



Bachelor Thesis

First and last name:

Amira Voß

Title:

Consolidation in the Shipping Industry – An analysis of Causes and Recent Developments

Date of submission:

19.02.2018

Supervising professor: Prof. Dr. Natalia Ribberink

Second examiner: Prof. Dr. Matthias Thulesius

Faculty of Business & Social Sciences

Department of Business

Foreign Trade and International Management

Abstract

Consolidation plays an important role in today's global container shipping industry. This bachelor thesis aims at analysing to which extent shipping lines need to undertake consolidation measures in order to survive in their industry. This research is carried out in the following manner: First, theoretical information on consolidation, different forms and their implications is provided. Second, the market structures and competition in the global shipping industry is examined. Lastly, practically applied examples are presented, recent developments in the industry examined and future scenarios of consolidation reasoned.

The research question is not easily and clearly answered. However, it can be said with certainty that the consolidation wave will continue in the near future and that the main problems of overcapacity and low freight rates do not seem to be solved yet.

As long as competition and antitrust authorities carry on approving the transactions and as long as the financial market provides the necessary loans, consolidation in the global shipping industry will continue.

With the findings of this bachelor thesis a cause analysis was created, which includes current problems and recent developments. It could serve as a basis for further research, perhaps to create a quantitative index that measures the concentration in the industry.

Keywords: Consolidation, Cooperation, M&A, Shipping industry, Container shipping lines, Ocean transport, Freight

JEL Classification: D43, F10, F21, G34, L91, R41

I List of contents

I List of contents	III
II List of figures and tables.....	IV
III List of abbreviations	V
1 Introduction.....	1
1.1 Research Problem	1
1.2 Course of investigation	3
2 Cooperation and consolidation	5
2.1 Forms of cooperation and consolidation	5
2.2 Reasons and motivations for consolidation.....	14
2.3 Benefits of consolidation	19
2.4 Challenges and risks of consolidation.....	23
3 Competition in the global shipping industry	29
3.1 Market structures	29
3.2 Competitive challenges.....	34
4 Consolidation in the global shipping industry.....	40
4.1 Strategic approaches to market consolidation	40
4.1.1 Vessel sharing agreements in the shipping industry	40
4.1.2 Mergers in the shipping industry.....	46
4.1.3 Acquisitions in the shipping industry.....	51
4.2 Scenarios for future market consolidation	56
5 Conclusion.....	61
5.1 Summary	61
5.2 Critical Acclaim	67
5.3. Outlook	68
IV List of references	VI
V Declaration of Originality	XVI

II List of figures and tables

Fig. 1: Business consolidation and cooperation	p. 5
Fig. 2: Sequence of a failed acquisition	p. 26
Fig. 3: Business consolidation and cooperation applied to the global container shipping industry	p. 39

III List of abbreviations

JV	Joint Venture
M&A	Mergers and Acquisitions
TEU	Twenty Foot Equivalent Unit
BAF	Bunker Adjustment Factor
ULCV	Ultra-Large Container Vessel
VSA	Vessel Sharing Agreement
GRI	General Rate Increase

1 Introduction

1.1 Research Problem

Business combination or consolidation refers to the connection of previously legally and economically separate and independent companies in which the autonomy of at least one of the partners is affected or completely given up. Consolidation measures pose important instruments for company development. In contrast to slower, steady organic growth, approaches, especially merger and acquisition activities, can mean a quick change of structures and size of a company. There are many different forms of consolidation approaches which differ in their extent to which the affiliated companies are being fused, if at all. Further, the motivations and reasons behind cooperative or consolidation approaches are wide-ranging and to some extent individually driven in regard to incidents in the industry in which the companies are operating. Additionally, the probable benefits and risks have to be analysed and compared beforehand in order to ensure a successful transaction.

The global shipping industry was truly developed with the emergence of container box shipping in the mid-20th century. Since then, the market conditions and its participants transformed from a polypolistic market to more oligopolistically characterised structures. Over the years, many shipping lines had to face a multitude of obstacles and problems which aggravated after the financial crisis in 2008. In literature, it is often referred to as a “crisis in shipping” which has been going on for the past decade. These developments have shaped an industry in which the participants struggle to survive.

Approaches to consolidation undertaken by container shipping lines in the global shipping industry have for many years been attempts to strengthen themselves financially through consolidation measures, improve their competitive position and ultimately survive in the industry.

Many developments that have happened to some carriers clearly show that many shipping lines are in financial trouble. Cooperating with competitors and possibly even consolidating seems to be an attractive option for a large number of them. As long as antitrust and competition authorities approve such measures, there are no

initial legal barriers. Finding suitable consolidation partners in competition seems to be one of the biggest challenges.

Despite all this, more and more carriers have come together over the years to form alliances, have merged into larger companies, have taken over others or have been taken over themselves.

This bachelor thesis aims to analyse to which extent container shipping lines need to undertake consolidation measures in order to survive in the global shipping industry. Focus will be on providing some theoretical background information, examining the structures of the global shipping industry and lastly reviewing three practical examples. In doing so, findings will be concluded, and the research question will be answered in the end.

1.2 Course of investigation

Based upon the research problem postulated in chapter 1.1, theoretical information will be provided in chapter 2 to present a basic understanding of cooperation and consolidation and their concepts. It is intended to provide the reader with a comprehensive overview of a very complex and wide-ranging topic, which is the basis of many research projects itself.

Special importance will lie on presenting different forms of consolidation measures and their implications in terms of motivations, benefits and risks. Companies' actions and the reasons behind their consolidation activities will be examined. Interlocking with motives, the possible benefits of successful consolidation measures will be investigated. Since not all consolidation activities prove to be successful, possible risks and failure impacts will conclude this chapter.

Thereafter, the global shipping industry and the shipping lines as market participants will be addressed in chapter 3. Its history and industry structure will be displayed as well as some key elements of competition and issues/problems/crises the industry had and has to face. The fundamental structures will be provided in order to understand the industry and its consolidation approaches which will be specified in the following chapter. In this chapter, root causes for current problems are being examined.

Chapter 4 will combine the previously introduced information and apply in a practical context. Hands-on examples for different approaches towards consolidation in the shipping industry will be presented. These approaches follow up on the theoretical background facts provided in the chapters before in order to complement the reader's knowledge about current events in the global shipping line industry. The practical examples in this chapter follow the order of a figure introduced in chapter 2, which, in addition to the various forms of cooperation and consolidation possibilities, also incorporates the degree of industry concentration with regard to the number of competitors that still exist after such a measure. Further in the next sub-chapter, future developments and consolidation scenarios in the global shipping industry will be analysed.

In the conclusion (chapter 5), all findings will be summarized. The research problem will be answered in order to complete the aim of this bachelor thesis and to give this work a sound ending. In addition, a critical acclaim and an outlook for future research will be provided.

2 Cooperation and consolidation

2.1 Forms of cooperation and consolidation

Consolidation in general means combining two actions, shipments, or companies into one action, shipment or organisation. This results in a larger organisation than before (Oxford Dictionaries, Consolidate, n. d., n. pag.)

Consolidation can be viewed from several different angles. From a financial point of view, consolidation refers to financial reporting and implies the aggregation of results of subsidiaries into one parent company's financial statement. (IFRS Foundation, IFRS 10, n. d.) From a general business point of view, consolidation refers to entire industries and their grouping and concentration. A consolidated industry consists of a small number of competitors that control a large proportion of the market share. These industries are often characterized by more complex products or services, high barriers of entry and partly oligopolistic structures. (Business Dictionary, Consolidated Industry, n. d., n. pag.)

The following figure illustrates and categorises different forms of cooperation and consolidation. Additionally, they are sorted according to their degree of concentration, meaning the reduction of market participants and competition.

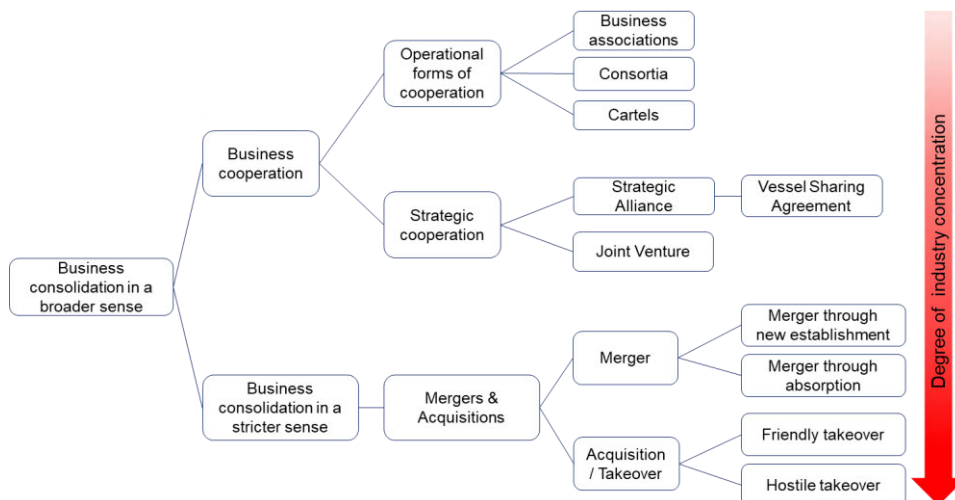


Fig. 1: Business consolidation and cooperation (own graphic in reference to Gerpott, 1993, p. 39 and Wirtz, 2014, p. 12)

When examining business consolidation in a broader sense, like in Fig. 1, different cooperation forms can be identified. Cooperation refers to the voluntary collaboration

between legally and economically independent companies, which takes place through mutual coordination or joint execution of tasks. The main difference between cooperation and M&A is that, in the case of cooperation, all partners involved retain their economic and legal independence, while in the case of acquisitions in particular, there are superordinate and subordinate relationships within the scope of corporate consolidation. (Glaum and Hutzschenreuter, 2010, p. 349-50)

If the cooperation refers to strengths and weaknesses that are particularly important for the long-term success of the company in order to achieve a sustainable improvement in the competitive position of the participating companies, then it is a form of strategic cooperation. If, on the other hand, the mutual effort tends to be of lower value and is rather short-term in nature, it is an operational cooperation.

(Gerpott, 1993, p. 37)

Operational cooperation includes cartels, consortia, trade associations, and communities of interest. Strategic alliances and joint ventures on the contrary are forms of strategic cooperation.

Cartels are groups of companies and agreements with the goal to influence the market they operate in through competitive restrictions. Depending on the type of agreement, price-, production-, supply- and demand-cartels can be differentiated. Consortia are established to solve timely restricted duties together. Trade associations and communities of interest emerge for cognition and pursuit of interests shared by market participants.

A joint venture is an institutionalised form of a community of interest. It is established through the cooperation of two or more legally independent companies in a new establishment of a legally independent company in which the partners are involved in, in order to align the business policy in a common interest. In some cases, there are also contractually agreed cooperations without a legal personality, which are referred to as contractual joint ventures. JV's which are agreed between competitors and constitute fully operating companies and are therefore regulated by antitrust authorities. (Wirtz, 2014, p. 12-14)

A characteristic feature of joint ventures is the joint determination of the business policy by the parties involved, whereby in principle none of the partners can enforce

its will against the resistance of the other. Accordingly, in most cases there is an equally distributed composition at management level.

Furthermore, a distinction must be made between full-function and sub-function joint ventures. If the joint venture company performs only individual functions in the interest of the partners involved (e. g. production, research and development), then this is a sub-function joint venture. Contrary to this, full-function JVs perform all of the performance-related tasks of the parties involved. (Glaum and Hutzschenreuter, 2010, p. 355)

Value arises from the entire set of resources and the strategy that links them together in their use. Facing these conditions, many companies turn to combining their own resources with those of others and participate in strategic alliances, so they could gain a competitive advantage. Strategic alliances enable companies to achieve goals which they otherwise could not have reached on a stand-alone basis. An alliance is a formal agreement between two or more companies in order to pursue a set of objectives by sharing resources. They frequently occur in highly competitive markets which include uncertainty concerning the future. (Tjemkes, Vos and Burgers, 2012, p. 1; Ariño and de la Torre, 2001, p. 110)

A strategic alliance differs from a JV in the sense that a new establishment is not their key focus. Rather, a cooperation of legally and economically independent businesses bound by contractual agreements constitutes an alliance. Certain resources are pooled together, in order to achieve a preferably long-term competitive advantage that puts alliance members in a better market position. (Wirtz, 2014, p. 12-14) Strategic alliances differ from other forms of cooperation in terms of economic integration. They represent a horizontal form of cooperative behaviour and thus influence competition in their sector. It is possible to distinguish between different types of alliances, such as market development, volume, and burden-sharing alliances.

