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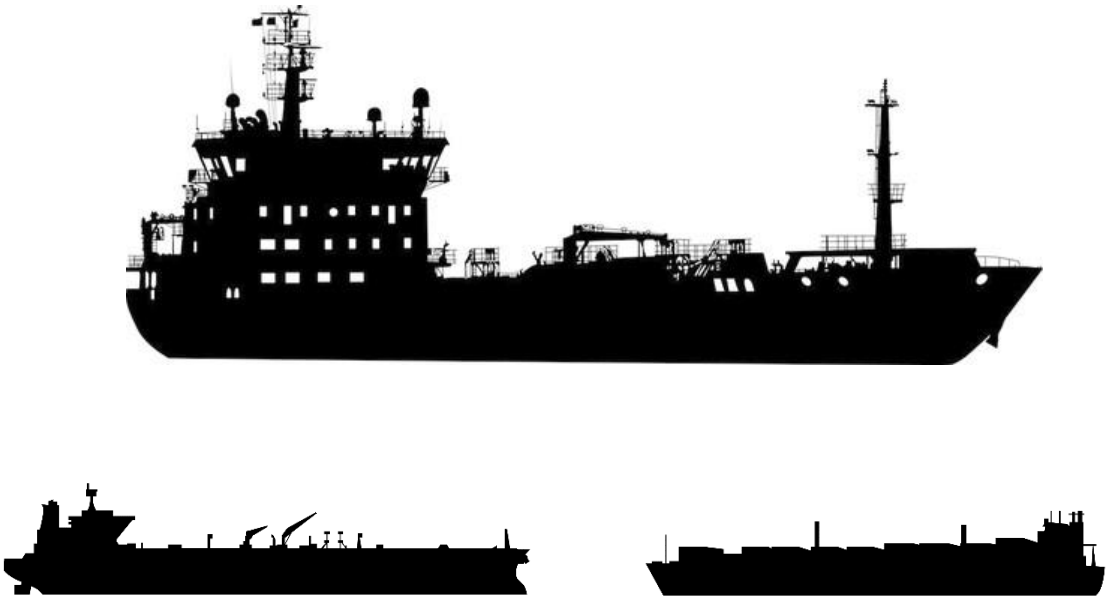

Mergers and Acquisitions within the Freight Shipping Industry

- *An Acquirers Perspective*

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- Executive summary -

The shipping industry has been struggling ever since the financial crisis of 2008. Before the crisis, vertical integration offered sizable firms in this industry a possibility to achieve a more efficient value chain by integrating vital operations, e.g. cargo handling and harbor operations. However, such value creating activities today offers little support to the troubled firms since most of these operations already have been integrated. The industry has, in an attempt to once again become more profitable, ever since 2014 started consolidating horizontally. The purpose of this study aims at investigating if these consolidating activities are value creating to the acquirers seeking operational synergies. It investigates whether horizontal mergers and acquisitions in the freight shipping industry are value creating to acquirers and attempts to explain this value creation. Previous research is scarce and has been unable to present definitive conclusions to this problem statement.

The study uses a mixed research methodology by applying both cases and empirical testing to generate robust hypotheses and results. The intention with using this type of methodology is to leverage the findings in the literature review with the cases in order to present relevant and grounded hypotheses. These hypotheses are then empirically tested using an event study approach and a sample of 143 horizontal mergers and acquisitions within the freight shipping industry. The event study aspires to make the findings in the case study and literature review more generalizable.

The results of the event study indicate that it is on average value creating for acquirers to consolidate horizontally in the freight shipping industry. Hence, abnormal returns in the event window around the announcement are positive. Furthermore, the results also indicate that acquirers with higher levels of leverage prior to the merger or acquisition on average create less value than firms with lower levels of leverage. The implications of the results are that firms with high levels of leverage in the freight shipping industry should act with caution before considering consolidating in order to achieve operational synergies.

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1. Introduction

Mergers and Acquisition (hereafter M&A), the well-researched area within finance has not been around for more than decades. Something that, on the other hand, has been around for thousands of years is the human activity on oceans and rivers. The main activity, other than exploring, has been concentrated on trading goods between countries and continents. This seed of an industry had some exceptionally talented civilizations such as the Spanish, the British and the Portuguese in the beginning of its popularity. These countries created great empires by concurring the sea at an early stage of its development. Back in those days, the process regarding loading and unloading cargo was extremely complicated as it was packed in barrels, sacks and wooden crates. This complicated process of shipping cargo was equally labor intensive in the 1850 as after the second world war. It was not until the second half of the 20th century that the world started to see the emerging of a new type of shipping industry, one based on containerization (Worldshipping.org, 2017). Today, this industry has evolved into a USD 400 billion industry with over 679 million containers flowing from land onto ships every year (Worldshipping.org, 2017a; Data.worldbank.org, 2017). The developments have also made the shipping industry highly specialized. Almost every ship is unique and constructed for different cargo in need of transportation. The ships are different in size, technology and design to make the transportation as cost efficient as possible. Bulks ships are constructed to minimize transportation costs by carrying one large parcel of a single commodity (e.g. coal, iron ore, grain etc.). Other ships specialize in carrying dangerous goods, cars or refrigerated goods (specialized shipping). With this change in the industry, the shipping companies changed from imperial pillars to private companies run by entrepreneurs (Stopford, 2009). This multibillion-dollar industry´s importance in today's global economy has become evident.

However, the cyclic character of this industry has also made it vulnerable to recessions (Stopford, 2009). The economic crisis in 2007-2008 tipped the shipping industry from a peak period into a collapse stage. This shock to demand, created by an oversupply, together with the effects of the economic crisis has made consolidating in order to achieve growth and economies of scale a popular strategic choice for the shipping firms. In general, companies engage in M&As to attain economies of scale, exploit synergies, increase management efficiency and achieve rapid growth (Fusillo, 2009; Das, 2011). These general theories on M&As are becoming more and more

important in the shipping industry. Hence, with time M&As have become an important mechanism for achieving fast growth and other benefits in this industry. However, previous research is scarce and has not been able to provide a definite conclusion to M&As' value creation ability in this mature industry (Alexandrou et al., 2014).

1.1 Motivation

The importance and state of the shipping industry, made evident above, is indisputable. This state of the industry has made even the enormous firms struggle to again become profitable. Once again an increasing trend is to consolidate horizontally, i.e. to acquire or merge with other shipping firms in order to achieve synergies. However, no coherent guidelines or research on whether freight shipping firms gain from acquiring or merging horizontally exists, nor what drives this success or failure. In other words, due to shipping's importance and struggle in today's economy and the scarce previous research, it is believed to be both interesting and important to expand the research within this area further.

Even though the general research regarding M&A is an immensely well-developed area, there are some contradictory conclusions presented and no real guidelines are provided on industry levels. It is the authors' belief that more robust results can be presented when the research is conducted on a single industry basis instead of a cross-industry basis. In other words, research focusing solely on the shipping industry is able to present more relevant findings to stakeholders and researchers than general research on M&A. Therefore, the thesis is also motivated by focusing on one industry, as opposed to several. This in order to achieve higher research reliability and reducing the subject error within the field (Saunders et al., 2009).

Investigating M&A activity in the shipping industry is not novel in itself. Previous research such as Polemis and Karlis (2016) and Alexandrou et al. (2013) have conducted similar studies. However, the results and method of analysis of such studies are inconclusive and contrasting. This study is therefore also motivated to investigate what previous research that is supported by this research on the freight shipping industry. The categorization freight shipping industry is a broader categorization than used by Polemis and Karlis (2016) and more narrow than Alexandrou et al.'s

(2013) study. Hence, the categorization level within the shipping industry appears novel and is a further motivational factor for this study. Moreover, the novelty also lies in the focus on acquirer and horizontal consolidation, i.e. focus increasing M&As. The depth at which the analysis is conducted by using cases together with an extensive literature review in order to generate hypotheses is, to the best of the authors' knowledge, a novel approach in this industry. The developed hypotheses are then analyzed empirically for generalizability. Hopefully, analyzing the cases will help the study gain new insights within this research field. It is, to the authors' best knowledge, the first study within M&A research in shipping to conduct a study using this methodology.

1.2 Problem Statement

Based on the discussion above, the objective of this study is to closer investigate if the acquiring firms in the shipping industry generate value through M&A activity. There is well-established, robust evidence in the literature that shareholders of the target firm will gain from an M&A experience. However, previous research regarding the gain of the acquirer is much more inconclusive (Yaghoubi et al., 2016a). Furthermore, as Alexandrou et al. (2014) states, previous research has not been able to determine what drives value creation from M&A activity within the shipping industry. This study aims to build on this research and only study so-called focus increasing M&As. That is, M&As where the target and acquirer are located at the same level of the value chain, also referred to as horizontal integration. Large firms, such as Maersk, are today engaging in scaling activities and the main focus regarding consolidation activity is aimed at improving operational costs rather than to diversify (Investor.maersk.com, 2016). This also seems to be the trend for other freight shipping firms. It is therefore interesting, relevant and novel to look at if these activities actually create value to acquires and what drives it. This study therefore focuses on gains to the acquirer in the shipping industry.

Accordingly, the study aims at answering the following research question:

"Are M&As within the freight shipping industry value-creating to acquiring firms and if so, which firm or macro specific factors determine its success?"

1.3 Scope and Limitations

This study aims to investigate and explain the value creation from an M&A in the freight shipping industry. The investigated relationship will be from an acquirer's perspective. Furthermore, as the study only is interested in investigating horizontal consolidations, it is limited to firms belonging to the NACE Rev 2 industry categorization 5020. In other words, both acquirer and target belongs to the industry "*Sea and Coastal freight water transport*" (European Commission, 2008, p. 238). Focus increasing consolidation are believed to have other motivations and objectives, such as synergy gains, than its opposite diversification M&As. This study therefore focuses solely on focus increasing M&As. The industry categorization verifies that the M&As are horizontal as it excludes vertical operations such as cargo and harbor handling. However, this limitation makes our results only generalizable to this category of firms. Firms and research focusing on other categorizations within the shipping industry are advised to exercise caution if applying or interpreting the results of this study.

This thesis is of a practical nature and aims firstly at providing implications for the industry and secondly at contributing to the existing literature regarding M&As. Nonetheless, previous literature that are considered helpful will be used in order to answer the stated research question and to increase the validity of the paper. The study therefore also contributes to this literature.

The statistical method used to observe value creation is dependent on the theory of efficient markets (Fama, 1970). This assumption makes the results less robust and some caution should be exercised when interpreting the results and conclusion. On the other hand, using the alternative method, an accounting based approach, also has its drawbacks and these measures can be unreliable (Stanton, 1987).

2. Research Methodology

2.1 Research Design

The purpose of this study is to answer the problem statement described above. In order to do so, it is important to use a well-chosen research design. To be able to solve the problem statement and answering the research question, this study will adopt a pragmatic research philosophy and a mixed method research (Saunders et al., 2009). Hence, it will use a mix between an inductive and deductive approach to research. According to Bryman and Bell (2011), an inductive approach is when the researcher develops new theories from collected observations. On the other hand, a deductive approach deduces hypotheses based on what is already know (i.e. existing theories) and analyze it through empirical testing. This mixed design of the research is, in more detail, a mix between an exploratory study that aims to seek new insights, and an explanatory study that aims to establish causal relationships between variables (Saunders et al., 2009). A case study will be used for the exploratory part, whilst an experimental form of research will be adopted for the explanatory part. Both of which will be further elaborated on below. According to Saunders et al. (2009), there are several reasons for using a mixed method, such as: triangulation, facilitation, complementarity, generality, aid interpretation, study different aspects or solving puzzles. This research agrees to some extent on all of these reasons, but the main reason for choosing a mixed method is to use one type of research strategy to aid the other research strategy. This is in line with the facilitation reason presented by Saunders et al. (2009).

M&A is a well-studied area. This study, therefore, aims at going deep within a specific industry and look at the M&A activities. That is why both an inductive and deductive approach will be used. Inductive in the sense that the paper will use case studies of two previous M&As to develop theories. Deductive in the sense that the paper will use previous literature on M&As, together with the insights gained from the cases to deduce hypotheses that will be empirically tested.

2.2 Case Study Methodology

Saunders et al. (2009, p. 145-146) uses the definition of a case study as "*... a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon*

within its real life context using multiple sources of evidence", which will be the definition adopted by this study as well. The case studies are deployed in this study as a way of going deeper into two M&As that the authors find interesting and significant to the freight shipping industry. However, as no attempt to draw any conclusions based on the cases was made, the authors' chose the case study methodology and disposition based on previous knowledge and what was believed to be important. By adopting such methodology, it is believed that the cases leverage their purpose. Namely, as a way to develop hypotheses and to present interesting circumstances around M&As. This will be further elaborated upon in the case study method following in chapter 4.

2.3 Event Study Methodology

The event study methodology is used to measure the impact of a specific event on the value of the firm (MacKinlay, 1997). In the present study, this event is the M&As effect on the value of the firm. Hence, the event study methodology is an appropriate methodology for the objective of this research. Further, MacKinlay (1997) states that an event's economic impact can be measured at a relatively short time period using stock market prices, but that productivity related variables may require months or even years before the observation. MacKinlay´s (1997) statement that a relative short time period is needed to analyze economic impact using stock market prices is grounded in the efficient market hypothesis (EMH) proposed by Fama (1970). The EMH suggest that there is perfect information on the market and that new information is directly incorporated into security prices.

The event study methodology is therefore a way to measure the value creation from an event, the M&A in this study, assuming that the EMH holds. In other words, assumed that the EMH holds, the value creation from an M&A will be visible in the stock price at the day, or around the day, of the announcement. One potential problem with the event study methodology using stock prices is the fact that stock prices in the event window also is affected by other information than just the M&A announcement. To limit this effect, this study will use an adjusted market model to calculate the abnormal return in the event window, in line with similar studies. However, this method is not perfect and some caution should be taken when interpreting the results.

The EMH is also a concept that has received a lot of critique. Dreman and Berry (1995), for example, showed that low P/E stocks have higher returns than others. They are, thereby, questioning the "random walk" theory on which EMH stands. However, using stock prices, market models and abnormal return to measure value creation from an event is normal practice applied by researchers and will therefore also be used in this study (see e.g. Alexandrou et al., 2014; Samitas and Kenourigos, 2007; Panayides and Gong, 2002). This quantitative method will be used to expand the generalizability of the research and factors found in the qualitative part, i.e. the case study.

3. Theoretical Frame of Reference

3.1 The Shipping Industry

The shipping industry is complex and multifaceted. It is therefore believed to be important to give a brief overview about what the freight shipping industry actually is and the dynamics that drive it forward. This is performed in order to increase the clarity of the study and as a way to avoid misunderstanding and misinterpretations of the results. However, it will be brief and only cover areas that the authors believe are of importance for the study.

3.1.1 Sea transport and the Global economy

Sea transports importance in the economy has been realized for a long time. Already in the famous book "The Wealth of Nations" published in 1776, Adam Smith understood that the local demand would not be sufficient to cover the increased output. Hence, the goods had to be shipped to other markets (Stopford, 2009). According to Stopford (2009), the history of international shipping has taught us some lessons about the industry. Firstly, at every stage in the development of society and of the economies, shipping has played a central role as an important part in the global economy. However, even though the role of shipping in the global economy has been important for several millennia, it is in constant change (Stopford, 2009).

3.1.2 The economic organization of the shipping industry

The international transport industry can be divided into three zones: inter-regional transport, short-sea shipping and inland transport (Stopford, 2009). The scope of this report, as previously stated, will only stretch to the NACE Rev. 2 industry categorization "5020", which only include firms whose main activity is "*Sea and Costal freight water transport*" (European Commission, 2008, p. 238). Hence, firms that fall in the first zone "inter-regional transport" and second "short-sea shipping" categorized by Stopford (2009).

Inter-regional transport, or deep-sea shipping, can be considered the only economical available transport between different continents. It offers services ranging from bulk transport to regular liner services. Short-sea shipping, or coastal transport, is somewhat different from deep-sea shipping in that it often is the next step of transport after the deep-sea transport have delivered its goods to regional centers such as Hong-Kong or Rotterdam. The ships within coastal shipping is, in general, smaller than deep-sea freight ships

The shipping market has also evolved into three closely related segments: bulk shipping, specialized shipping and liner shipping. Bulk shipping carries large parcels of raw materials (coal, iron ore, oil etc.). This segment mainly focuses on minimizing the cost of operating the ships and managing the high investment costs of purchasing new ships. A specialized shipping service handles "difficult" cargoes (cars, forest products, chemicals etc.). Since the shipments are specialized, the level of service becomes important and they work closely with shippers. Focus is also more on building relationships and investments in specialized ships than in bulk shipping. Liner shipping transports small parcels of general cargo (manufactured goods or semi-manufactured goods). Since the international manufacturing companies are dependent on cheap transport and margins are low, the cost and service levels are extremely important in the liner shipping segment (Stopford, 2009).

As in many industries, the cost of shipping is of essence both to the freight shipping companies and their customers. This is especially true in the bulk shipping and liner shipping segments. As a consequence, economies of scale and customer services are truly important factors within the industry.

3.1.3 Shipping Market Cycles

The shipping market is very cyclical, or as Stopford (2009, p. 93), describes it: "... *shipping cycles roll out like waves hitting the beach*". In other words, the cycles are very significant in the industry. The freight shipping industry is subject to a short cycle typically consisting of four stages. Firstly, a "trough" when there is a clear surplus in shipping capacity, which makes the freight rates fall to the operating cost of the least efficient ships. This is followed by negative cash flows, financial pressure and market pressure. In extreme cycles, firms are forced to sell modern ships at extremely low prices and old ships are sold at scrap value in order to raise cash. This leads to a demolition market, which readjusts the oversupply and the market start to recover.

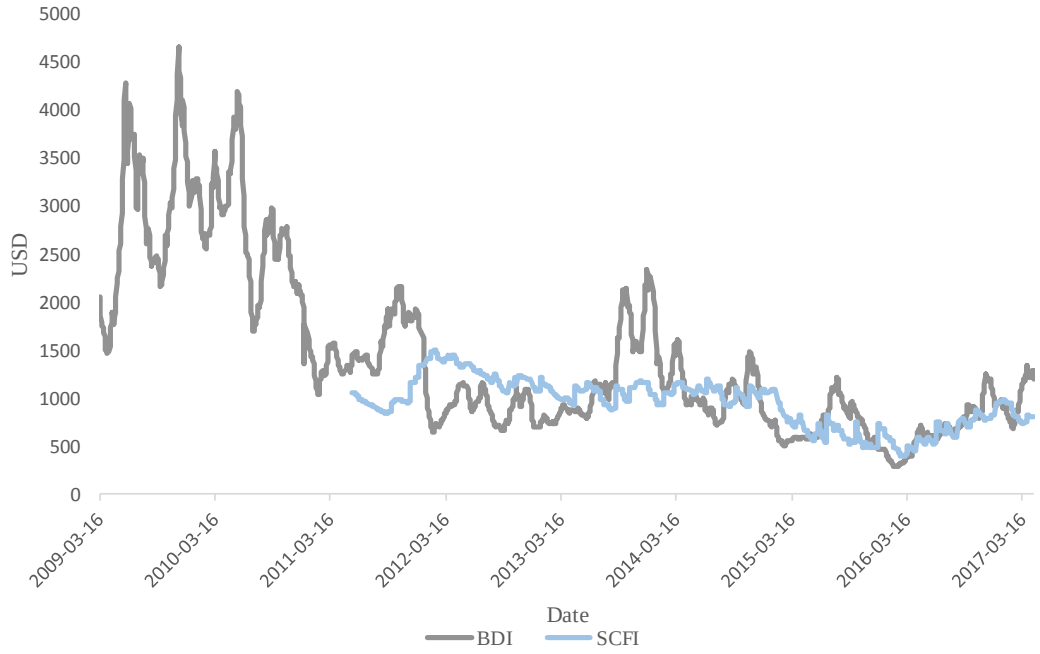
Secondly, the recovery stage starts as demand and supply regains the balance and freight rates starts to increase above operating costs. This leads to increased liquidity and confidence followed by an increase in second-hand prices for vessels.

Thirdly, the recovery stage leads to a peak period in stage three. Here, only ships that cannot be traded are laid up and the industry is operating at full speed. At this point, freight rates increase to between two or three times the operating costs. In extreme cycles, the freight rates sometimes increase all the way up to ten times the operating costs. The industry becomes characterized by excitement and optimism. Eventually, this excitement leads to over-trading as modern second hand ships sells for more than the cost of producing a new ship. Older ships sell at a price above market value. This leads to an increase in new shipbuilding, i.e. in supply.

Fourthly, this increase in supply at the end of the peak period leads to an imbalance between supply and demand caused by a huge oversupply. This causes the industry to collapse and freight rates to fall rapidly. Ships start to reduce their speed and unattractive ships have to wait for cargo. However, liquidity remains high, but there are less ship sales as owners feel that the price is too low compared to the preceding peak period. The industry then reenters the "trough stage" and the cycle starts over.

Danish Ship Finance (2016) suggests that 2016 was a challenging year for both container and bulk shipping. This together with the low freight rates displayed in figure 1, indicates that the industry currently (i.e. 2017) is in a trough or possibly collapses stage. The figure presents the Baltic dry index (BDI) and Shanghai containerized Freight Index (SCFI), which is a measure of the prevailing freight rates of bulk cargo and liner freight rates (Alexandrou et al., 2014). The SCFI has only been available since 2011. One might say that the industry, based on freight rates, is trending towards the beginning of a "recovery" stage, at least in the BDI. However, this might just be a dead cat bounce as in the period between 2013 and 2014 in the graph.

Figure 1: Freight Rate Indices



Source: Loyds List, Own creation

3.1.4 Supply, Demand and Freight rates

The freight shipping industry is, as stated previously, highly cyclical. Furthermore, as seen in the preceding chapter oversupply of ships can lead to industry collapse. Hence, the world economy and the world fleet are the most important factors in the industry. However, there are several other factors that also are important in the industry (Table 1).

Table 1: Key Influences on Demand and Supply

Demand	Supply
1. The World Economy	1. World Fleet
2. Seaborne commodity trades	2. Fleet productivity
3. Average haul	3. Shipbuilding production
4. Random Shocks	4. Scrapping and losses
5. Transport costs	4. Freight revenue

Source: Stopford (2009), Own creation

The world economy is by far the most important single factor in what drives demand in the shipping industry. Business cycle for different industries around the world causes short-term fluctuation in seaborne trade and the demand for shipping services.

On a fundamental level, "seaborne commodity trades" concern the seasonal effect that some type of goods have and the shortage of demand it creates at some points during the year. This is seen as the second demand driver in Table 1. For example, crop is usually harvested gradually during the summer and peaking in September, after which the demand for shipping services can increase as much as 50% until the end of the year. On a longer-term, the decreased demand for shipping services can come from decreased demand for a particular commodity. For example, alternative energy sources to oil will most likely affect the demand for oil tankers negatively. Furthermore, changes in where plants are located (locally produced), changes in where sources from which a commodity is obtained or change in the shipping companies transport policy could also affect the demand.

The average haul (third demand driver in Table 1) can also influence the demand for shipping services. Average haul is defined as the average time it takes for a ship to complete a certain voyage (Stopford, 2009). For example, opening of the Suez Canal is one example where the average haul caused the demand to increase as the distance and time became shorter. A random shock (fourth demand driver in Table 1), where the economic system´s stability becomes uncertain, affects the demand of seaborne trade drastically. For example, the recent economic crisis in 2008 or the oil crises 1973 and 1979 made seaborne trade demand drastically decline. Lastly, transport costs (last demand driver in Table 1) affect the demand for shipping as, for example, distant sources of raw material only will be exploited if the cost of transport is at an acceptable level.

The factors that influence the world's supply of seaborne trade is, firstly, the world fleet (first supply driver in Table 1). The characteristic of the world fleet today is the rapid escalation of ship sizes, which has depressed the freight rates for smaller, less efficient ships. Hence, larger ships have increased the supply of seaborne trade services.

Secondly, the productivity of the deployed fleet can increase the supply. For example, ships do not carry cargo all of the time. A lot of time is spent on other activities such as ballast time and repairs.

If these activities become more efficient, more ships will be ready to move cargo and the supply will increase.

Thirdly, the shipbuilding production affects the supply of seaborne trade services. Producing a ship takes a long-time, up to 1-4 years. In other words, bad timing in ordering new ships in regards to demand cycles can cause an oversupply. Fourthly, as the scrapping decision depends on the owner's expectation of the future profitability, scrapping only occurs when the industry is at a low point as a way to affect supply. Lastly, freight rates are the ultimate regulator of the industry in the decision to adjust capacity, hence, supply (Stopford, 2009).

3.1.5 Cost, Revenue and Financial Performance

There are three key variables in the shipping industry, which the ship-owner needs to consider. They are: the revenue received from chartering/operating the ship, the cost of running the ship and the method of financing in the business (Stopford, 2009).

