum of $296M. 2007 was a year of investment for Golden Ocean; they exercised an option for two Capesize vessels with delivery in 2010 and at a price of $145M. At the same time they sold two options for Capesize vessels earning a profit of $3.2M and agreed to commercially manage these ships when delivered (Annual report 2007 cited in Golden Ocean Group Ltd., 2005-2010).

Starting 2008 on a positive note Golden Ocean sold a new-building contract entered into in 2006 with gross earning of $46.4 million. And only a month later they declared the use of their options on two Kamsarmax vessels at a cost of $208 million, with delivery in 2011 (Annual report 2008 cited in Golden Ocean Group Ltd., 2005-2010).

2009, on the other hand, did not start as well for Golden Ocean with non-compliance on the sale-and-leaseback with Ship Finance, thus resulting in the termination of the agreement. Furthermore, the redelivery of one of their owned Panamax vessels created legal actions towards third party, as the contract had not reached an end.

Later in 2009 the delivery of one of their new vessels went on a contract of time charter for five years with revenue of $48,000 a day. Another delivery was made in April and the ship went on the spot market for what is reported as favorable rates.

The Company had substantially increased their capital commitment account balance from $82,6M in 2005 to $482M in 2006, and to $1,119M, $1,003M and $730M in the following years. Out of the $730M in 2009, $374.9M of the commitment was unfinanced.

Reaching the end of 2009 the Company had an open capacity in the Panamax market of 23% in 2010 following 40% and 47%in the subsequent years. The Capesize market has a free capacity of 20% in the fourth quarter of 2010 and

33% and 39% for the whole of 2010 and 2011 (Annual report 2009 cited in Golden Ocean Group Ltd., 2005-2010).

8.5.5 Finance

Golden Ocean's return on total capital employed was 22.5%, 13.26%, 28.50%, 20.79% and 18.73% in the years; 2005 to 2009 respectively. Although with increasing total capital and revenue every year except 2009, the Company had some troubles keeping their debt covenants in the midst of the financial crisis.

The debt to equity ratio of the Company increased from 2005-2008 by 3.93, 3.03, 5.52 and 4.74. In 2009 the ratio was 1.06 due to a major increase in equity and a decrease in debt (Calculations from Appendix 1 based on Golden Ocean Group Ltd., 2005-2010).

8.5.5.1 Equity

Golden Ocean has steadily increased their equity, with 2009 being an exceptional year as the equity rose from $175M to $527M. The reason for the small increase in equity in years prior to 2008 was the dividend policy of the Company, which meant dividend almost corresponded to profit of the respective year. In 2009, the Company retained all the earnings, issued shares and generated cash in the amount of $108M.

8.5.5.2 Debt

In 2007, the Company pledged vessels under construction in order to obtain loans for their new-buildings, amounting to $414M (Annual report 2007 cited in Golden Ocean Group Ltd., 2005-2010).

As Golden Ocean was not in compliance with their ratio of 30% market adjusted equity as of 2008, negotiations were performed, and the new agreement states a

minimum of $200M in equity. With the repurchase of convertible bonds, reducing debt and generating a profit from the issuance of new shares, the firm is now in compliance (Annual report 2008 cited in Golden Ocean Group Ltd., 2005-2010).

The group also negotiated a contract delaying the delivery of six Kamsarmax vessels under construction, deferring the exposure of major liabilities another year. 2009 was the best year gearing wise, as Golden Ocean had a debt to equity ratio of 1.06.

Of the total long term debt of $465M, $415M were secured under vessels under construction or sailing, but of the $730M of new-building commitments $380M were unfinanced as end of 2009. Golden Ocean uses single purpose companies for many of their new-buildings, with currently six of the Kamsarmax vessels under construction isolate in such companies. This amounts to a liability of $236M, which has been given no guarantee by the group, and as such is limiting the financial risk of the entire firm (Annual report 2009 cited in Golden Ocean Group Ltd., 2005-2010).

The Company's quick ratio has increased in the years up until 2008. In 2008 the ratio declined to 0.21, having been 1.0 in 2007, due to the high level of current liabilities and the decrease in cash holdings. Though, in 2009 the ratio was up at 1.46 which is more in compliance with the industry average, and the Company was showing signs of a stronger liquidity (Calculations from Appendix 1 based on Golden Ocean Group Ltd., 2005-2010).

8.5.5.3 Financial leasing/ Operational leasing

Golden Ocean is heavily committed to the operational lease of vessels, rather than financial lease. The Company had operational lease payments amounting to $50.51M in 2005, $144.15M for 2006, $393.14M in 2007 and $544.17M for 2008 and $123M for 2009, with the revenues of operating lease amounting to $107.90M, $279.92M, $710.88M $883.60M and $366.56M respectively.

The Company has as end of 2008 a minimum lease payment amounting to $143.75M compared to total minimum lease revenues in the range of $1.241M. This has been obtained by substantial repayment of lease in 2007 and 2008 (Golden Ocean Group Ltd., 2005-2010).

8.5.6 Operating income and result

Operating income for Golden Ocean made a leap from 2006 to 2007 corresponding to $267M and $703M. The Company increased its revenue in 2008 to $877M, followed by a rather dismal 2009 with lowly $350M in revenue.

Return on capital employed was at it highest in 2007 with 28.5%. During the following years, the return on capital employed decreased to 20.7% in 2008 and, finally, 18.73% in 2009. The return in 2007 more than doubled from 2006, even though Golden Ocean declared vessels under construction in order to obtain financing, which increased their asset holdings with about $400M.

In 2009 the revenues fell drastically, but the operating margin only changed a little with operating expenses representing 76% of operating income in 2008 and 2007. The 2009 result reveals expenses over income of 71.2%. Meaning; it was actually a better performance operation wise. Operation expenses consist of roughly 50% charter hire expenses.

Net result before tax during the years 2007 to 2009 shows a peak in 2008 at $381M compared to 2007 at $201M and 2009 producing a net result of $218M. If

we compare the results, after deducting for the sale of assets, we can see that there is not a huge difference between these years:

2007: $75M → Net result without sale: $126M

2008: $209M →Net result without sale: $172M

2009: $51M → Net result without sale: $167M

Although net result was substantially higher in 2008 compared to the other two years, the net results without the sale of assets yields a $5M difference from 2008 to 2009 and there was actually a substantial increase in net result from 2007 to 2009.