A market development alliance serves the rapid and effective development of superregional and global markets. Its aim is to provide the participating partner companies with access to specific markets or services that are difficult for the partners to access due to barriers and/or can have a strong impact on their competitive advantage.

Volume alliances enable several companies to achieve collaborative scale effects

to take advantage of it. These will be examined in more detail in chapter 2.2. A Burden-Sharing-Alliance distributes high investment requirements and the associated risks of large projects across several participating companies. Finally, there are competence alliances in which the main aim is to bundle complementary competences in order to handle complex tasks. (Glaum and Hutzschenreuter, 2010, p. 354)

The motivation for forming an alliance is wide-ranging from pure economic goals like the aim for economies of scale and risk sharing, to more strategic goals like the access to learn new technologies. The size of alliances is also varying, involving two companies, a consortium of companies or whole networks of organisations. Additionally, they must be administrated by binding management and long-term supply contracts. (Ariño and de la Torre, 2001, p. 110)

Alliance management constitutes strategic activity within firms. They have to manage their alliance situation proactively to resolve any tension between the cooperative forces, which are focused on the creation of value and the competitive individual efforts on the application and use of this new value. Furthermore, alliances are transitional constructs due to companies being able to break them up at any convenient time. This threat of premature termination calls for the need of management attention to overcome any emerging hindrances. (Tjemkes et al., 2012, p. 2)

Business consolidation in a narrow sense refers to M&A activities. At least one of the partners relinquishes its economic independence on this occasion. Two forms can be distinguished here, a merger and an acquisition.

If several independent companies are joined under one uniform leadership, it is a corporation. Hence, if a company is integrated into a corporate structure where the acquiring company absorbs its legal independence, it is a corporate acquisition. Acquisitions are part of external business growth in which existing potentials are used. Hereby, they lead to the impairment or loss of commercial independence of the target business and the gain of control of the acquirer. (Wirtz, 2014, p. 14 and Glaum and Hutzschenreuter, 2010, p. 17)

Within the scope of an acquisition, a company can buy another company in an asset or share deal, whereby an asset deal refers to the takeover of all the target

company's assets and liabilities and a share deal involves an acquisition of shares and voting rights of the target company. (Wirtz, 2014, p. 14)

If a company acquires assets of another company, the transfer of ownership to the acquirer is the basis for the connection. The decisive factor for the existence of an acquisition here is that all essential assets of the company, which are essential for the fulfilment of its economic purpose, are transferred to the acquirer. The acquiring company purchases assets such as property, buildings or machinery. Therefore, all assets need to be quantified and qualified in terms of volumes and price. (Gerpott, 1993, p. 29 and Glaum and Hutzschenreuter, 2010, p, 24)

As with the share deal, the acquirer creates the opportunity to influence the performance processes of the target. The extent to which this possibility is actually used, and the two companies consolidate is not a fixed feature for the existence of an acquisition but rather depends on the concrete individual case; it can therefore only be determined after the formal completion of the acquisition. (Gerpott, 1993, p. 29)

An asset deal is possible for both private and public companies and the acquiring firm takes over ownership as well as all property which is then disclosed in its balance sheet. A share deal on the contrary can only take place for publicly listed companies

In the course of a share deal, the acquiring company purchases the target's shares including all information and voting rights. By increasing its stake and thereby power in the target company, the acquirer obtains a dominant position. In a share deal, the stake within the target company can vary on a percentage basis and it depends on the structure of other shareholders whether it is necessary to purchase all shares of a target or simply the majority to take it over. (Wirtz, 2014, p. 14 and Glaum and Hutzschenreuter, 2010, p. 24-25)

The prerequisite that a majority stake is required, is given because it makes it plausible to assume that the acquiring company has the opportunity to exercise a controlling influence on the corporate policy of the target. Whether the acquisition of a capital share of more than 50% is necessary and/or sufficient can only be decided in individual cases, depending on the distribution of the shares among different owners, the contractual rules applicable, and the economic situation of the target company. (Gerpott, 1993, p. 28)

A central characteristic of public companies is the fact that ownership and management functions are structured differently. This way, a conflict of interest between owners and managers is possible. In the case of a merger or acquisition, this may mean that the transaction is executed in agreement with the owners, but against the will of the management. In such a case, it is called an unfriendly or hostile takeover. If, on the other hand, the management of the target company agrees to the merger or acquisition, a friendly takeover occurs. Thus, the attitude of the management towards acquisition attempts can determine the difference of friendly or hostile takeovers. (Wirtz, 2014, p. 21)

In the case of a friendly takeover, the interested party negotiates with the management of the target company first, in order to coordinate the further procedure. They are negotiated mutually, which supports the upcoming deal by providing all necessary legal data to the acquirer.

A hostile takeover on the other hand brings an attractive offer directly to the owners of a target company with and specifically skips the consensus of the management. Usually, once the buyer has bought enough shares of the acquisition object on the stock exchange, he/she appears openly and makes the other shareholders a temporary offer for the acquisition of the majority of shares, a so-called "tender of offer". In order to make the offer attractive, it is often necessary to pay a high premium on top of the current market value. The aim of a hostile takeover are therefore mostly companies that are supposedly undervalued due to a low share price on the capital market, so that the takeover is still worthwhile despite a corresponding premium. This way, the acquirer only has access to publicly accessible information to form a picture about the company it tries to takeover. Another hindrance could be the potential loss of managers once the takeover offer has been accepted by the company's owners. (Wirtz, 2014, p. 21-22 and Glaum and Hutzschenreuter, 2010, p. 23-24)

In addition to acquisitions, a merger represents the second type of corporate affiliation. In this case, two companies are merged economically and legally, hence only one legal entity still exists after the merger. A merger is the narrowest form of business combination since one partner loses its economic and legal independence whereas in an acquisition, the acquired company may keep its legal structure.

Under commercial law, a merger is to be understood as a transfer of assets by way of universal succession without liquidation against warranty and company rights. The concept of mergers is more broadly defined and independent of the legal form of the participating companies as well as the type of transfer of assets and compensation. In the case of mergers, a distinction can be made between two main types: a merger through absorption and a merger through re-establishment. (Wirtz, 2014, p. 15)

If, in the course of consolidation with another company, a legally independent company loses not only its economic independence but also its legal autonomy, as a result of the fact that its total assets are included in the assets of the acquiring company, it is the case of a merger through absorption. In this case, the stake of one company is significantly higher than that of the other and thus it takes over its merging partner. There is no doubt that a merger through absorption differs from a classic corporate acquisition in many regards. However, from the point of view of the stronger company in particular, it is still regarded as a takeover because it also involves problems with the integration of the target and the acquirer. Nevertheless, in the case of mergers, there is a mandatory necessity for the continued employment of board members authorised to represent the company, whereas this necessity does not arise in the case of a classic corporate acquisition.

In a merger through new establishment, a new company is founded to which the assets of the merging companies are transferred. Thereby, all businesses involved lose their independence and are consolidated into one new entity. This newly established legal entity needs to be registered with a country's legal authorities. With the registration, all involved parties are combined with stakes representing their involvement in the new establishment. (Glaum and Hutzschenreuter, 2010, p. 18-19 and Gerpott, 1993, p. 32)

A special form when two equally considered companies merge is called "Merger of Equals". This term is used to express the equal valuation and negotiating power of the businesses involved. Often the members of the board of both businesses are distributed in similar positions as before and the new establishment – if one is created – is managed by a dual chairmanship. The term "Merger of Equals" is occasionally also used in the business environment, even if there is no equal power of the businesses involved. Here, the term is used for psychological reasons. The managers and employees of the merging partner should not feel minor and

demotivated to the other business and it should be conveyed as if they were equal to the other business. This extends as far as creating a dual chairmanship that does not reflect the real power structures and is abolished after the implementation phase. (Glaum and Hutzschenreuter, 2010, p. 18-19)

In order to receive a comprehensive picture of consolidation approaches, it is important to look at different forms of mergers and acquisitions depending on the position of the involved partner in the competitive environment of the acquirer. A distinction can be made between horizontal, vertical and lateral mergers and takeovers, according to the strategic orientation or the objectives and motives of M&A activities. The similarity or diversity of the product market fields which are handled by the participating companies is of great importance for a large number of questions. For example, they determine the need and extent of necessary activities for successful integration. (Wirtz, 2014, p. 18)

A horizontal merger or acquisition is a combination of companies from the same sector at the same production level. Consequently, the number of competitors in an industry is reduced and the degree of concentration rises. The primary objectives of horizontal M&A are the achievement of greater market power and to realise synergy effects. Applied to this thesis it means a container shipping line acquires another container shipping line. These types of transactions transactions will be analysed in chapter 4 of this paper.

If businesses which are connected along the supply chain consolidate, it is the case of a vertical merger or acquisition. The companies are connected in a possible customer-supplier-relationship. Forward integration means that a supplier takes over his potential customer and backwards integration refers to the opposite, the integration of a supplier by its potential customer. Primary aims of this type of consolidation measure include the intention to shape sales by the producer in case of forward integration, or to ensure a scheduled supply of important goods in the case of backwards integration. (Glaum and Hutzschenreuter, 2010, p. 19-20)

In the case of lateral M&A, the involved businesses do not stand in any horizontal or vertical relationship to one another and the takeover leads to an expansion into new product-market-fields. These M&As do not affect competitors of the same industry or businesses connected by the same supply chain and the companies involved form a

conglomerate group afterwards. The motives are mainly diversification and expansion strategies. (Wirtz, 2014, p. 19)

In practice, horizontal consolidation is the most common. It affects industries heavily in the sense of concentration of market power. In addition, revenue increases, and cost reductions are more likely to be realised if the supply chain of the parties involved have a broad overlap. (Glaum and Hutzschenreuter, 2010, p. 19-20) Due to their impact on market concentration and competition, horizontal consolidation is particularly regulated and observed by anti-trust authorities. These aspects will be further explained in chapter 2.4.

2.2 Reasons and motivations for consolidation

Consolidation measures are important instruments for company development. In contrast to slow, steady organic growth, they can mean a quick, rapid change of structures and size of a company. Company consolidation refers to the connection of independent companies that were legally and economically separate, in which the autonomy of at least of one the partners is affected or completely given up. The motives for consolidation are wide-ranging and are presented in the following. (Glaum and Hutzschenreuter, 2010, p. 15)

Money on its own rarely ensures a successful, long-term business relationship. A partner can often receive funds from a variety of sources but can only obtain access to a range of skills or non-financial resources from another party. Some key reasons why cooperative and M&A activity happens include the desire to realise synergy effects, diversify, realign strategically, gain managerial pride, share risks and others. (DePamphilis, 2018, p. 9; p. 555)

The fundamental motive of acquisitions is the pursuit of potentials for competitive advantages and their implementation in a new association of companies.

For this purpose, it is necessary that the acquirer can give the target company a competitive lead or vice versa. (Berens, Brauner, Strauch, and Knauer., 2013, p. 34)

Acquisitions aim to realize profits by exploiting previously unutilised potential.

The fundamental objective of acquisitions is either of financial or strategic nature.

By the means of the objectives pursued, a distinction can be made between two types of acquirers: short-term oriented raiders and long-term oriented strategic buyers.

Short-term oriented raiders pursue the goal of a fast restructuring of companies with less than ideally developed corporate value. In contrast, the long-term acquirer's goal is usually to exploit synergy effects. (Hagemann, 1996, p. 56)

Improving the operating efficiency through economies of scale or scope, or the lower cost of capital through financial synergies will be explained in the next chapter as a main benefit and success indicator for consolidation measures. (DePamphilis, 2018, p. 9)

In the sense of classic financial motives, companies engage in cooperation and consolidation activities in order to maximize the value of the company. They do so either through increased synergies resulting out of the deal or through increased

sales or asset growth. Synergies can also be achieved through a cross-company knowledge exchange. A financially driven transaction may also aim to control the target company's management and executive board in order to influence the future performance.

Strategic motives refer to the pursuit of the associated diversification as a way to expand the portfolio and reach of the company, to increase its competitive strength and position at domestic and international level, and to limit the risk when a company operates in a variety of industries. A large part of the financial and strategic motivation that is crucial for consolidation relates to reducing uncertainty in the external environment. (Faulkner, Teerikangas, and Joseph, 2012, 686-87)

The purchase of companies outside the current business areas of a company is referred to as diversification. It can enable a company to shift its core product lines or target markets to those with higher growth prospects. The new products or markets may be related or unrelated to the firm's current products or markets and are usually depicted using Ansoff's product-market matrix.