The revenue from chartering/operating the ship is generally something that the owner cannot control as it is determined by freight rates and other exogenous variables. However, it can be affected by measures such as increasing cargo capacity to achieve economies of scale, i.e. increased productivity.

The costs of running the ship does not only come from operational sources, such as, operating, voyage and cargo handling, but also from capital repayments to cover interest. Hence, the financing strategy is of big importance in the industry (Stopford, 2009).

3.2 Merger and Acquisition Theories

The literature and research surrounding M&A is comprehensive. In a review of previous literature, Vazirani (2015, p. 3) separates mergers from acquisitions by defining mergers as: "*... a circumstances in which the assets and liabilities of a company (merging company) are vested in another company (the merged company)*". In other words, organizations join to meet some strategic objective and they develop a single identity. Acquisitions on the other hand are described as: "*... a corporate action in which a company buys most, if not all, of the target company's ownership*

stakes in order to assume control of the target firm" (Vazirani, 2015, p. 4). To elaborate on this, the author states that an acquisition is the acquirer purchasing a controlling interest of the share capital in the target and that the target will be integrated into the acquirer.

Vazirani (2015) has in previous literature identified four different schools of M&A research: 1) the capital market school, 2) the strategic management school, 3) the organizational behavior school, and 4) the process perspective.

The capital market school study's M&A on a societal level and investigates how the value from M&As is created. However, it also includes agency issues, the roles of investors and public vs. private firms. The strategic management school focuses on M&A as a strategy of diversification. It looks at how related and unrelated M&As perform relative to each other. Other theories such as the organizational behavior school looks at behavioral implication on individual and organizational levels. In other words, how the employees react to M&A situations and how M&As impact the organization. Lastly, the process perspective is mostly focused on the post-acquisition process of how management handles the integration process. The difference between this last school of thought and the organizational behavior concerns how value creation is measured. Organizational behavior measures it in the form of transfer of capabilities and resource sharing, whilst process perspective measures it in terms of shared identity and generating satisfaction among employees from both companies (Vazirani, 2015).

Vazirani (2015) has also identified seven different motives for M&A activity from previous literature: 1) Inefficient Management, 2) Synergy, 3) Diversification, 4) Agency Problems 5) Tax considerations, 6) Market expansion, 7) Purchase of Assets below their replacement costs.

First, one motive behind an M&A could be as a tool for shareholders to punish inefficient management by passing on the control of a company to more efficient management. Secondly, an M&A can be motivated by the belief that a merged company can create greater shareholder value if merged, than if they operate separately. Thirdly, another motive could be to acquire a company in a different line of business to achieve a more diversified company portfolio. Hence, a way to decrease volatility of cash flows or to shift from core product lines to new. Fourthly, when agency problems between management and owners cause the share price of a company to drop due to, for

example, mismanagement, mergers take place to correct such situations as low stock prices attract acquirers. Fifthly, tax considerations can also be a motivation of an M&A. For example, a healthy company can acquire an unprofitable one and the losses can be set off against the combined firm's taxable income. Furthermore, it can be motivating to acquire or merged with another company as it provides a shortcut to growth compared to organic, i.e. market expansion for the acquirer. Lastly, a company can be exposed as an acquisition target when the costs of replacing its assets are higher than its market value.

3.3 Consequences of Mergers & Acquisitions

According to Yaghoubi et al. (2016a) previous literature on M&A consequences can be divided into two different groups. The first group looks at macroeconomic effects, such as overall productivity gains in society. The second group of literature looks at microeconomic effects. For the sake of this study, only microeconomic effects will be considered.

The microeconomic studies about consequences of M&A can, according to Yaghoubi et al. (2016a), be divided into three groups: Wealth effects, Profitability and operating synergies, and Operating synergies versus financial synergies.

3.3.1 Wealth Effects

Regarding the wealth effects, previous literature implies different predictions about post-acquisition performance of merged firms. Prior studies provide robust evidence of positive abnormal returns for the target firms, which is logical as acquirers most often offer premiums to target shareholder to make them sell their shares. However, previous literature on the acquirers' wealth effect at announcement is economically insignificant, the returns are indistinguishable from zero in the short term (Yaghoubi et al., 2016a). On the other hand, a behaviouralist such as Rosen (2006) argues that the reaction of the market to acquisition announcements may not accurately reflect the value effect of the deals. In other words, that measuring value effect of acquisitions with market data may not be sufficient, which is also discussed further as a limitation in chapter one of this study.

Other studies have investigated the long-term wealth effects of M&A on the acquirer. According to Yaghoubi et al. (2016a), these studies are highly dependent on the methods used to estimate benchmark returns, but that the evidence suggest that the overall long-term abnormal return are negative or insignificant. When using long-term abnormal return methods, most of the results are negative or non-different from zero. On the contrary, there are several examples of studies that use accounting or economic value added methods that document a positive average performance. The variance that surrounds the association between acquisition activity and performance after completion suggests that some firms actually experience significant positive returns (King et al. 2004).

3.3.2 Profitability and Operating Synergies

Another group of studies considers profitability and operating synergies. Here, previous research is inconclusive and is using different methods to infer operating improvements (Yaghoubi et al. 2016a). In a study of Devos et al. (2009), they find that interest tax shield synergies contribute 17 percent of gains in large acquisitions in unregulated industries, but that operating synergies account for the major part of gains. However, according to Yaghoubi et al. (2016a) the empirical evidence of operating improvements following a merger does not offer definitive conclusions.

3.3.3 Operating Synergies versus Financial Synergies

In prior research, operational and financial synergies are divided. Operating synergies includes reduction in costs such as production and distribution whereas financial synergies includes underutilized tax-shields, increased leverage, reduced risk of default and reduced agency cost due to higher debt (Yaghoubi et al. 2016a). Furthermore, operating synergies are more investigated than financial synergies in previous literature. Lewellen's (1971) study on financial synergies suggests that mergers reduce cost of capital because of a lower risk of default. Leland (2007) states that this is correct, but challenges the notion by stating that financial synergies are not always positive. The author divides financial synergies into three categories: 1) "*the change in the unlevered firm value that results from an acquisition*", 2) "*the change in the value of tax savings from optimal leveraging of the combined versus stand-alone merging firms*", 3) "*the change in the value of default costs*" (Leland, 2007, p. 779-780). The study finds that financial synergies are more likely to be positive when correlation and volatility are low and similar. Furthermore, they find that

jointly high default costs make mergers more desirable. Lastly, findings in prior research imply that WACC of a merged firm is expected to be different than that of the acquirer and the target separately (Yaghoubi et al. 2016a).

When it comes to financial leverage and acquisitions, prior studies find that acquiring firms are less leveraged on average compared to control firms prior to an M&A and increase their leverage after the M&A. The increased debt capacity of the combined firm leads to greater leverage, generates financial synergies and creates value. Moreover, when debt capacity increases, debt-holders gain profits from relatively safer debt, whilst shareholders can gain benefits from bondholders by increasing financial leverage and appropriate tax benefits. On the other hand, becoming too leveraged destroys value by, for example, increased default costs. Hence, there is a limit to how much shareholders can benefit of debt-holders. There is an "optimum point" where the gains from the combined firm are maximized (Yaghoubi et al. 2016a). In a similar way, Leland (2007) argues that a number of factors determine the magnitude of financial synergies, namely, tax rates, default costs, size-, riskiness- and correlation of cash flows. The study further argues that "*financial synergies by themselves are insufficient to justify mergers, but they can become important in specialized circumstances…*" (Leland, 2007, p. 802).

3.4 Determinants of acquisitions Performance

Yaghoubi et al. (2016b) also looks closer at previous literature regarding determinants of acquisition performance. They divide the prior empirical studies into five categories: 1) acquirer characteristics, 2) target characteristics, 3) bid characteristics, 4) industry and competition factors, and 5) economic environment. This review will follow the same structure.

3.4.1 Acquirer Characteristics

Prior empirical studies have suggested that the size of the acquirer is negatively correlated with acquirer returns post-M&A (Gorton et al., 2009; Moeller et al., 2004). Hence, small acquirers tend to gain abnormal returns while large acquirers tend to lose value around announcement dates. Liu and Qiu (2013) suggest that acquirers on average have higher profitability prior consolidation than comparable firms that do not participate in M&A activity. Another well investigated concept is that

of TOBIN's Q. Lang et al. (1991) suggest that acquirers' returns are negatively correlated to cash flows for low Q acquirers, but not for high Q acquirers. Furthermore, the relation between cash flow and acquirer returns differs significantly for low and high Q acquirers. Servaes (1991) finds similar evidence. However, more recent studies find contradictory evidence that acquirers Q is negatively correlated with synergies and acquirer returns (Bhagat et al., 2005; Ming et al. 2006; Moeller et al. 2004).

Other studies regarding acquirer characteristics are investigating the so-called glamour vs. value acquirers' concept. A glamour acquirer is an acquirer with a low book-to-market ratio that tends to have a high share price, reflective of recent high growth in cash flows and earnings. Their history also signals high future growth. The hypothesis suggest that the market reacts positively to new M&A plans of these glamour firms and reacts negatively on their counterpart's acquisition plans (Yaghoubi et al., 2016b).

Another important factor that has been researched regarding acquirer characteristics is the cash holdings (Yaghoubi et al. 2016b). Both Harford (1999) and Devos (2009) suggest that cash-rich firms on average notice abnormal declines in their stock price following an acquisition.

Ownership structure and experience are other acquirer factors that have previously been studied. Yaghoubi et al. (2016b) summarizes the literature by stating that most of previous literature suggests a non-linear relationship between insider ownership and corporate performance. When it comes to experience, Haleblian and Finkelstein (1999), propose that the best performers are those who either have no experience or significant amount of acquisition experience, i.e. they have U-shaped curve. Hayward (2002) in similar fashion finds that the firms focal acquisition performance is positively correlated with prior acquisitions that are: not highly similar or dissimilar to the focal acquisition, associated with small losses and not too temporally close to or distant from the focal acquisition.

The last two factors that have previously been studied regarding the acquirer in an M&A are board size and executive compensation (Yaghoubi et al. 2016b). First, Cheng (2008) suggests that acquisition frequency is negatively associated with board size since larger boards undertake less risky activities. Carline et al. (2009) supports this area of research by suggesting that corporate

governance characteristics of acquiring firms have a statistically and economically significant impact on operating performances following M&As. Secondly, executive compensation and M&A research has shown that the compensation is consistent with the agency theory hypothesis. Hence, that equity based compensation correlates positively with M&A returns (Yaghoubi et al. 2016b). Datta et al. (2001) find a strong positive correlation between acquiring managers equity based compensation and both announcement and post-merger return of acquirer. They also find that managers with more equity based compensation pay lower acquisition premiums, acquire targets with higher growth opportunities and make acquisition engendering larger increases in firm risk.

3.4.2 Target Characteristics

Yaghoubi et al. (2016b), suggest that there is also a number of factors and studies regarding the target that are related to returns of the acquirer. The results of prior research suggest that it is more profitable to acquire privately held firms than public and especially when stocks are used as payment method. Furthermore, Lang et al. (1989) and Servaes (1991) suggest that abnormal returns are larger when the target have low TOBIN's Q ratio.

3.4.3 Bid Characteristics

There are several bid characteristics that has been researched to affects post completion performance, namely: stock versus cash versus mixed payment, tender offers versus mergers, friendly versus hostile, focused versus diversifying, domestic versus cross-border mergers and the relative size of target to acquirer. These will all be briefly summarized in the following section.

First of all, the evidence from research regarding method of payment's relationship with acquisition returns is mixed across different markets and different time periods (Yaghoubi et al., 2016b). Hence, no conclusion about this relationship can be found in previous research.

Moreover, the choice between tender offer and merger are likely to affect the post-completion performance. Here, previous research suggests that tender offers are more successful than mergers (Yaghoubi et al., 2016b). Regarding friendly versus hostile takeovers, Schwert (2000) argues that what is a hostile takeover in the media, is not a hostile takeover in an economic sense. Hence, that the meaning of the term "hostile" is different from person to person and that there is an ambiguity regarding the term that needs to be understood. There is no conclusive result in previous literature

regarding hostile versus friendly takeovers (Yaghoubi et al., 2016b). Gürtler and Kräkel (2009), for example, indicate that hostile takeovers are accompanied by conflicts initiated by the target firm's decision makers. On the other hand, Sudarsanam and Mahate (2006) suggest that hostile acquirers deliver higher shareholder returns than friendly.

Furthermore, previous literature has also investigated the choice between a focused versus diversifying M&A strategy. Here, the empirical evidence points towards that related acquisition makes acquirers gain more in the short term, but that the results vary in the long term (Yaghoubi et al., 2016b). Many studies have also looked at domestic versus cross-border M&A and find that post-completion performance differs between them. For example, Moeller and Schlingemann (2005), find that domestic US mergers have higher announcement returns than cross-border acquisitions by US firms. Similarly, Conn et al. (2005) find that domestic mergers outperform cross-border mergers in both announcement and post-completion performance in the UK. There are also other studies, for example, Kiymaz and Mukherjee (2000) that suggest that the performance of cross-border merged firms depends on the country affiliation between the two countries. Furthermore, Moeller and Schlingemann (2005) argue that takeover activity in the target country is positively related to returns.

The relative size of the target to the acquirer is the last factor related to the bid characteristics that Yaghoubi et al. (2016b) have identified in previous literature. Here, Gorton et al. (2009) argues that medium-size acquirers return decreases as the target size increases.

3.4.4 Industry Characteristics

Yaghoubi et al. (2016b) argue that post-completion performance of the acquirer is related to the timing of the acquisition over the life cycle of the acquirer and target industries. They further state that firms operating in declining industries are more likely to engage in unrelated acquisitions, which are more likely to underperform a related acquisition. Gorton et al. (2009) argue that there is a positive correlation between profitability from an acquisition to the ratio of size of the largest firm in the industry to the size of the other firms in the industry. Furthermore, a lot of literature on industry characteristics focuses on a single industry to control for specific industry factors (Yaghoubi et al., 2016b).

3.4.5 Macro-environment Characteristics

The characteristics of the target and acquirer's macro environment are expected to affect the post-completion performance of an M&A (Yaghoubi et al., 2016b). Bouwman et al. (2009) find evidence that announcements made during high market valuation have significantly higher announcements returns, but also find that these firms have lower long-run abnormal return and operating performance than those acquiring at low-valuation times. Rosen (2006) finds that acquisitions announced during a "hot" acquisition market perform no better in the long run, maybe even worse, than those announced at other times. There is also literature on how regulatory systems affects firm value. It affects everything from corporate control to acquisition premium and the division of returns between the firms involved in the deals (Yaghoubi et al., 2016b).

3.5 Literature on Mergers and Acquisitions in the Shipping Industry

3.5.1 Various previous literature

Before the 2008 financial crisis, the maritime industry was consolidating with a strategy of achieving greater control of the value chain. This included both vertical acquisitions along the value chain and horizontal M&As among competitors. Heaver et al. (2000) stated that this especially affected the ports independence. Then, shipping carriers achieved strategic gains by both acquiring and partnering with the terminals and as a result the terminals' barging power decreased. This indicated that carriers were able to realize positive effects when engaging in vertical integrations with ports. The low bargaining power and strategic gains suggest that terminals can be likely acquisition target also in the future. The prophecy by Heaver (2000), seems to already have been fulfilled as shipping firms now seems to focus on horizontal integration. Beškovnik (2016), investigates shipping agencies in Slovenia, a gateway to countries such as Hungary, Austria and Slovakia. The study indicates that the top 6 liner companies handles 90% of all the cargo through directly owned shipping agents. This suggests that the M&A market vertically have less room to maneuver today. Horizontal integration might therefore be the only viable option in order to achieve operating synergies in markets such as the Slovenian.

Fusillo (2009) investigates how industry shocks in the liner shipping market motivate merger activity. The study uses the neoclassical approach and states that M&As can be traced to shocks to

the infrastructure and the demand curve of the industry. A shock can come in several forms, like technology, decreased demand, regulations, etc. However, this study focuses especially on the effect of new reforms being introduced in the market. The author suggests that the increased focus on reducing unit costs started as result of the "Ocean shipping Reform Act" (OSRA) of 1998, forcing companies to either cooperate or consolidate. This was enforced with technological innovation that allowed the ship-owners to produce ships of enormous size, which were too expensive for small firms to buy and operate. The large ships reduced unit cost substantially and became an imbalance in the market where smaller players faced a great disadvantage. From his analysis, Fusillo (2009) finds that M&As will be desirable when demand is relatively low, i.e. low freight rates and excess capacity. The analysis also suggests that disruptive regulations affect M&A activity. Finally, given the nature of the shipping industry where high fixed to variable cost ratio is a fact, industry consolidations are suggested to continue.

Frémont (2009) investigates the motivation behind M&As for liner shipping companies. The study analyzed interviews with the 12 largest liner shipping companies conducted between 2001 and 2004. The results indicate that the prime concern for shipping lines is to fill their vessels and that M&As can be a way to support their operations. Shipping lines have two concerns; vessel logistics and container logistics. They can vertically integrate with terminals in order to support their vessel logistics and integrate with inland transportation services in order to support their container logistics. Furthermore, Frémont´s (2009) study implies that shipping lines does not have the financial capacity to invest everywhere and needs to focus on activities that support their core business.

Growth is an essential part of the liner shipping business as a result of the pursuit to achieve operating synergies. However, given the current market dynamics, organic growth is considered to be a slow process. Hence, there are two ways of achieving growth: alliances or M&As (Das, 2011). In a study using panel data of 427 partnership or acquisition events between the years 1994-2006, Das (2011) identifies specific factors that influence the choice between acquisition and alliance. The degree of redundant resources and intensity of competition increase the likelihood for acquisitions. The study argues for a strategic motive, where acquisitions can be used as a way to prevent competitors from partnering up together. On the other hand, the nature of the resources has

an inverted U-shape relationship with the probability of an acquisition. Additionally, suitable targets in the home region and M&A experience increase probability of M&As. In other words, shipping companies tend to find acquisition targets in their home region. This is where the main customer base of the company is and where growth most likely can be accomplished. Another argument for close acquisitions is similar decision- and management styles, which increase the probability of successfully integrating the acquired firm. The results also suggest that acquisition experience increases the probability of acquisition being the preferred growth choice. Hence, companies are most comfortable building on previous experience.

Yeo (2013) examines the geographical dimension and how information costs affect M&As in the container shipping industry. The study uses a sample of 120 M&As occurring in the time period 2006 to 2007 in the maritime transport industry. Hence, the author aims to investigate which of two identical sized targets, that presents nearly similar synergy effects, but are located in different areas would be the better choice for an acquiring company in order to maximize the firm value. The findings suggest that M&A activities were more intense among firms closely located to each other. If the acquirer and target are geographically close to each other, there is less chance of misunderstandings and complications in the information flow. In other words, it is suggested that geographical distance has a negative impact on post M&A performance. Additionally, the vast majority of combinations were acquisitions, as opposed to mergers in the study. Yeo (2013) further suggests that cross-border M&As are more probable among larger firms, as larger firms have the resources to monitor the target firm. Size of the firm also affects the likelihood to be acquired. The study suggests that larger targets are more attractive for achieving economies of scale and are therefore preferred for cross-border M&As. The findings of Yeo (2013) partially suggest that the primary motivation of M&As in the shipping industry is to achieve synergy effects.

3.5.2 Stock Market Reactions to Mergers and Acquisitions

There are several studies on stock reactions as a result of M&A announcements in the general M&A literature (Harford, 1999; Devos, 2009; Haleblian and Finkelstein, 1999; Hayward, 2002 etc.). Only a few look at the shipping industry in particular. Panayides and Gong (2002) report findings of positive correlation between M&As and growth in stock price for the liner shipping market. Their sample only consisted of four companies, namely: P&O containers, Royal Nedlloyd

Line, Neptune Orient Lines and American President Lines. The time period used was 1995-1999. Samitas and Kenourigos (2007) analyze a sample of 15 events in the time period 2000-2007 and suggest that M&As have a considerable effect on the stock price for the tramper shipping companies. Hence, this is in line with Panayides and Gong (2002).

Alexandrou et al. (2013) performs a more comprehensive study on the same topic, including all shipping M&As from 1984 to 2011. The study includes M&As across major geographic regions, broad industry sectors and different regulatory regimes for a final sample consisting of 1266 deals (Alexandrou et al., 2013). As many other studies, they use an event-study methodology and find that most of the value is captured by the shareholders of the target firm. On the other side, they also provide evidence that the acquirers realize a positive abnormal return. This is different than what is reported in general M&A literature, which indicates that return to acquirers is negative or indifferent from zero (Yaghoubi et al., 2016a). In addition, they find some interesting determinants of abnormal returns that are more specific to the shipping industry. First, M&As that are focus-increasing leads to larger stockholder gains for both parties, than diversifying transactions. Secondly, the acquirer will gain more when acquiring a public rather than private company. The study argues that private firms have higher bargaining power. Thirdly, Alexandrou et al. (2013) find that the shareholders of the acquiring firm will gain if the target has lower profitability, they use stocks to finance the investment and if the target is located in another country. Fourthly, they find that acquirers will gain more in hostile takeovers, while targets will earn more in friendly takeovers. Their study also indicates that smaller acquirers gain more than larger acquirers. This contradicts previous research (e.g. Gorton et al., 2009; Moeller et al., 2004) that has indicated a negative association between acquirer size and returns from an M&A. Alexandrou et al. (2013) also look at cross border deals and find that that European companies are more sensitive to changes in bunker price than Asian companies. In addition, both European and Asian firms are more likely to engage in M&A activity post government regulations that affected their ability to cooperate. Finally, they find that European companies are more likely to use cash financing post the latest financial crisis, while the opposite is the case for Asian companies.

Polemis and Karlis (2016) look at companies in the maritime transportation sector that participated as acquirers in M&As between 1998 and 2009. Their sample consisted of only 20 companies that

are involved in several transactions. One can, therefore, question the generalizability of their research. They use utilization profitability and enterprise value as a measure to investigate the profitability performance of the acquirer two years prior and two years post the acquisition. They find, similar to studies from other industries, that the profitability of the acquirer tends to decrease post M&As. Hence, contrasting to the findings of Alexandrou et al. (2013). However, none of the enterprise valuation ratios were found to be statistically significant. They suggest that more research on this area is needed, as M&As in the shipping sector are often very costly. They also suggest looking into the method of payment and economic state of the industry as relevant factors.

4. Case Analysis

4.1 Case introduction

By looking closer at two cases, this study will be able to build on the knowledge gained in the literature review to develop relevant hypotheses. Furthermore, it will be able to present information regarding what motivated the M&A that not directly can be deduced from a statistical test. For example, what did the market look like, how was the transaction conducted, what integration problems did the firms experience and how did the financials of the companies develop in the period around the merger? Is this in line with what the general literature describes? However, no attempt at calculating the value creation from these cases will be taken as not to confuse these results with the more generalizable results obtained from the event study. Success or failure will be determined based on reactions by stakeholders and media, problems identified in the cases and indications from a brief profitability analysis. This since the ultimate choice of including cases was not to calculate their success or failure, but rather as a way to present characteristics of freight shipping M&As. This was done both for the sake of increasing the author's knowledge and as a way to build a foundation for future research on M&As within the freight shipping industry. Something that, according to Polemis and Karlis (2016), is needed as only limited focus within M&A research has been on the shipping industry. Hence, these cases are an attempt to leverage the hypotheses and to present circumstances around the M&As that the event study is unable to capture. The hypotheses will be presented in the subsequent chapter and the circumstances will be analyzed in chapter 7 (Analysis).

When choosing the cases, several criteria have been emphasized. However, availability of information has been the determining factor. First, as the scope of the study includes both mergers and acquisitions, it would be optimal to choose one of each. Secondly, the M&As must have had a significant impact in the freight shipping industry as this indicates availability of information. Third, in order to analyze profitability and suggested synergy effects, it is necessary to look at deals with sufficient time period post the completion of the deal. During 2016, Hapag-Lloyd, CMA-CMG and Maersk all have made huge acquisitions (all above 2 EUR billion). These transactions are not ideal for the case study, as the amount of information post the M&A is insufficient. As mentioned in chapter 3, some suggest that the dynamics of the freight shipping industry changed

as a consequence of the financial crisis in 2007. Stopford (2009) further justifies this by stating that the freight shipping industry historically always has been in constant change. Moreover, no major M&As was performed in the years following the crisis between 2007 and 2013. Hence, in an attempt to avoid biases, one case finalized pre 2007 and the other finalized post 2013 was chosen. In order to capture cross-continental (geographical) effects, the thesis looks into one case that was completed inside Europe and another that stretched across two continents. Based on the criteria above, the following deals have been chosen for the case study:

2005: AP Moeller-Maersk A/S' acquisition of Royal P&O Nedlloyd NV.