Net cash provided by operating activities were $143M, $194M and $114M in 2007-2009. The major increase and decrease being due to the payment of dividend, sale of vessels, repayment of debt and the proceeds of debt and cash provided by operating activities (Golden Ocean Group Ltd., 2005-2010) & (Calculations from Appendix 1 based on Golden Ocean Group Ltd., 2005-2010).

	2009	**2008**	**2007**
Cash provided by operating activities	$143M	$194M	$114M
Sale of vessels	$231M	$451M	-
Net debt change	$467M	($51M)	$48M
Purchase of vessels	($413M)	$420M	($178M)
Dividend/other	($171M)	($347)	$60M
Net cash held yrs end	$306M	$41M	$81M

*These are only the main changes and does not represent real net changes in cash held by years end. Positive net debt change constitutes proceeds from debt.

(Table based on numbers from Golden Ocean Group Ltd., 2005-2010)

Golden Ocean had imminent cash flow problems at years end in 2008, therefore decided not to pay dividend, which seemed to be a wise call. The restructuring of loan covenants and proceeds from debt issuance, as well as sale of vessels, in 2008 have managed to keep Golden Ocean liquid. Mr. John Fredriksen and Mr. Tor Olav Trøim explain their sale of vessels amounting to $451M in 2008 would not have been undertaken if they did not believe the market would collapse in the near future, as they saw troubles of financing already in 2007 (Takla, 2008).

8.5.7 Benchmarking

Diana Shipping and Jinhui Shipping are companies operating in the same segment as Golden Ocean and are thus fairly comparable when it comes to financial performance. Diana Shipping has a relative low gearing ratio of 0.18, 0.36 and 0.32 in 2007-2009 with the corresponding return on capital of 19.3%, 22.6% and 10.5%. The quick ratio of the Company has increased from 1.0 in 2007 to 9.2 in 2009, which gives the impression of a company able to handle their capital commitments in a timely manner.

Jinhui Shipping has decreased their gearing ratio during the years 2007 to 2009. The gearing ratio was 1.62, 0.97 and 0.84 during this period, and the returns were 16.8%, 30.4% and 17.5%. The quick ratio measured 0.72, 1.20 and 1.72, which is a significantly improvement during the time of crisis, and shows a sign of strength.

Looking at the stock prices from 2008 through 2009 and comparing Diana, Jinhui and Golden Ocean percentage wise, with the start of 2008 being nil, the companies has moved very much in synch. The volatility is to a large extent driven by the market indicators and affecting the companies in much the same way. Diana has had the best performance slightly over Golden Ocean until October 2008 where the fall of Jinhui and Golden were steeper and more severe. The Diana stock has been somewhat volatile in the period up until 2009. Jinhui has tangent their performance, while Golden Ocean is 20 percentage points

below them at negative 62% from 2008. “One of the reasons for the relative good performance of Diana Shipping is the low equity ratio, which means they can double their fleet without having a gearing ratio higher than the industry average” (DN.no, 2009f); (Calculations from Appendix 2 & 3 based on Jinhui Shipping and Transportation Ltd., 2010); (Calculations from Appendix 2 & 3 based on Diana Shipping Inc., 2010) & (Yahoo! Finance, 2010b).

8.5.8 Share price

Despite Golden Ocean being a fairly young company, it has already felt the effect of a crisis on its share price. From an initiation price of NOK 3.40 on 15th of December 2004, the share peaked on 29th of October at a price of NOK 44.20. A volatile year and a half saw the share end on NOK 1.58 on 2nd of March 2009, falling a staggering 96.4% from peak to trough. Since then, Golden Ocean has climbed to NOK 10.57 at the year's end in 2009 measuring an increase in the nine short months of 569.0%. Though, it is still 76% down since the 2007 peak.

We believe the stock price was adversely affected by the increased utilization of the dry bulk fleet, which had a steady build-up in 2006 and lasted throughout 2007 and 2008. The peak in late 2007 did not prove sustainable and seem to have been an artificially high price. The increasing leveraged position of the Company, following the incurrence of more debt as well as the sale of ten new-building contracts, may have given the market a sign of weakness. When the BDI fell sharply in the first quarter of 2008 the decline of the share continued (Golden Ocean Group Ltd., 2005-2010).

(Graph cited from e24.no, 2010b)

The Company's share increased in value during the first months of 2008. This is believed to have a correlation with the purchase of 10% the outstanding shares

and the consecutive cancellation of these shares, as well as the increase of the BDI and the price of steel.

The second half of 2008 experienced a massive decrease in steel prices, the BDI plummeted, the credit market and the world consumption in general dried up. It is reasonable to say that these events had a negative effect on Golden Ocean's share price, despite the bulk market showing some signs of improvement through increased spot rates. The improvement of the bulk market was mainly due to increased demand following the seasonality and the increased activity after the 2008 Olympic Games in China, but in spite of this, Golden Ocean continued falling. One of the reasons behind the fall of Golden Ocean might be that 70% of their fleet covered the voyage market (DN.no, 2008b) & (DN.no, 2008c).

Golden Ocean resold a contract with the delivery of six Kamsarmax vessels to Britannia Bulk, but since it was deemed unlikely that Britannia Bulk would be able to commit to this deal, the Golden Ocean stock fell 8.1% at 29th of October 2008. Although Britannia had paid installments of $70.6M to Golden Ocean, it meant further commitments of $24M per ship when taking delivery from the yard. Golden Ocean had expected a net earning of this transaction of $127M, not a further commitment of $144M for the new-building program (Bjørndal, 2008a).

One of the major reasons for the significantly hard fall of Golden Ocean was the fear of a liquidity squeeze, as they were in breach with their loan covenants and the debt was due in March 2009. The report for 4Q09 did not state much about new-building commitments, nor how the Company should handle their liquidity problems. As a result of this the Company's share plummeted 38.2% in February 2009 (DN.no, 2009e).

The liquidity situation was resolved with the buyback of 2/3´s of the convertible bonds by Mr. John Fredriksen. Thus, the Company was now able to utilize their already established credit facilities, as they were no longer in breach with their

covenants. Though, the situation was still rather grim for the Company and a foreclosure was on the horizon (Bjørndal, 2009).

Due to a rather harsh setback in the freight rates, the outlook for revenues did not show positive signs as end of March 2009. There was a decline in the demand from China and the order-book for vessels in the segment was significantly larger than what could be handled by the market. In spite of this, the Company took delivery of a new ship. Earnings were up and the future for Golden Ocean seemed somewhat brighter now that the covenants were no longer in breach (DN.no, 2008b).