A company confronted with slower development in its current markets can speed up growth through diversification by selling its current products in new markets that are somewhat unknown and therefore riskier. A company may also try to achieve higher growth rates by acquiring new products that are relatively unknown to it and selling them in known and less risky markets. There is considerable evidence that consolidation measures leading to independent diversification often result in lower financial returns than non-diversifying combinations. (DePamphilis, 2018, p. 12-14)

Another motivation for undertaking consolidation measures to some extent, is the possibility to gain access to new markets. The rapid development of international competition has increased the demand for cooperation to enable companies to access markets where they lack production and distribution channels. Accessing new customers is often a very costly effort, involving considerable initial costs for various departments. The costs may prove excessive if alternative distribution channels are not found that allow access to the target markets. A company may enter into consolidation agreements to sell its products through another company. The connection may involve the payment of a percentage of the revenue that is generated through the company whose distribution channel is used. Alternatively,

companies can take minority stakes in other companies to improve their understanding of unknown markets or to offer customers and alternative access to their products and services. (DePamphilis, 2018, p. 557-58)

In portfolio management as a concept of a diversification strategy at group level, attractive companies with competent management are acquired. The management remains in office after the transaction. The starting point for a transaction like this is the analysis of the strategic business areas in the actual portfolio and a comparison with the target portfolio in order to direct resources in such business areas in which the market prospects seem promising and the company can benefit from relative competitive advantages. (Berens et al., 2013, p. 35)

Risk sharing is an additional key element of why companies enter consolidation agreements. Risk is often considered to be greater the more money, management time or other resources a company has invested in its efforts and the more uncertain the outcome is. In order to minimise risk perception, companies often apply consolidation measures to gain access to know-how and scarce resources, to reduce the amount of resources they would have to spend if they had to do it on their own, or to limit losses if the project turns out to be unsuccessful. Companies often lack managerial skills, information and resources to solve complex tasks and projects. These insufficiencies can be resolved by joining forces with other companies that own the necessary skills and knowledge. (DePamphilis, 2018, p. 555-56)

Parallel to the above-mentioned motivations, there are unspoken motives for leadership, such as the fear of aging on the part of the managers concerned, the excitement caused by a "new game to play", the increase in the reputation or power, or the managers' hubris, who are looking for managerial benefits rather than company profits from the deal. The Hybris hypothesis argues that managers who adopt consolidation measures make mistakes in the valuation of target companies, leading to a premium that reflects a random error. Managers with a course of successful transactions may pay more than the target is worth due to overconfidence. (Faulkner et al., 2012, p. 686-87 and DePamphilis, 2018, p. 14)

Another motive for consolidation measures to boost market value are speculative motives. Company combinations under the aspect of speculation aim to achieve

temporal arbitrage gains resulting from the difference between the purchase price and a higher sale profit. In terms of substance, this is the same logic that underlies the investment strategy of a private investor who, on the basis of the information he has access to, believes that there is an undervaluation on the part of the capital market. Opportunities to achieve arbitrage gains result from information deficits due to market imperfections and from the buyer's acquisition experience. The precondition of this is that the market for information about the target company is incomplete and that the buyer has access to information which is not openly accessible to other market participants. (Berens et al., 2013, p. 40-41)

Furthermore, taxes also influence the corporate decision-making process. Purchasers of companies with accumulated losses and tax credits may use them to offset future profits of the combined companies. However, taxation of the transaction itself often plays a greater role in deciding whether or not to perform a consolidation activity. A well-structured transaction may allow the target shareholders to defer any gain on disposal until the acquirer's stock received in exchange for their shares is sold. Taxes are also an important factor that motivates companies in high-tax countries, which derive a large part of their income from foreign sources, to relocate their headquarters by acquiring a company in a country with more attractive tax rates. (DePamphilis, 2018, p. 15)

In the case of publicly listed companies, it can be assumed that the primary objective of the owners is to increase the value of their investments. In addition, motives such as the long-term preservation of their companies and the increase of market power play an important role.

Acquisitions provide potential for value enhancement. The value of a company that follows a transaction is not necessarily equal to the sum of the values of the two separate companies prior to the transaction. This is referred to as synergy effects. Synergies on turnover may arise if the combined companies have more market power than previously and can therefore influence prices or other market parameters in their own favour.

Non-market value-enhancing motives include, on the one hand, general psycho-social motives based on the fascination of growth through company acquisition and, on the other hand, agency conflicts resulting from the separation of ownership and

management, which can decide whether a transaction will take place in a friendly or hostile manner. Psycho-social motives lie in the desire of owners and managers for growth, power and prestige; the own sphere of influence is sought to expand. In this context, the size of a company becomes an independent aim in addition to or prior to achieving the desired profit, improving productivity or increasing the value of the company. In addition, the incentive to take over something as an owner or to match the pressure with competitors or overtake them gain priority. (Glaum and Hutzschenreuter, 2010, p. 56-57 and Berens et al., 2013, p. 41-42)

2.3 Benefits of consolidation

All cooperation or consolidation activities are carried out to achieve specific goals. However, companies do not pursue their own objectives, but only those persons involved in the company who each have their own objectives.

As a part of external corporate development, these activities have a great influence on the achievement of the individual goals of the persons involved. However, it is not always possible for all stakeholders to have a direct influence on consolidation decisions. These decisions are non-delegable management decisions that are subject to the owners and management of a company.

The objectives of the owners in these processes include the desire for long-term value creation through sales, cost and financial synergy effects and restructuring. The main objectives of the managers include increasing their income and power, as well as securing their own jobs by continuing to be represented at management level after the merger or acquisition is completed. (Glaum and Hutzschenreuter, 2010, p. 53-55)

Business combinations serve the enhancement of value and protection. Purchase prices often reflect the hope for increase in value due to possible future synergy effects. Synergy effects result from the successful interaction of characteristics which promote each other and thus have a positive impact on future success. The use of specific capabilities and strengths of a company combined with those of the partner generate extraordinary gains which could not have been realised by the companies alone. Further, synergy effects result in competitive advantages for the partners. There are different types of synergy effects which can be distinguished - cost-, value- and financial synergies. (Kummer, Eiffe, and Mölzer, 2014, p. 34-35)

Scale effects or economies of scale are present when the average costs decrease with increasing size of a company due to the growing production volume per period. M&A can significantly increase the size of a company in a comparatively short period of time, which is why economies of scale are often mentioned as a motive for company takeovers. The term "positive economies of scale" is used when a proportional increase in all input quantities leads to a disproportionate increase in

output, in the form of production. Assuming constant factor prices, the average cost per unit of output decreases with increasing factor input.

Possible causes of economies of scale are, for example, the use of larger, more efficient machines in production, the increasing specialization of employees, and many more. Scale effects were originally attributed to the production, but economies of scale can also be achieved in other business divisions such as R&D or marketing. This is referred to as corporate economies of scale or multi-plant economies of scale. Depending on the cost structures of the companies involved in an M&A transaction, considerable potential for cost reductions can emerge. However, the long-term achievable economies of scale must be set against the short-term, one-off restructuring and implementation costs. (Glaum and Hutzschenreuter, 2010, p. 62-65)

Economies of Scope are cost advantages that do not originate from the production volume but from the variety of products being produced. They are created when two or more products can be made at lower cost in one company than in separate companies. The reason for cost advantages in joint production after a transaction is the prorated input, i. e. production factors that can be used to manufacture several products without the associated costs increasing proportionally. If the relevant factors are not arbitrarily shareable and free capacity cannot be exploited via the market, there is an incentive for consolidation. Enterprises that still have free capacities for joint inputs can try to use them by consolidating with suitable target companies. (Glaum and Hutzschenreuter, 2010, p. 67-68)

Cost synergy effects arise from cost optimisation due to the implementation. In order to realise them it is necessary to demonstrate synergy potentials in the cost area clearly, quantify them regarding their duration and their realisation probability, and categorise them regarding their implementation difficulty.

Value synergy effects imply an increase of market coverage and power as well as an increase of customer benefits. They put the acquisition partners in a better market position and increase value with new and existing customers. (Kummer et al., 2014, p, 35-37)

Furthermore, potential for an increase in value can arise from financial and fiscal synergy effects. In addition to capital structure advantages on the internal capital

market, for example reduced capital costs due to a better financial positioning, and diversification based on the portfolio theory, tax optimisation advantages play a role here in the consideration of financial-economic syndicates and motives for consolidation approaches. (Glaum and Hutzschenreuter, 2010, p. 72-79)

Benefits of entering into alliances may include, the access to resources like capital, specialised knowledge, market knowledge, or production capacities, all of which they do not already own themselves. To achieve economies of scale effects by expanding the output volume and reducing operational and strategic risks by sharing them, are also reasons why companies seek to cooperate in alliances. Moreover, alliances enable participants to learn from others, giving them the chance to gain, exchange, and collect knowledge and skills. (Tjemkes et al., 2012, p. 5)

Another advantage of forming alliances is that they neutralise or block out competitors or cause alliance-to-alliance competition and thereby give the companies the opportunity to gain market power as well as shift external dependencies to the companies' advantage. Further, alliances can increase the companies' reputations and in turn exert greater lobbying power on authorities.

Lastly, strategic alliances provide an excellent opportunity to more extensive consolidation measures like getting to know potential merger and acquisition candidates and diminishing information asymmetries. By this, they reduce the efforts and costs of subsequent integration heavily. Maybe this could be an indicator why mergers and acquisitions regularly arise out of former alliances. (Tjemkes et al., 2012, p. 5-6)

As a final benefit of a consolidation, a possible acquisition success should be considered. Success can generally be understood as the extent to which goals are achieved. As already mentioned above, the different stakeholder groups have different objectives - especially those of the owners and the management, for example in hostile takeovers, can differ greatly. Decisions therefore require a balance of conflicting goals, which often depends on the power relations of the stakeholder groups. (Glaum and Hutzschenreuter, 2010, p. 92)

There is no single measurement approach for assessing acquisition success. In general, the assessment differentiates between integration success and economic

success. Integration success is regarded as the basis for or fundamental prerequisite for economic success.

Integration success can be abstractly outlined as the extent to which transfers of material and immaterial resources, aimed for by the acquirer through the takeover and ideally fixed in advance, have been achieved at a certain point in time.

Therefore, a comparison of the degree of the target and actual integration forms the basis for an assessment of the integration success of an acquisition.

The more the degree of target and actual integration diverge, the lower the level of success and vice versa. In this measurement approach, the determination of success must in principle be limited to the possibilities and areas of integration that represent relevant criteria in the individual case. Otherwise, an acquisition in which none of the integration options in question was sought at all and in which there can be no divergence between the target and actual figures would achieve the maximum possible measure of success, even though no value-enhancing resource transfers have taken place. (Gerpott, 1993, p. 388-390)

2.4 Challenges and risks of consolidation

Corporate cooperation can have an influence on the market results and success from a company perspective. This can be demonstrated by cartels which are contracts between suppliers in a market aimed at reducing the degree of competition or completely hindering competition. The cartel partners agree not to disclose certain competition parameters but to define them in a common interest and thus have an impact on fair competition. The most intensive effect of price cartels is the one in which the cartel companies jointly determine a price that is subsequently to be demanded by all companies. Due to their welfare-reducing effect, cartels are generally prohibited in most countries. In addition to price cartels, other forms of cooperation agreements have the effect of affecting competition to their advantage, for example by creating market barriers against other competitors. (Glaum and Hutzschenreuter, 2010, p. 363-64)

Although strategic alliances seem to have a great number of advantages like increasing companies' innovative capacity and the sharing of investment risks, they have a high failure rate. Companies generally enter strategic alliances in the hope of receiving as many advantages as possible. However, they involve some risks or disadvantages that could potentially damage the participating companies more than without an alliance. First, strategic alliances are complex structures with several different firms involved. This results in a high degree of coordination and communication efforts between the companies' individual management. Although they all agree on the pursuit of certain goals, each company may follow a slightly different strategy and thereby pose an opportunistic risk to other members or create power imbalances, whereby some alliance members become overly dependent on others and it may result in exploitation and hostile acquisitions.

Another possible harm of strategic alliances for its members is a loss of flexibility, because they may prevent the cooperation with non-alliance members, and a loss of decision autonomy and control, because plans and decisions are decided jointly. In addition, probable learning effects may be hard for the companies to actually apply to their own structures and extract any benefits.

Lastly, strategic alliances are subject to strict antitrust regulations depending on the country and may be prohibited beforehand or over the course of their cooperation

and thus cause premature termination. All of the above aspects describe aspects that could lead to an alliance failure. (Tjemkes et al., 2012, p. 1-6)

In a market competition prevails between the participants which offer the same or similar goods and services to its customers. Customers can choose between different offers and businesses can control the volume of products or services they produce. Prices are hence the result of supply and demand.