2014: The merger between Hapag-Lloyd AG and Compania Sudamericana De Vapores SA'S (CSAV)

From the initial analysis, information regarding two cases that fit both criteria were found. The chosen cases are two of the largest and most discussed deals in the industry. This implies availability of public information and sources for both cases. To gain insight from industry experts, the sources have been supplemented with internal publications from Maersk databases.

On potential drawback with the cases chosen is that they both belong to the liner shipping industry. Hence, no representation of bulk shipping or specialized shipping is presented. This choice is based on that, these two cases fit with the criteria presented. Especially regarding the availability of information. One of the authors of this report´s affiliation with Maersk enabled us to gain direct and indirect information along with suggestions from them regarding both cases. Hence, choosing two cases from the liner shipping industry might have decreased the representability, on the other hand, it increased the quality as advice could be appropriated directly from the industry. The author's therefore felt that it was justified to use two cases concerning liner shipping. Moreover, Maersk is a conglomerate with activities in both liner and specialized cargo shipping. The case concerns liner shipping but the organization behind had operation in more segments.

4.2 Case methodology

4.2.1 Disposition

In order to capture the circumstance that are found most relevant, the analyses will be broken down into several sections. The case analysis opens with an introduction of the companies involved. The aim is to capture key differences by looking short at the company's history and characteristics. This is followed by a review of the state of the industry both pre and post the acquisition. As previously stated the, cyclicality of the industry is very determining for the profitability and it is therefore relevant to look further into this dimension. The analysis will thereafter take a closer look at the specifics of the M&A, the process and the market reactions that followed. The nature of the deal and the stock prices can give an indication on its success or failure. The next section comments on the motivation behind the deal to see if there are any factors that can be separated from each other. This is followed by an evaluation of the integration process, looking at the strategies that the companies chose to be able to integrate the target. The cases are finalized with a profitability analysis, with the purpose of identifying factors that might be significant in determining the value creation from an M&A within the freight shipping industry. This rather extensive disposition is similar for both cases so that they can be compared in the analysis.

4.3.1 Profitability analysis

Profitability is a signal of economic strength that helps a company grow and maintain positive relations within the industry (Petersen and Plenborg, 2011). To investigate this further, the thesis will look closer at the profitability of the companies at the time around the M&A. The profitability analysis is based on a well-known framework where return on invested capital (hereafter, ROIC) and return on equity (ROE) is analyzed. All data used in the profitability analysis is gathered from Bloomberg, accessed through the Copenhagen Business School library. Both these profitability measures are elaborated on below:

ROIC is a measure of profitability from operations (Petersen and Plenborg, 2011). ROIC expresses the operating return on invested capital, where the value of the company will increase with the rate of return. The ROIC can be calculated based on both net operating profit after tax (NOPAT) and earnings before interest and tax (EBIT), as given in the formulas:

$$ROIC\ (NOPAT) = \frac{NOPAT}{Invested\ capitial}$$

$$ROIC\ (EBIT) \frac{EBIT}{Invested\ capitial}$$

ROIC is an after tax measure if based on NOPAT. This can be a noise factor when comparing across countries, as the taxation will differ from country to country. The ROIC based on EBIT will therefore be applied in the analysis, as we are comparing international shipping companies. However, the depreciation affects the ROIC even if using EBIT and can in some periods cause misleading results. Here it is assumed that this is not the case, as all the companies have been in business for a long time and the depreciation will therefore be superseded by new investments (Petersen and Plenborg, 2011). The elements in ROIC are calculated from the reformulated income statement and balance sheet.

ROIC is based on accounting numbers and does not alone express whether the ratio is at a satisfactory level. To determine if the company is creating value for their investors, it is necessary to compare the ratio to the weighted average cost of capital (WACC). The weighted average cost of capital represents the lower level for required return on invested capital. The difference between ROIC and WACC is the economic value added (EVA) and a negative number indicates that the firm is destroying value. Additionally, the ROIC of the respective companies will be compared with their peers in a cross sectional analysis. It is important to see how the companies are performing relative to their peers as the shipping industry is cyclical and lower values can be accepted during lower periods. When performing the cross section analysis, the company should be compared with peers that have similar characteristics and risk profile (Petersen and Plenborg, 2011). Both Maersk and HL were among the 5 largest companies in the liner shipping industry after the M&A had been completed. This thesis will therefore select peers among the 12 largest container carriers, based on their fleet size measured in twenty foot equivalent units (TEU), published annually by Alphaliner. From this list, the four largest publicly traded companies will be selected as peers in the cross sectional analysis. It should be mentioned that that some of the companies have different diversification strategies, e.g. trade offerings, and will therefore not necessarily have exactly the same risk exposure. Nevertheless, as these companies operate in the

same business and are of similar size and characteristics, they are the most suitable alternatives for a cross sectional analysis.

The ROIC measure does not explain whether profitability is driven by improved capital utilization or the relation between revenue and expenses. However, the ROIC can be decomposed into profit margin and turnover rate in order to investigate this. The profit margin displays the operating income as a percent of revenue, by looking at the relation between revenue and expenses (Petersen and Plenborg, 2011). In other words, the measure shows how much profit the company is able to generate from each dollar in revenue and is given by the formula below. For the calculations, this study uses EBIT and Net Revenues calculated by Bloomberg.

$$Profit\ margin = \frac{EBIT}{Net\ Revenues} * 100$$

The turnover rate shows to which degree the company is able to utilize the invested capital and is given by the formula below:

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

The turnover rate will vary from industry to industry. Industries characterized by low turnover rates often have higher profit margins to make up for it, e.g. the diamond industry. Industries with high turnover rates often have lower profit margins, e.g. the milk industry. The cyclical character of the freight shipping industry indicates that profit margins and turnover rates will differ between different time periods. During a peak period, the industry will have lower turnover and higher profit margin. While in a collapse and trough period, the industry will still have low turnover, but not be able to justify this with high profit margins. The peer analysis therefore extends to this analysis as well.

In addition to looking at ROIC, this study will also look at the ROE, which is a measure of the company's ability to generate profitability from equity invested. The ROE can be calculated by dividing the net earnings after tax with the book value of equity, as given in the formula below.

As opposed to ROIC, which focuses on operating profitability, ROE measures profitability with respect to both operating and financial leverage (Petersen and Plenborg, 2011). Hence, in this case study, the ROE can give an indication on whether the M&As are creating value for equity investors or not.

$$ROE = ROIC + (ROIC - NBC) * \frac{NIBD}{BVE} = \frac{Net\ earnigs\ after\ tax}{Book\ value\ of\ equity} * 100$$

As made evident from the formula, the net income is useful in order to understand the movements in ROE. This study therefore also includes the net income before and after the acquisition in the profitability analysis. Lastly, if the ROE is positive, it will be compared with cost of equity (R_e) in order to see if the company is creating value and is worth leveraging further. Cost of equity represents the compensation that the market requires for taking the risk of owning the assets. If the ROE is higher than R_e, it means that the company will have higher returns on capital than it costs to borrow it. In other words, the company will then gain from leveraging their business (Petersen and Plenborg, 2011).

4.3 Case study 1: Maersk SeaLand´s acquisition of P&O Nedloyd.

4.3.1 The companies

A.P. Moeller Maersk is a Danish conglomerate with around 88 000 employees operating across 130 countries. The company specializes within the two sectors transport and logistics, as well as energy, which it operates as separate units. The transportation & logistics division consists of several brands, one of them being Maersk Line, the world's largest container shipping company. The liner business operates alone in 114 countries with 639 vessels worldwide, equal to 3.3 million TEU. The company originates from the shipping company Dampshibsselskapet Svendborg founded by Peter Maersk-Moeller and his son Arnold Peter Møller in 1904. The company evolved to become the largest company in Denmark, ranking as number 306 on Forbes Global 2000 list in 2016 (maerskline.com, 2017; maersk.com, 2017).

P&O Nedlloyd originates all the way back to 1837 when the Peninsular & Oriental Steam Navigation Company (P&O) gained the contract to transport mail between England, Portugal and Spain. In 1856, the Dutch company Koninklijke Nederlandsche Stoomboot-Maatschappij was established with a similar contract to transport passengers and mail between North Europe and Indonesia. These two companies developed into two of the most respected and historical companies in the industry P&O Containers Limited (1985) and NedLloyd Lines (1977) (Jephson and Morgan, 2014).

During the 1990's both companies were under pressure from financial markets and shareholders. None of them were able to maintain their order book of newbuildings and they started to fall behind competition. In 1996, the companies announced their intention to merge in a 50/50 joint venture and form the company P&O Nedlloyd (Hereafter, PONL). The combined fleet had a capacity of 224 000 TEU offering their services across 70 different trade routes. With time, the new company was able to turn a defensive position into an offensive position with acquisitions and high growth (Jephson and Morgan, 2014).

In 2004 PONL became listed on the Euronext stock exchange. The same year they reported operating profits of USD 401 million. A former PONL employee, Jeremy Nixon recalled the following: "*We had all become shareholders and rather naively, we thought that was it! But, of course the minute we became listed, we then became a target*." (Jephson and Morgan, 2014, p. 316).

4.3.2 Market outlook 2004-2009

The preceding year to the acquisition (2004) was a very good year for the shipping industry. The industry benefited from growth in international trade and increased global demand. China was one of the main drivers behind the positive trend, with export volumes growing by 20%. Additionally, there was a high increase in global outsourcing and high demand growth from the US. With this, the shipping industry experienced record high rates (Investor.maersk.com, 2004).

The favorable market conditions from 2004 continued in 2005. International trade experienced a strong growth factor of 9%. There were several governmental factors contributing to this. The international Monetary Fund contributed by approving the Multilateral Debt Relief Initiative,

reliving 19 countries of all their debt (Jephson and Morgan, 2014). In addition, the trade restriction "Multi-Fibre Agreement" came to an end, giving China and less developed countries the freedom to export textile unrestrictedly. As a result, China's export of textiles rose from 17% in 2005 to 40% by 2010 (Jephson and Morgan, 2014). All factors led to great demand in 2005. The positive demand effects outgrew the growing supply of vessels, leading to increasing capacity utilization and higher charter prices for container ships. Overall, this led to very good freight rates also in 2005, which on average were above the previous year's record rates. John Fossey summarized the market movements in the Containerisation international yearbook of 2006: "*The liner shipping industry achieved a highly profitable performance, with 2005's interim results and projected figures on a par with and in several cases, even better than 2004. However, there is evidence to suggest that profit margins are coming under pressure, that freight rates are weakening and the overall supply/demand balance is softening*" (Jephson and Morgan, 2014, p.311).

On the consolidation side, 2005 was a very eventful year. In the container business, the Chinese operators were among the few who aimed for organic growth through massive investments. In addition to the Maersk-PONL acquisition, Hapag-Lloyd purchased CP Ships for USD 2.3 million and CMA CGM acquired the shipping activities of the Bolloré group for USD 600 million. Those who could not afford the M&A actives responded with alliances. The two largest alliances, the New World Alliance and the Grand World Alliance, was formed in early 2006 as a response to Maersk Line's acquired position (Jephson and Morgan, 2014).

2006 was another year with high economic growth in the world. The overall economy grew by 3.6%. Similarly to previous years, China was the main driver with 10,6% growth in GDP. The growth in the shipping industry was similar and even higher on some aspects than the 2005 levels (Investor.maersk.com, 2005). Many newbuildings were also finalized this year and the supply of capacity increased with 17% from 2005, creating a surplus of 5.6%. With higher growth in supply than demand, there was a clear decline in the freight rates (Danish Ship Finance, 2006). On the other hand, significant efforts from the Danish government to strengthen the country's position as a seafaring nation were conducted. Several initiatives were commenced, among others a Tonnage Tax act, reducing the income tax on freight. Overall this year was not as good as the two prevailing years (Jephson and Morgan, 2014).

The first half of 2007 was very good for the container shipping market. Freight rates from Asia to Europe increased by 32%. This was because of high global demand growth equal 12% (Danish Ship finance, 2007). However, by the end of 2007 and going into 2008 the situation changed rapidly. The burst of the US housing bubble sat off a chain reaction leading to a global recession. The global economic growth declined from 3.5% in 2007 to 1.6% in 2008. This financial turbulence spread to the shipping markets in 2008, hitting especially hard in the second half of the year (Jephson and Morgan, 2014). With high global demand growth previous years, the companies had been filling up their order books for new ships. In 2008 approximately 1,5 million TEU entered the market. These ships drowned the market when the demand growth stagnated. Overall the container fleet grew by 13% compared to demand growth of 2%. The result was a major decline in freight rates and the small ships had to operate with rates barely covering their operating expenses. This was a challenging period with high lay-up and scrap ratio (Danish Ship Finance, 2009a). The rough market conditions continued in 2009 with an even higher supply surplus. The freight rates continued to decline, especially in the time charter market, where rates declined below operating expenses. Additionally, countermeasures like scrapping became less efficient as the newbuildings entering the markets were far bigger in size than the vessels that were scraped (Danish Ship Finance, 2009b).

4.3.3 The transaction process

On May 10th 2005 Maersk publically confirmed that they were in negotiations with PONL about a possible combination of the companies (Investor.maersk.com, 2005f). The day after, Maersk confirmed that they intended to make a conditional public offer of EUR 2.3 billion for the entire share capital of PONL, equal to EUR 57 per share. When the offer was announced, the PONL shares were priced at EUR 40.35. Hence, the offer represented a premium of 40.6% at the date of the announcement and a 45% premium to the average share price over the last six months. The offer was conditional on acceptance by 70% of the shareholder capital. Maersk used cash financing as method of payment. The offer was ex-dividend, meaning that there were no adjustments for the dividend payment distributed to PONL shareholders in the acquiring period. JP Morgan, who acted as financial advisor for the board of PONL, stated that it was a fair offer for the shareholders of PONL. With this the board of directors went forward and recommended the offer to the

shareholders (Investor.maersk.com, 2005b). At a public announcement, CEO of PONL, Philip Green, made the following comment:

"The cash offer from Maersk represents full and fair value for P&O Nedlloyd shareholders and accordingly, the board of P&O Nedlloyd has no hesitation in recommending the offer to them. At the same time, we believe the combination of our two businesses will ensure that both customers and employees will enjoy the benefits of a substantially enhanced business." (Investor.maersk.com, 2005b, p.1)

Exactly one month after the announcement, Maersk had secured a 1.2% stake of PONL and confirmed their intentions with a public offer at the same price as previously announced (Investor.maersk.com, 2005c).

During the next period Maersk continued buying shares with short intervals from larger investors. At 29th of June, the banks Danske Bank and Nordea agreed to purchase a 15% and 10% respectively of the entire issued share capital of PONL (Investor.maersk.com, 2005d). At the time, the banks entered into an options agreement on the same stocks with Maersk. Maersk took a long position in call options and the banks entered into short positions in puts. The strategy was used to circumvent regulations. Some countries, like Turkey, Israel and Korea, have very specific legislations on this topic and do not allow that a company holds more than 20% of a competitor without regulatory approval. The bank paid the same price as announced in Maersk's public offer, with a discount equal to EUR 0,75 per share for the purchase being completed before the expected completion of the offer (Benson, 2005). It is reason to believe that PONL agreed to the discount to gain certainty in the deal. This indicates that PONL was not completely certain that the governments would approve the deal.

The company needed approval from the competition authorities. They established contact on 18th of May and at the 30th of July they could confirm that both the European commission and the US Department of Justice had approved the acquisition of PONL. The approval was conditioned on Maersk divesting the PONL's services on the Europe-South Africa trade and withdrawing from shipping conferences where they were not already a member. Several countries, like Australia, New Zealand, South Africa, Bulgaria, Brazil, Romania, Korea Canada and Mexico had similar

requirement and approval was received from all of them (Jephson and Morgan, 2014). The acquisition became final at the 11th of August, when Maersk announced that they had secured 95,6% of the total share capital of PONL and exercised the options on the stocks bought by Danske Bank and Nordea (Investor.maersk.com, 2005e). AP Møller Maersk acquired P&O Nedlloyd in 2005. At that time the company already operated the world's largest container shipping fleet with 12,3% of the market share, operating 327 ships, equal to 1,05 million TEU. After the acquisition the combined company operated a fleet of 1,67 million TEU, making them twice as large as their next largest competitor (Jephson and Morgan, 2014).

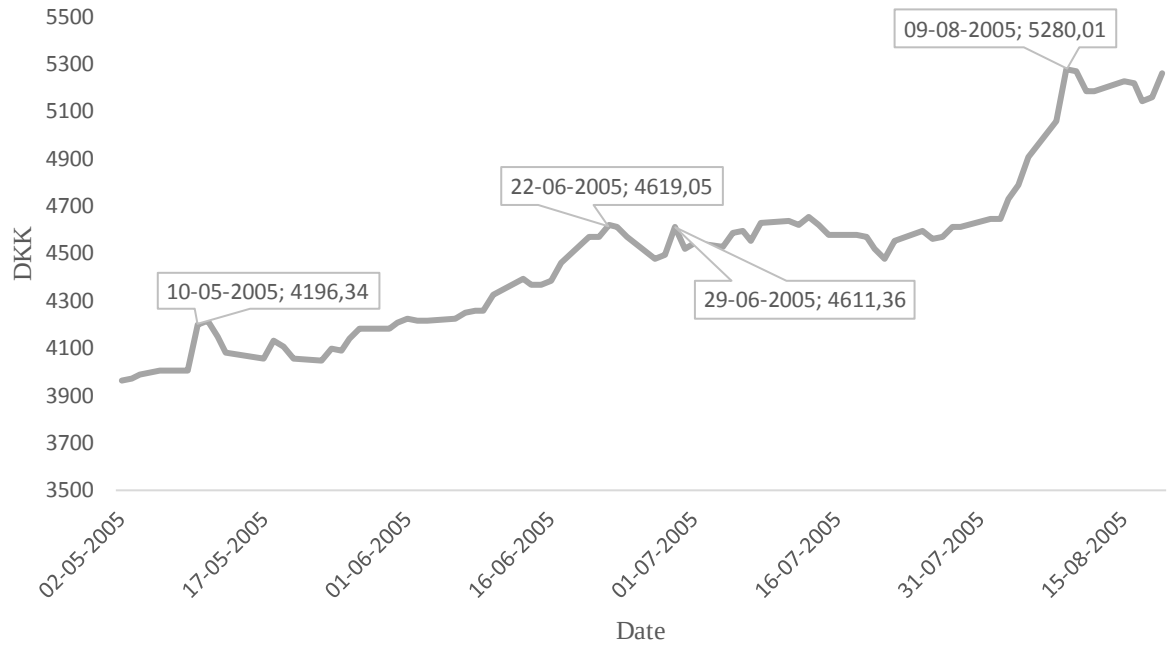
4.3.4 Market reaction

The acquisition of PONL was the largest deal to ever take place in the shipping industry at the time. Maersk became by far the largest operator in the industry, outweighing their closest competitor with 100%. Marine Money Offshore described the deal as positive for both parties, especially for Maersk. The market analysts expected synergy effects valued to USD 350 million within the first year of the acquisition. The market also took it as good news that Maersk was willing to invest so heavily in the industry. The large investment indicated that the company was optimistic about the future of the shipping industry. The trend showed that companies were ordering large post-panamax ships and some feared that the supply was growing too rapidly. With increased size, the market also expected increased utilization of tonnage. This would be positive for the potential overcapacity. There was also an expectation that the deal could trigger a series of M&As in the industry as Maersk had to sell off some specific routes in order to gain acceptance by the European Commission. Shipping analyst Charles De Trenck from Citigroup pointed especially to NOL and Evergreen who had a weaker position in the market and could be looking for expansion alternatives. (Marinemoneyoffshore.com, 2017).

Maersk made a public announcement that they were negotiating the acquisition of PONL at May 10th (Investor.maersk.com, 2005f). From Figure 2 below, one can see that the stock price jumped with 4.8%, indicating a positive market reaction. Thereafter the stock price declined again, but to a level above the initial price. In the continuing month, the stock price grew even further. There was a clear peak at the 22nd of June. This is also when Maersk announced that their managing owner Mr. Maersk Mc-Kinney Møller had bought Maersk stocks to a value of DKK 4.8 million

(Investor.maersk.com, 2005g). Another peek came short after, also following a public announcement that Danske Bank and Nordea had purchased 15% and 10% respectively of the shares in PONL (Investor.maersk.com, 2005d). From this point the stock price stabilized for some time. After a month, the stock jumped again, ending at the highest point in the observation period at 9th of August. This is also the date when Maersk declared that they had secured 95.6% of the shares in PONL and made an unconditional offer for the remaining 4.4%. In other words, this was the date when the acquisition was secured.

Figure 2: Stock Price, Maersk



Source: Bloomberg, Own creation

The movements indicate that the market was positive about the future of Maersk after the acquisition. There can be several reasons for this. Firstly, Maersk had a good track record, having already completed several successful acquisitions. Additionally, the acquisition meant that PONL exited from the "Grand Alliance". The Grand Alliance, including the firms PONL, NYK, OOCL and Hapag-Lloyd had been a successful competitor to Maersk and would now become significantly

weaker (Jephson and Morgan, 2014). There were several factors arguing for a successful acquisition, but as the next section describes, there were other important factors that were less obvious.

4.3.5 Motivation

In order to determine Maersk motivation for acquiring PONL, this study gathered information from statements that were made during the initial public announcement. Both CEO of Maersk and CEO of PONL outline some key motivational factors.

Knud E. Stubkjær CEO of Maersk Group and Partner of A.P. Møller, said: *"A combination of P&O Nedlloyd and the Maersk container business will create new and exciting opportunities in global commerce. World trade is expanding and efficient supply chain management is becoming even more important for businesses. By drawing upon the best skills and experience from both organizations, we will be able to offer an even greater proposition to our customers worldwide. In addition, a combined entity will create an enhanced, more diverse and successful business."* (Investor.maersk.com, 2005b, p.2)

Following this, CEO of P&O Nedlloyd, Phillip Green, made the following statement*: "In this fragmented industry we believe these two highly complementary businesses will achieve far more together than apart. Their combined scale and know-how will create the world's leading container shipping line and logistics provider. In addition, this proposed offer represents a significant premium to our share price. I sincerely believe this proposal is in the best interest of both our shareholders and our employees."* (Investor.maersk.com, 2005b, p.2)

From the statements above, the two CEO's outline particularly the following motivational factors for the transaction: Growth and market power, enhanced network and increased offer to customers, efficient supply chain and cost synergies.

The first motivational factor outlined was growth and market power. As described in the business cycle chapter, the market experienced a growth of 9% during the year of the acquisition. The CEO of Maersk, Jess Soederberg made the following statement just before the acquisition: "*There are two ways to grow: organically or via acquisitions. With the current lack of ship capacity, we would*

not be able to grow organically within the next three to four years." (ajot.com, 2005, p.1). Maersk was in a position where they needed to expand their fleet to be able to grow with the market and maintain market share. Organic growth through shipbuilding is a time-consuming process, and you need to expect at least two years from the order has been made and until the ship is delivered, as mentioned by Stopford (2009) in the literature review. With the immediately need of increased capacity, acquisition looked like the most attractive option. Additionally, when Maersk was buying one of their competitors, they were growing without expanding the total supply of the market.

When the acquisition was announced PONL was the third largest company in the industry with a fleet of 145 ships, equal to 655 000 TEU and 8.1% of the market share (Choi and Yoshida, 2011). The two companies' combined operated a fleet of 1.968 mill TEU, and was with this twice the size of the second largest company, MSC, with 1.004 mill TEU (alphaliner.com, 2006). The acquisition was therefore a way to increase the gap to competitors and secure the position as the world leader. Although Maersk did not mention it particular, acquiring PONL would also be a way to prevent competitors from doing the same. Being the third largest player in the industry, they were a threat in themselves and would be very dangerous combined with another competitor.

The second motivational factor outlined by the two CEO's was an enhanced global network and increased offer to customers. The new network from PONL was implemented into Maersk's network at the start of 2006. With this, they were able to introduce new trade lines. The biggest new service was between Asia-South America and Asia-West Africa/East Africa. Additionally, the company increased their capacity at the biggest existing trade lines, from Asia to Europe and Asia to North America. Similar initiatives were introduced among several other trade lanes, with increased capacity and upgraded service (Investor.maersk.com, 2005). With this, they would able to offer new logistical opportunities and more rapid sailings to their customers. Additionally, with the increased capacity from the PONL service centers, Maersk would also be able to offer better customer service in terms of both booking and documentation.