During the year of 2009, the share price increased much due to a stronger market. There was increased export of iron ore from China because of the decline in steel prices, and the BDI increased significantly in November, which meant a strong increase in the Golden Ocean stock price (DN.no, 2009b) & (Fadnes & Bjerke, 2009).

The Company has as of 18th of March 2010 been listed on the Singapore stock exchange, which is a sign of the Company being in healthy condition. Furthermore, the proximity to the Asian market may prove very important for the Company. Also, it may strengthen the market's belief in the Company, as well as it is a place where the Company can obtain capital, if needed (Annual report 2009 cited in Golden Ocean Group Ltd., 2005-2010, p. 3).

9 Conclusion

We are in this section underlining the major changes brought on by the financial crisis and the effect it had on the shipping companies.

9.1 Financial crisis

The financial crisis started in the US subprime and mortgage market and spread to the bank and financial sector. Following the collapse of Lehman Brothers and other financial mammoths, liquidity and solvency difficulties spread to the real economy, causing a collapse in the world economy. Effects of the collapse were the stock market crash, cutback in consumer spending and the substantial decrease world trade in the latter part of 2008 and 2009.

9.2 Shipping industry

Due to the decline in world consumption, many businesses had too high of inventory. Thus, the order of new merchandises was limited, or put on halt, causing less demand for shipping services.

Growing demand for shipping services by sea in the years prior to the financial crisis increased the new-building activity of vessels. The world order-book for new vessels was for some segments as high as 45-69% of the existing fleet. This has caused the supply of tonnage to supersede the demand for tonnage. The mismatch does not constitute equilibrium, and ships that are not efficient enough to operate have been laid up. There are many ship-owners not able to obtain cargo for their ships, forcing the vessels into layups in the hope of an increase in demand.

Because of the prosperous time prior to the crisis, ship-owners ordered ships from yards without having the proper financing. Thus, when installments were to be paid; the lowly freight rates, lack of shipments and the dismal world outlook caused companies without superior bank connections or equity at hand,

to forfeit on their commitments. This liquidity squeeze has caused delays in delivery, cancellation and strained on the cash holding for some shipping companies.

9.3 Market factors affecting the shipping companies

As we have limited our research to a few segments including crude oil, dry bulk, RORO and chemical carriers, we have identified the following market factors to have the largest influence on these segments:

- Demand for oil, iron ore, steel, liquid edible and non edible clean products, clean petroleum products and coal
- Consumer demand for cars and heavy machinery
- Geopolitical instability
- Hurricane season in the United States
- Port congestion
- Slow steaming
- Chinese import and export of various products

These factors have affected the shipping companies before and under the crisis, making it difficult to clearly define which of the factors can be contributed to; the financial crisis, seasonality and long-term changes.

The increasing oil prices prior to the crisis hurt the ship-owners hedging their bunker cost in the derivatives market, as the price declined both abruptly and by 67% at the most. World oil demand decreased in 2008 and 2009. In conjunction with the high price of crude oil, the world consumption decreased in the second half of 2008, and further decreased throughout 2009, as an effect of the decline in international spending and consumption of goods.

For shipping companies with obligations in currencies like the NOK and SGD the depreciation of the USD increased cost of payments in addition to the equity decrease on the losses of hedging.

9.4 Segments

The crude oil carriers experienced record high freight rates in the beginning of 2008, only to endure a mammoth decline towards the end of 2008, as the financial crisis spilled over to the shipping industry and the demand for oil decreased due to falling crude oil prices. Freight increased at the start of 2009, although highly volatile throughout the rest of the year. Rates increased during 2008, due to the demand for vessels for the use of storage as the futures market was in contango. 18% of the fleet was single-hulled vessels, which created too high supply in proportion to demand during these years, but this situation should be somewhat relieved in the aftermath of 2010 as the single-hulled vessels are to be phased out due to new regulations.

The dry bulk segment has mainly been driven by the increased demand of iron ore and coal to China, as well as the high utilization rate due to lack of tonnage, prior to the financial crisis. Steel demand in China decreased due to spot rates was lower than contractual prices and total world demand decreased as a result of the decrease in overall consumption, which also included steel. The segment was faced with increased freight rates and high utilization of the fleet when reaching the end of 2008 and the beginning of 2009, much due to the higher availability of letters of credit and China importing at a high level.

The chemical tanker segment has experienced less volatility and not as sharp a fall in freight rates compared to the other segments in our analysis, with the top-to-bottom decline of 35% for the Houston-Rotterdam route. Delivery of ships has sustained at a high level in both 2008 and 2009 due to the near completion of the vessels making it hard to cancel the deliveries. Demolition in the range of 2% for 2009 was not enough to balance the segments supply and demand. The outstanding order-book is 26% of 2009 deep-sea fleet representing a high degree of uncertainty for the future, although scrapping is believed to increase. The financial crisis put the biodiesel debate on hold, decreasing the demand for such products carried by chemical tankers.

PCC, PCTC and RORO carriers experienced prosperous times leading up to the financial crisis, with undersupply of tonnage. The decreased export from Asia led to 50% lower demand for RORO carriers with a utilization rate of 93% in 2008 the rate fell to 60% in 20009, but the segment was quick to react to the crisis and scrapped 14% of their fleet. Increased export from Asia due to incentive packages strengthened the market in the second half of 2009. The future outlook is mixed, with a high order-book for PCC carriers and Japanese manufacturers looking to expand production in the US.

9.5 Companies

The companies analyzed have all had a decrease in their return on capital employed from 2008 to 2009, but the tanker segments have incurred the largest decrease. Though, NAT has experienced the least decrease in their share price, with a decline from peak to end of 2009 of negative 26.1%, a better performance than NYSE, OSEBX and substantially better than the BDTI. With a fleet operating mainly in the spot market, and a new-building program financed by the equity market, as well as cash holding, the company has managed to pay dividend, although less than before the crisis. NAT was well positioned before the crisis with the non-cancelable credit facility and the only real worry was to obtain freight during the crisis.

Golden Ocean has shown high return on their capital employed in the amount of 18.73% in 2009. Although facing a liquidity squeeze in late 2008 and beginning of 2009, the company strategically sold vessels to free cash in 2008 when second hand prices were high. Through their extensive new-building program, the company has substantially increased their fleet, which is largely trading in the spot market. The company experienced a serious decline in operating income due to the falling freight rates, but the net cash holding increased in 2009 with a strong contribution from operating activities as well as the issuance of new debt and sale of vessels in a tight market. Although showing signs of increased

liquidity and solidity, the Golden Ocean share is the one experiencing the largest fall of 76.1% from top to end of 2009.