Hereby the number and influence of the participants of one market can be categorised into three different states. A polypoly, also known as perfect competition, means that the offered goods or services are the same and there are numerous suppliers and demanders. No market participants can exert power over others and the given market price has to be accepted by everyone. At this given price, every demander can buy the volume they want, and every supplier can sell the volume they want. Most markets are not perfect and even with numerous market participants there is no perfect competition. In these markets imperfect competition is predominant which can be distinguished into monopolistic or oligopolistic competition. In a monopoly, there is only one supplier who can set the price for the goods or services since there is no competition due to a lack of other market participants. In an oligopoly, few large participants control a large share of the market. (Mankiw and Taylor, 2011, p. 78-79)

Market power is defined as a situation in which a company will be able to profitably maintain prices above competitive levels for a significant period. If a market participant possesses market power depends on market conditions as well as strategies pursued. (DePamphilis, 2018, p. 65)

“Option fixing” means that one strong supplier sets a given price and volume for a certain product or service. Demanders are only able to either comply to these conditions or refuse themselves access to the product or service. This case holds true for a monopolistic or strong bilateral oligopolistic market.

An autonomous strategy describes the fixing of volume or price with the condition of no reaction by competitors. This can be the case for oligopolistic markets where the respective participant controls a niche segment of the market.

When a market participant tries to fix the volume or price by anticipating and analysing all possible reactions of its competitors, it is a so-called “dominance strategy”. It is a typical approach by larger players in a market who knows the

decision-making scope of its smaller competitors and can calculate with them.
(Wagner, 2016, p. 36-37)

Applied to the topic of this thesis, the risk of building oligopolies is of most interest. In an oligopoly, there are few market participants who offer similar or identical products to customers. This small number of competitors leads to fundamental tension between the cooperation with others and the pursuit of own interests.

Oligopolists have an influence on the market price. Hence, they can choose a price and production volume depending on the demand but need to consider the behaviour of their competitors. The best solution for oligopolists is to cooperate with their competitors and together behave like a monopolist would; to limit the output of the industry and keep the market price above the marginal costs. The arrangements between the competitors are called price-fixing agreements and the outcome is a cartel. The aim of cartels is to inhibit the remaining competition and thereby act like a monopolist.

This type of extreme cooperation and power dominance on the market is not in the interest of customers who benefit from lower prices in competitive environments. Further, cooperation and consolidation measures which result the market participants having too much market power, are regulated and in some cases prevented by antitrust laws and authorities. Without binding agreements mentioned before, a monopolistic result is unlikely because each competitor has an interest in increasing the output volume and therefore prices would drop. (Foit, Lorberg, and Vogl, 2015, p. 171-73)

Consolidation measures like mergers and acquisitions involve a multitude of risks in every step of the process. Different studies regarding the success and failure of consolidation suggest an average failure rate of up to 75% for M&A transactions. Acquisitions and their processes make sense if they reduce risks and do not create new ones. Transactions in similar fields and markets pose less risks than lateral acquisitions in completely new industries, where the acquirer has little to no knowledge. Consequently, it can be said that the prospect of failure is higher, the more the involvement in consolidation activities is distant from the regular business of the acquiring company.

Further in terms of risk reduction, it can be attempted to offset potential risks in a reduction of the transaction price. Though, this only works if both negotiating partners evaluate the same risks with the same implications. (Kummer et al., 2014, p. 15-16)
 The figure below shows a negative scenario of a failed takeover.

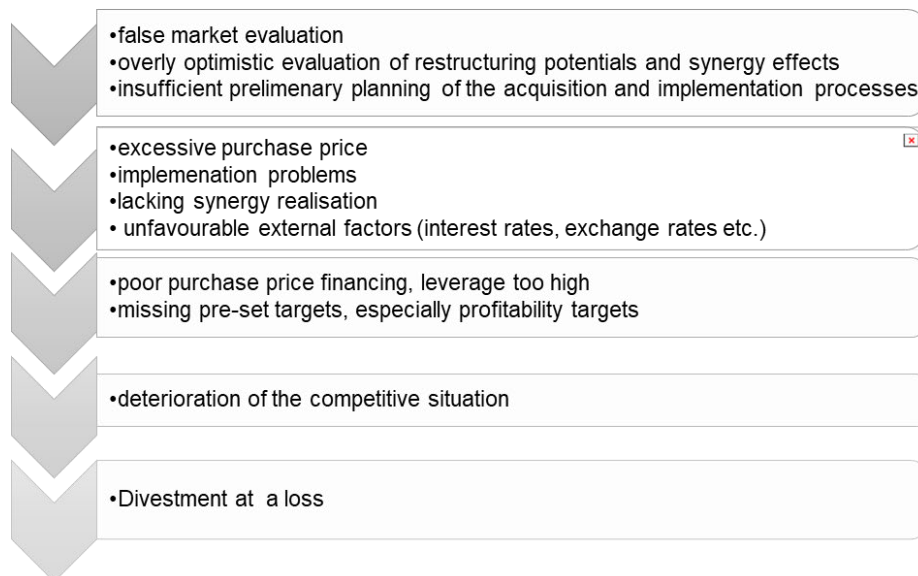


Fig. 2: Sequence of a failed acquisition (on the basis of Kummer et al., 2014, p. 16)

In addition to political and economic risks, consolidation measures must also consider the legal framework conditions. Firstly, the applicable legal standards must be respected when carrying out cross-border transactions. Secondly, the legal standard influences the company's future business activities and thus the possibility of realising synergy effects.

First, it must be checked whether a business combination is legally admissible at all. A large number of regulations must be observed for listed companies.

Finally, antitrust regulations must be taken into account. Depending on the size of a transaction, not only the respective regulations in the target country but also the regulations of other countries are relevant. Therefore, the companies must first obtain permission from all the jurisdictions involved before the transaction takes place.

(Glaum and Hutzschenreuter, 2010, p. 313-15)

Negative synergy effects pose an additional risk and are frequently neglected although they can have a great impact on future success. On the one hand, they can be one-time effects like the costs for implementation, restructuring costs, or social

plan costs. On the other hand, permanent additional costs are possible, for example higher administration costs. It should not be ignored that a post-acquisition implementation entails necessary restructuring and adaptation measures which are connected to costs, risks, and productivity decreases. (Kummer et al., 2014, p. 37)

The realisation of synergy potentials encompasses start-up and follow-up costs which should be considered before the transaction and which should not cancel out the positive effects. Furthermore, synergy effects are in many cases realised to a lesser extent than expected. Synergies which are presumed pre-transaction and thereby considered in the purchase price determination are rarely fully realised. Furthermore, emerging negative synergy effects impair the situation further. Often times, synergy effects are the basis for justification of a certain consolidation measure without being explicitly defined beforehand. (Kummer et al., 2014, p. 33)

Due to the above presented challenges and risks and the implications consolidation measures can have on the market, almost all forms of consolidation activity are regulated by competition law authorities. Competition and procedural law aspects are of major importance for consolidation measures. They decide whether cooperation and transactions may or may not be carried out in accordance with the law. These implications are therefore already considered in the planning phase of a consolidative measure.

Competition law, also called antitrust law or merger and acquisition control law, sets the framework for the conduct of actors in markets. Among other things, it is trying to prevent the emergence of oligopolies and monopolies, and the economic undesirable consequences resulting from the power behaviour of competitors. Depending on the international scope of a cooperation or M&A activity, different national and supranational competition law regulations may be relevant. Following the decision to undertake such a consolidation activity, all relevant institutions, such as the antitrust authorities, must come to a positive conclusion in their investigations from all the countries concerned, otherwise the transaction may not be executed. Consent is often subject to certain conditions in a particular country, which must be met before the integration of companies can begin. (Glaum and Hutzschenreuter, 2010, 277-80)

Antitrust laws exist to prevent individual companies from assuming so much market power that they can limit their output and raise prices without concern for any significant competitor reaction. The challenge for regulators is to apply prevailing

laws in such a way that they discourage monopolistic practices without reducing gains in operational efficiency that may accompany business combinations.

(DePamphilis, 2018, p. 59)

If a consolidation measure, like a merger or acquisition, is contemplated by market participants but it affects fair competition too heavily, it is prohibited by anti-trust agencies and commissions of the countries where the companies operate in.

3 Competition in the global shipping industry

3.1 Market structures

The beginnings of the shipping industry were, like so many others, rather slow and difficult. In the middle of the 19th century, liner services were developed by relatively small operators, which were limited in regional terms and focused on the transport of goods that the freight owner wanted to ship. Containerization in the mid-1950s brought the industry a lot of positive changes.

Some countries, such as Germany and Japan, ranked their virtually eliminated domestic markets in second place, and supported their recovery significantly by the mass-market export activities. Trade, fostered by the General Agreement on Tariffs and Trade (GATT), increased at a rate that it had not previously achieved. With the containerisation of liner services, shipping companies adopted the new global logic of reducing customer choice in order to lower prices and cut costs.

The enormous increase in capital requirements, the hesitant port investment, the widening of the competitive spectrum due to the expansion of the domestic market and the inadequacy of the conference structures in a containerised world led to problems that were not all solved in the interests of the operators.

The world's growing dependence on container liner services and the level of profits achieved by shipping companies in the first decade of the 21st century have finally prompted the world's financial institutions to reflect.

Much has happened in the 20th century in global container shipping, which has caused many difficulties. But the financial sector finally took liner shipping seriously. Maersk's acquisitions of important competitors in the early 2000s were a strong indication of how the world's largest liner company considered the development of the liner industry to be probable. The withdrawal of the antitrust conference privileges by Brussels indicated that the carriers no longer needed historical protection. A massive order book for container ships and growing port development showed a relatively new optimism in the mid-2000s. (McLellan, 2006, p. 519-21)

One evolution and few revolutions occurred in the history of container shipping. The evolution consisted the growth in size of the two main components of the system: vessels and ports. The first revolution marked the invention of containers in 1956 fastening the loading and unloading processes and thereby the turnaround times for

vessels in ports. A second revolution took place thanks to an expansion of the ports' hinterlands, enabling shipping lines to rationalize their itineraries by reducing the number of ports of call by creating load-centre ports. This induced a further increase in vessel size together with growth in port terminal size. (Midori et al., 2005, p. 92-93) When containerisation began, shipowners who had recently invested in conventional tonnage wanted to use their vessels for as long as possible, which delayed the expansion of containerisation. The end of this generation of ships was marked by an extension of the routes served by cellular container ships. A cellular vessel is a container ship specially designed for the efficient storage of freight containers one on top of other with vertical bracings at the four corners.

In the past, shipping analysts have regularly concluded that the industry has collapsed from exaggerated order bookings only to see additional capacity absorbed by demand growth. Indeed, most of the serious collapses in liner shipping have not been caused by excessive order books, but by external factors such as exploding prices for fuel. (McLellan, 2006, p. 522)

A central issue when addressing the topic of the shipping industry is that it is to some extent shielded from market forces by anti-trust immunity. Shipping lines with an interest in specific trade cooperate to provide a regular, stable service to their customers. Prior to the Ocean Shipping Reform Act (in the following OSRA) from 1998, carriers and shippers could access directly the contract rates and terms of their competitors and relied heavily on the published essential terms of service contracts as benchmarks in their own negotiations. The transparency of information constrained the commercial benefit of contract specialization for both carriers and shippers. OSRA made pro-competitive changes in shifting away from public tariffs and publicly available contract rates to confidential rates in individually negotiated service contracts. Confidentiality ensures that conferences no longer have the power to impose the conference tariff to their members and rates were not openly reported after 1999. This spurred greater container freight rate competition with increasing volumes disparities drove rates down on the direction of excess capacity (called backhaul) and drove them up on the direction where capacity constraints tended to be binding (called head haul). Soon, characteristics of trade imbalances between head haul and backhaul lanes began to emerge. (Wang, 2014, p. 98-99)

Globalization, liberalisation, and competition influence the transformation of manufacturing industries worldwide. In the transportation and logistics industry, cooperation is becoming increasingly more critical than competition in determining a company's efficiency. Cooperation always characterized the container shipping line sector with strategic alliances, mergers and acquisitions generating twin effects: a notable increase in ship sizes and simultaneous falls in freight rates.