The last motivation for the merger outlined by the CEO's was an efficient supply chain and cost savings. With the acquisition, Maersk sought to achieve economies of scale in their operations. On the technical side, the increased size of the firm would allow them to upgrade the fleet in terms of

individual ship size. Bigger ships would enable Maersk to appropriate operational cost synergies, as the cost per container would decrease. As an example, when a "post-panamax" vessel is loaded to at least 80% of its capacity, the ship will be 6.3% more cost efficient than a regular "panamax" vessel (Jephson and Morgan, 2014). The company´s first ship in this class arrived only half a year after the acquisition. John Fossey wrote the following in his article in Containerization International Yearbook 2007; *"Significantly, during the summer of 2006, Maersk took delivery of the Emma Maersk, a new mega post-Panamax ship officially rated by the carrier as being able to load 11,000 TEU, but in reality more likely to have a capacity of 13,800 TEU. Potentially this move has taken Maersk's operating economies of scale to a new level."* (Jephson and Morgan, 2014, p. 325)

On the organizational side, the increased size would benefit the company's business processes. This would apply to sales and documentation, container logistics and information technology. The increased size would also enable more efficient operations in terms of both in- and offshore manning. The company expected to cut 1500 jobs within three years after the acquisition. During this period, Maersk was also in a process of moving several of their service centers to Asia. PONL already had two centers in India and one in China. This was thought of as a good platform for increased outsourcing of administrative tasks (Jephson and Morgan, 2014).

According to the American Journal of transportation, the PONL stock was traded at a discount of around 40% to its peers before the acquisition was announced (ajot.com, 2005). This was because they were less efficient and not able to maintain the same utilization factor as their competitors. It could be that Maersk saw this as an opportunity to get new ships and network at a discount. There was also a reason to believe that the PONL network could be driven more profitable with a different management and logistics strategy. With potential cost savings and utilization possibilities, it would be easier to realize quick synergy effects.

4.3.6 Integration strategy

Maersk had planned the integration process to take 6 months, with start date 1st of March 2006. Thereafter the organization and the majority of the operational activates were expected to be in place (Investor.maersk.com, 2005). Maersk also completed the integration with most of the physical assets transferred within this timeframe. On the other hand, there were several challenges

that followed thereafter. This section looks into two important challenges that became dominant in this period, IT and organizational challenges. The information and quotes in the chapter is taken from the book "Creating Global Opportunities: Maersk Line in Containerisation 1973-2013" by Chris Jephson and Henning Morgan. The authors of the thesis have meet with Morgan to gain further understanding into the topic.

The first challenge Maersk faced in the integration process was regarding IT. Maersk had, in 2004, recently integrated a major new IT platform, the MGM system. At that point there was a concern around the systems growing complexity. The objective of the new system was to connect the whole organization in one end-to-end process and eliminate double work and delays. The integration of the new system was complex and at the end of 2004, the company was already experiencing some issues, especially in regards to invoicing. PONL was, in a similar situation as Maersk, implementing a new IT platform called Focus Four. This system was doing what Maersk's MGM aspired to do, directly supporting the end-to-end processes of the company. It was therefore a question of which IT system to take forward in the new company. There was a concern about the PONL systems ability to handle the increased volume. Additionally, the company was reluctant to train existing Maersk employees in a new system while onboarding the PONL employees. Because of this, Maersk chose to continue with their own MGM system, in spite of the known restrictions.

After the acquisition it became a clear that the Maersk MGM was not ready. Some parts of the system were running, but when PONL was on-boarded it was said to be up to two years away from being fully functional and integrated in the company. In addition to the system not being ready for the added volume, there were also suddenly 10 000 untrained users entering the system. Although they were slowly being trained, they were still entering errors and misinterpreting information in the system.

The IT issues led to several supply chain challenges in the front end affecting the customers heavily. In some parts of the world, the IT issues led to lost control of the container locations. There were many examples where the company completely lost track of the containers after they were loaded onto the vessel. As a result, containers were often discharged at the wrong terminals. Maersk also lost track of their bookings. Several times the ships became completely overbooked and containers

had to wait for the next ship. Additionally, the company had challenges producing the proper documentation for the containers. As a result, containers could get stuck at the terminals. Both of these issues lead to delays and uncertainties for the customers. It should also be noted that some customers had previously been using both Maersk and PONL. It now became an issue of which contract to use going forward. The customers had an interest of continuing with the contract of which they had they had the best terms. This was a challenge for Maersk and several contracts had to be renegotiated. Renegotiations were resource demanding and not ideal for a company under reconstruction.

Not only the challenge with IT was troublesome for Maersk, the organizational integration also proved to be difficult. Before the PONL acquisition, Maersk had already completed five acquisitions and one can argue that the company was somewhat experienced with the process. The focus of previous M&As had been to obtain the other companies' physical assets. Now the goal had shifted to also include the other company's employees. This was a thought through strategy as the "war on talent" was a fact. The new company grew from 22,000 to 35,000 employees. Separately both companies already had offices in the most important cities. These offices now needed to be combined and streamlined, which meant a lot of coordination and uncertainty regarding key roles. The integration process was organized by a large team in Copenhagen, with a subsidiary team in London working with a detailed integration plan. The integration plan was sent out to the different areas around the world and driven by the managers in the respective areas. They structured the organization in three levels: the countries with sales offices, the world-regions with management decisions and the headquarter in Copenhagen. This meant that a lot of decision-making that previously had been done in Copenhagen now was delegated to other regions. At the same time, the regions were consolidating common activities from the countries. The result was a more complex process in a time when employees were being integrated and were uncertain about the future existence of their positions.

Even though both companies had their origins from Europe, there were considerable cultural differences between the companies. For some Maersk was considered to be very "robotic" and less connected with the customers. PONL had offices in old warehouses at the doc, as this was where the customers were located. Maersk were often located in the inner city in more exclusive premises.

With this, some of the PONL employees felt that Maersk was less personal with their customers (Jephson and Morgan, 2014).

It follows that the company's reputation was badly hurt during the years of integration. The technical problems were felt on the customer side and they lost several important customers. Some say that they are still recovering on the customer service side. The slow economic growth and financial crisis that followed not too long after was also unfortunate for the integration process.

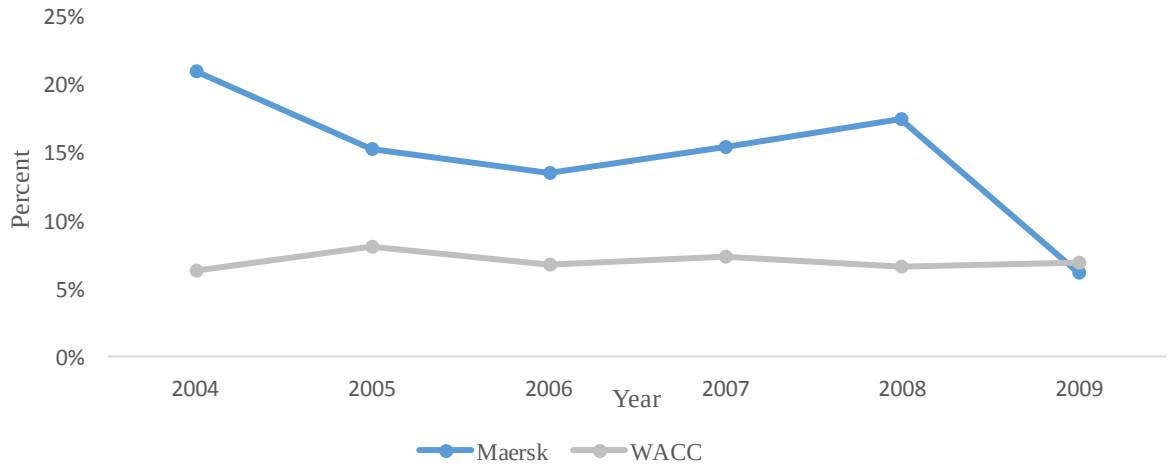
4.3.7 Profitability analysis

This chapter will take a closer look at the profitability of the acquirer Maersk before and after the acquisition. The analysis will present Maersk´s profitability pre and post the acquisition. It will also give an indication whether the acquisition has been positive for Maersk's profitability or not. The ROIC and ROE will be used as determinants in this process. However, it should be noted that there are a lot of factors affecting profitability and it can therefore be hard to isolate the effects of the acquisition. The following section will be interpreted as suggestive when developing hypotheses. For observation of the development in the ratios, the case study will look at a time period one year pre acquisition and four years post the acquisition. In other words, the movements from 2004 to 2009 will be the observation period. It is necessary to make observations four year post the acquisition, as it took time for the company to integrate PONL. The executive board member Knud Stubkjaer said the following when reflecting upon the acquisition: "*...we got the synergies, but with a couple of years' delay…*" (Jephson and Morgen, 2014, p. 325). Hence, a time period from 2004 to 2009 is needed for analyzing the statement and the developments in profitability for the company. Below follows the analysis of: ROIC, profit margin, turnover rate, ROE and net income.

From figure 3, one can see that Maersk is experiencing a decreasing ROIC from 2004 to 2006. The increased invested capital from the acquisition of PONL and the fact that PONL contributed with a negative return in 2005 decreased ROIC (Investor.maersk.com, 2005a). Thereafter, there is a positive growth from 2006 to 2008. The following trend is good, and it is positive that the company is able to maintain a positive growth in ROIC during the challenging market conditions in 2008. Such performance indicates that the company has been able to get control of the high integration

expenses following the acquisition. Then there is a great decline in ROIC in 2009. This suggests that they were able to withstand the market in 2008, but were not able to maintain this in the year after. With exception of 2009, Maersk's ROIC lies above the WACC with good margin throughout the period. This means that the company is able to maintain a positive EVA both during and after the acquisition. In other words, they are creating value for their investors all the way up to 2008. However, it should be mentioned that the net growth in EVA from 2004 to 2008 is negative, meaning that the stakeholders benefited more before the acquisition.

Figure 3: ROIC, Maersk



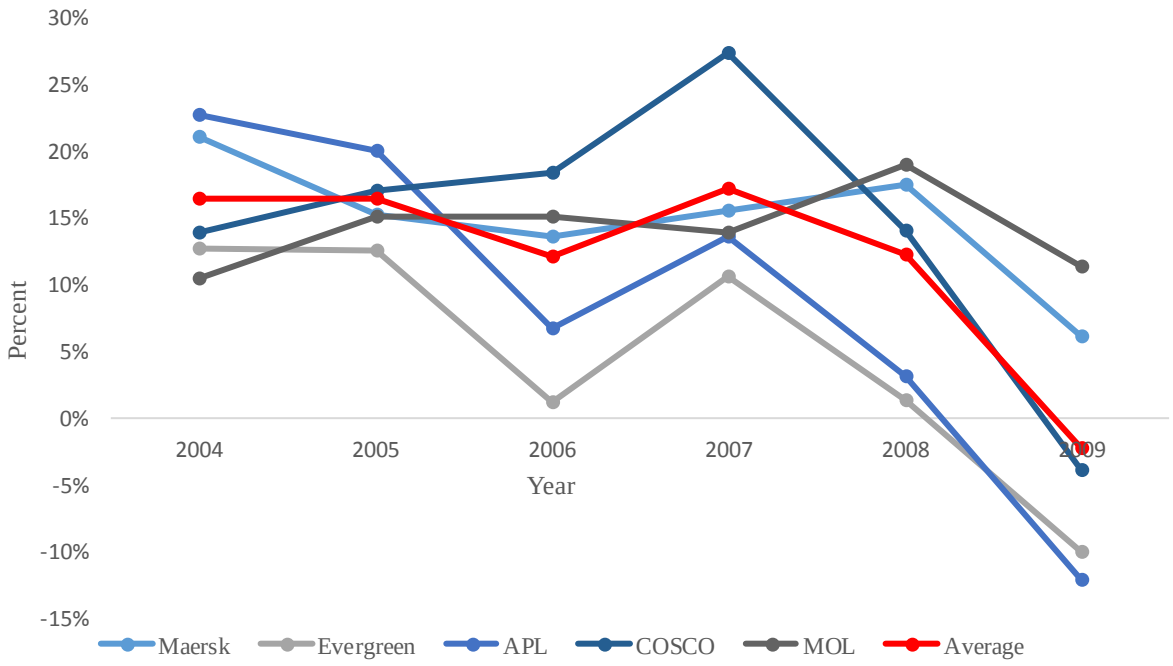
Source: Bloomberg, Own creation

Secondly, it is interesting to look at a cross sectional analysis and compare Maersk's ROIC to the competitor's. When looking at market share, the closest public competitors are Evergreen, APL, COSCO and MOL (see appendix 1). These companies will therefore be chosen as peers in the cross sectional analysis.

From the cross sectional analysis in Figure 4, one can observe that the companies have somewhat similar trends. With exception of 2009, both Maersk and MOL are able to generate a quite stable ROIC. They are also the only ones who are above the average in 2006 and had a positive growth in 2008. Evergreen and NOL follow each other's movements and have quite volatile ROIC. All carriers are experiencing great decline in ROIC in 2009. This makes good sense, as 2009 was the

year the financial crisis really struck the freight shipping industry. Maersk follow the average quite close, with a slow decline from 2004 to 2006 turning to growth from 2006 to 2008. This implies that the acquisition of PONL did not help Maersk increase their ROIC relative to their peers. The following section will look into a decomposition of the ROIC into profit margin and turnover rate in order to see what drives the movement in Maersk's ROIC.

Figure 4: ROIC, Cross Sectional Analysis, Maersk

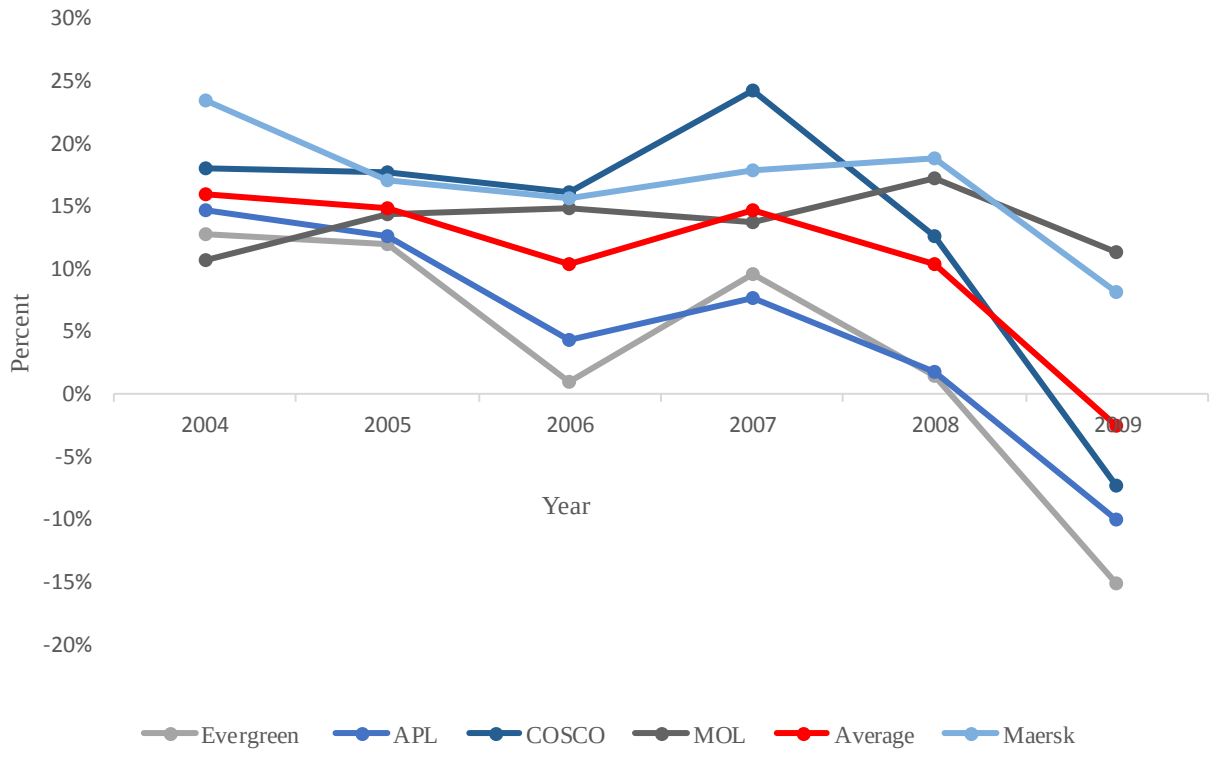


Source: Bloomberg, Own creation

Figure 5 below displays the profit margin of Maersk accompanied by the same peers as selected for the ROIC analysis. It is clear from the figure that the profit margins have very similar trends as the ROICs observed above, although with less aggressive movements. Maersk is the able to generate the highest margins and is above the average throughout the observation period. In addition, the company is able to generate a growth in profit after the integration of PONL in early 2006. They are, in other words, able to grow their revenues more than their cost, which could be an indication of economies of scale finally being achieved. However, it should be noted that the

company's net growth from 2004 to 2008 is negative, meaning that Maersk was more profitable before the integration of PONL.

Figure 5: Profit margin, Cross Sectional Analysis, Maersk

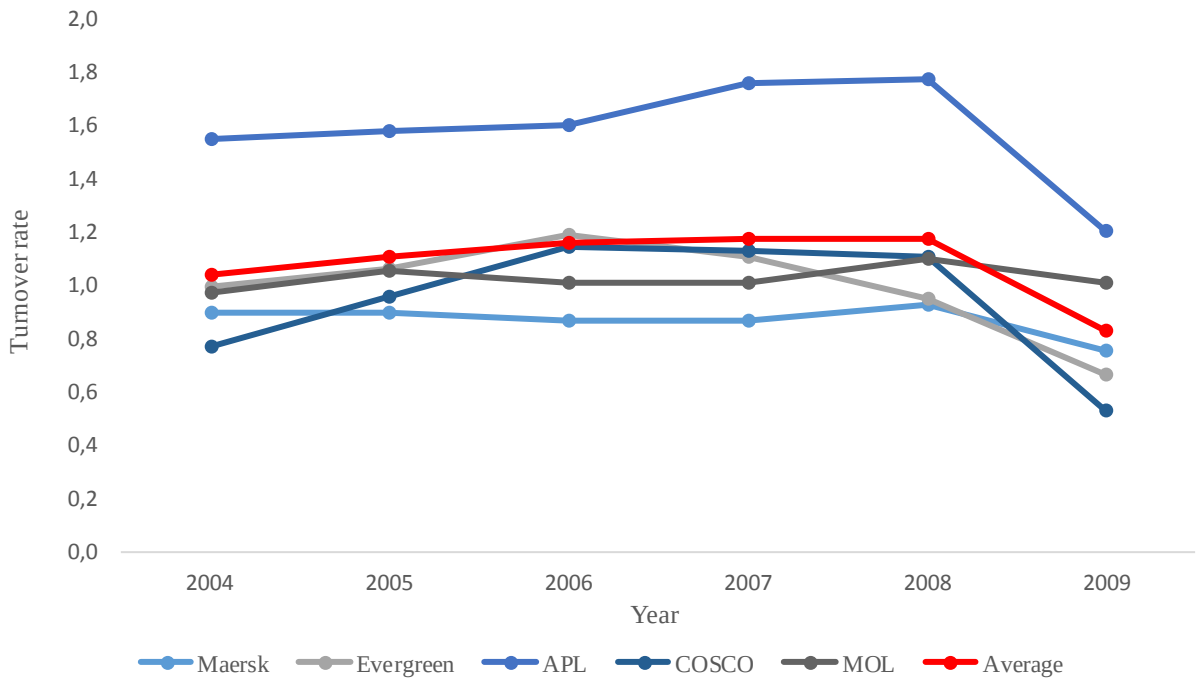


Source: Bloomberg, Own creation

In 2005, Maersk had a turnover rate of 0.89. This means that the company has tied up invested capital in 414 days or that for each dollar invested in the company, it generates 89 cents in revenue. Figure 6 below compares turnover rate of invested capital for Maersk and its peers from 2004 to 2009. The figure shows that most of the companies operate with a turnover rate between 0.9 and 1.2. NOL is an outlier, which drives the average up. In opposite of the profit margins, the companies have quite stabile turnover rate throughout the observation period. Maersk has the lowest turnover rate of the five companies and lies below its peers during most of the observation period. The company's turnover rate is at all times below 1, meaning that Maersk generates less revenue than capital invested in the company. This applies to both pre and post the acquisition. Additionally, the

turnover rate is very stable with close to no movement after the acquisition. This means that the increased revenue from the PONL business is very close to the growth in invested capital, which was required in order to acquire the company. Lastly, it should be noted that PONL had a turnover rate of 2.02 in 2004 (see appendix 2). As Maersk was almost twice the size of PONL, it is not expected that Maersk should be able to maintain this ratio. Preferably Maersk's turnover rate should increase after the acquisition as a result of more efficient operations.

Figure 6: Turnove Rate, Cross Sectional Analysis, Maersk



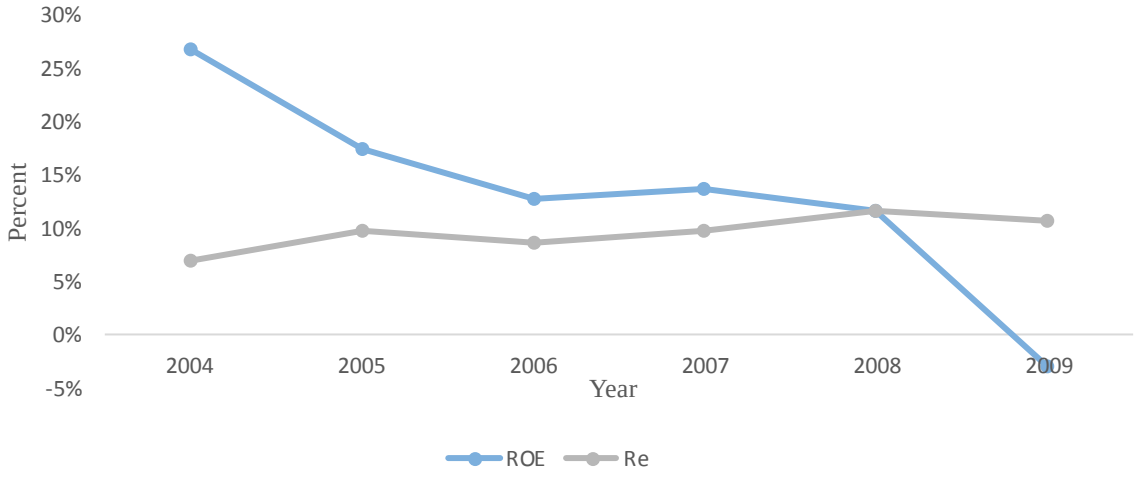
Source: Bloomberg, Own creation

From the breakdown of ROIC in to profit margin and turnover rate, it is clear that Maersk's ROCI is driven by the profit margin. The profit margin is above the peers and improves after the acquisition. The turnover rate on the other hand is below the peers and appears to be unaffected by the acquisition.

Figure 7 below displays the ROE of Maersk, in the same observation period as earlier. With exception of 2009, Maersk is able to provide positive ROE throughout the period, but there is a

clear downward trend. The ROE declined with 14%, from 27% in 2004 to 13% in 2006. In other words, the return to equity investors declined significantly after the acquisition of PONL. The ROE is above R_e from 2004 to 2008 and Maersk would therefore have benefited from higher debt to equity ratio in this period. In 2009 the ROE collapses as a result of the financial crisis and falls far below the R_e. In this year the continued operations are actually destroying shareholder value. It should be mentioned that while the ROE has a decreasing trend, the R_e is growing. Hence, after the acquisition, Maersk was becoming a riskier investment as investors demanded higher returns.

Figure 7: ROE, Maersk

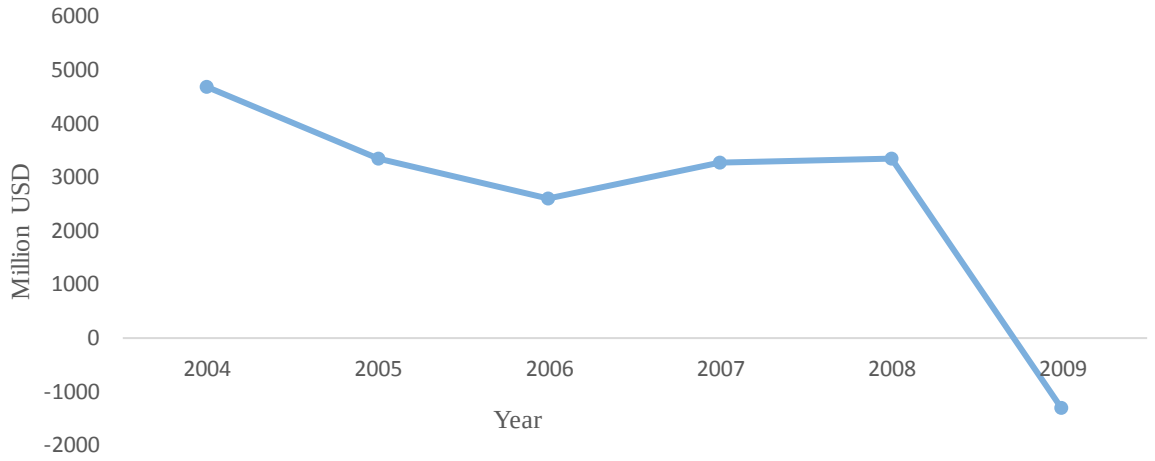


Source: Bloomberg, Own creation

The net income of Maersk in the observation period is given in figure 8 below. As one can see, the trend in net income is very similar to the trend in ROE. The net income decreases in the accounting year of the acquisition (2005), as a result of expenses related to the integration of PONL. The main driver behind this movement is a drastically higher hydrocarbon- and tonnage taxation, due to the increased fleet size. Maersk describes this as a non-recurring item (Investor.maersk.com, 2005a). For an acquisition of this nature, the shareholders would expect that after the drop in 2005, the net income would increase to above the 2004 level, however this is not case. In 2006, the net income is suffering from high operating expenses, which are outgrowing the increased revenue. This trend continues and the company is not able to reach the same level as before the acquisition. Additionally, there is a severe growth in the interest expenses as a result of the cash payment to

PONL's shareholders being financed with debt. The effect from the increased leverage becomes very clear when looking at the company's liabilities. From 2004 to 2005, the long term liabilities increased with 145%. Similarly, other long term liabilities increased with 205%. Together this contributed to an increase of 77% in total liabilities, equal to USD 11.1 billion (Investor.maersk.com, 2005a).