Frontline was percentagewise less exposed to the spot market compared to NAT and Golden Ocean, but the operating income relies, to a large extent, on the rates obtained through voyage charter. With high break-even rates and the falling spot price in the second half of 2008, Frontline's return on capital decreased substantially. Facing liquidity problems Frontline cancelled delivery of vessels, decreased dividend payments and renegotiated the current portion of long-term debt, which has to be repaid in 2011. Capital lease payments were twice those in 2008, straining on Frontlines cash holdings, although managing to increase the holding of restricted cash, to be offset against future debt and lease liabilities. Frontlines share price has regained some of its value, but are still down 56.2% from the peak.

Odfjell experienced less demand for services due to the halt in bio-fuel supply lead on by the financial crisis. The company used the crisis and the cash retrieved from Sevmash to invest in vessels for short-sea carriage in Asia, exploiting the decreased vessel price. With the hedges on bunker, the company had write-downs of $87M in 2008, but increased the equity to $901M in 2009 due to the appreciating dollar. The increased oil price and falling oil prices accounted for the majority of the reduction in the operating margin. Odfjell has experienced some liquidity problems in 2009, but has used the array of long-term credit facilities and the issue of bonds, to make these payments. The terminal segment created far less in operating revenues compared to the shipping segment, but provided a higher net cash-flow in 2009. As freight rates decreased and the operating cost sustained, cash flow from the shipping segment was more than halved. Odfjell's stock has decreased by 66% from top to end of 2009.

The Wilh. Wilhelmsen group were adversely affected by the crisis. 17 vessels were laid up for the year 2009 and there was redelivery of chartered vessels to third party. Also, the company scrapped 15 vessels, due to an oversupply of

vessels in the segments, and only three out of six new-buildings were reported to have proper financing, due to difficulties of attaining debt. Although earnings decreased in the shipping segment, the joint ventures posted higher net results, the Wilhelmsen Ship management saw new market opportunities yielding positive results and terminal activity yielded a higher profit than the year of 2008. Despite some positive results; the stock price of Wilh. Wilhelmsen is down 53.1% from top to end 2009.

9.6 Thoughts

Stock markets of the world, such as NYSE, NASDAQ and OSEBX as well as shipping indices like the BDI, BDTI and BCTI were adversely affected by the financial crisis. The indices fell with less than equal effect. The fall from top to bottom was higher for the OSEBX, which is highly correlated to oil and shipping, and the shipping indices. While the stock indices are down in the range of negative 20-30% from top to end 2009 the shipping companies analyzed have not regained their value at the same pace. All companies with the exception of NAT are down between 52-76.1% from top to end 2009. NAT has only experienced a net decline of 26.1% in this period.

The companies analyzed are operating in fragmented segments, with different debt degree, capital structure, hedging techniques, routes traveled, administrative cost, purchase time of vessels and delivery of new-building from different yards at various prices. Despite all this, the decline in the stock price of the companies was to a large degree in sync both with regard to time and force. We cannot state that the financial crisis is the only reason for this decline, but the crisis had an effect on market factors affecting the shipping industry and thus the shipping companies and their share price.

10 Postscript

When calculating ratios for various companies the information retrieval was inhibited by the fact that many companies are not forced to publicize their annual reports, thus all the ratios we wanted to calculate for was not possible and under some calculations the deduction of some figures was not doable.

It is important to note that the TCE average prices can vary depending on the sources used. We have in this paper used what the company themselves state as being TCE for the period. We have used them consistently when analyzing a specific firm, but it may create a problem when cross comparing companies.

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12 Appendix I

Odfjell

Profitability

Return on total capital employed	**2009**	**2008**	**2007**	**2006**	**2005**	**2004**
EBIT	61000	197,625	203,595	156,167	170,424	114,036
Financial Income	15065	28,501	14354	12682	9675	20,943
Avg. Total capital	2641889	2,481,600	2,283,780	2,072,594	1,913,854	1,774,377
Ratio	2.88%	9.11%	9.54%	8.15%	9.41%	7.61%
Capital turnover						
Operating income	1264150	1,476,213	1,239,524	1,088,538	1,044,948	943,356
Avg. Tot capital	2641889	2,481,600	2,283,780	2,072,594	1,913,854	1,774,377
Ratio	0.48	0.59	0.54	0.53	0.55	0.53
Return on equity before tax						
Net result before tax	25999	145,809	142,885	114,885	142,521	105,160
Avg. EQ	813515	696,709	690,130	699,972	667,520	586,770
Ratio	3.20%	20.93%	20.70%	16.41%	21.35%	17.92%
Return on equity after tax						
Net result	121083	162678	-10109	115941	128269	94577
Avg. EQ	813515	696709	690130	699972	667520	586770
Ratio	14.88%	23.35%	-1.46%	16.56%	19.22%	16.12%

Solidity

Equity ratio						
Equity	906171	720,859	672,558	707,702	692,241	642,798
Equity and liabilities	2698916	2,584,862	2,378,837	2,189,223	1,955,966	1,871,725
Ratio	33.58%	27.89%	28.27%	32.33%	35.39%	34.34%
	2009	**2008**	**2007**	**2006**	**2005**	**2004**
Interest repayment capabilities						
Net result before tax	25999	145,809	142,885	114,885	142,521	105,160
Financial cost	50464	80317	75064	53964	37578	29819