Over the last 20 years, the global shipping industry has been marked by wide-ranging changes in sea transport. The 1990s witnessed the birth and explosion of globalisation, whereby the world's economies became progressively more interrelated as result of growing international trade and globalized production. Most countries realised an increase in exports as a share of gross domestic profit (GDP). Globalisation gave further strength to the internationalisation of the "first wave operators" who continued to expand the scope of their operations. (Midori, Russo, and Parola, 2005, p. 89-91)

Nowadays, there are three major east and westbound arterial routes in the global shipping market. First, there is transpacific route from Asia to the west coast of North America. This is also the world's most frequented trade route. Second, there is the Asia to Northern Europe lane which comes in second in terms of traffic flows and either leads around Africa or through the Suez Canal and the Mediterranean. And lastly, the transatlantic route leads from Northern Europe to North America and is the third largest trade route. Trade imbalances exist on all of these main east and westbound trades. (Wang, 2014, p. 104)

Most of the largest carriers have dedicated themselves to global coverage. Smaller carriers necessarily aim more specifically. Both rely on a broad range of customers with different requirements. Global coverage has a negative impact on niche pricing, favoured by smaller lines, while the steady growth of global logistics providers has the potential to erode the freight base of smaller operators.

The instability of the fleet structure created by the introduction of larger and larger vessels was worrying in light of the still limited routes on which the largest vessels were able to operate in the early 2000s. Another perception was that other routes could ideally be subordinated to the main routes operated by vessels with high capacity and low unit costs, although this has proven problematic due to the acceleration of demand and increasing congestion in major ports. Although the

expansion of ports was physically possible, the reluctance of local authorities to invest proved to be a major obstacle.

The size limit for vessels was therefore a competitive advantage for the largest shipping companies, which was likely to reinforce the hierarchical tendency of a consolidating industry. This proved to be wrong, port growth and the increase in ship size have become reality, as will be further examined in this chapter.

In general, larger operators try to exploit their market shares by running the largest vessels that can be used on key lanes to achieve the lowest unit costs. Smaller operators are trying to compete by pooling resources and optimising utilisation factors on potentially smaller vessels. Very few trades are ship-specific. In most industries, the size of the vessels they serve has steadily increased and the role of the smaller section of the fleet is becoming increasingly difficult to predict. (McLellan, 2006, pp. 522-23)

Maritime transport is the backbone of globalisation and is at the centre of cross-border transport networks that support supply chains and facilitate trade. Maritime transport enables industrial development by supporting the growth of the manufacturing sector, bringing together the consumer, intermediate and capital goods industries and promoting regional economic growth and trade integration. (UNCTAD, 2016, P. 5) An increasing importance of containerisation reflects change which have occurred in global structure of manufacturing and production. A greater share of world output is now entering world trade, largely as a result of the move to low-cost offshore production zones. Manufacturers have organized their production de-centrally and internationally to take advantage of economies of scale and local structural advantages in costs. World economy has passed a multitude of markets separated by trade barriers to a scenario of increasingly converging and integrating markets which led to growth in scope of activities performed by carriers in terms of geographic coverage, frequency of services, faster transit times and provision of value added services. (Midori et al., 2005, p. 94)

The modern world is part of an international trade network that relies increasingly on the container shipping industry. There was a prospect of growing prosperity which has already led to high price consolidation in the early 2000s.

It was assumed that the largest liner shipping companies would gradually transform into global operators offering national and international transport services worldwide. (McLellan, 2006, p. 525) This prediction was made in 2006, before the financial crisis hit container shipping hard and before even larger ships were built to cope with falling freight rates.

The shipping industry crisis since 2008 was caused by high overcapacities after shipping companies had ordered too many vessels when steel prices were low but global trade growth slowed down after the financial crisis. With a delay of a few years, this led to a wave of consolidation among liner shipping companies with the formation of alliances, mergers, takeovers and insolvencies. Half of the top 20 shipping companies of 2013 have disappeared or have ended up among a competitor (Handelsblatt, 2017e)

Using fleet capacity in terms of standard containers (in the following TEU) as a parameter, market concentration has grown over the last decade also by considerably more consolidation activity among shipping lines. These circumstances have generated the need for new forms of co-operation that differ from conferences and consortia. Global Vessel Sharing Agreements can be considered a breakthrough in comparison to previous forms of agreement as they are not limited to a single trade route but aim at covering all major routes and creating expansive service networks. Shipping lines have to face dramatic fluctuation of freight rates in a highly competitive environment. The deriving need to decrease slot costs have induced carriers to pursue economies of scale in vessel size. (Midori et al., 2005, p, 96-99)

The world of shipping is reorganizing. Three main alliances divide the world between them. The reorganization of the alliances fell into a turbulent period in 2017.

Following a merger and acquisition wave that rolled over the industry, the five leading shipping companies owned approx. 58% of global capacity by the end of the year.

The industry becomes concentrated and larger shipping companies and more powerful alliances represent more market power. (Handelsblatt, 2017d)

3.2 Competitive challenges

High levels of overall trade kept capacity relatively tight on high seas in 2006.

Shipping lines were building bigger ships to carry more cargo, with demand rising as well. Inter-Asia trades were booming which created a need for harbour dredging to accommodate megaships. A big influx of vessel capacity began to enter the market putting pressure on ocean freight rates.

Back in 2005, consolidation was already part of the global shipping industry. Maersk Sealand merged with P&O Nedlloyd and CP Ships with Hapag-Lloyd. This meant, two or three players alone had the potential to reach 40-50% of the market share. Ongoing consolidation among carriers was thought to dampen some of the competitive pressure that would drive down rates for customers. Other costs continued to rise, keeping steady pressure on rates and budgets.

Economic theory states that as an industry becomes concentrated, the remaining players will have greater control over pricing. In 2005, container shipping tried to unfold this phenomenon. This would lead to a more stable marketplace and enable the industry to avoid the vicious circle of destructive competition. (Transportation Maritime, 2005, p. 46)

The limited growth in container demand is due to a number of factors, including low raw material prices and the slower growth in China. The oversupply was mainly caused by the use of larger vessels by shipping companies seeking greater efficiency, economies of scale and market share. New container capacities that came onto the market put massive pressure on freight rates, which could hardly cover the minimum operating costs. Even the trade routes, which recorded stronger demand growth, were confronted with low rates. In view of the difficult market conditions, the expected profits of the new large and more efficient ships failed to materialise and led to a further financial burden on the shipping companies.

(UNCTAD, 2016, P. 52-53) Lower demands on weaker trade routes create a situation of excess capacity with too many empty container slots on vessels to fill. The existence of excess capacity in backhaul shipments prompted carriers to adopt an efficient pricing policy in an urge to fill the empty slots.

An increasing gap between westbound and eastbound freight rates on the transpacific and transatlantic routes has been developing since 1999. In addition to

the freight rate price pressure, fuel prices rose dramatically from the first half of 2005 to the end of 2009. Before the financial crisis, fuel costs represented as much as 50-60% of the total vessel operating costs. The soaring fuel price put additional pressure on shipping companies to raise their bunker adjustment factor (BAF) substantially for container shipments which in return meant reducing their costs in order to keep up competitive prices. (Wang, 2014, p. 105-107)

The past 15 years marked a period of significant change in container shipping which had to face the needs of shippers on the demand side and the chronic fleet overcapacity on the supply side resulting in an imbalance and raising the level of competition in the global shipping industry.

In global business it is extremely difficult to keep freight rates stable because they are related to idea of destructive competition. The carriers understood that in order to still squeeze in profits for them, they had to work on the costs rather than on the revenues since they could not really influence the falling freight rates. The answer was to obtain growing economies of scale (both in vessel size and in organisational structure) which in turn enabled sharing of investment costs and reductions in the average cost per container slot. (Midori et al., 2005, p. 94)

In 2015, freight rates fell steadily and reached all-time lows, as the market continued to struggle with weaker demand and the presence of ever-increasing growth in container ships launched throughout the year. In an effort to deal with low rates and reduce losses, carriers have continued to consider measures to increase efficiency and optimize operations. Key initiatives included ship idling, slow steaming to reduce operating costs, broader consolidation and integration, and the restructuring of new alliances. (UNCTAD, 2016, S. XI)

The year 2016 was again a difficult year for the global shipping industry with the ongoing challenge of a continuous mismatch between supply (measured in capacity for TEU supplied by the carriers on their vessels) and demand. Global demand remained uncertain and freight rates continued to be determined by the way capacity supply was handled. Container freight rates were very low with a simultaneous intensification of competition on various trade routes. Rates reached a record low as a result of outpacing growth of supply compared to growth in market demand in the past years. Container slot demand decreased extremely during and after the financial

crisis in 2008 and only shortly recovered in 2010 before dropping consistently over the past few years. In contrast, capacity supply had steady growth levels since 2007, increasing faster than demand. Consequently, with higher supply than demand the container freight rates and thereby the profit possibilities for shipping lines impaired and in many cases vanished resulting in losses and financial troubles for the carriers. Although some improvements were made like the demolition of older ships, also known as scrapping, and a drop in new deliveries of new-built vessels, the improvements were not sufficient to generate better market conditions and improve freight rates. (UNCTAD, 2017, p. 43-45)

London analyst Drewry's container forecaster report says that container shipping industry is enduring severe revenue contraction that is placing carriers under enormous pressure to squeeze more savings. This is also driving the latest round of mergers and acquisition activities. Financial results in the first half of 2016 painted a very depressing picture for the industry with revenue over that time being down by 18% on average which shrank carrier income. (LM Management Update, 2016, p. 1)

Between January and May 2016, insolvencies in the sector had risen by more than ten percent compared with the previous year. An end to consolidation was not in sight. The industry continued to suffer from overcapacities, freight and charter rates are at a record low with simultaneous weakening of world trade. Giant container vessels were still being delivered, which were ordered during the boom of the industry and which increase excess capacity. Despite all the alliances, mergers and efforts to keep costs down, some shipping companies suffered considerable losses. At present, hardly any new ships are ordered. This alerts the shipyards but gives hope that capacity and world trade will at least come into line again in the coming years. (WiWo, 2016)

In 2017, the shipping crisis, which began its ninth year, has become even more serious. Many ships were virtually running for free, as they did not earn their operating costs. Banks do not receive interest and repayments on loans they granted many years ago, ships that are less than ten years old are scrapped and used ships are not worth much more than their scrap weight. A crisis like this last occurred in the shipping industry after the Franco-German war in 1870/71, 145 years ago. Small shipping lines lack financial reserves and access to new capital, and the large

shipping companies report losses in the billions because they are unable to generate sufficient freight rates. (Handelsblatt, 2017a)

A price drop due to overcapacity over a few years, has managed to bring several competitors to an imbalance. For each container, the earnings decreased 20% compared to the year before. Hence, more and more shipping lines were seeking to consolidate with others. Seven out of the 15 biggest shipping lines were hit by the consolidation wave in 2016 and 2017 proved to follow its lead. (Handelsblatt, 2017e) The launch of the three major alliances, THE Alliance, Ocean Alliance and 2M Alliance, was accompanied by a small intermittent high in shipping in the first quarter of 2017, which has been in crisis for years. Charter rates for ships increased, as the standard vessels were fully loaded. After the bankruptcy of Hanjin, many vessels were temporarily not on the market, which also contributed to this development. Despite this positive peak, it soon became clear that there still existed too much ship capacity. The pressure on freight rates increased again in line with forecasts. Further, the major shipping companies and their alliances had a stronger negotiating position with charter companies, of which they rent part of their tonnage, in order to bring them in financial distress. Many industry participants are standing on the edge and the rescuing shore with higher rates is still a long way off. (Handelsblatt, 2017d)

Even the strongest competitors in the market suffer. The ebbing of world trade since the financial crisis rocked the industry since two-thirds of global seaborne trade is carried in containers. Also, due to a rise in the size of global container fleet following a ship-ordering binge that began in 2001, overcapacity has crushed freight rates for years. Prices for transporting containers have fallen drastically. For example, in 2008, it cost USD 2,000 to send a standard container from China to Brazil, in 2017 it costs only USD 50. The crisis in container shipping pushed even the world's largest shipping line, Maersk Line, deeply into negative figures. The company recorded a loss of USD 1.9 billion in 2016 and it was only the second time since the Second World War that the Group had to announce an annual loss. In 2016 in particular, the weak situation on the container market slowed down and freight rates fell by an average of 19 percent. (Handelsblatt, 2017c)

Recommendations suggest tackling the main problem of overcapacity directly by scrapping vessels. Higher levels of scrapping would cut overcapacity, but many

shipowners were still too reluctant to send their vessels to the scrap yards. In 2016, 194 ships were scrapped accounting for 3% of global tonnage, but 8% of new ships were added in 2017. The net increase is over twice the level of growth in demand. The rush in shipbuilding was prompted again by Maersk's order in 2011 of 20 huge triple E-class vessels with a capacity of over 18,000 TEU each. The ships cut their costs, relatively to Maersk's rivals. Bigger lines hoped that their own fuel-efficient liners would push small, independent shipowners to scrap their older ones. The smaller carriers had no intention of doing so normally, because scrap value of ships is much less than the cost of new ones. Furthermore, banks preferred to restructure loans on unprofitable vessels rather than scrap them at a fraction of the value of debt owed on them. Scrapping yards are also becoming more cautious. In 2016 for example, several yards in India got into trouble when they bought older vessels during a short-lived steel-price spike and had to sell the scrap metal at a big loss. Another favoured cost-cutting strategy amongst shipping firms so far has been to form alliances. But alliances do not solve problem of overcapacity and they have not stopped freight rates from falling. (The Economist, 2017a; The Economist, 2016)

The maritime sector is undergoing constant change, as can be seen in particular from the shift in competition that has taken place in recent years. In recent years, competition in the maritime shipping and port industry has changed from a competition between individual shipping companies and ports to competition with maritime logistics chains. Competition no longer develops at the level of individual ports or shipowners, but at the level of logistics chains linking origin and destination. The competitiveness of a maritime player depends not only on its own infrastructure and organisation, but also on a large number of other market forces.