Figure 8: Net Income, Maersk



Source: Bloomberg, Own creation

The analysis above indicates that the acquisition damaged the company's ROE. This means that the potential return to stockholders has decreased, resulting in a less successful acquisition from the stockholders' point of view.

4.3.8 Conclusion: AP Moeller-Maersk A/S acquisition of Royal P&O Nedlloyd NV

In 2005 Maersk acquired their second largest competitor, PONL, and became by far the largest player in the industry. This was an intracontinental acquisition, where the acquirer was a Danish company, while the target was British/Dutch. PONL was a public company, for which Maersk offered cash payment of EUR 2.3 billion. The offer was announced on 11th of May and completed three months later on the 9th of August. The market reacted positively to Maersk´s optimism about the future and willingness to invest at this point in time. This was also reflected in the stock price, which experienced growth during the acquisition period.

There was a potential upside from the acquisition, which was motivated by market power, enhanced network and economies of scale. This upside was quickly reduced to a downside because of several organizational integration challenges. The main challenges came on the IT front, as Maersk's IT platform was not able to handle the additional capacity. The challenges resulted in several supply chain issues in the front end, which especially affected the customers. There were also cultural differences between the companies affecting the onboarding of personnel and customer experience. Overall the unforeseen challenges lead to high costs, loss of market share and customers leaving the company. The challenges reflected badly on the company's profitability. Even though the profit margin was above the peers, the company experienced negative net growth in ROIC and EVA. The same applied to the company´s ROE, which had a clearly declining trend. Overall, this indicates that the company's ability to generate profit was negatively affected by the acquisition.

From looking at the motivation behind the acquisition, it can be discussed whether it should be characterized as successful or not. It seems reasonable to say that Maersk achieved the capacity growth and market power that they aspired. Additionally, the increased tonnage allowed them to enhance the trade offerings to customers. Even though the market reacted positive to the acquisition, with a growing stock price, it is clear from the case analysis that Maersk entered a challenging period after the acquisition of PONL. The integration became long and extensive, where the company lost many customers and employees along the way. The same is evident from the profitability analysis, indicating that the company´s stakeholders benefited less after the acquisition. This lower level of profitability indicates that Maersk were not able to realize economies of scale from the acquisition. As made obvious by Stopford (2009) and Fusillo (2009), economies of scale are of great importance in the shipping industry and a key motivational factor for engaging in M&A activity. It is therefore the authors' opinion that the acquisition of PONL not can be characterized as successful.

4.4 Case study 2: Hapag-Lloyds Merger with Compañía Sudamericana de Vapores

4.4.1 The Companies

Hamburg-Amerikanische Packetfahrt-Actien-Gesellschaft, today more known as Hapag was founded in Hamburg in 1847. A rival to Hapag was the Norddeutscher Lloyd, founded in 1857. Already in 1862 the two companies started to collaborate on some aspects and in 1894 they agreed on a joint liner service between the Mediterranean and New York. This collaborative structure went on for a while with collaborations on some part of their operations and rivalry on others. They finally merged on the 1st of September 1970, becoming Hapag-Lloyd (hereafter HL) (Hapag-Lloyd AG, 2017).

As of March 31, 2016, HL operated 175 container ships with a total TEU of close to 1 million (Hapag-lloyd.com, 2017). They are present on more than 360 locations and employ around 9300 people (Hapag-lloyd.com, 2017a).

The Chilean shipping company Compañía Sudamericana de Vapores (hereafter CSAV) was founded in 1872. Today CSAV is one of the largest shipping companies in South America. Their services include maritime carriages of: liquid and solid bulk, refrigerated cargo, cars and heavy equipment. This highly specialized shipping company has been publicly traded since 1893.

In 2012, Quiñenco, a holding company owned by the Luksic family and the biggest conglomerate in Chile, became the controlling owner of CSAV. Other holdings in this group include Banco de Chile and Shell's licensee Enex, among others (Csav.com, 2017).

4.4.2 Market Outlook 2013-2015

In 2013, the year prior to the acquisition, the global economic growth underperformed. GDP growth in developed economies increased from 1.1% in 2012, to 1.3% in 2013. The average GDP growth for developing economies decreased from 4.7% to 4.6%. The world GDP growth rate was 2.3% in 2013, equal to the rate in 2012. The so-called merchandise trade, i.e. trade in value adjusted for inflation and exchange rate fluctuations, expanded with 2.2% in 2013. A number lower by 0.1% compared to 2012 (Hoffmann, 2014).

The financial indicators of the container shipping industry based on 15 publicly traded container-shipping firms indicated poor performance in 2013. The Altman-z score (a measure of financial distress) was at the lowest level since the start of the financial crisis indicating the highest risk of financial distress for container shipping since 2008. This low z-score can be traced to an increased interest expenses ratio, as the EBITDA for these firms, in fact, increased between 2012-2013. Alixpartners.com (2014) attributes the increased interest expenses to a higher level of leverage under an extended period, even though the capital expenditure for the subjected firms decreased from $26 billion in 2012 to $20 billion in 2013.

The 2013 trend in the industry was a focus on mega vessels. For example, Maersk launched the largest container ship to date (the Triple-E) aiming for economies of scale. Other competitors also followed by launching their own mega ships. However, the fleet-capacity for the included firms only increased less than 6% between 2012-2013 (Bauer, 2014). The relatively low growth was partly a result of extensive scrapping of ships in the smaller segments. With this, the freight rates were also fairly high, although the time charter rates struggled (Danish Ship finance, 2014a).

By 2013, no major M&A between two shipping companies had been completed since the financial crisis in 2008. This resistance towards consolidation instead resulted in several alliances forming. In 2011, HL started an alliance with 5 Asian partners that had a 20% total market share. By 2013, this alliance extended their collaboration and provided 30% of the capacity between the Far East and US Gulf Coast (alixpartners.com, 2014). On the other hand, the P3 alliance between Maersk, CMA CMG and MSC agreed upon in June 2013, was stopped before becoming operational in 2014 by the Chinese Ministry of Commerce (Munter, 2014). These alliances were a strategy for the container shipping firms to reach higher levels of economies of scale (alixpartners.com, 2014).

In 2014, the year of the acquisition, the world economy was in slow recovery and the World GDP growth rate increased marginally to 2.5%. This level of GDP growth in the world is considered low and below the pre-crisis levels. China grew at 7.4%, which also was low compared to the average growth of 10% in earlier years. This lower level of growth in Chain was attributed to a lower level of production (Hoffmann, 2015).

The container shipping industry in 2014 experience slight improvements as EBITDA increased and operating expenses decreased. The high level of debt and interest expenses seen in 2013 was slowly decreasing as refinancing initiatives and asset sales were undertaken in the industry. Furthermore, the financial distress level slightly improved.

For the 15 included carriers in alixpartners.com´s (2015) report, revenues decreased with 3% between 2013 and 2014 for a total of -5% since 2012. However, only 2 of the 15 companies reported a negative EBITDA. The decreased revenue was a result of lower rates. The order books had been filling up in the preceding years and the world fleet was growing. In 2013 this growth had been maintained with correspondingly high scrapping. This strategy was not sustainable in 2014 and the result was lower freight rates, both in the box- and time charter market (Danish Ship finance, 2014b).

A significant trend in 2014 was the focus on core business activities. Firms started to divest non-core operations and focus on core business in an attempt to increase cash from operations. Cash from operations improved by 20% from 2013 to 2014. To conclude, the container shipping industry was still struggling in 2014 (alixpartners.com, 2015).

The following year, 2015, the world GDP growth rate amounted to 2.5%, i.e. the same as in 2014. In developing countries, the GDP growth rate decelerated from 4.4% in 2014 to 3.9% in 2015 with China decelerating from 7.2% to 6.9% in the same time span. Notable for this case is that the GDP growth in Latin America recorded its worst performance since 1999 with a GDP growth rate of only 0,2% in 2015. However, the rate in the European Union improved to 2% (Hoffmann, 2016).

The same supply-demand imbalance that was significant for 2014 was still an issue for the container shipping companies in 2015. Oversupply made all financial indicators perform worse than in 2014. The year 2015 started on the same positive note that 2014 ended, with increasing EBITDA margins and lower operating cost. However, in the second half of 2015, the supply-demand imbalance led to a collapse of freight rates and margins diminished. The spot rate between Shanghai and Rotterdam declined by 50% and the rate between Hong Kong and Los Angeles declined more than 70%. Over the whole year for the 15 carriers examined, EBITDA fell with 7%

from 2014 and cash from operations declined with 12% compared to the previous year (alixpartners.com, 2016).

Notable for the container shipping industry is that consolidation and M&A activity in particular was again starting to be observed in the industry. The HL-CSAV merger at the end of 2014 was the first major merger in a long time in the industry and was followed by more M&A in 2015. The French container shipping firm CMA CGM acquired the Singapore based Neptune Orient Lines and the Chinese government merged China Shipping Container Line with COSCO (alixpartners.com, 2016).

4.4.3 The transaction process

On the 5th of December 2013, HL confirmed the alleged discussions with the South American shipping company CSAV and further explained that they were trying to see if any possible business association would be mutually beneficial. However, nothing had yet been agreed upon (Hapag-Lloyd, 2013).

The next phase of the merger was completed on the 22nd of January 2014 when a non-binding Memorandum of Understanding (MOU) was signed. This MOU was followed by a due diligence before any binding contracts could be signed (Hapag-Lloyd, 2014).

On the 16th of April 2014, the due diligence was completed and a binding contract was signed. HL and CSAV had agreed to integrate CSAV's container shipping business into HL, effectively making HL the fourth largest liner shipping company in the world. The deal was constructed such that CSAV was to contribute its container business to HL and in return get an initial 30% ownership of HL. They would thereby become a core shareholder. The other core shareholders were, and still are, the City of Hamburg and Kühne Maritime. They also agreed on a capital increase of EUR 370 million to HL, of which CSAV would contribute with EUR 259 million and increase their ownership to 34%. However, at this point the merger still had to be approved by competition authorities and 95% of the minority shareholders in HL (Hapag-Lloyd, 2014a).

On the 11th of September 2014, HL announced that both the EU and the Department of Justice of the United States approved the planned merger between HL and CSAV. In the same announcement,

HL disclosed that the planned merger would make the combined firm the fourth largest container shipping firm in the world with 200 vessels, a total TEU of one million and a combined turnover of approximately EUR 9 billion. Furthermore, all approvals needed to complete the deal were not yet obtained at this point (Hapag-Lloyd, 2014a). On the 20th of November 2014 further approval was gained from Brazilian authorities, authorities in Chile and Mexican authorities. On the 2nd of December 2014 the two companies finally merged (Hapag-Lloyd, 2014c; Hapag-Lloyd, 2014d).

After the merger and capital increase, the biggest shareholders of HL were: CSAV (34%), HGV (23,2%), Kühne Maritime (20.8%), TUI (13,9%), Signal Iduna (3.3%) and HSH Nordbank, MM Warburg and Hanse Merkur all with a share of less than 2%. The integration process between the two firms was expected to be complete by the second quarter of 2015 and a new regional HQ was opened in Chile (Hapag-Lloyd, 2014d).

For CSAV, the merger was approved by 84,5% of the shareholders on the 21st of march 2014, where less than 1% of the shareholder voted against the it (CSAV, 2014). The rest of the process for CSAV, followed that of HL described above.

4.4.4 Market Reactions

When HL and CSAV signed the binding agreement in April 2014, HL was not yet a listed company. In other words, there were no need for public equity investor reports. However, HL at this point had bonds outstanding for which rating agencies such as Moody´s and S&P analyzed the current and future state of HL. These reports might, however, be biased since HL are paying the rating agencies for these ratings and thereby create an incentive for them to give HL good ratings. They will be interpreted with caution and provide an indication of what the markets thought about the merger.

The day after the merger agreement was signed on the 16th of April 2014, Moody's published an announcement regarding this. In the statement, Moody's recognizes the positive effects of becoming the fourth largest container shipping line in the world and the possible cost synergies that it would bring. It was also presented as a positive aspect that the combined firm would have a strong position in Latin America. On the other hand, Moody´s had concerns regarding the combined firm´s capital structure, with a leverage ratio estimated to be around 7 in the first year.

They also pointed out other risk factors, mainly related to the merger itself and the premises on which a successful integration depended on. At the time of the merger, CSAV had initiated a significant restructuring program. The first premise of a successful merger was that CSAV could complete this restructuring plan and get out of burdensome contracts. Moreover, Moody´s indicated that the integration process was another potential risk factor and suggested that the integration process must be effective in implementing the cost optimizations successfully to not destroy value. This was presented as a prerequisite if the USD 300 million in synergies announced by the firms were to be realized. Furthermore, Moody´s implied an optimistic stance on HL's ability to incorporate other firms due to previous success. Here Moody´s are referring to the successful integration of CP Ships in 2005, where HL managed to exceed the initially targeted synergies from the acquisition.

In conclusion, Moody´s kept its B2 rating with negative outlook of Hapag-Lloyd even after the announced plans to merge with CSAV. The reason is summarized as: (1) the industry in which HL operates in has a limited potential for operators to recover their operating costs and HL´s overreliance on the container shipping segment in which contracts are short-term. They also take into account: (2) the company's high debt ratio, with a debt/EBITDA of x8.3 at year-end 2013. On the contrary, the rating acknowledges HL good business profile as an industry leader and HL´s flexibility in its fleet with chartered vessels that could be redelivered within 12 months. Lastly, the company's financial stability due to liquidity and financial headroom was incorporated in the rating. The negative outlook was justified with a weak industry outlook and HL´s high debt levels. For a more positive outlook, Moody´s wanted to see a reduction in HL´s financial leverage towards x6 on a sustainable basis (i.e. debt/EBITDA) (Fischer-Sabatie and de Bodard, 2014).

Standard & Poor, the other credit institute that rate HL´s debt, assigned a credit rating of B+ at the 28th of September 2012, which still stands. In other words, the credit rating of HL has remained stable over the merger of CSAV (Standardandpoors.com., 2017).

As mentioned earlier, at the point of the merger, HL was not a public company. In other words, no public market reaction can be extracted from this time. However, CSAV was a traded company and can therefore be analyzed.

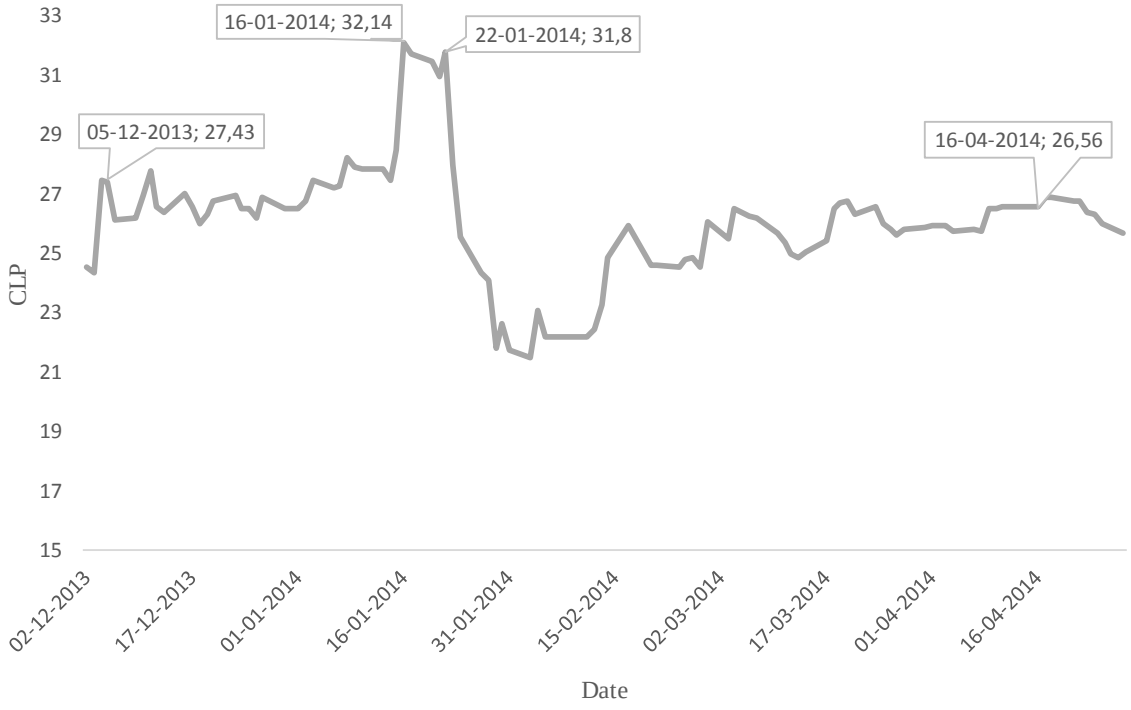
At the date when HL and CSAV confirmed the talks between the two firms, the CSAV stock price surged up almost 13%. This indicates that the market reacted positively to the announced merger plans. As can be seen from Figure 9, the initial 13% increase in the stock price was followed by a period of stabilization at around 26/27 Chilean Peso (CLP) the following month.

The next day of activity was on the 16th of January 2014 when unconfirmed rumors surged the media that a merger was pending and another 12% increase in the stock price was observed. However, these rumors were unconfirmed and the trades on that day was monitored for insider trading (Bauer and Fiscal, 2014). Moreover, on the 22nd of January when the rumors were confirmed by the signing of the MOU, the market actually reacted negatively and the stock price of CSAV decreased from 27.95 to 21.83 CLP. This corresponds to a drop of around 22% over five days.

The initial drop after the MOU was signed somewhat recovered during the months that followed up until the 16th of April when the binding agreement was signed. After which the stock price stabilized at around 25-26 CLP. After the 16th of April 2014, it is assumed that the market had priced in the merger as no major price movements were recorded until the merger took place at the 3rd of December 2014.

To summarize, the initial market reaction was positive with an increase in the stock price of 13% in December 2013. This was followed by another increase of 12% as rumors spread that the parties were close to an agreement. However, the market reacted negatively when the terms of the agreement was made public, i.e. after the 22nd of January 2014.

Figure 9: Stock price, CSAV



Source: Bloomberg, Own creation

4.4.5 Motivation

Since the transaction had more of the characteristics of a merger, as opposed to an acquisition, the motivation is viewed from both company's perspectives.

From the perspective of HL, the transaction was presented as a great strategic choice since the two companies' assets were complementary. In the annual report of 2014, HL CEO Rolf Habben Jansen describes the motivation behind the merger as HL becoming the market leaders in the North-South trade lanes. He describes this as important since: "*Size – and the associated economies of scale – is an unavoidable prerequisite for long-term commercial success and further growth in our industry*" (Hapag-Lloyd, 2015, p. 7). In other words, the combined volume would make the firm more competitive in the long run.

However, in earlier press releases and memorandums, HL emphasized how the two companies' operations were complementary and therefore a good strategic fit. In a press release from December 2nd 2014, Micheal Behrendt, the predecessor of Rolf Habben Jansen stated that HL´s already strong

position on the Asian and North Atlantic trade lanes would be combined with CSAV's strong position in Latin America. In Latin America, a combined firm would become market leader. In extension, this would enable the "new" HL to offer their global customers an even more attractive and extensive network with a larger range of products. Furthermore, HL calculated the synergies to at least USD 300 million annually from the merger, based on operational synergies (Hapag-Lloyd, 2014d). More specifically, the USD 300 million in synergies were expected to be reached by the financial year of 2019 and to come from the areas: ship system costs, the network of services, equipment, service procurement, personnel and IT. All these synergies were, back in the beginning of 2015, expected to be mostly utilized by 2017 and fully utilized by 2019. However, some effect of the cost synergies was expected to be achieved already during 2015 (Hapag-Lloyd, 2015).

CSAV's CEO, Oscar Hasbún, communicated at the date of the transaction that the two firms "*... fit together perfectly thanks to our complementary network, our customer structure, and our excellent professionalism and reputation*" in a joint communiqué with HL (Hapag-Lloyd, 2014d, p. 1). In an investor presentation by CSAV from February 2014, they justify the merger based on four factors: financial, strategic, operational and corporate governance. On the financial side, the USD 300 million per year in synergies were described as mostly related to cost savings that would be largely achieved by 2017. Furthermore, these financial synergies were presented by CSAV on different sub-divisions, namely: network optimization, terminals and intermodal, equipment, productivity and financials. The network optimization process concerned combining their network configuration and a more efficient use of the combined fleet. By fusing terminals and intermodal, the merged firm could standardize their procurement, standardize processes and create strategic partnerships. A combination of equipment between the firms would enable them to optimize imbalances and productivity. The productivity would in turn come from higher organizational efficiency, combined resources and a unified IT platform. The last of the financial synergies was the ability of the new firm to get more competitive financing source due to its size.

The strategic synergies discussed by CSAV as a motivation for the merger was that the combined firm would become a global company and rank fourth in the container shipping industry. Furthermore, the combined firm would have a strong market position in Latin America where they would be able to utilize economies of scale. However, other markets could also be utilized, as HL's

and CSAV's trade routes before the merger were complementary. These complementary trade routes were not only presented as a good strategic fit because it offered CSAV new business areas, but was also described as a diversification that could possibly reduce volatility and mitigate cyclicality for CSAV.

Lastly, the merger was motivated by CSAV as a focus-increasing activity since the combined entity only would focus on container shipping activities, a change from CSAV´s broad spectra of shipping services. Furthermore, all of the free cash flow that CSAV generated from the combined entity would be distributed as dividends to CSAV's shareholders (CSAV, 2014a).

4.4.6 Integration

To integrate the two businesses, HL initiated a three-point program:

Firstly, the plan of the integration between HL and CSAV was called "Cuatro". Cuatro was the integration plan that would enable the combined entity to achieve the USD 300 million in financial synergies by 2019. Noteworthy is that after the first half of 2015, these synergies were expected to be higher than the initial USD 300 million and the estimate was increased to USD 400 million already in the first half of 2015.

The integration of CSAV´s container shipping, project Cuatro, was a detailed plan crafted by HL to achieve operational synergies. In more detail, these synergies were expected to come from network, personnel, equipment, land operation, overhead and revenue. The combined firm would be able to improve the deployment of vessels, which would result in lower slot costs. These economies of scale were made possible through bundling volume on fewer and more profitable services. Furthermore, comparable services along major trade lanes were planned to be grouped and cargo-related costs were, thereby, expected to be reduced. Not only the services were intended to be merged, but also offices, headquarters and functions. Two headquarters in Hamburg and Chile were merged to one in Hamburg and nine regional headquarters were combined to four. Moreover, reduction of personnel, improved productivity and reduction of overhead costs (rents, service providers, insurances) were other measures proposed in order to realize synergies. By bundling transport volumes to the respective third-party agents, HL intended to optimize its network of these agents. In particular, third-party agents in the form of ports in South America were identified as an

area where more beneficial contracts and economies of scale could be achieved. However, inland business was also identified as a field where the increased volume could lead to better contracts through renegotiation. Lastly, the equipment of CSAV´s and HL´s container business could be combined at certain locations and synergies could be realized through reduced repositioning of empty container (Hapag-lloyd.com, 2015a).

In summary, the integration process of HL and CSAV entailed combining assets, such as offices, functions and operations, at places where these businesses overlapped. The increased volume at those places was then used to re-negotiate contracts with third-party agents and other suppliers. Furthermore, as functions such as finance, customer service, IT etc., could be combined, unnecessary functions were removed by reduction of personnel and offices, as nine regional offices became four. Furthermore, the goals set up by HL for a successful integration process included four key elements: preparation, training, transition and monitoring. Preparation involved implementing the new organizational structure and onboard staff. Training entailed executing training sessions and familiarize employees with the uniform systems. Incorporating CSAV's booking systems into HL's and move to a uniform pricing system was intended to transition the separate firms to a combined entity. Lastly, HL intended to implement a tracking system on several organizational levels to monitor the transitions (Hapag-lloyd.com, 2015c).