Ratio	1.52	2.82	2.90	3.13	4.79	4.53
Finance ratio						
Fixed assets	2162666	2,157,370	2,033,491	1,802,555	1,358,503	1,490,562
Non current liabilities	1474576	1,539,962	1,363,312	1,225,050	1,008,338	950,574
Total equity	906171	720,859	672,558	707,702	692,241	642,798
Ratio	90.84%	95.42%	99.88%	93.26%	79.88%	93.55%
Debt to equity ratio						
Total liabilities	1792746	1,864,004	1,706,279	1,481,522	1,263,725	1,194,207
Total equities	906171	720,859	672,558	707,702	692,241	642,798
Ratio	1.98	2.59	2.54	2.09	1.83	1.86
Current debt ratio						
Current liabilities	318169	324,042	342,976	256,472	255,387	243,633
Assets	2698916	2,584,862	2,378,837	2,189,223	1,955,966	1,871,725
Ratio	11.79%	12.54%	14.42%	11.72%	13.06%	13.02%
Non current debt ratio						
Non current liabilities	1474576	1,539,962	1,363,312	1,225,050	1,008,338	950,574
Assets	2698916	2,584,862	2,378,837	2,189,223	1,955,966	1,871,725
Ratio	54.64%	59.58%	57.31%	55.96%	51.55%	50.79%
Quick Ratio						
Cash+ accounts receivable+ short term investments	329539	358731	303597	357769	283872	248918
Current liabilities	318169	324042	342967	256472	255387	243633
Ratio	1.04	1.11	0.89	1.39	1.11	1.02
Operation cash flow ratio						
Operating cash flow	117408	355848	186489	273792	259245	202717
Current liabilities	318169	324042	342967	256472	255387	243633
Ratio	0.37	1.10	0.54	1.07	1.02	0.83

Golden Ocean

Profitability

Return on total capital employed

	2009	2008	2007	2006	2005	2004
EBIT	100150	223,748	167,367	49,822	32,473	1,954
Financial Income	95922	3,939	80,032	12,838	20,109	15
Avg. Total capital	1046697	1,095,239	868,018	472,588	233,696	74,431
Ratio	18.73	20.79%	28.50%	13.26%	22.50%	2.65%

Capital turnover

Operating income	349590	947,503	708,035	265,703	95,716	4,853
Avg. Tot capital	1046697	1,095,239	868,018	472,588	233,696	74,431
Ratio	0.33	0.87	0.82	0.56	0.41	0.07

Return on equity before tax

Net result before tax	217096	380,202	201,062	35,703	40,945	1,830
Avg. EQ	352569	178,387	159,328	108,430	52,013	24,292
Ratio	61.58%	213.13%	126.19%	32.93%	78.72%	7.53%

Return on equity after tax

Net result	217021	380,143	200,970	35,652	40,945	1,830
Avg. EQ	352569	178,387	159,328	108,430	52,013	24,292
Ratio	61.55%	213.10%	126.14%	32.88%	78.72%	7.53%

Solidity

Equity ratio

Equity	527468	175,243	181,530	137,126	79,734	24,292
Equity and liabilities	1086737	1,006,658	1,183,820	552,215	392,961	74,431
Ratio	48.54%	17.41%	15.33%	24.83%	20.29%	32.64%
	2009	**2008**	**2007**	**2006**	**2005**	**2004**

Interest repayment capabilities

Net result before tax	217096	380,202	201,062	35,703	40,945	1,830

Financial cost	15730	20579	46337	26957	11637	139
Ratio	14.80	19.48	5.34	2.32	4.52	14.17
Finance ratio						
Fixed assets	835883	688,525	523,565	229,029	239,595	48,706
Non current liabilities	473196	167,533	624,071	289,922	237,130	44,750
Total equity	527468	175,243	181,530	137,126	79,734	24,292
Ratio	83.53%	200.87%	64.99%	53.63%	75.61%	70.55%
Debt to equity ratio						
Total liabilities	559269	831,415	1,002,290	415,089	313,227	50,139
Total equities	527468	175,243	181,530	137,126	79,734	24,292
Ratio	1.06	4.74	5.52	3.03	3.93	2.06
Current debt ratio						
Current liabilities	86073	663,882	378,219	125,167	76,097	5,389
Assets	1086737	1,006,658	1,183,820	552,215	392,961	74,431
Ratio	7.92%	65.95%	31.95%	22.67%	19.37%	7.24%
Non current debt ratio						
Non current liabilities	473196	167,533	624,071	289,922	237,130	44,750
Assets	1086737	1,006,658	1,183,820	552,215	392,961	74,431
Ratio	43.54%	16.64%	52.72%	52.50%	60.34%	60.12%
Liquidity						
Quick Ratio						
Cash+ accounts receivable+ short term investments	125453	142298	378768	69702	27351	21957
Current liabilities	86073	663,882	378,219	125,167	76,097	5,389
Ratio	1.46	0.21	1.00	0.56	0.36	4.07
Operation cash flow ratio						
Operating cash flow	117113	235124	182743	59916	37495	3111
Current liabilities	86073	663,882	378,219	125,167	76,097	5,389

Ratio	1.36	0.35	0.48	0.48	0.49	0.58

Frontline

Profitability

Return on total capital employed

	2009	**2008**	**2007**	**2006**	**2005**	**2004**
EBIT	240,110	850,480	519,191	822,579	863,543	1,125,108
Financial Income	26056	44,321	184,384	25,217	88,430	111,750
Avg. Total capital	3871473	3,894,910	4,176,014	4,522,377	4,453,300	4,401,148
Ratio	6.88	22.97%	16.85%	18.75%	21.38%	28.10%

Capital turnover

Operating income	1133286	2,104,018	1,299,927	1,583,863	1,504,516	1,842,923
Avg. Tot capital	3,871,473	3,894,910	4,176,014	4,522,377	4,453,300	4,401,148
Ratio	0.29	0.54	0.31	0.35	0.34	0.42

Return on equity before tax

Net result before tax	105833	701,264	503,991	674,844	766,389	970,936
EQ	741340	702,217	445,969	668,560	715,166	917,968
Avg. EQ	721778.5	574093	557264.5	691863	816567	1086692.5
Ratio	14.66%	122.15%	90.44%	97.54%	93.86%	89.35%

Return on equity after tax

Net result	102701	698,770	570,418	516,000	606,839	1,023,382
Avg. EQ	721778.5	574093	557264.5	691863	816567	1086692.5
Ratio	14.23%	121.72%	102.36%	74.58%	74.32%	94.17%

Solidity

Equity ratio

Equity	741340	702217	445969	668560	715166	917968
Equity and liabilities	3715218	4,027,728	3,762,091	4,589,937	4,454,817	4,338,760
Ratio	19.95%	17.43%	11.85%	14.57%	16.05%	21.16%
	2009	**2008**	**2007**	**2006**	**2005**	**2004**