Certain market participants are constantly trying to gain greater control over these chains, including vertical and horizontal alliances, mergers and acquisitions. (Van de Voorde and Vanelander, 2008, p. 5)

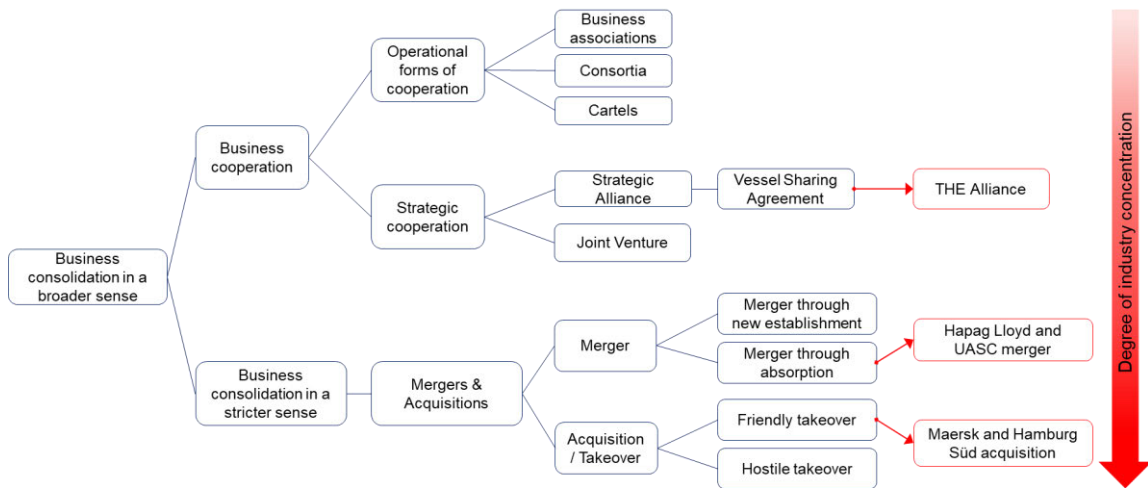


Fig. 3: Business consolidation and cooperation applied to the global container shipping industry (own graphic in reference to Gerpott, 1993, p. 39 and Wirtz, 2014, p. 12)

Figure 3 is a reminder of the different forms of cooperation and consolidation (see in chapter 2.1) but in this case, it is applied to the global container shipping line industry. Due to numerous challenges the shipping lines try to overcome at least a few problems by applying different consolidation approaches. In the following chapter, three different strategic approaches are thoroughly presented and analysed. The figure above places them in a consolidation frame and describes their extent of concentration.

4 Consolidation in the global shipping industry

4.1 Strategic approaches to market consolidation

4.1.1 Vessel sharing agreements in the shipping industry

One of the most significant developments in the containers shipping industry over the last few years has been the formation of strategic alliances, also called vessel sharing agreement (VSA). These arrangements can be quite complex and in some cases, companies have consolidated and as a result joined an alliance or they joined to later merge with or take over a VSA partner. There have been a number of global alliances in the shipping industry which affect a broader cross-section of the industry. (Slack, Comtois, and McCalla, 2002, p. 65)

A vessel sharing agreement is a strategic alliance of a consortium of carriers. VSA's employ assets and know-how of competitors and thereby lower the individual operating costs for each participant member. Additionally, they offer stability to the customer because more frequent sailings and wide services can be offered. (Bowman, 1996, p. 40)

Container shipping lines have undergone a transformation by reshuffling existing alliances and creating new ones. By doing so, the top 10 global carriers are grouped in three global VSA alliances. Such alliances have become increasingly important, as shipping lines seek to improve the utilisation of their capacity which is associated with larger vessels and also reducing operational costs by sharing. (UNCTAD, 2017, p. 49)

VSAs resulted out of a combination of reasons including the need for more extensive networks and more frequent sailings from the same carrier or under the same Bill of Lading (B/L). A bill of lading is the basic document of a cargo-conveying vessel and it is showing the receipt of the goods carried. The bill of lading determines the legal status of the recipient; it is not a document accompanying the goods, as the consignment note, but a receipt and at the same time it generally replaces the handover of the goods for legal purposes. They are also very important in case of difficulties or claims for damages to the parties involved. (Gabler Wirtschaftlexikon, 2017)

Before VSAs, when customers would miss a vessel sailing to transport their cargo, they had to wait until the next sailing which would normally be a week away. By being

part of a VSA, the carriers combine their network services and sailings which results in a higher frequency of departures. Each shipping line reserves space on their vessels for containers of their alliance partners. So, when a ship of a VSA partner leaves earlier, the cargo is redirected and loaded on a partner vessel which results in a punctual transport for the customer. All of this happens under the same B/L of the carrier the customer originally booked with making it easy to protect the cargo and resolve legal issues. Further, if only a certain carrier in a VSA is allowed to import cargo in a country, the other partners can use this right as well with cargo that is booked under a B/L of the affiliated carrier. (Bowman, 1996, p. 40)

Because VSA members share their spaces, they need fewer vessels. This often results in a reduction of port calls and service options which in turn allow the partners to set up new services, for example more direct sailings or ones that connect each other's networks enlarging them further. Any problems such as liability for loss or damaged cargo are worked out through the carrier that issues the B/L. There is a direct communication for resolving issues for the customer. (Bowman, 1996, p. 41)

Reasons for establishing a vessel sharing agreement are mostly the same or very similar to motivations of establishing strategic alliances in general. Possible causes of VSAs include determinants of stability. Further, the alliance partners seek to minimize their transaction costs.

Generally, the groupings are framed by globalisation and competition pressure. To extend their market coverage globally was made essential for shipping lines because of the growth of world trade. The costs of providing such global and extensive service networks have been increasing at the same time as carriers need to deploy larger and more expensive vessels. Further, the emergence of new carriers and other alliance formations heightened competition for the remaining players. Therefore, the shipping lines had to restructure. (Slack et al., 2002, p. 66)

In addition, VSAs lower the operating costs for each carrier involved by sharing space and vessels. This does not automatically reflect in lower rates for the customers which produces profit opportunities for the shipping lines. Moreover, carriers view participation in a VSA as necessary for survival in a very capital intense industry. Without these arrangements, individual carriers would only be able to manage about half of their existing number of sailings. Carriers may also share port terminal lease agreements, which further drive down costs. (Bowman, 1996, p. 42)

The development of VSAs and other alliances is widely held to have an impact on how the shipping services are structured. With the expansion of international trade over the 1990s, and the underlying boom of globalisation, the container shipping industry has been driven into expanding its reach. The total number of services has grown to 422 from 1989 to 545 in 1999 while simultaneously the number of individual lines decreased due to consolidation measures.

Container shipping companies have been engaged in cooperation measures since the beginning of containerisation, from rate and capacity agreements to slot charger and joint service provisions. Shipping lines have experienced a wide range of joint ventures and since 1989, the trend has been to extend the number of joint services across a broad spectrum of the industry. With a few exceptions, the majority of services offered by container shipping lines since 1999 are joint. (Slack et al., 2002, p. 67-68)

While the size of the carriers in terms of capacity remains considerable, there has been a convergence in the number of services offered by all the shipping lines involved in a VSA or alliance. This trend towards service equality in the 1990s has been achieved through newer Asian carriers greatly expanding their offers as well as a trend towards involvement in joint services among the competitors. Companies who sought membership in alliances have been those that have tended to be already involved with others in joint activities. Motives and reasons for an alliance include that established carriers can continue to serve existing markets with fewer capacity commitment and therefore divert capacity to add new services and exploit new markets. Newer carriers on the other hand can enter routes that were difficult to penetrate independently but are possible through an alliance. Service provision differences between the alliance members have diminished while the global reach of the companies have expanded.

Alliance membership and/or participation in other types of joint services have given carriers opportunities to rationalize their existing operations by pooling assets, meaning vessels, and expand their activity with their liberated ships. Additionally, there is an overall growth of vessel size since technological barriers no longer constrain ship size and alliance services account for the largest-capacity ships.

Members have contributed their largest vessels to alliance services, resulting in pooling of assets that assures a service capacity that few would be able to match as separate operators. If the size of vessels deployed by alliances and their members are considered, growth is revealed in virtually every instance. (Slack et al., 2002, p. 69-70)

Shipping alliances such as VSAs have introduced more uniformity in the industry. The number of services and sailing frequencies have become more alike and companies are investing in even larger vessels that are being deployed in jointly offered services. Also, as an outcome of alliance structures, there has been intensification of the industry's operations. Pooling assets has enabled companies to widen their scope of operations, establish new service routes, increase sailing departures, deploy larger and more expensive vessels and call more ports on their voyages. Alliances in the shipping industry are seen as measures of service integration and deepening of service conformity (Slack et al., 2002, p. 74-75)

On May 13th 2016, the container shipping lines Hanjin, Hapag-Lloyd, Kawasaki Kisen Kaisha (K Line), Mitsui O.S.K. Lines (MOL), Nippon Yusen Kabushiki Kaisha (NYK), and Yang Ming Marine Transport Corp. (Yang Ming) have announced their agreement to create a new alliance called "THE Alliance". Within the scope of the new VSA, they wanted to offer joint services on East-West trade lanes connecting Asia to Europe and North America. The shipping lines concluded a binding agreement to establish the new alliance and scheduled operation to begin in April 2017 for an initial term of cooperation for five years. This new VSA was also subject to approval of all relevant regulatory authorities.

Motives for the participating shipping lines were to build a large network in the industry with an approximated 18% of global market share. Further, they wanted to fasten transit times for cargo, increase sailing frequencies, and expand their port coverage. (K Line, 2016a)

At the time that "THE Alliance" was established, Hapag-Lloyd and another carrier United Arab Shipping Company (UASC) were discussing to combine their businesses further and the alliance members expected UASC to join if the plans with

Hapag-Lloyd were successfully followed through. (Hapag-Lloyd, 2016a) This raised the global market share of THE Alliance to 21%. (UNCTAD, 2017, p. 49)
This merger will be further presented in the following chapter.

By March 2017, the member shipping lines agreed upon deploying 240 vessels in 32 joint services connecting more than 75 ports globally. In addition, they announced their intentions for a contingency plan in case a member of THE Alliance would suffer a bankruptcy. The members plan to establish an independent trustee to manage funds that could be used to continue alliance operations in the event of an insolvency of a member. They stated that their customers showed a demand for a safety net. (Hapag-Lloyd, 2017a) This stems from one of the members, Hanjin Shipping, filing for court receivership on August 31st 2016, after its board voted unanimously. This marked the largest bankruptcy ever to take place in container shipping. (UNCTAD, 2016, p. 39)

The collapse of Hanjin pointed out the extent of the crisis in shipping. Of the biggest twelve shipping companies, eleven have announced huge losses for 2016. Three Japanese carriers, K Line, MOL, and NYK, looked particularly vulnerable. Activist investors were pressing for them to merge to avoid the same fate as for Hanjin. (The Economist, 2016) The carriers announced their merger on October 31st 2016, exactly two months after Hanjin's announcement. They established a new joint-venture company and signed a business integration contract and shareholders agreement for future funding. Their contribution ratios were relatively even, with NYK's share being slightly higher. Motives and aims for the merger were to combine their operational efficiency and reach economies of scale effects in order to boost their competitiveness and ultimately profitability. The operational service start was scheduled for April 2018. (K Line, MOL, and NYK, 2016)

On July 10th 2017, the three shipping lines released the name and structure for their new JV called Ocean Network Express (ONE) which would operate as a new carrier after the companies merged into it. Together, they would become the 6th largest container shipping line in the world in terms of their fleet's capacity. (K Line, MOL, and NYK, 2017)

ONE would replace the three carriers as members of THE Alliance. Due to financial problems and consolidation measures taken by the participating carriers, THE Alliance member structures changed heavily. The alliance initially had six members

with UASC joining after its merger with Hapag-Lloyd, Hanjin exiting, and three members merging, leaving it to four remaining members in the future.