After the transaction, CSAV became the major shareholder of HL and thereby earned seats at the board of directors of HL. Consequently, the Chairman of the Supervisory board, Dr Jürgen Weber, stepped down to make place for Michael Behrendt. Behrendt was the current CEO of HL and the most important actor in making the merger a reality. Furthermore, the supervisory board members Dr Andreas Rittstieg and Ulrich Leitermann also stepped down as Oscar Hasbún Martínez, CEO of CSAV, and Francisco Pérez Mackenna, Chairman of CSAV, took their place (Hapag-lloyd.com, 2014e).

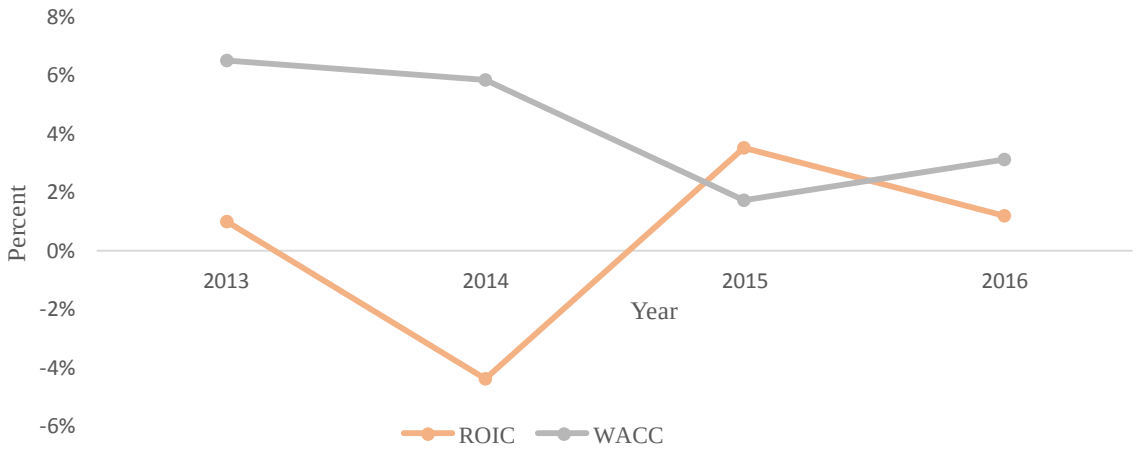
On the 26th of March 2015, as part of the integration process, Peter Ganz stepped down from his position as CFO for HL to make room for a new CFO appointed by CSAV. This appointed CFO was Nicolas Burr, who was the current CFO of CSAV (Hapag-lloyd.com, 2015b).

4.4.7 Profitability analysis

This profitability analysis focuses on a time period, as in the case of Maersk-PONL, both pre and post the merger. More specifically, the time period 2013 to 2016. The profitability analysis will present ROIC, profit margin, turnover rate, ROE and net income.

From figure 10 below, it is evident that HL's ROIC decreases drastically in the year of the merger (2014). From being positive in 2013, the ROIC decreases with 5,4 % down to negative 4,4 %. Thereafter, the ROIC grows drastically to 3,5%, the highest value in the observation period. In 2016, the ROIC decreases again, but remains positive. Furthermore, the ROIC fluctuates considerably, which is not uncommon in the shipping industry as seen in the previous case. These fluctuations are traced to variations in revenue due to the cyclic character of the industry. Moreover, ROIC only exceeds WACC in 2015. In the rest of the period, HL is not able to create value for their stakeholders.

Figure 10: ROIC, HL

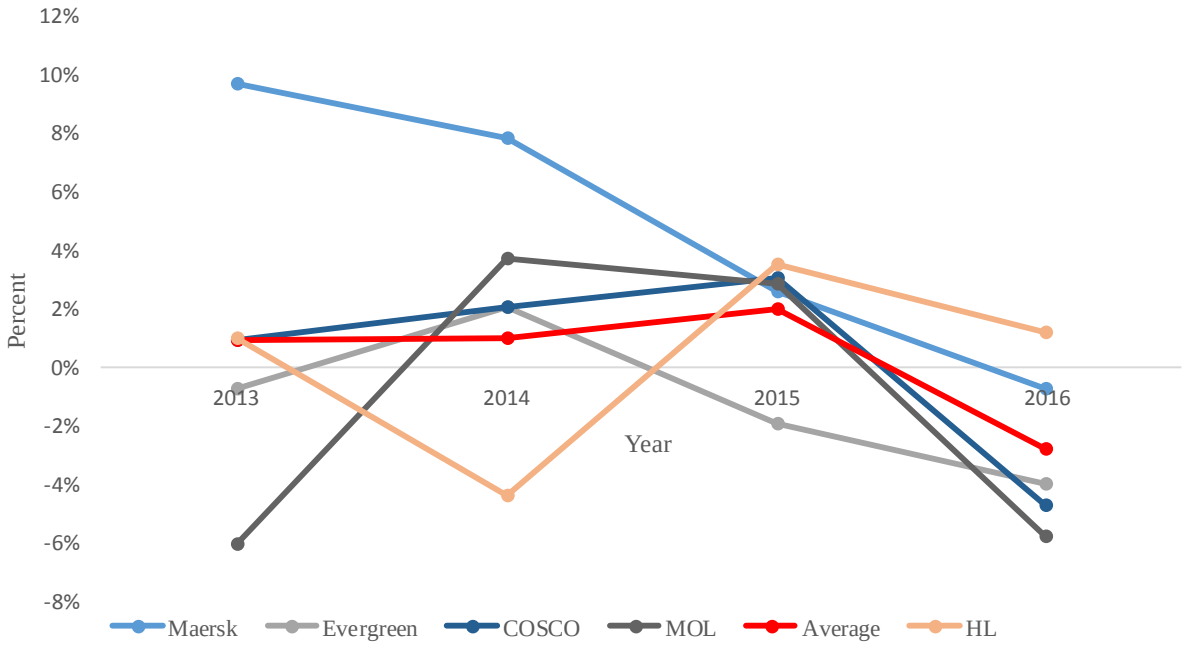


Source: Bloomberg, Own creation

In order to determine if the ROIC is in line with the industry, HL's return should be compared against its peers. As in the previous case, the top 4 carriers at the time of the merger that were publically listed will be used for comparison (see appendix 3). Hence, the peers selected for the

cross sectional analysis are: Maersk, Evergreen, COSCO and MOL. Figure 11 below displays HL´s ROIC compared to the peers. Just as HL, all peers are experiencing fluctuating ROIC, with the exception of COSCO. Noteworthy is that the firms have very different trends in the period 2013 to 2015. 2014 was considered a good year for the industry, as described in the market outlook, the ROIC´s were expected to increase compared to the previous year. However, both Maersk and HL experienced decreasing ROIC´s in this period. On the other hand, in 2015, the industry started to notice the oversupply of capacity and the carriers operated under challenging conditions. In this period, 3 out 5 companies are actually experiencing a growth ROIC. In 2016, the consequences of the overcapacity were unavoidable and as a result, all the companies experienced a great decline in ROIC. Lastly, HL's ROIC is above average all years, except 2014 in which the merger took place. In order to see what drives the movement in the ROIC, the ratio will be decomposed into profit margin and turnover ratio.

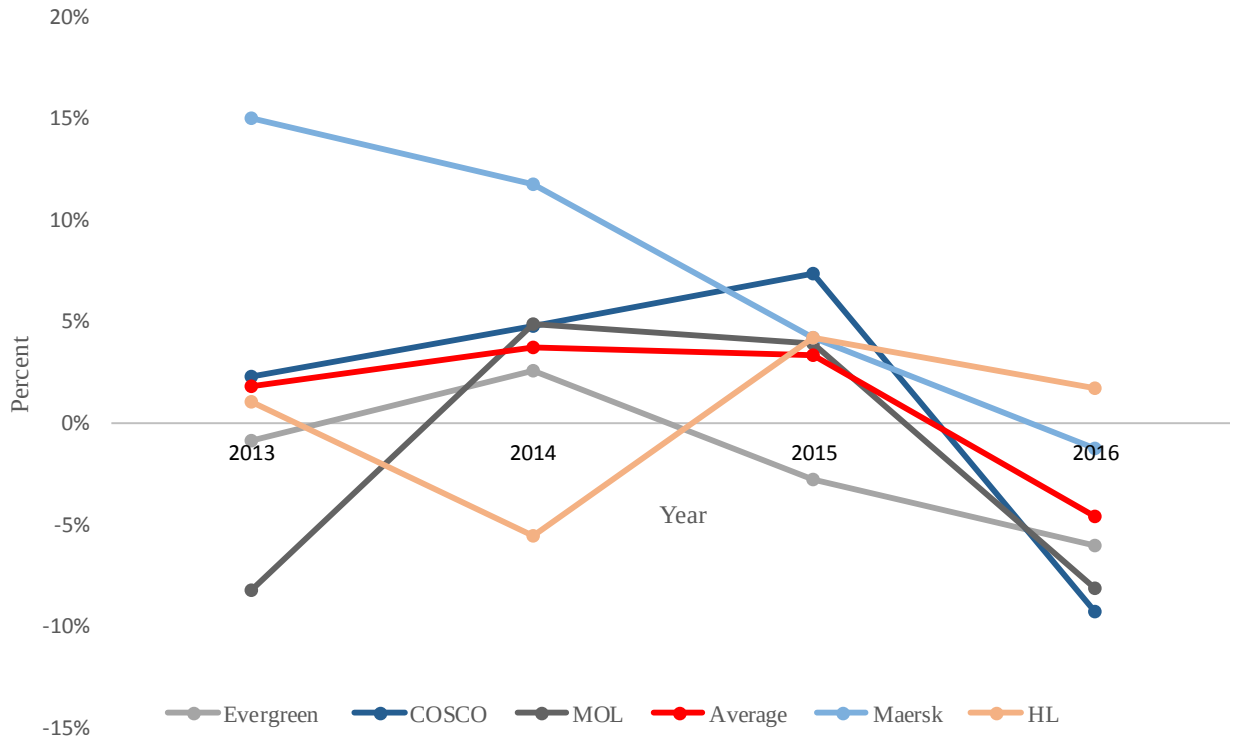
Figure 11: ROIC, Cross Sectional Analysis, HL



Source: Bloomberg, Own creation

Figure 12 below displays the profit margin of HL and its peers. The profit margins have very similar trend to that observed in the ROIC. Notably, the profit margin of HL is closer to the average in 2015 than observed for the ROIC. Secondly, the profit margin of HL declines less than its peers during the challenging conditions in 2016. They are actually the only carrier with positive profit margin during this period. This indicates that the company has very good control of their expenses and is still able to generate profits when freight rates are low. The ability to manage expenses might be a result of synergy effects achieved through the merger. Lastly, HL experiences growth in profit margin after the integration of CSAV. This growth is greater than the decline in 2014. In other words, the company's ability to generate profit seems to increase after the merger.

Figure 12: Profit Margin, Cross Sectional Analysis, HL

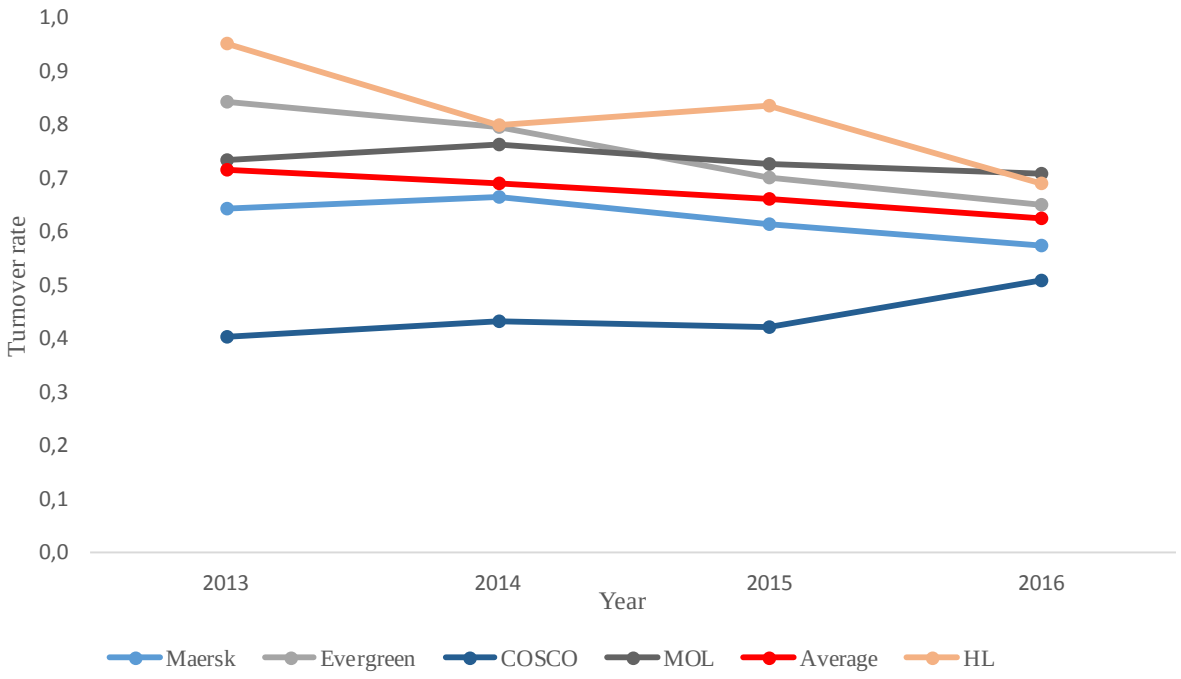


Source: Bloomberg, Own creation

In line with the Maersk-PONL case, the turnover rates for the chosen companies are all quite stable (Figure 13). On average the companies operate with a turnover rate between 0.6 and 0.7. COSCO has a turnover rate that is significantly lower than the others, which also drive the average down.

HL operates with the highest turnover rate on average and is above all its peers from 2013 to 2015. HL's rate follows a similar trend as observed in the ROIC and profit margin. In regards to the merger there are two noticeable factors. First of all, the turnover rate is at its highest in 2013. This means that the company has not been able to maintain its turnover rate after the merger. The decline in 2014 is expected, but the growth thereafter is less than the initial decline. An obvious explanation would be if CSAV operated with a lower turnover ratio and HL needed time to turn the business around. However, CSAV actually has a turnover rate of 0.16 in 2013 (see appendix 4), meaning that the HL is not able to operate the combined businesses at the same level as when they were separated. Secondly, it should be noticed that even at the low year of the merger, HL still has a turnover rate above the peers, implying a robust turnover rate.

Figure 13: Turnover Rate, Cross Sectional Analysis, HL



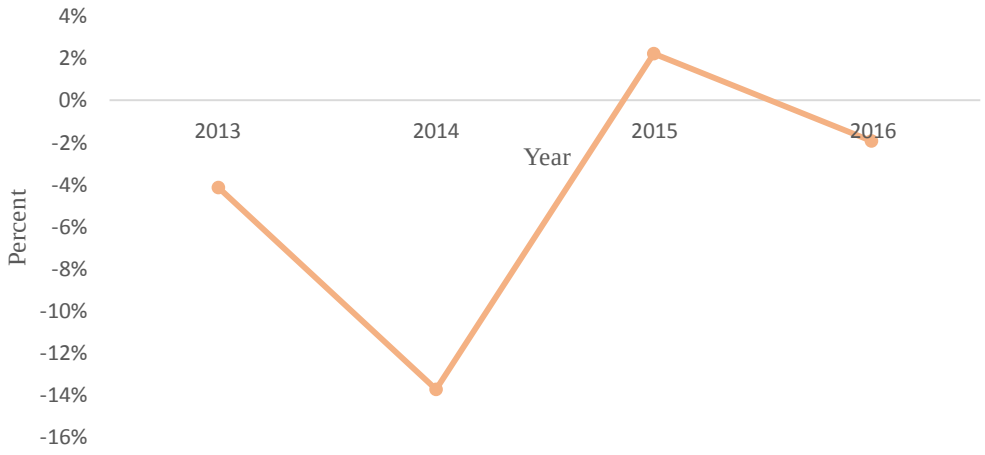
Source: Bloomberg, Own creation

The decomposition of ROIC showed that the profit margin is the main driver behind the ROIC for HL. This is clear from the very similar trends in the two measures. The turnover rate displays

similar trends, although with more limited movements. The turnover rate is also above the peers and contributes positively to ROIC. This is especially visible in 2015, when the ROIC of HL is above the peers for the first time in the observation period.

The next section examines HL's ROE to see how the company is able to provide return to their shareholders taking into account both operating and financial leverage (Petersen and Plenborg, 2011). Figure 14 below indicates that there is a great drop in ROE at the year of the merger. Thereafter, HL is experiencing an increased ROE, which exceeds the initial decline in the year after the merger. Hence, the net growth from 2013 to 2015 is positive. This is a clear indication that the merger has allowed the company to increase its return to investors. However, the company's ROE is only positive in 2015. A negative ROE suggests that the company is losing money. To understand what is driving this movement, it is necessary to look at the net income.

Figure 14: ROE, HL

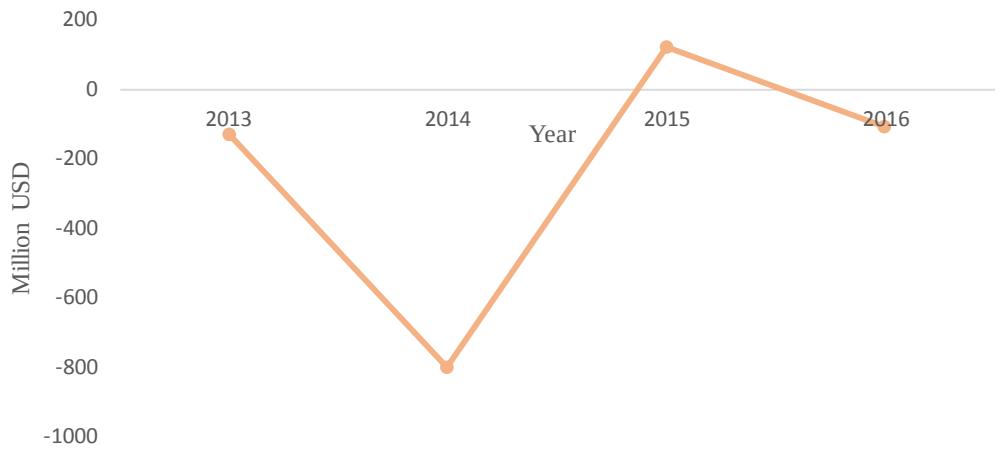


Source: Bloomberg, Own creation

From figure 15 it is clear that movement in ROE is directly related to the company's net income. There is a great drop in net income at the year of the merger. HL paid for the liner business of CSAV with stocks, which should not affect the income statement directly. It is therefore interesting to investigate the reason for the decline in net income. By looking closer at the income statement

of HL (see appendix 5), it is clear that the drop is a result of relatively higher growth in operating expenses than growth in revenue. First of all, the transportation expenses increased by 5%. This was due to an increase in costs of purchased services, i.e. a reflection of the higher transport volumes that came from CSAV in December. Additionally, other operating expenses rose by 6,7% as a result of expenses related to the acquisition. These included among others, legal and consultancy expenses and expenses related to the organizational restructuring following the merger. Personnel expenses also rose and there was a large one off expense related to onboarding and training of CSAV personnel. The inclusion of CSAV's performance also affected the net income negative. CSAV contributed with negative net earnings in December of approximately 3% of the total net result (Hapag-Lloyd, 2015).

Figure 15: Net Income, HL



Source: Bloomberg, Own creation

All of CSAV's container operations were not fully integrate into the financial statements of HL until 2015. In this year, the company achieved a positive net income as a result of high growth and positive ROE. As described in the market outlook, 2015 was also a challenging year in the industry. The fact that the company was able to turn around the negative ROE from previous years is a good indication that the acquisition had been a success.

From the analysis of the net income it is clear that expenses related to merger with CSAV has been the main contributor to the negative ROE. It is important to notice that the negative return in 2016 was expected as a result challenging market conditions. The positive net growth from 2013 to 2015 shows that the merger has increased the ROE. This suggests that the merger might have been positive for shareholders of HL, but that market conditions temporarily constrained sufficient return to equity holders.

4.4.8 Conclusion: The merger between Hapag-Lloyd AG and Compania Sudamericana De Vapores SA'S

This case analysis took a closer look at the merger between HL and CSAV in 2014. The merger was of cross continental characteristics, where the Chilean company was integrated into the German company. The combined firm became the fourth largest company in the industry and market leaders on some trade lanes. The credit rating companies reacted less positive about the merger, emphasizing the grim market outlook in the container industry and the high levels of leverage. The same was evident in the stock market, which reacted negative from a CSAV perspective when the terms of the merger were publicly announced.

The merger was mainly motivated by market power and economies of scale. The companies also emphasized that they were a good strategic fit, with complementing network and customer structure. The companies focused on combining the assets where the businesses overlapped. The increased volume also helped the merged company to re-negotiate new contracts and optimize the network. Furthermore, support functions were combined and unnecessary expenses were removed, facilitating for economies of scale. The integration reflected positive on HL's profitability. Both the ROIC and ROE had a positive net growth between 2013 and 2015. When comparing with peers, the company was the only carrier who was able to maintain a positive profit margin during the challenging year of 2016. This indicated good control of expenses and achieved economies of scale. An investigation in to company's net income also indicated that they should be able to generate positive ROE under more favorable market conditions.

Finally, it is necessary to conclude on the success of the merger. Even though the market was less positive, it can look like the merger was beneficial when reviewing the motivational factors. With

the combined volume and complementary services, HL was able to offer more attractive services and increased their market power. This also enabled synergy effects. Contrary to the previous case, the increased synergy estimates already in 2015 indicates that the integration went on smoothly and the service to customers remained at the same level or higher than before. According to Stopford (2009) the service level is of great importance and the company would not have been able to justify increased synergies without maintaining this factor. This also fits well with the findings in the profitability analysis, which indicated that the company´s operations were more profitable after the merger. The increased synergy effects and profitability suggest that the company achieved economies of scale. With improved market power and economies of scale, the authors find it reasonable to characterize the merger between HL and CSAV as successful.

5. Hypothesis Development

The main purpose of this study is to answer the question "Are M&As within the shipping industry value-creating to acquiring firms and if so, which firm or macro specific factors determine its success?". Hence, the first part of this question aims at investigating if it is value creating for acquiring firms to execute focus increasing M&As at all. The Maersk-PONL case indicates that no value was created to Maersk by performing the M&A. Even though the market reaction seemed positive to the announcement of the acquisition, the following profitability analysis indicated that the acquisition was value destroying rather than creating. The credit rating agencies did not change the ratings or outlooks of HL due to the announcement of a merger. This indicates that the merger was neither value creating nor destroying, at least not to debt holders of HL. On the other hand, the initial CSAV stock market reaction to the confirmed talks between the parties on the 5th of December 2013 was positive, indicating that the market liked the idea of a consolidation of some sort. Contrary to the Maersk-PONL case, the HL-CSAV shows clear indications of value creations. One indication of this is, for example, the cost synergies that were estimated to USD 300 million, but were written up to USD 400 million only six months after the M&A event. Hence, the results from the case analysis are contradictory regarding value creation to the acquirer. However, from the literature review it is evident that previous research indicates that M&As within the shipping industry are value creating. Panayides and Gong (2002) find a positive correlation between growth in stock prices and M&A announcements in the liner shipping industry. Similarly, Samitas and Kenourigos (2007) found that M&A announcements, at least, have an effect on the stock price for tramper shipping companies. Lastly, Alexandrou et al. (2013) find significant positive abnormal returns for the acquirer within a broad categorization of the shipping industry, including passenger transport among others. Moreover, they find that focus increasing M&As leads to larger shareholder gains than diversifying M&As. This study focuses solely on focus increasing M&A, i.e. M&As "within" the freight shipping industry. Even though the Maersk case indicates negative value creation from M&As, the literature and HL case suggest a positive value creation to the acquirer. There are therefore reasonable to believe that M&As in the freight shipping industry are value creating to the acquirer and the following hypothesis is stated:

- **H1***: There is a positive association between focus increasing M&As and value creation to the acquirer –*

The second part of the research question states "… which firm or macro specific factors determines its success?". This study therefore develops hypotheses grounded in the case analysis, supplemented with the literature review, to find interesting and, possibly, significant factors.