Interest repayment capabilities						
Net result before tax	105833	701264	503991	674844	766389	970936
Financial cost	161878	227580	204535	211293	162182	215994
Ratio	1.65	4.08	3.46	4.19	5.73	5.50
Finance ratio						
Fixed assets	1092662	892,388	368,814	2,613,129	2,600,774	2,254,361
Non current liabilites	2359108	2,607,944	2,725,896	2,492,423	2,925,424	2,746,199
Total equity	741340	702217	445969	668560	715166	917968
Ratio	35.24%	26.96%	11.63%	82.67%	71.44%	61.52%
Debt to equity ratio						
	0.574571327					
Total liabilities	2964470	3,318,874	3,316,122	3,380,255	3,381,923	3,092,062
Total equities	741,340	702,217	445,969	668,560	715,166	917,968
Ratio	4.00	4.73	7.44	5.06	4.73	3.37
Current debt ratio						
Current liabilities	605362	710,930	590,226	443,916	456,499	345,863
Assets	3715218	4,027,728	3,762,091	4,589,937	4,567,839	4,338,760
Ratio	16.29%	17.65%	15.69%	9.67%	9.99%	7.97%
Non current debt ratio						
Non current liabilities	2359108	2607944	2725896	2492423	2925424	2746199
Assets	3715218	4027728	3762091	4589937	4567839	4338760
Ratio	63.50%	64.75%	72.46%	54.30%	64.04%	63.29%
Liquidity						
Quick Ratio						
Cash+ accounts receivable+ short term investments	701056	649988	938448	989431	999514	963117
Current liabilities	605362	710930	590226	443916	456499	345863
Ratio	1.16	0.91	1.59	2.23	2.19	2.78
Operation cash flow ratio						

Operating cash flow	477062	1073689	738410	1003115	1054828	1315931
Current liabilities	605,362	710,930	590,226	443,916	456,499	345,863
Ratio	0.79	1.51	1.25	2.26	2.31	3.80

Wilh Wilhelmsen

Profitability

Return on total capital employed

	2009	**2008**	**2007**	**2006**	**2005**	**2004**
EBIT	240	243	240	294	206	163
Financial income	35	83	35	34	72	19
Total capital	3684	3,250	2,839	2,735	2,263	1,594
Avg. Total capital	3467	3044.5	2787	2499	1928.5	1517
Ratio	0.079319296	0.107078338	0.098672408	0.131252501	0.144153487	0.119973632

Capital turnover

Operating income	1050	1,296	983	975	690	445
Avg. Tot capital	3,467	3,045	2,787	2,499	1,929	1,517
Ratio	0.30	0.43	0.35	0.39	0.36	0.29

Return on equity before tax

Net result before tax	312	32	228	273	201	164
EQ	1269	914	953	1,037	834	736
Avg. EQ	1091.5	933.5	995	935.5	785	701
Ratio	28.58%	3.43%	22.91%	29.18%	25.61%	23.40%

Return on equity after tax

Net result	334	95	7	230	191	171
Avg. EQ	1091.5	933.5	995	935.5	785	701
Ratio	30.60%	10.18%	0.70%	24.59%	24.33%	24.39%

Solidity

Equity ratio

Equity	1269	914	953	1037	834	736

Equity and liabilities	3684	3,250	2,839	2,735	2,263	1,596
Ratio	34.45%	28.12%	33.57%	37.92%	36.85%	46.12%
	2009	**2008**	**2007**	**2006**	**2005**	**2004**
Interest repayment capabilities						
Net result before tax	312	32	228	273	201	164
Financial cost	113	60	103	102	36	18
Ratio	3.76	1.53	3.21	3.68	6.58	10.11
Finance ratio						
Fixed assets	1589	1,477	1,134	1,098	842	701
Non current liabilities	1933	1,743	1,349	1,134	808	554
Total equity	1269	914	953	1037	834	736
Ratio	49.63%	55.59%	49.26%	50.58%	51.28%	54.34%
Debt to equity ratio						
Total liabilities	2415	2,336	1,886	1,698	1,429	860
Total equities	1,269	914	953	1,037	834	736
Ratio	1.90	2.56	1.98	1.64	1.71	1.17
Current debt ratio						
Current liabilities	482	593	537	857	619	357
Assets	3684	3,250	2,839	2,735	2,263	1,596
Ratio	13.08%	18.25%	18.92%	31.33%	27.35%	22.37%
Non current debt ratio						
Non current liabilities	1933	1743	1349	1134	808	554
Assets	3684	3250	2839	2735	2263	1596
Ratio	52.47%	53.63%	47.52%	41.46%	35.70%	34.71%
Quick Ratio						
Cash+ accounts receivable+ short term investments	699	454	412	377	349	264
Current liabilities	482	593	537	857	619	357
Ratio	1.45	0.77	0.77	0.44	0.56	0.74

Operation cash flow ratio

Operating cash flow	321	257	524	305	252	227
Current liabilities	482	593	537	857	619	357
Ratio	0.67	0.43	0.98	0.36	0.41	0.64

NAT

Profitability

Return on total capital employed

	2009	**2008**	**2007**	**2006**	**2005**	**2004**
EBIT	2,418	121,288	53,245	72,242	48,887	42,780
Financial income	94	948	904	1,602	884	143
Total capital	880228	813,878	804,628	800,180	505,844	224,203
Avg. Total capital	880228	809253	802404	653012	365023.5	112101.5
Ratio	0.29%	15.10%	6.75%	11.31%	13.64%	38.29%

Capital turnover

Operating income	115411	228,000	186,986	175,520	117,110	67,452
Avg. Tot capital	880,228	809,253	802,404	653,012	365,024	112,102
Ratio	0.13	0.28	0.23	0.27	0.32	0.60

Return on equity before tax

Net result before tax	1012	118,844	44,206	67,393	46,317	40,816
EQ	934084	788,586	672,105	611,946	370,872	221,868
Avg. EQ	861335	730345.5	642025.5	491409	296370	163788
Ratio	0.12%	16.27%	6.89%	13.71%	15.63%	24.92%

Return on equity after tax

Net result	334	95	7	230	191	171
Avg. EQ	861335	730345.5	642025.5	491409	296370	163788
Ratio	0.04%	0.01%	0.00%	0.05%	0.06%	0.10%