Currently, there are three main VSA alliances in the global shipping industry. The 2M Alliance consists of the two biggest players in the market, Maersk and Mediterranean Shipping Company (MSC) and recently Hyundai Marine Merchant (HMM) joined them. (Alphaliner, 2017; MSC, 2017) Secondly, there is the Ocean Alliance consisting of CMA CGM (Compagnie Maritime d’Affrètement and Compagnie Générale Maritime) and its subsidiaries, Evergreen, China Ocean Shipping Company (COSCO) and Orient Overseas Container Line (OOCL). THE Alliance constitutes the last big alliance in shipping. Together, these three alliances control over 90% of the global market share. (UNCTAD, 2017, p. 49)

According to above information, the requirements for a polypolistic market, where a small group of competitors control a large share and leave the rest to significantly smaller players, are confirmed. It is uncertain whether even more market participants will join these types of alliances up to a point where nearly no competitor operates solely on its own. In addition, the alliance members seem to perform deeper consolidation measures within the alliance itself as indicated above with two mergers in THE Alliance, bringing in new members or decreasing the amount of member shipping lines.

4.1.2 Mergers in the shipping industry

Disappointing rate developments had a significant impact on Hapag-Lloyd's financial result in 2016. The first half of the year was characterized by subdued economic growth in many parts of the world, fierce competition in liner shipping and further declining freight rates. While transport volumes remained stable, the average freight rate fell by USD 254 or almost 20 percent compared with the previous year.

Bunker prices were lower in the first few months, but rose again in the second quarter of 2016, while freight rates remained low. This led to an additional strain on earnings. The half-year results are disappointing, "said Rolf Habben Jansen, CEO of Hapag-Lloyd. "In the second half of the year, our main focus will be on further improving our cost base and doing everything possible to bring freight rates back to a more sustainable level".

In addition, it is a challenging competitive environment for Hapag-Lloyd, which generated an EBIT loss of almost EUR 40 million in the first six months of 2016 alone, compared with a net profit of almost EUR 270 million in the previous year. (Hapag-Lloyd, 2016b)

Although the beginning of 2016 presented a challenge to the entire container shipping industry and Hapag-Lloyd's financial result reflected this, a positive operating result was achieved by the end of the year.

During the first six months of the year, they had a very challenging market environment, but were able to significantly improve revenue and earnings in the second half of the year. Compared to other competitors in the industry, Hapag-Lloyd performed relatively well in 2016. Their future success will largely depend on the ability to achieve more sustainable freight rates. In the longer term, the lack of order book entries for new builds and persistently high levels of scrapping indicate a better balance between supply and demand for capacity. The noticeable improvements in transport costs due to the lower average fuel bunker price in 2016 led to the deployment of larger and more efficient ships.

(Hapag-Lloyd, 2017b)

During an Extraordinary General Meeting (EGM) on the 29th June 2016, all six of UASC's (United Arab Shipping Company) shareholders unanimously approved the

proposed merger with Hapag-Lloyd. The relative valuation of the two businesses will be composed at 72% for Hapag-Lloyd's shareholders and 28% for UASC's shareholders. (UASC, 2016a) Since Hapag-Lloyd's stake is significantly higher than UASC's stake, this is a merger through absorption where UASC will be integrated into Hapag-Lloyd. From Hapag-Lloyd's point of view, this merger is referred to as a takeover. (Hapag-Lloyd, 2017d)

This merger was subject to regulatory approval and both companies would operate independently until then. The integration was initially planned for April 2017. Further, they would operate in their current alliances until the end of March 2017, where after UASC was to join THE Alliance which commenced operations. (UASC, 2016a)

It was about three weeks after the approval of all shareholders, when Hapag-Lloyd and UASC signed a Business Combination Agreement (BCA) to merge the companies on 18th July. In addition, Hapag-Lloyd's three main shareholders - CSAV, the society for investment management of the City of Hamburg and Kühne Maritime - as well as UASC's two main shareholders - Qatar Holding LLC on behalf of the State of Qatar and The Public Investment Fund of the Kingdom of Saudi Arabia - signed a Shareholders Support Agreement (SSA) which records certain commitments with regard to the merger and the future equity funding of the company. The controlling shareholders of both companies committed to a cash capital increase of USD 400 Mio. within six months after closing the transaction to boost a successful integration. (UASC, 2016b)

Shareholder agreements such as a SSA, govern the relations among shareholders in privately held firms, for example joint ventures. These clauses can ensure that the affiliated parties make efficient investments in the firms. They do so by constraining renegotiating. Shareholder agreements specify the rights and the duties of shareholders when those prescribed by law and regulation are thought not to be sufficient. They are mainly used when at least some shareholders are actively involved in managing the company.

These agreements generally grant the parties the following six rights: first, the option to put their stakes to their partners or to call their partners' stakes at a strike price, typically set at "fair" value; secondly, tag-along rights which allow to demand of a trade buyer buying their partners' stakes the same treatment as received by their

partners; thirdly, drag-along rights which allow the parties to force their partners to join them in selling their stakes to a trade buyer; fourthly, demand rights which allow to force their partners to agree to taking the firm public in an IPO (Initial Public Offering); fifthly, piggyback rights which allow parties to be included in an IPO in proportion to their stakes in the firm; and lastly, catch-up clauses which maintain the parties' claims to part of the payoff from a trade sale or an IPO when the parties have ceded their stakes to their partners following the partners' exercise of a call option. In the absence of relevant clauses, renegotiation may distort the parties' shares of the firm's payoff, thereby altering their investments in the firm. By constraining renegotiation to maintain the parties' shares of the payoff, clauses serve to maintain the incentives to make efficient investments (Chemla, Habib, and Ljungqvist 2007, p. 93-94)

The motivations of Hapag-Lloyd behind this merger include being able to offer a global, diversified trade portfolio and strengthening its presence in the Middle East alongside establishing a new regional headquarter in Dubai adding a fifth Regional Center to their existing ones in North America, Latin America, Asia, and Europe. (UASC, 2016b) Further, the deal would grant them access to UASC's eco-efficient fleet of ultra-large container vessels (in the following ULCVs) which constituted one of the youngest fleets in the industry. This had the advantage that no new vessels would have to be bought for several years and investment remained low. As a result, more money was available to reduce debts that Hapag-Lloyd and UASC both burdened. (Handelsblatt, 2017b)

UASC's reasons include financial stability, access to growth opportunities with a larger carrier by expanding the service network and making use of scale effects, and entering a large alliance, THE Alliance, after the transaction. The unanimous approval regarding this consolidation measure display the support the companies had by their shareholders and boards.

The closing of the merger was expected for the end of 2016 when all regulatory and contractual approvals and arrangements were settled. (UASC, 2016b)

The merger in terms of the transaction was expected to be completed by the end of 2016, but it was significantly delayed despite the fact that most antitrust authorities had already given their consent in advance. The reasons for this were the complex

structures of the transaction in connection with additional bureaucratic efforts. (Handelsblatt, 2017b) In May 2017, the merger was finally completed. Since the signing of the BCA in July 2016, approx. a dozen antitrust and competition authorities across the world approved of the transaction, changes in the corporate legal structure were made and the consent of some banks involved was acquired. The focus of the integration would be the combination of over 160 services, the integration of UASC's vessel fleet into that of Hapag-Lloyd, and the system training of employees. These processes were planned to take until the end of the third quarter, namely October 2017. After that UASC's transport volumes should be handled by Hapag-Lloyd systems. (Hapag-Lloyd, 2017c)

In addition to the integration, the merger with UASC was expected to generate annual synergies of USD 435 million. A large portion of those savings were planned to be realised by 2018 and the full amount is to be achieved in 2019 for the first time. The savings would be counterbalanced by one-off expenses of approximately USD 150 million from the transaction and the integration of UASC into Hapag-Lloyd. (Hapag-Lloyd, 2017b)

Hapag-Lloyd was not unfamiliar in undertaking consolidation measures. In 2005, long before a consolidation wave hit the industry, they merged with the Canadian shipping line CP ships. In the course of the financial crisis, Hapag-Lloyd was almost taken over by another carrier, Neptune Orient Lines (NOL) from Singapore, but was bailed out by the City of Hamburg and Kühne Maritime who increased their shares significantly and became Hapag-Lloyds key shareholders alongside CSAV. (Handelsblatt, 2017b)

Moreover, in 2014 they acquired and integrated the Chilean container shipping line Compañía Sud Americana de Vapores (CSAV). During that year, Hapag-Lloyd was influenced financially by one-off effects, the integration of CSAV, and a reduction in value of a portfolio of older vessels. A drastic drop in oil prices only slightly eased the cost situation for Hapag-Lloyd and the Group reported a net result of EUR -600 million in 2014. On a positive note, the acquisition resulted in annual savings of at least USD 300 million and Hapag-Lloyd initiated a large number of other measures, from which it expected a significant improvement in earnings. (Hapag-Lloyd, 2015)

Already in August 2017, positive side effects of the merger with UASC began to show. Hapag-Lloyd's operating result and volume growth in the first half of 2017 was significantly better than in the months before and the company achieved a positive profit compared to a loss recorded in the first half of 2016. The result would have been even higher, but it included one-off effects related to the merger with UASC which deducted nearly EUR -20 million of the profit. This is due to the completion of the merger in May 2017, where after the financial results were consolidated. (Hapag-Lloyd, 2017d)

The integration of UASC into Hapag-Lloyd was finalised by the end of November, hence it took six months since the merger transaction completion to combine operations, IT-systems, fleets and the workforces. Together, the consolidated companies operate a fleet of nearly 240 vessels with 1,5 million TEU capacity, and over 12,000 employees. Through this merger, Hapag-Lloyd became the fifth largest container shipping line in the world with a market share of approx. 7%. (Handelsblatt, 2017g; Alphaliner, 2017)

4.1.3 Acquisitions in the shipping industry

Each form of consolidation aims to strengthen the competitive position of the individual participant. In the case of horizontal agreements, the optimal configuration of companies depends on the benefits of scale and scope. Such economies of scale and scope are crucial for the business combination and diversification strategies of companies. They also have an impact on pricing, entry and exit behaviour and the question of whether long-term sustainability of the competitive advantage is achievable. (Van de Voorde et al., 2008, p. 16)

In practice, acquisitions dominate over mergers. Real mergers are rarely possible, as fiscal and organisational disadvantages make the merger of two companies, where one or both lose their legal identity, a difficult undertaking. In most acquisitions, on the other hand, what was acquired remains as a separate legal unit. (Hagemann, 1996, p. 54) A good example of this is the acquisition of Hamburg Süd by A. P. Moller-Maersk.

On the 1st December 2016, the Dr. August Oetker KG (in the following Oetker Group) announced it will divest its shipping business and thereby the Hamburg Südamerikanische Dampfschiffahrts-Gesellschaft KG (in the following Hamburg Süd) including all activities, subsidiaries and principal assets after owning it for more than 80 years.

This decision was made by the owners of the Oetker Group. The global container liner shipping industry has been suffering from losses for years in the context of increasing overcapacity. Hamburg Süd has performed well in comparison with its competitors though. It has grown considerably faster than the market and has largely financed the expansion of its network as well as the ship and container fleet from its own cash flow. However, Hamburg Süd's owners and management have recognised that an active participation in the consolidation process of the industry would require even more capital investment which would then make it more difficult to balance risks within the Oetker Group's business portfolio. Therefore, the Oetker Group came to the decision to divest the shipping line, which accounted for nearly 50% of their total group sales, to Maersk Line. (Oetker-Gruppe, 2016)

Maersk Line has announced in September 2016 that its strategy for 2017 included growing market share organically as well as through acquisitions. Hence, this deal

was in line with their strategy. The acquisition was subject to due diligence from both ends and the signing of a final agreement to ensure the transaction and negotiate conditions. (Maersk Line, 2016)

From a Maersk point of view, Hamburg Süd is an attractive acquisition: the shipping company has always had a strong position in South America, adding important connections to Maersk's network. With the combination of these two companies, Maersk is further increasing its lead over the competition. If the antitrust authorities accepted the deal, the carrier and its allies were expected to reach a market share of approx. 19 percent in container shipping alone from mid-2017 onwards, well ahead of all competitors. From Hamburg Süd's point of view, the takeover is the only solution. One of the reasons for this is that Hamburg Süd remained practically a stand-alone competitor in the shipping industry. By contrast, other competitors had already formed alliances with other shipping companies at the beginning of the shipping crisis. The carriers sell the empty spaces on their vessels together, enabling them to better manage the demand and routes of their ships. Hamburg Süd, on the other hand, never managed to find a place in such a network. With the acquisition by Maersk Line, they would join such an alliance, the 2M Alliance. (Goebel, Steinkirchner, and Brück, 2016)

More than three months after the announcement of the deal, the Oetker Group and Maersk Line signed a Sale and Purchase Agreement on 14th March 2017 which had to be reviewed and authorised by the respective Supervisory Boards and Shareholder Assemblies. (Oetker-Gruppe, 2017). This agreement certified their decision taken a few months before and was authorised by the boards involved in April. Maersk Line would acquire Hamburg Süd for EUR 3,7 billion on a cash and debt-free basis. The deal was financed through a syndicated loan facility. Together, the two shipping lines will have a capacity of approx. 4,15 million TEU and a 19,3% global fleet capacity share consisting of 773 vessels making it the largest container vessel fleet in the world.