The Maersk-PONL case was an intracontinental merger, where the acquirer was a Danish company, while the target was a British/Dutch company. The HL-CSAV case on the other hand was a merger between a German and Chilean company, i.e. intercontinental. Due to the different outcomes of the cases, it might be possible that the level of value created depends on the geographical location of the two companies. From the literature review, Firth (1980) suggested that shareholders of the acquiring company gain if the target is located in another country. However, Yeo (2013) suggested that targets located closer to the acquirer are preferred due to a more effective information flow. This contradicts what was found in the case analysis as Maersk-PONL were located close to each other, but had vastly different management styles and problems in the integration process. Hence, inefficient information flow. On the other hand, no indication of problems with HL-CSAV´s integration process was identified. Nonetheless, the contradicting findings of Firth (1980), Yeo (2013) and the case analysis indicates that it is relevant to explore if there is a significant association between the acquirer and targets continental location and the value creation of the acquirer. Based on the findings in the case analysis the following hypothesis has been devised:

- **H2***: There is a positive association between intercontinental M&A and value creation to the acquirer -*

In the case HL-CSAV, the credit report from Moody's indicated that HL's high leverage was a potential threat to the stability of the firm. Moreover, Yaghoubi et al. (2016a) find that acquiring firms on average are less leveraged than comparable firms. However, the financial leverage of the

acquiring firm before the M&A in relation to value-creation has received little to no attention. In Moody's report of HL, they viewed HL´s high levels of debt as a negative factor that made them not increase the credit rating. Furthermore, in line with this, Stopford (2009) indicates that one of the most important costs of running a vessel is the capital repayment to cover interest, i.e. the financing strategy. The high levels of leverage in the industry, indicated by the HL-CSAV case, might make conventional financial synergies in this industry ineffective. According to Yaghoubi et al. (2016a) financial synergies from M&A usually takes the form of underutilized tax-shield in the separate firms, increased leverage and reduced risk of default. The already high levels of leverage in the freight shipping industry might make these purposed synergies ineffective or value destroying. Leland (2007) states that financial synergies are not always positive. Hence, there are circumstances where they go from synergies and value creating to value destroying. This might be because financial synergies, such as, underutilized tax shields before the M&A actually are over-utilized because of high leverage to the point where they only increase the risk of default. Increased leverage, suggested by Yaghoubi et al. (2016a) to be a consequence of M&As, then only increase the risk of default rather than expropriate any benefits. This is also exemplified in the Maersk case as they increased their leverage to pay for PONL. Hence, with HL's high leveraged identified as troublesome, Stopford's (2009) identification of the financing strategies importance in the industry and Leland's (2007) suggestion that financial synergies not always are positive, leads to the following hypothesis:

- **H3***: There is a negative association between leverage and value creation to the acquirer –*

From the review of the shipping industry in section 3.1, it is clear that the business cycle and economic state is very important for the companies´ performance. Moreover, the market outlook in the Maersk-PONL case indicates that the announcement was made in a period with high growth in demand and an optimistic view on the future. According to Bouwman et al. (2009) announcements made during such periods have considerably higher announcement returns. Furthermore, the 2005 market outlook also indicates that it was a "hot" acquisition year. Even if the optimism in such years are high, Rosen (2006) finds that M&A announced in such periods

performs no better or even worse than M&As announced at other time periods. The market outlook in the HL-CSAV case indicated that the market was in a period of depressed growth and low margins. Even if 2014 offered some recovery it was still from a very low level of growth. The low market valuation suggests that HL and CSAV should experience lower announcement returns (Bouwman et al., 2009). However, as previously stated, this was the first large M&A in the industry after the financial crisis indicating that the M&A was made in a "cooler" M&A period. Hence, following Rosen (2006), this case is more likely to be value creating than Maersk's even though the market conditions were worse.

Fusillo (2009) suggests that M&A activity will be desirable when the market is challenged with relatively low demand, excess capacity and low freight rates. The findings of Fusillo (2009), therefore fits well with the observations from the case study. Thus, previous literature regarding market state seems a bit contradictory when applied to the cases. However, it seems likely that timing could be a determinant of abnormal returns. The following hypothesis is therefore formulated:

- **H4***: There is a negative association between high market growth at the announcement date and value creation for the acquirer –*

Maersk acquired PONL and paid the company´s shareholders in cash by increasing leverage. HL on the other hand engaged in a merger with CSAV, where the shipping business of CSAV was exchanged for stocks in HL. Method of payment in M&As is a thoroughly researched area, but the results are mixed across different markets and time periods (Yaghoubi et al., 2016b). Based on this, it will be relevant to continue the research and investigate if there is a significant relation between method of payment and returns from M&As in the freight shipping industry. The hypothesis follows below:

- **H5***: There is a positive association between using stocks as payment method and value creation to the acquirer –*

From the case study, it is evident that Maersk was a large company. By just looking at the fleet size and the fact that Maersk was the market leader, one can deduct that the size in terms of assets and other financial indicators must be considered large. HL, on the other hand, is clearly smaller than, for example, Maersk. Maersk was operating a fleet of 1,67 million TEU in 2005 while HL operated 1 million TEU in 2016, i.e. after the merger with CSAV. The empirical evidence discussed in the literature review suggests that on average, smaller acquirers tend to gain abnormal returns, whilst larger acquirers tend to destroy value from M&As (Gorton et al., 2009; Moeller et al., 2004). Even though size is a relative term, it indicates that HL was more likely to experience abnormal returns from the M&A. This is also supported as HL-CSAV seems more value creating than Maersk-PONL.

Similarly, Alexandrou et al. (2013), found a significantly negative relationship between size of the acquirer and abnormal returns in the broader industry categorization of shipping. It would therefore be interesting to see if this relationship holds in the freight shipping industry as well. In line with the cases and previous research, the following hypothesis is proposed:

- H6*: There is a negative association between acquirer size before the M&A and value creation to the acquirer –*

The profitability analysis indicates that Maersk was a profitable firm in the year prior to the acquisition. The ROIC was above 20%, the second highest compared to peers and the profit margin was also above 20%, the highest of all peers. This is in line with Liu and Qiu (2013) who states that firms that participate in M&As on average are more profitable than comparable firms who does not merge or acquire. Polemis and Karlis (2016) find that acquirers profitability tends to decrease post M&As. As opposed to Maersk, HL presented profitability figures considerably lower than the same numbers presented by Maersk with a ROIC and profit margin at around one percent. Alexandrou et al. (2013), found that acquirer profitability prior to the M&A was significant and positively associated with value creation. The case study indicated that the more profitable firm, Maersk, created less value than the less profitable firm HL. Hence, contrasting the results of

Alexandrou et al. (2013). However, it seems likely that profitability prior to the M&A could be a determinant of value creation. In line with the cases, this study therefore purposes:

- **H7***: There is a negative association between profitability of the acquirer before the M&A and value creation to the acquirer –*

Previous research regarding the targets legal status, i.e. public or private, suggest that it is on average more profitable to acquire private companies (Yaghoubi et al. 2016b). Even if this factor has not been analyzed in the cases as both targets were publically listed, similar studies have found it significant (Alexandrou et al., 2013). It will therefore be deployed in this study as well to see if the freight shipping industry follows the generally accepted research. Since Alexandrou et al. (2013) found a significant positive relationship between acquiring private companies and value creation in a broader categorization of the shipping industry, the following is proposed:

- **H8***: There is a negative association between acquiring or merging with a private company and value creation to the acquirer –*

Cash holdings of the acquiring firm were not analyzed within the cases, but both Harford (1999) and Devos (2009) suggests that cash rich firms are destroying value by engaging in M&As. Even though both the studies indicate that cash has a significant effect on the value creation from an M&A, no study within the shipping industry has tested this relationship. That is, to the best of our knowledge. Based on this argumentation it would be interesting to investigate whether cash as a variable follows the same line in the freight shipping industry as in the general M&A research.

- **H9***: There is a negative association between cash at hand before the M&A and the value creation to the acquiring firm –*

According to Yaghoubi et al., (2016b) the market reacts differently to M&A announcements made by, so called, glamour firms and value firms. Here, previous research suggests that the markets

reacts negatively to M&A announcements by value firms and positively to M&A announcements made by glamour firms, also called growth firms. Alexandrou et al. (2013) also investigate this, but no significant relationship was detected. However, this hypothesized relationship is found in the general M&A literature and it would therefore be interesting to investigate the same in the freight shipping industry.

- **H10***: There is a positive association between the growth prospects in the acquiring firm and the value creation to the acquiring firm. –*

6. Event study

6.1 Data and Methodology

6.1.1 Data

In order to test our hypothesized relationships, data was gathered from several sources. Firstly, data on M&As where obtained from the Zephyr database. This data included announcement dates and identification numbers for both the M&A and the firms involved. It also included which stock market the acquirer traded on. The identification number for the acquiring firms and index together with the announcement dates were then transferred to DataStream where additional information regarding stock prices for the estimation and event period were gathered.

The sample was subject to some restrictions. These restrictions were imposed by the authors to make sure that the data used for analyzing were appropriate. First of all, this study is only looking at M&As from the somewhat arbitrary "freight shipping industry". To be able to do so, restrictions regarding industry were imposed in Zephyr to only include firms, both acquiring and target, belonging to the NACE.REV2 industry category 5020, "*Sea and coastal freight water transport*". This industry classification includes: "*transport of freight overseas and coastal waters, whether scheduled or not*" and "*transport by towing or pushing of barges, oil rigs etc.*" (European Commission, 2008, p. 238). It does not include: storage of freight, harbor operations and similar activities, cargo handling, and renting of commercial ships or boats without crew (European Commission, 2008). This generated a result of 1409 M&As. Another restriction was that the announced M&A needed to be completed. This generated a sample of 1172 events. Moreover, Zephyr database includes different kinds of events, such as IPO, which does not fall within the scope of this study. When restricting Zephyr to only include M&As, the sample decreased to 622 M&As. Lastly, to be able to do a detailed analysis of the acquiring firms in the sample, the acquirer had to be publically listed at the time of the M&A. This resulted in a sample consisting of 172 acquiring firms, or M&As.

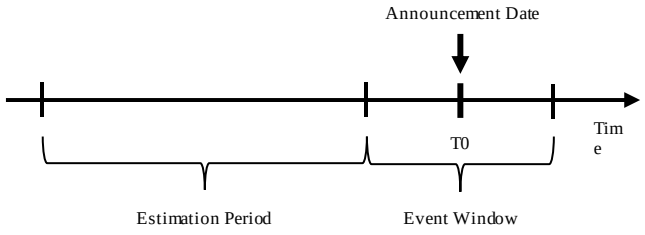
When conducting the analysis in Excel, the authors realized that some information needed to calculate the abnormal returns were missing. After cleaning the data based on this, the final sample analyzed consisted of 143 M&As.

Data for different firm and macro specific variables were gathered from DataStream. All variables measured in currencies were converted into dollars using the prevailing exchange rate of the observed number. All variables were estimated on one month prior to the announcement day of the M&A, which is in line with previous studies (Alexandrou et al., 2014). Accounting measures are the latest available prior to the M&A.

6.1.2 Methodology

To be able to estimate the abnormal returns (AR), which are an indication on how shareholders expect the transaction to effect on the company's future profitability, an adjusted market model was used. This is in line with similar previous studies (Harford, 1999; Alexandrou et al., 2014; Hayward, 2002). This method involves regressing the market return against the stocks returns in the estimation period to generate coefficients that then are used to compute the AR in the event window. To be able to achieve robust results, the estimation period was set to (-250, -11) before the event window (Figure 16).

Figure 16: Event timeline



Source: Own creation

According to Brown and Warner (1985) AR is calculated using:

$AR_{it} = R_{it} - E(R_{it}) \sim N(0, \sigma_i^2)$

Where: $E(R_{it}) = \alpha_i + \beta_i(R_{mt})$

R_{it} is the daily return of firm i on time t, R_{mt} is the daily return of the corresponding market index m on time t, and α_i and β_i are estimates from the estimation period in figure 16. Data on which Stock exchange and corresponding index the acquiring firms were trading on at the date of the merger were obtained. Thereafter, the corresponding data for the stock and indices were obtained and matched in order to estimate the parameters needed to calculate the AR. It is justified to use

the adjusted market model instead of the standard market model with parameters α and β set to one, as our sample only contains M&As where all acquirers belong to the same industry. In other words, the estimate beta in our sample would not be equal to one and the alpha is not equal to zero, but rather the shipping industries beta and alpha. This is in line with the study by Alexandrou et al. (2014).

Furthermore, the average AR (AAR) was also calculated for each day in the event window between (-5, 5) using the formula:

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{it}$$

where N equals the number of firms in the sample.

The Cumulative Abnormal Return (CAR) and the Cumulative Average Abnormal Return (CAAR) were obtained by using the following formulas:

$$CAR_i^L = \sum_{t=1}^{L} AR_{it}$$

$$CAAR_i^L = \frac{1}{N}\sum_{i=1}^{N} CAR_i^L$$

To be able to test the results for significance, the test-statistic Standardized Abnormal Return (SAR), were calculated by using:

$$SAR_{it} = \frac{AR_{it}}{\sigma_i} \sim N(0, \frac{1}{N})$$

where σ_i corresponds to the standard deviation of the AR for firm i and is estimated during the estimation period, i.e. from day -250 to -11 relative to the announcement day. The Standardized AR for the entire sample in time t was calculated using:

$$SAR_t = \frac{1}{N}\sum_{i=1}^{N} SAR_{it} \sim N(0, \frac{1}{N})$$

and the deduced test-statistic were then calculated using:

$$t_{AR} = \sqrt{N}(SAR_t) \sim N(0, \frac{1}{N})$$

Lastly, the test statistic for the CAAR, called Cumulative Standardized Abnormal Return (CSAR) was calculated using:

$$CSAR_i^L = \sum_{i=1}^{L} SAR_i^L \sim N(0, L)$$

and

$$CSAR_i^L = \frac{1}{N} \sum_{i=1}^{N} \frac{CSAR_i^L}{\sqrt{L}} \sim N(0, \frac{1}{N})$$

to arrive at:

$$t_{CAR} = \sqrt{N}(CSAR^L) \sim N(0,1)$$

All these formulas were used to arrive at the results of AR, AAR, CAR and CAAR presented in section 6.3 below. To be able to test the relationship between abnormal returns and characteristics of the firm and deals, this study will use an OLS regression, which is similar to the study of Alexandrou et al. (2014).

6.1.3 Variables

In order to test the second hypothesis, a proxy for region was created. Information regarding which country the acquiring and target firm was registered in at the point of the M&A was gathered from the Zephyr database. After that, intra-continental M&As were assigned a value of 0 and intercontinental M&As were assigned a value of 1. This method is in line with previous research such as Alexandrou et al. (2013).

In order to test the third hypothesis, a proxy for capital structure was gathered from DataStream. The exact formula can be seen in table 2 below. This proxy measures how leveraged the firm was at the closest available point before the M&A. This since leverage only can be calculated using accounting measures and not based on stock data.

In order to test the fourth hypothesis, a proxy measuring the market growth at the time of the acquisition needed to be developed. Our case analysis indicated that there was a large difference in the world's GDP growth rate between the two cases. Furthermore, as according to Stopford (2009) the state of the world economy is the most important demand driver in the shipping industry. This implies that using world GDP as a proxy for market growth is suitable. Alexandrou et al. (2013) further justify this by stating that an increase in GDP eventually will lead to increase in seaborne trade as imports and exports increase. This study will therefore use the annual world GDP growth in the year of the M&A as a proxy for market growth. This data is gathered from the World Bank (Databank.worldbank.org, 2017a).

Moreover, in order to test whether using stocks as payment method is positively related to abnormal returns, binary dummy variables were created for each of the alternatives: cash, stocks or other. The payment method was gathered from Zephyr database.

Furthermore, the proxy for size of the acquirer is measured as the logarithm of the market capitalization of the acquiring firm and gathered from DataStream. Moeller et al. (2004), use market capitalization in a similar event study done on all industries. It is therefore suggested to be a suitable measure for size. Moreover, the logarithm of market capitalization will be deployed in a similar manner to previous studies (Alexandrou et al., 2013).

Several proxies of profitability were used in the statistical model. Polemis and Karlis (2016) find that profit margin and return on assets (ROA) were statistically significant. Moreover, Alexandrou et al., (2013) uses operating profit margin and ROA as proxies for profitability. However, in that study, ROA was not significant and will therefore be disregarded in this study. This study will, in light of the cases, in addition to (operating) profit margin also investigate ROIC and earnings per share (EPS) as profitability measures. ROE was also considered, however, the high significant correlation between ROIC and ROE (0.916, significant at the one percent level) made one of them unnecessary. ROE was therefore disregarded.

Data that indicates whether the target was private or public at the date of the M&A announcement was gathered from Zephyr and a binary dummy variable was created (Public=0, Private=1). The value of the company's cash in the year of the M&A was gathered in dollar from DataStream.

In order to investigate whether the growth prospects of the acquiring firm had any significant relationship with the abnormal returns, the proxy market to book (MTB) value was gathered from DataStream. Yaghoubi et al., (2016b) states that acquirers with high market to book values tend to have a high share price indicating high recent growth. Based on this argumentation, MTB values will be used as a proxy for growth prospects.

Table 2: Variable Description and Source

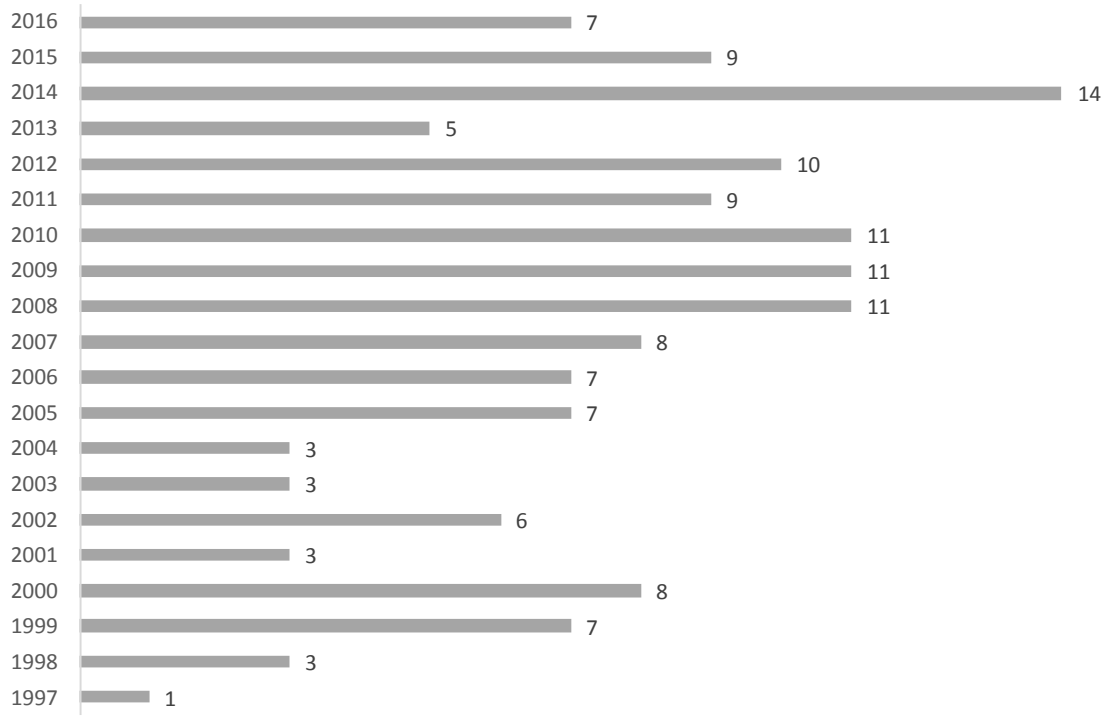
Hypothesis	Variable	Description	Source
2	Continental	1 if intercontinental, 0 otherwise	Zephyr
3	Capital Structure	(Long Term Debt + Short Term Debt & Current Portion of Long Term Debt) / Common Equity * 100	DataStream
4	GDP Growth	GDP growth rate world	World Bank
5	Payment method	Dummy variables e.g. 1 for stocks 0 others	Zephyr
6	LN(Size)	LN(Market Capitalization)	DataStream
6	ROIC	(Net Income – Bottom Line + ((Interest Expense on Debt - Interest Capitalized) * (1-Tax Rate))) / Average of Last Year's and Current Year's (Total Capital + Short Term Debt & Current Portion of Long Term Debt) * 100	DataStream
6	Operating Profit Margin	Operating Income / Net Sales or Revenues * 100	DataStream
7	EPS	This is the latest annualized rate that may reflect the last financial year or be derived from an aggregation of interim period earnings.	DataStream
8	Public/private	Public=0 Private=1	Zephyr
9	Cash	CASH represents money available for use in the normal operations of the company. It is the most liquid of all of the company's assets.	DataStream
10	Market-to-book	This is defined as the market value of the ordinary (common) equity divided by the balance sheet value of the ordinary (common) equity in the company	DataStream

Source: Own creation

6.2 Descriptive Statistics

To increase the replicability of the study, descriptive statistics are now presented. The following figure 17 and figure 18 describe the frequencies of the M&As distributed over years and countries respectively:

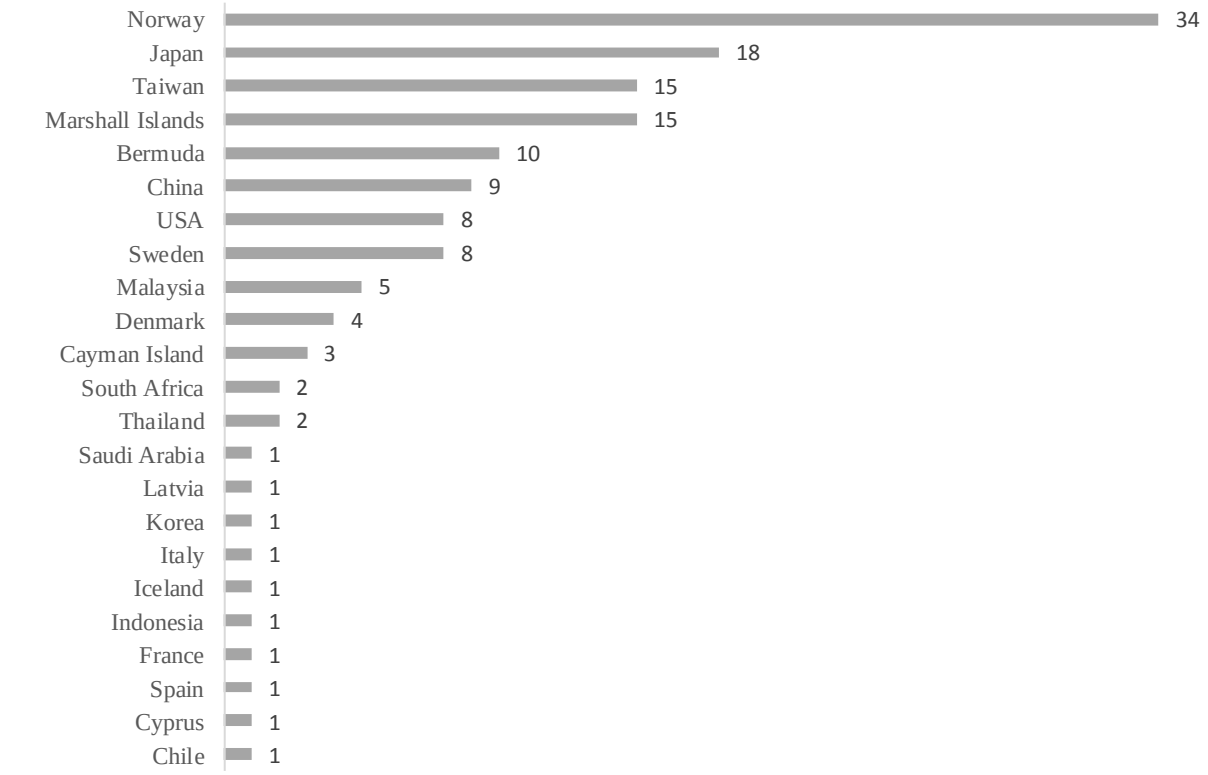
Figure 17: Number of M&A's, Anually



Source: Bloomberg, own creation

The M&As are distributed quite evenly over the years 1997 to 2016. The timespan over which the M&As have been performed covers both economic booms and recessions. Even if more M&As are represented after the financial crisis in 2008, a justifiable amount of the M&As are also conducted prior to the crisis. Furthermore, the number of M&As was peaking in 2014 (14) and the lowest number (1) of M&As was observed in 1997.

Figure 18: Number of M&A's, Geographically



Source: Bloomberg, own creation

Regarding geography, it is evident that the shipping acquiring countries are concentrated to a relatively small number of countries. Of the 143 M&As, the acquiring firms only came from 23 countries with Norway in the lead with 34 of the 143 M&As performed. However, the table also implies that the M&As are not concentrated to a specific region of the world, but are spread to several continents.

Below follow descriptive statistics for these acquiring firms.