Solidity

Equity ratio

Equity	934084	788586	672105	611946	370872	221868
Equity and liabilities		813,878	804,628	800,180	505,844	224,203
Ratio	#DIV/0!	96.89%	83.53%	76.48%	73.32%	98.96%
	2009	**2008**	**2007**	**2006**	**2005**	**2004**
Interest repayment capabilities						
Net result before tax	1012	118844	44206	67393	46317	40816
Financial cost	2020	3392	9683	6339	3454	2107
Ratio	1.50	36.04	5.57	11.63	14.41	20.37
Finance ratio						
Fixed assets	825449	707,853	740,631	752,478	463,933	187,301
Non current liabilities	5684	19,078	108,165	173,500	130,000	-
Total equity	934084	788586	672105	611946	370872	221868
Ratio	87.84%	87.64%	94.92%	95.80%	92.63%	84.42%
Debt to equity ratio						
Total liabilities	12494	25,292	132,523	188,234	134,972	2,335
Total equities	934,084	788,586	672,105	611,946	370,872	221,868
Ratio	0.01	0.03	0.20	0.31	0.36	0.01
Current debt ratio						
Current liabilities	6810	6,214	24,358	14,734	4,972	2,335
Assets	946578	813,878	804,628	800,180	505,844	224,203
Ratio	0.72%	0.76%	3.03%	1.84%	0.98%	1.04%
Non current debt ratio						
Non current liabilities	5684	19078	108165	173500	130000	0
Assets	946578	813878	804628	800180	505844	224203
Ratio	0.60%	2.34%	13.44%	21.68%	25.70%	0.00%
Quick Ratio						
Cash+ accounts receivable+ short term investments	53181	71713	27831	25146	33797	35272
Current liabilities	6810	6214	24358	14734	4972	2335

Ratio	7.81	11.54	1.14	1.71	6.80	15.11
Operation cash flow ratio						
Operating cash flow	57453	169572	95608	101496	66416	49698
Current liabilities	6,810	6,214	24,358	14,734	4,972	2,335
Ratio	8.44	27.29	3.93	6.89	20.41	21.28

13 Appendix II

Odfjell	Norway	A-share		
		Date		
Value	37	02.01.2004		
			-6.2%	Change from 2004 to minimum value
Minimum value	34.7	18.03.2009		
			-77.3%	Change from maximum value to minimum value
Maximum value	153	06.09.2005		
Value	52	30.12.2009	49.9%	Change from minimum value to end of 2009
			-66.0%	Change from maximum value to end of 2009
Frontline	Norway			
		Date		
Value	163.52	02.01.2004		
			-30.7%	Change from 2004 to minimum value
Minimum value	113.25	18.03.2009		
			-69.4%	Change from maximum value to minimum value
Maximum value	370	23.06.2008		
Value	162	30.12.2009	43.0%	Change from minimum value to end of 2009
			-56.2%	Change from maximum value to end of 2009
Frontline	USA			
		Date		
Value	25.94	02.01.2004		
			-36.8%	Change from 2004 to minimum value
Minimum value	16.4	03.03.2009		
			-77.1%	Change from maximum value to minimum value
Maximum value	71.76	23.06.2008		
Value	27.71	30.12.2009	69.0%	Change from minimum value to end of 2009
			-61.4%	Change from maximum value to end of 2009
NAT	USA			
		Date		
Value	15.2	02.01.2004		
			50.4%	Change from 2004 to minimum value
Minimum value	22.86	03.03.2009		
			-43.8%	Change from maximum value to minimum value
Maximum value	40.69	20.05.2008		
Value	30.07	30.12.2009	31.5%	Change from minimum value to end of 2009
			-26.1%	Change from maximum value to end of 2009
Wilh wilhelmsen	Norway			
		Date		
Value	110.5	02.01.2004		
			-41.4%	Change from 2004 to minimum value
Minimum value	64.75	16.03.2009		
			-75.1%	Change from maximum value to minimum value
Maximum value	260	23.04.2007		
Value	122	30.12.2009	88.4%	Change from minimum value to end of 2009

			-53.1%	Change from maximum value to end of 2009

OSEBX

		Date		
Value	173.46	02.01.2004		
			8.5%	Change from 2004 to minimum value
Minimum value	188.23	21.11.2008		
			-64.1%	Change from maximum value to minimum value
Maximum value	524.37	19.07.2007		
Value	371.56	30.12.2009	97.4%	Change from minimum value to end of 2009
			-29.1%	Change from maximum value to end of 2009

Nasdaq composite

		Date		
Value	2007	02.01.2004		
			-36.8%	Change from 2004 to minimum value
Minimum value	1269	09.03.2009		
			-55.6%	Change from maximum value to minimum value
Maximum value	2859	31.10.2007		
Value	2286	24.12.2009	80.1%	Change from minimum value to end of 2009
			-20.0%	Change from maximum value to end of 2009

BDI

		Date		
Value	4761	02.01.2004		
			-86.0%	Change from 2004 to minimum value
Minimum value	666	04.12.2008		
			-94.4%	Change from maximum value to minimum value
Maximum value	11793	20.05.2008		
Value	3005	24.12.2009	351.2%	Change from minimum value to end of 2009
			-74.5%	Change from maximum value to end of 2009

BDTI

		Date		
Value	2122	02.01.2004		
			-78.7%	Change from 2004 to minimum value
Minimum value	453	15.04.2009		
			-80.7%	Change from maximum value to minimum value
Maximum value	2347	23.07.2008		
Value	814	24.12.2009	79.7%	Change from minimum value to end of 2009
			-65.3%	Change from maximum value to end of 2009

BCTI

		Date		
Value	1018	02.01.2004		
			-66.1%	Change from 2004 to minimum value
Minimum value	345	15.04.2009		
			-72.1%	Change from maximum value to minimum value
Maximum value	1237	25.04.2008		
Value	634	24.12.2009	83.8%	Change from minimum value to end of 2009
			-48.7%	Change from maximum value to end of 2009