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean
Capital Structure	137	0	924	155
GDP Growth	143	-2	4	3
LN(Market cap.)	138	11	22	15
ROIC	133	-41	75	7
Operating Profit Margin	138	-43	50	12
EPS	140	0	191	5
Cash	132	109	8000035	396077
MTB	140	0	5	1

Source: Own creation

The table presents the different variables that are of interest to this study. The availability of information regarding all variables and all firms restricts the use of certain data points as presented in the "N" column. The mean capital structure suggests that the firms in the sample on average have 1,55 times more debt than common equity. It also suggests that the average GDP growth in the world during the period was 3%. The minimum value of minus 2% was observed in 2009 due to the financial crisis. The minimum level of ROIC (minus 41%) was also observed in 2009 by the Danish tanker firm Nordic Tankers AS. However, an average ROIC of 7% in the period is reasonable. All other variables can be observed in the table and all monetary variables are presented in dollar, as discussed earlier.

6.3 Abnormal Returns

The results for the first hypothesis will now be presented. The Event Study results regarding AAR can be seen in the table below:

Table 4: Daily Average Abnormal Return (AAR) Around Day 0

Day	AAR	P	% Positive
-5.00	0.002	0.843	47.552
-4.00	0.003	0.119	45.455
-3.00	-0.001	0.428	44.755
-2.00	0.002	0.757	42.657
-1.00	0.002	0.104	50.350
0.00	0.004*	0.067	51.049
1.00	0.001	0.248	44.056
2.00	-0.005*	0.093	40.559
3.00	0.001	0.523	46.853
4.00	-0.002	0.495	45.455
5.00	-0.002**	0.031	39.860

*Significant at the 10% level
** Significant at the 5% level
Source: Own creation

The “days” column in the table represents days away from the announcement day of the M&A, which is day 0. At day 0, around 51% of the firms included in the sample had a positive AAR. It is also evident that the AAR on the announcement day is positive and significant at the 10% level. At day two and day five after the announcement, the firms in the sample had on average a negative return that was statistically significant at the 10% and 5% level respectively. Around 41% of the firms reported a positive AR on day two and the corresponding number for day five were 40%. In other words, on day two and day five after the M&A announcement, around 60% of the firms included in the sample reported negative AR. The results also indicate that the M&As announcements came as a surprise to the market. This since the results shows no indication of a statistically significant drift occurring before the announcement day.

In table 5 below, the results for the CAAR´s are presented:

Table 5: Cumulative Average Abnormal Return (CAAR) on different intervals

Interval	CAAR	Prob	Positive %
-3 to 1	0.0092**	0.0112	0.5455
-5 to 5	0.0061	0.9260	0.4965
-10 to 10	0.0081	0.2807	0.5315

*Significant at the 10% level
** Significant at the 5% level
Source: Own Creation

The intervals in the table indicate the different event windows described in section 6.1.2. At the interval (-3,1), the CAAR for the firms in the sample was positive and statistically significant at the 5% level. In this interval, almost 55% of all observed CAR´s were positive. In other words, the results indicate that the average CAR's during the event window is positive and significantly different from zero. However, event windows of (-5,5) and (-10,10) are also positive, but not statistically significant from zero. The corresponding percentages of firms that reported positive CAR's are also lower than for the event window (-3,1). The lack of statistical significance made us disregard those event windows and focus solely on the (-3,1) when testing firm and macroeconomic variables that might influence the number in the following analysis. A statistically significant event window (-3,1) is in line with similar studies and is therefore further justified when moving on in the analysis (Alexandrou et al., 2014).

6.4 Determinants of Abnormal Returns

Table 6 below presents the results of the OLS test for hypotheses H2 to H10. The vast majority of the tested variables show no significant relationship with the dependent variable. In other words, almost none of the variables show any significant relationship with CAR at a lower than 10% significance level. Based on this, it can be concluded that these variables perform poorly when it comes to explaining the variance in CAR's. This is also evident from the low R^2 numbers on all variables. However, one variable shows a significant relationship with CAR. Capital structure

shows a significant negative association with CAR's. The relationship is significant at the 5% level with a constant significant at the 1% level.

Table 6: Regression Results

Constant	0.006 (0.368)	0.220 (0,010)***	-0.004 (0.668)	0.009 (0.076)	0.019 (0.557)	0.007 (0.280)	0.007 (0.301)	0.010 (0.066)	0.016 (0.152)	0.007 (0.247)	0.020 (0.040)**
Intercontinental	0.010 (0.332)										
Capital Structure		-0.001** (0.038)									
GDP Growth			0.005 (0.127)								
Payment Stocks				-0.002 (0.913)							
LN(Market cap.)					-0.001 (0.739)						
ROIC						0.000 (0.598)					
Operating Profit Margin							0.000 (0.726)				
EPS								0.000 (0.610)			
Private									-0.008 (0.498)		
Cash										-0.000 (0.181)	
MTB											-0.010 (0.170)
Adjusted R^2	0.000	0.024	0.009	-0.007	-0.007	-0.005	-0.006	-0.005	-0.004	0.006	0.006
Valid N	142	136	142	142	137	132	137	139	142	131	139

*Significant at the 10% level
** Significant at the 5% level
*** Significant at the 1% level
Source: Own creation

7. Analysis

7.1 Case Analysis

As noted in the case introduction, one of the reasons for including cases was in order to present circumstances around a typical freight shipping M&A that an event study is unable to capture. The information found that was not covered by the event study will be analyzed below.

First of all, as the CEO of PONL, Philip Green, recommended the offer from Maersk to the shareholders, it seems likely that the takeover was friendly rather than hostile. Moreover, the transaction between HL and CSAV is referred to as a merger by the parties involved, it is therefore not considered hostile. However, just as Schwert (2000) argues, the term hostile is a bit arbitrary and no clear definition of the term exists. Nonetheless, non-hostile transactions are more likely to be value creating than their opposite (Yaghoubi et al., 2016b). Hence, the preferred choice in both of the cases was a friendly rather than hostile takeover.

The analysis of the integration process indicates that Maersk experienced integration problems in both IT and the general organization. This resulted in a lower service level than before the acquisition, as customers and employees were lost. In contrast, the increased synergy calculations already in 2015 in the HL-CSAV case indicates that the integration went on smoothly and that the service to customers remained at the same level or higher than before.

Even if both Yeo (2013) and Das (2011) suggest that M&As executed in the home region, in this case Europe, has an increased probability of success, it seems like the attitudes and management styles were widely different in the Maersk-PONL case. Maersk seems, prior to the acquisition, to have adopted more of an exclusive style with inner city addresses and robotic approach, whilst PONL put effort and resources in being close to their customers and offer good service. Yeo (2013) concluded that M&As in the home region are more successful because the information flow is more efficient. However, the Maersk-PONL case suggests that even though the geographical distance was short, the distance in organizational cultures was vast and resulted in inefficient information flow. If the inefficient information affects the customer services, as in the case of Maersk-PONL, it is suggested to be value destroying since customer service is identified as a highly important factor in the freight shipping industry (Stopford, 2009). On the other hand, no indication of

problems with HL-CSAV´s integration process was identified. The success might be attributed to a clearer division of labor in the case of HL-CSAV than Maersk-PONL that did not affect important organizational infrastructure, such as customer service.

Stopford's (2009) identification of the importance of customer relationships might also be the reason why the consolidation in both the cases was friendly rather than hostile. As suggested by, Gürtler and Kräkel (2009), hostile takeover often result in management conflict, something that both Maersk and HL might have had in mind prior to the M&As as not to affect the service levels. Even if Maersk was unable to maintain these levels post the acquisition, it is suggested to be attributed to the distance in organizational cultures and IT problem, not as a result of a hostile takeover.

Regarding motivations behind the M&A, the Maersk-PONL transaction was motivated by growth and market power, enhanced network and increased offer to customers, efficient supply chain and cost synergies. As stated in the case, organic growth was hard to achieve at this point in time due to a lack of ship capacity (ajot.com, 2005). This is in line with what Das (2011) found, namely that organic growth in the shipping industry is a slow process and the only viable option is to consolidate in order to achieve it. Market expansion through related acquisition is also identified as one of the most common motives behind an M&A. Theses focus increasing activities are also suggested to be more value creating than M&As used as a diversification strategy (Vazirani, 2015; Yaghoubi et al., 2016b). In a similar manner, the HL-CSAV transaction was motivated by HL as a way to achieve operational synergies. As stated by Stopford (2009), both bulk shipping and liner shipping are very dependent on managing the cost of operating the vessels. It might therefore be considered natural for firms to consolidate in order to achieve economies of scale. Even if CSAV described it as a good diversification strategy to increase their number of trade routes, it is still a focus-increasing merger as both firms operate within the same industry and at the same level in the value chain.

Considering the poor market conditions and industry characteristics, only operating synergies motivates both cases. Financial synergies such as tax-shield benefits, lower default costs and increased leverage are never mentioned in this case. Financial synergies are indicated by previous

research to be a consequence of M&A activity (Lewellen's, 1971; Leland, 2007; Yaghoubi et al., 2016a). This is something that seems to have been less considered in both cases.

7.2 Event-study

This study set out to investigate if M&As within the shipping industry are value creating to the acquirer. Previous literature on the area of value creation following an M&A has found robust evidence that target firms gain. The literature on whether the acquiring firm gains or not is inconclusive, showing negative or insignificant relationship between value creation to the acquirer and M&A (Yaghoubi et al., 2016a). However, from the inconclusiveness of previous research, it is evident that some firms actually experience positive returns (King et al. 2004).

Our case analysis indicated, in line with previous research on general M&As, that the value creation from M&As within the freight shipping industry was inconclusive. The positive gains to HL and the negative reactions to the Maersk M&A gave us reason to investigate the value creation in the freight shipping industry further. The statistical analysis on this relationship concluded that there is a significant positive relationship between value creation and M&A announcements for acquiring firms performing horizontal M&As. Hence:

- Fail to reject hypothesis 1 –

In other words, the analysis indicates that it is on average value creating for acquiring freight shipping firms to engage in M&As with other freight shipping companies. This result is contrasting to most of the general M&A research (Yaghoubi et al., 2016a). However, it is in line with previous studies in the "broader" shipping industry categorization (Alexandrou et al., 2014) and contradicting to others (Polemis and Karlis, 2016).

According to Heaver et al (2000), shipping firms have historically gained from vertical integration as, for example, the integration of ports have led to an increase in barging power for the shipping firms and a decreased bargaining power for the ports. The study's prophecy was that the trend of vertical integration would continue. Today, the troubled freight shipping industry has a strategic motive to consolidate horizontally, this to achieve cost reductions through economies of scale.

Consolidating horizontally within the freight shipping industry seems on average to be value creating to the acquirer. One of the main motives, seen in both cases, was cost reduction by pooling resources and assets. In other words, to achieve economies of scale or lower cost per unit transported. The cost of running the ship is, according to Stopford (2009) a vital part to manage in the freight shipping industry. With this knowledge one might deduce that the industry successfully achieves cost reductions in running the ship on average and thereby creates value by consolidating. That is, assuming that the consolidation does not affect the demand, which it might if the lower cost equals lower price, speculating in terms of the supply and demand framework in the industry presented in section 3.1 (Stopford, 2009). However, that effect is likely to be minor for each single M&A.

The second objective of this study was to investigate which, if any, variables that determine the likelihood of a successful M&A within the freight shipping industry. When looking at the results of what factors that determines value creation, the following can be concluded:

- Hypotheses 2,4,5,6,7,8,9,10 can be rejected-

In other words, the analysis is not able to say anything about these variables. For example, the intercontinental vs. intracontinental variable does not show any significant relationship to value creation, even though previous research in the literature review presents evidence for such association (Yaghoubi et al., 2016b; Moeller and Schlingemann, 2005; Conn et al., 2005; Kiymaz and Mukherjee, 2000). Similarly, this study does not find any significant association between the market cycles, measured by GDP growth, and value creation. Previous studies have indicated that the macro environment is expected to affect the performance post-M&A and that, in general, M&A announcements made during high market valuations have higher returns (Yaghoubi et al., 2016b; Bouwman et al., 2009). No significant association between payment method and value creation was found either. However, the literature regarding payment method and returns is inconclusive across different markets and time periods (Yaghoubi et al., 2016b).

One of the most established negative associations is that between size of the acquirer and return (Gorton et al., 2009; Moeller et al., 2004). This study, more surprisingly, does not find any significant indication of size´s effect on returns in the freight shipping industry. Neither did this study find any significant relationship between profitability of the acquirer before the M&A and return. This is also somewhat surprising, as previous studies in shipping have established a significant positive association between acquirer return and profitability before the M&A (Alexandrou et al., 2014). However, that study focuses on a broad term of shipping industry including passenger transport and investigates both focus increasing and diversifying M&As, which might explain the difference. Moreover, no significant relationship regarding the targets legal status (public or private) could be established, although the literature review suggests that it is more profitable to acquire privately held companies (Yaghoubi et al. 2016b). The literature review further suggested that cash rich firms are less successful on average when it comes to M&As (Harford, 1999; Devos, 2009). No significant relationship between cash and returns could be established in this study. Lastly, several previous studies have investigated the relationship between TOBIN´s Q and returns (Bhagat et al., 2005; Ming et al. 2006; Moeller et al. 2004). This study used an approach in line with, Alexandrou et al. (2014), to measure the growth prospects of the acquirer, but no significant relationship was established here either.

On the other hand, the relationship between leverage of the acquirer prior to the M&A and value creation to the acquirer indicates a significantly negative relationship. Hence:

- Fail to reject hypothesis 3 –

This indicates that firms with higher debt to equity ratio create less value from consolidating horizontally. One can speculate that firms with high leverage ratios have high interest expenses.

As elaborated on in the hypotheses development, the high levels of leverage in the industry might make conventional financial synergies in this industry ineffective. When interpreting the results, this seems to be correct. According to Yaghoubi et al. (2016a) financial synergies from M&As usually takes the form of underutilized tax-shield in the separate firms, increased leverage and

reduced risk of default. The already high levels of leverage in the freight shipping industry might make these purposed synergies ineffective or value destroying. Leland (2007) states that financial synergies are not always positive. Hence, there are circumstances where they go from synergies and value creating to value destroying. This might be because financial synergies, such as, underutilized tax shields before the M&A actually are over-utilized because of high leverage to the point where they only increase the risk of default. Increased leverage, suggested by Yaghoubi et al. (2016a) to be a consequence of M&As, then only increase the risk of default rather than expropriate any benefits. This argumentation seems to be supported by the result of the analysis of determinants. Interestingly, financial synergies or consequences were never mentioned in any of the cases this study analyzed.

Accordingly, the correct, value creating, decision by highly leveraged firms might not be to reduce operating costs by consolidating, but to first manage their financing strategy as they might have debt levels above the optimum. Stopford (2009) concludes that the financing strategy in the industry is of huge importance, something that the results of this study supports. However, the speculative level of this discussion is high. What can be concluded is that consolidation within the freight shipping industry is, on average, less value creating for higher leveraged firms.

8. Conclusion

This study was conducted in order to investigate the value creation to acquirers that engage in consolidation activities horizontally in the freight shipping industry. The study will also contribute to the existing literature regarding consolidating activates within the shipping industry. An industry believed by the authors to lack comprehensive research due to its broad definition. This study focuses solely on the freight shipping industry and ignores other parts, such as passenger transport as that sector is believed to have other demand drivers (Stopford, 2009). In order to provide an answer to the research question of this study, a mixed research method was used by applying two cases followed by an event study. Hence, both inductive and deductive approaches were used. The inductive approach of using cases was performed together with an extensive literature review to deduce hypotheses and present circumstances around M&As in the freight shipping industry not captured by an event study. The hypotheses were then tested for significance and all conclusions drawn were generated through the deductive method as it has a higher level of generalizability. With the hypotheses in place an empirical event study was performed followed by regressions with hypothesized determinants of value creation, in line with similar previous research (e.g. Alexandrou et al., 2014).

First of all, the relationship between value creation to the acquirer and M&As was found to be significantly positive. In other words, it is on average value creating for acquiring firms to engage in horizontal consolidating activates in the freight shipping industry. The literature regarding this relationship in other industries is inconclusive, but several studies indicate a negative relationship (Yaghoubi et al. 2016a). Hence, this study´s contribution to literature is of a contradictive nature.

Furthermore, the second objective of this study was to determine which factors, if any, that could determine the success or failure of the acquirer when engaging in horizontal M&As in the freight shipping industry. The sample size, with 143 events and the nature of M&A research made it hard to draw any significant conclusions and the explanatory power of all variables was low. However, one variable showed a significant negative relationship with value creation. Namely, the leverage ratio. The results indicate that firms with a higher leverage ratio before an M&A are able to create less value from engaging in horizontal M&A activates than firms with lower ratios of leverage.

So,

"Are M&As within the freight shipping industry value-creating to acquiring firms and if so, which firm or macro specific factors determines its success?"

First, yes, horizontal integrations within the freight shipping industry are on average value creating to the acquirer. Secondly, from the factors tested in this study it is suggested that the capital structure of the acquiring firm to some extent determines the success of the M&A.

8.1 Implications and suggestions for future research

The implications of the above presented results are that the freight shipping industry is gaining from consolidating activities. If the acquirers are able to create value on average, it means that they are successful in extracting synergies from these activities. These synergies can come in the form of economies of scale or other cost reductions per unit, but the scope of this study leaves this for future research. However, one can deduce that firms with high leverage before the M&A should act with caution when considering consolidating activities as these firms on average create less value. One possible explanation for this can be that firms engaging in horizontal integration for the sake of economies of scale or cost reductions are on average successful. However, firms engaging in these activities when the main cost issue for the firm is interest payments and other high debt related problems, might focus on reducing the wrong type of cost. These firms are therefore suggested to first identify what actually drives the total costs. It might be needed to consider the financing strategy before consolidating for operational cost reductions. Stopford (2009) supports this and suggests that financing strategy within the industry is of huge importance. Nonetheless, this is only one possible explanation. Another could be that firms with high leverage increases their cost of default by acquiring firms that possibly also are leveraged. It could also be a combination of the two explanations. Future research is therefore also suggested to further investigate what makes firms with high leverage less successful.

Something that fell outside the scope of the event study was whether the takeovers were hostile or friendly. The case analysis suggested that friendly was chosen over hostile since firms might be cautious not to affect important infrastructure, as it could have a negative influence on customer

service levels. However, these speculations were never empirically tested. Thus, future research is encouraged to investigate this further. The case analysis further indicated that Maersk had problems in the integration process of PONL. As a result, they lost both customers and employees. On the other hand, the case analysis of HL indicated no integration problems. Future research is therefore suggested to investigate further what drives a successful integration process in the freight shipping industry. In addition, the Maersk-PONL case analysis indicated that differences in organizational cultures was a contributing factor to the lack of success in that case. However, the study did not empirically investigate or test this assumption any further. Future research is therefore suggested to focus on organizational cultures and their effect on M&A performance in the shipping industry.

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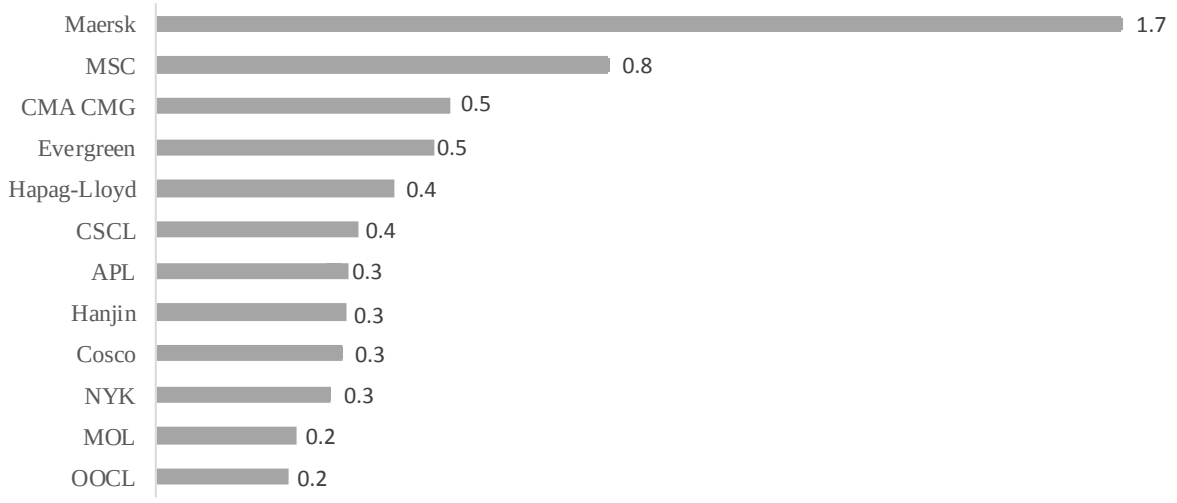
Appendix 1 Fleet size primo 2006, Million TEU



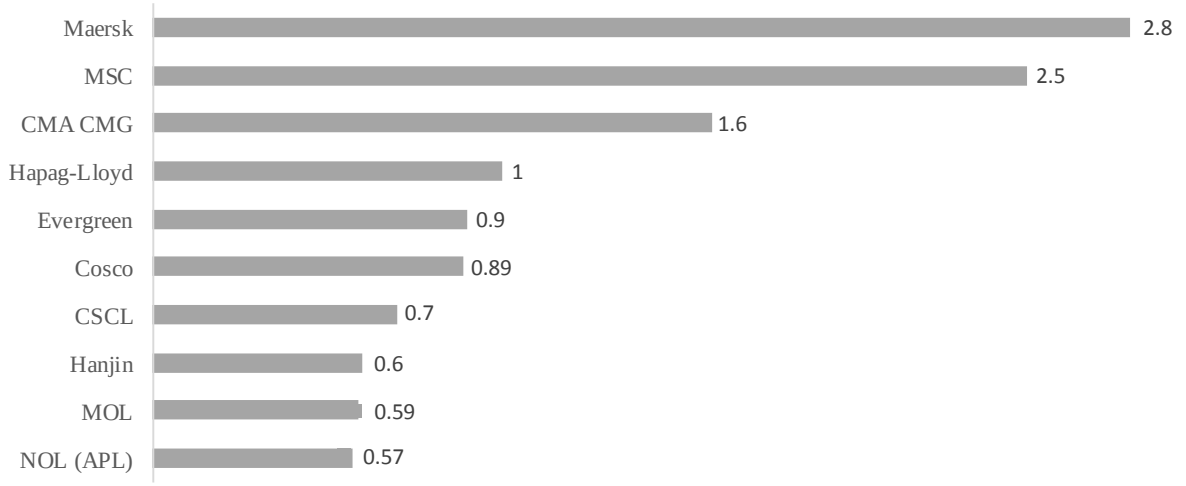
Source: Alphaliner, Own creation

Appendix 2: Legend Table Turnover Rates, Maersk Case

	2004	2005	2006	2007	2008	2009
Maersk	0.90	0.89	0.87	0.87	0.93	0.76
Cosco	0.77	0.96	1.15	1.13	1.11	0.53
Evergreen	1.00	1.06	1.19	1.11	0.95	0.66
MOL	0.97	1.05	1.01	1.01	1.10	1.01
APL	1.55	1.58	1.60	1.76	1.78	1.21
PONL	2.02	-	-	-	-	-
Average	1.04	1.11	1.16	1.17	1.17	0.83

Source: Bloomberg, Own creation

Appendix 3: Fleet size primo 2015, Million TEU



Source: Alphaliner, Own creation

Appendix 4: Legend Table Turnover Rates, HL Case

	2013	2014	2015	2016
HL	0.95	0.80	0.84	0.69
Maersk	0.64	0.66	0.61	0.57
Cosco	0.40	0.43	0.42	0.51
Evergreen	0.84	0.79	0.70	0.65
MOL	0.73	0.76	0.73	0.71
CSAV	0.16	-	-	-
Average	0.72	0.69	0.66	0.63

Source: Bloomberg, Own creation

Appendix 5: Operating Income Statement, HL

In Millions of USD	FY 2013	FY 2014	FY 2015	FY 2016
12 Months Ending	**12/31/2013**	**12/31/2014**	**12/31/2015**	**12/31/2016**
Revenue	**8,723.6**	**9,043.7**	**9,814.5**	**8,560.5**
% Growth	-100.0%	3.7%	8.5%	-12.8%
+ Sales & Services Revenue	8,723.6	9,043.7	9,814.5	8,560.5
Gross Profit	—	—	—	—
+ Other Operating Income	111.8	148.3	169.4	82.8
- Operating Expenses	8,872.3	9,520.7	9,654.4	8,530.3
% Growth	-100.0%	7.3%	1.4%	-11.6%
+ Selling, General & Admin	16.3	14.9	20.6	14.9
+ *General & Administrative*	*16.3*	*14.9*	*20.6*	*14.9*
+ Research & Development	9.8	9.4	6.0	7.5
+ Depreciation & Amortization	432.2	470.7	515.7	532.4
+ Prov For Doubtful Accts	-47.8	-6.5	-30.6	-22.6
+ Other Operating Expense	8,461.8	9,032.3	9,142.7	7,998.0
Operating Income (Loss)	**-36.9**	**-328.8**	**329.5**	**113.0**

Source: Bloomberg, Own creation