NYSE

		Date		
Value	6451.26	02.01.2004		
			-34.5%	Change from 2004 to minimum value
Minimum value	4225.31	09.3.2009		
			-59.0%	Change from maximum value to minimum value
Maximum value	10311.61	31.10.2007		
Value	7255	24.12.2009	71.7%	Change from minimum value to end of 2009
			-29.6%	Change from maximum value to end of 2009
Eitzen Bulk		**Date**		
Value	30	13.01.2004		
			-50.7%	Change from 2004 to minimum value
Minimum value	14.8	17.04.2009		
			-85.1%	Change from maximum value to minimum value
Maximum value	99.5	15.10.2007		
Value	40	28.12.2009	170.3%	Change from minimum value to end of 2009
			-59.8%	Change from maximum value to end of 2009
	USA			
Diana Shipping		**Date**		
Value	16.4	04.04.2005		
			-50.9%	Change from 2004 to minimum value
Minimum value	8.06	17.11.2008		
			-81.2%	Change from maximum value to minimum value
Maximum value	42.92	29.10.2007		
Value	14.48	30.12.2009	79.7%	Change from minimum value to end of 2009
			-66.3%	Change from maximum value to end of 2009
	Norway			
Stolt-Nielsen		**Date**		
Value	83	02.01.2004		
			-49.4%	Change from 2004 to minimum value
Minimum value	42	09.02.2009		
			-80.2%	Change from maximum value to minimum value
Maximum value	212	16.07.2007		
Value	80.25	30.12.2009	91.1%	Change from minimum value to end of 2009
			-62.1%	Change from maximum value to end of 2009
	USA			
TEN		**Date**		
Value	10.6	02.01.2004		
			57.7%	Change from 2004 to minimum value
Minimum value	16.72	23.02.2009		
			-57.0%	Change from maximum value to minimum value
Maximum value	38.9	4.12.2007		
Value	14.66	30.12.2009	-12.3%	Change from minimum value to end of 2009
			-62.3%	Change from maximum value to end of 2009
	Frankfurt			
Mitsui O.S.K Lines		**Date**		
Value	3.08	02.01.2004		
			14.9%	Change from 2004 to minimum value
Minimum value	3.54	08.10.2008		
			-70.3%	Change from maximum value to minimum value
Maximum value	11.9	08.10.2008		

Value	3.6	30.12.2009	1.7%	Change from minimum value to end of 2009
			-69.7%	Change from maximum value to end of 2009
	Norway			
Jinhui Shipping		**Date**		
Value	7.85	02.01.2004		
			-1.9%	Change from 2004 to minimum value
Minimum value	7.7	08.12.2008		
			-90.4%	Change from maximum value to minimum value
Maximum value	80.5	15.10.2007		
Value	25.6	30.12.2009	232.5%	Change from minimum value to end of 2009
			-68.2%	Change from maximum value to end of 2009

14 Appendix III

Eitzen

Return on total assets including financial income

	2009	2008	2007	2006
EBIT	-53	-279.2	55.107	7.29
Financial income			5.204	1.232
Assets	1428.6	1,470	1,707.80	1,619.40
Avg. Assets	1428.6	1469.9	1707.8	1619.4
Tot kap i %	-3.71%	-18.99%	3.53%	0.53%

Debt to Equity ratio

Tot. Debt	1109.4	1,165	1,057	994
Sharehold. Eq	319.2	305	651	625
Ratio	3.48	3.81	1.62	1.59

Quick Ratio

Current assets - Inventory	176.2	119.3	168.81	118.261
Current liabilities	86.3	801.7	157.178	139.585
Ratio	2.04	0.15	1.07	0.85

Stolt-Nielsen

Return on total assets including financial income

	2009	2008	2007	2006
EBIT	122.416	202	192	166
Financial income	13.236	12	5.93	11.307
Assets	3212.97	3081.588	2475.6	2,514
Avg. Assets	3147.279	2778.594	2494.775	
Tot kap i %	4.31%	7.71%	7.94%	

Debt to Equity ratio

Tot. Debt	1695.139	1,765	1,121	1,341
Sharehold. Eq	1515.8	1,316	1354.48	1172.554

Ratio	1.12	1.34	0.83	1.14

Quick Ratio

Current assets - Inventory	310.845	371.671	258.927	248.578
Current liabilities	773.034	955.505	619.505	864.288
Ratio	0.40	0.39	0.42	0.29

Diana Shipping

Return on total assets including financial income

	2009	2008	2007	2006
EBIT	124.336	226	138	64
Financial income	0.95	0.77	2.67	1.03
Assets	1320.425	1,057	944.342	510.675
Avg. Assets	1188.8155	1000.774	727.5085	
Tot kap i %	10.54%	22.64%	19.33%	

Debt to Equity ratio

Tot. Debt	321.1	282	145	148
Sharehold. Eq	999.325	776	799	363
Ratio	0.32	0.36	0.18	0.41

Quick Ratio

Current assets - Inventory	297.156	68.554	21.514	19.062
Current liabilities	32.386	20.012	20.96	7.63
Ratio	9.18	3.43	1.03	2.50

Jinhui shipping

Return on total assets including financial income

	2009	2008	2007	2006
EBIT	161.484	257	104	58
Financial income	1.19	1.85	2.63	1.018
Assets	977.682	881	818.77	452.105
Avg. Assets	929.4975	850.0415	635.4375	226.0525

Tot kap i %	17.50%	30.41%	16.81%	26.04%

Debt to Equity ratio

Tot. Debt	562.733	502	506	224,797
Sharehold. Eq	669.483	515	313	227
Ratio	0.84	0.97	1.62	988.95

Quick Ratio

Current assets - Inventory	254.4	134.3	89.849	73.506
Current liabilities	148.108	113.135	125.601	41.339
Ratio	1.72	1.19	0.72	1.78

TEN. Takos energy navigation ltd.
Return on total assets including financial income

	2009	2008	2007	2006
EBIT	72405	278,838	249,702	205,246
Financial income	3547	8,406	14240	33646
Assets	2549720	2,602,317	2362776	1969875
Avg. Assets	2576018.5	2482546.5	2166325.5	984937.5
Tot kap i %	2.95%	11.57%	12.18%	24.25%

Debt to Equity ratio

Tot. Debt	1635393	1,987,202	1,508,236	1,214,602
Sharehold. Eq	914327	915,115	854,540	755,273
Ratio	1.79	2.17	1.76	1.61

Quick Ratio

Current assets - Inventory	458633	359862	263987	214062
Current liabilities	264231	189488	159265	101430
Ratio	1.74	1.90	1.66	2.11

Mitsui osk lines

Return on total assets including financial income

	2009	2008	2007	2006
EBIT	20939	197,211	291,284	168,073
Financial income	19996	31,401	38992	34806
Assets	1807097	1,900,551	1639940	1470824
Avg. Assets	1853824	1770245.5	1555382	
Tot kap i %	2.21%	12.91%	21.23%	

Debt to Equity ratio

Tot. Debt	1125609	1,112,058	1,148,898	1,018,951
Sharehold. Eq	719532	727,131	641,306	480,091
Ratio	1.56	1.53	1.79	2.12

Quick Ratio

Current assets - Inventory	352030	428597	506077	405473
Current liabilities	355185	440909	528390	482810
Ratio	0.99	0.97	0.96	0.84