The motivations for this acquisition included offering more frequent and faster services, more port calls, as well as extending the coverage especially in the Latin America Region. In addition, the acquisition was expected to realise sizable operational synergies as well as commercial opportunities. Combined, the two companies would realise synergy effects of USD 350-400 million annually starting

after the implementation in 2019, which would mainly be derived from integrating and optimising the networks as well as standardising procurement. (Maersk Line, 2017a)

In May, Maersk and Hamburg Süd announced changes to the management and board of Hamburg Süd which would come into force following the effectiveness of the sale and purchase agreement between the parties. As required by competition laws, Hamburg Süd operated independently until the conclusion of the acquisition. Some executive managers of Maersk would join as members of the Executive Board of Hamburg Süd and they announced a new Chief Executive Officer who was recruited from among their own ranks.

After the integration, Hamburg Süd would remain a separate brand with its own structure operating under the umbrella of Maersk. Its respective management was asked to continue in their current capacity. Further, the presence of Hamburg Süd in Germany within their own head office would remain for an initial period of five years. (Maersk, 2017b)

The acquisition was subject to approval of several regulatory authorities. On 23rd March 2017, the US Department of Justice approved to proposal and on 10th April 2017 the EU Commission approved the deal though subject to the condition of withdrawing Hamburg Süd from the MESA VSA operating on the Mediterranean. Maersk offered commitments to any impediments removing potential competition. The Brazilian regulatory authority Conselho Administrativo de Defesa Econômica approved the deal after making sure that Maersk would divest Mercosul Line, a domestic Brazilian carrier.

Since Hamburg Süd has by the time held a subsidiary in Brazil, Alianca Navegacao e Logistica (Alianca), keeping Mercosul would have resulted in Maersk holding a monopolistic position with approx. 80 percent control of the Brazilian domestic shipping market. (World Maritime News, 2017b) The divestment to the French carrier CMA CGM was announced on 13th June 2017 by both shipping lines. The motivations for CMA CGM were to strengthen its service offering in Brazil and more broadly in South America with specialised domestic services. This smaller-scale transaction was part of CMA CGM's core strategy which was to develop intra-regional sea transportation links and complementary services. The integration of

Mercosul would take place at the same time as the integration of Hamburg Süd into Maersk, which was expected in the last quarter of 2017. (CMA CGM, 2017)

In regard to the acquisition of Hamburg Süd by Maersk Line, South Africa's Competition Tribunal declared their approval of the deal in October. This approval was subject to Hamburg Süd's withdrawal from the regional SAAF VSA. Maersk Line adhered but was to stay active on those trades after the integration. Before South Africa, regulatory authorities from the US, Australia, the EU, Mexico, Turkey, Japan, Brazil and Ecuador already announced their consent. (World Maritime News, 2017c) China's Ministry of Commerce had to confirm some commitments by Maersk before approving the acquisition. First, Hamburg Süd's membership in two regionally operating VSA's related to trades from Far East Asia to South America had to be terminated. Second, for a period of three years the combined capacity of Hamburg Süd and Maersk Line for containers on the trade from Far East Asia to the west coast of South America had to be reduced from 45-50% to 34-39% capacity within 90 days after closing. Both shipping lines promised to comply these requirements and were granted approval on the 8th November. (World Maritime News, 2017d)

The last authority to approve the takeover was the Korean Free Trade Commission. The Commission ordered corrective measures where Hamburg Süd's vessels were to withdraw from a VSA active on Far East Asia to Central America and the Caribbean. Maersk Line further agreed not to extend Hamburg Süd's membership of a currently active VSA and not to enter any VSAs with its main competitors within five years of closing. (World Maritime News, 2017e)

On the 30th November 2017, the transaction between the Oetker Group and Maersk Line for the acquisition of Hamburg Süd was closed. The deal triggered regulatory approvals of 23 jurisdictions which were obtained by 28th November. The official closing came after a year of integration planning to create a joint baseline, a new Target Operating Model and plans for the implementation and synergy capture. The companies will begin by coordinating the commercial activities to grow joint revenues while integrating operations to start realising the expected synergy effects as soon as possible. (Maersk, 2017c)

Exactly one year after the first announcement, Hamburg Süd released a statement on 1st December 2017 to their customers, affirming that they belong to A.P. Moller

Maersk. Nevertheless, they will remain an independent brand with its own values and employees in offices worldwide. (Hamburg Süd, 2017)

This transaction is part of a series of changes that have kept the global container shipping industry busy in recent times. After many years of crisis, the industry is being reorganized. Market participants exit the industry, they are being taken over by others, and they pursue a high degree of external company growth in an attempt to get away as well as possible in their difficult environment.

4.2 Scenarios for future market consolidation

The present trend of consolidation seems destined to continue in the near future because from a strategic point of view, recent years have shown partial change in shipping lines' strategies. (Midori et al., 2005, p. 102) Some industry players have taken it upon themselves to make consolidation a part of their strategies. In this way, they pursue specific goals, mostly growth and cost-saving targets, which they want to achieve through cooperation and consolidation activities.

The Chinese container shipping line Cosco plans mega fusion. The consolidation wave sets forth with a planned billion-dollar takeover. The world's 4th largest container shipping line Cosco wants to buy its smaller rival Orient Overseas Container Line (OOCL) from Hong Kong for USD 6,3 billion.

The world's shipping fleet with ever bigger vessels has grown faster than the globalisation it serves, which has pushed OOCL in the arms of an acquirer. Consequently, on July 9th 2017, OOCL's owners announced its sale to Cosco. If the transaction is approved by antitrust regulators in America and Europe, it will be the latest of a string of a consolidation wave. The industry may develop into regional oligopolies. By 2021, the top seven shipping lines will control approx. 75% of the market share in terms of fleet capacity, compared to 37% in 2005.

After the acquisition, the state-owned Chinese shipping giant Cosco would become the third largest container shipping line in the world. The China Development Bank has granted Cosco a credit line of USD 26 billion a couple of months ago which sparked their consolidation behaviour initially.

Consolidation should allow the two firms to remove any unprofitable overlap in their routes and operations. OOCL's value to Cosco lies in its management talent and its tonnage, it is run more efficiently than other competitors which might explain why Cosco's offer price seems full of respect, valuing OOCL at 40% above its book value. Recovery in the industry is vulnerable to a variety of dangers, including potential trade frictions and the remaining supply overhang. (Handelsblatt, 2017f and The Economist, 2017b)

Another key industry participant, French container shipping line CMA CGM, has confirmed the order for nine 22,000 TEU container vessels in order to keep up the

pace with market growth and to further reduce transport costs. The company signed a letter of intent (LOI) with a Chinese ship building yard for the construction. CMA grew significantly in 2017 after the successful takeover and integration of the Singaporean carrier APL and the launch of the Ocean Alliance. (World Maritime News, 2017a) Thereby, they outperformed the industry and continue to grow with an acquisition in 2018 of Brazilian carrier Mercosul from Maersk, which they had to divest as a result of their acquisition of Hamburg Süd.

The shipping company has good reasons for ordering ships. With the planned merger of Cosco and its rival OOCL, the French shipping line has to fear for its position as the world's number three. The nine mega-ships would give them a head start over Asians, albeit only slightly.

The race for increasingly large freighter vessels has been kicked off in 2011 by technical innovations in ship propulsion, which allowed ships to reach a length of up to 400 metres and a width of 59 metres. This was the first time that their loading capacity exceeded the 20,000 TEU mark in 2017. In 2005, the "Gudrun Maersk" was regarded as the world's largest container vessel in comparison - with a capacity of just 8,500 TEU. (Schlautmann, 2017)

Previous consolidation activities, such as the acquisition of Hamburg Süd by Maersk Line are linked to a whole chain of changes that have kept global container shipping busy in recent years. There is a reorganization taking place in the industry.

Successful consolidation measures of this kind give new hope that ships will disappear from the market through bankruptcies, mergers and takeovers and that they will be able to achieve an equilibrium. (Goebel et al., 2016)

But as the past has shown, ships and the associated capacity only disappear for a short time when a shipping line goes bankrupt and then return to another carrier when they are bought second-hand. Thus, the problem of capacity reduction is not solved. In order to achieve positive long-term effects, fewer ships have to be ordered and more older ships scrapped. However, as the price margin between new steel is currently very small compared to used steel, the scrapping rate has also fallen in recent years, as many older ships can only be scrapped and sold for a fraction of their residual value. The effects do not only affect the shipping lines with continued overcapacity, but also the scrap yards that run out of business.

In the first half of 2017, concerns in the container industry had given way to cautious optimism. Many excess vessels were scrapped and there were almost no new orders. But with the launch of CMA CGM's order, the spiral could set in motion again. In 2018, this means that where the contracts allow it, shipping companies are beginning to postpone the delivery of new ULCVs as the two challenges of cellular overcapacity and weak demand are continuing. Approx. 1.5 million TEU are expected to be put into service in 2018, of which 1.2 million TEU will be delivered before the end of June which aggravates the problem of overcapacity. Global capacity is expected to grow by more than 5% this year, based on new capacity deliveries and the expected further slowdown in scrapping. (Wackett, The Loadstar, 2018a) It almost seems like the shipping lines still have not learned from past actions and are rather trying to combat secondary issues, like the reduction of costs in order to still earn a profit or forming ever-bigger alliances to exert more market power, than treat the causes that affect overcapacities and low freight rates in the first place. Moreover, another disruptive factor remains as many Asian shipping lines are state-owned, for which shipping is of strategic importance and therefore economic equilibrium not a priority.

In addition to the current situation, rising fuel prices pose a renewed risk to the profitability of carriers. The bunker costs for vessels are rising almost daily and the effects on the container shipping lines are clearly visible. The fuel price increases could theoretically be passed on to customers, but there has always been a delay in obtaining compensation. (Wackett, 2018b) The reason for this delay is, that most freight rates are negotiated in yearly contracts and cannot be changed afterwards. More specifically it implies that before going into contract-rate negotiations, the carriers have to predict which type of changes to the fuel price will occur in the coming year in order to pass increases on. Only a smaller proportion of freight rates are so-called spot rates. Here, a bunker increase can be transmitted rather easily.

International freight rates themselves are reversing after climbing for most of 2017 and raise questions about the sustainability of the global trade recovery. London-based shipping industry analyst Drewry expects the container shipping freight growth rate to drop significantly in 2018 as further supply is introduced in the market with CMA CGM's recent deal and a general uncertainty that is unhelpful to investor confidence. (Pandya and Nag, 2017)

Unless shipping lines introduce some sort of capacity discipline to one of the main worldwide trade routes, the transpacific (transpac) trade route, rate levels are likely to fall to unprecedented lows. Since the beginning of 2017, freight rates from Asia to the US have more than halved and these routes are further under severe pressure. Rates could weaken more and fall below key levels with significant uncertainty over the coming months.

The Transpacific Stabilization Agreement (TSA) once imposed such measures which were quite unsuccessful. The TSA has become increasingly weak with carriers in the once-dominant conference representing declining market share in terms of capacity and volumes. The world's largest carrier Maersk quit the TSA in December 2017 and after its departure, the TSA members will only hold 65% of total capacity on the trade, whereas before they held a combined market share of 80%. The agreement has announced 18 general rate increases (GRIs) but none managed to stick for any prolonged period and any success was short-lived.

With significant capacity expansion planned on the transpac trade in 2018, the TSA's weakened membership position could lead to further rate volatility. Once the current round of industry consolidation is complete next year, the TSA will comprise just seven carriers (Cosco-OOCL, CMA CGM, Evergreen, MSC, HMM, YML and Hapag-Lloyd). (van Marle, 2017)

In regard to future consolidation scenarios, there are many different options for the global shipping industry. It is plausible that even the few last carriers operating alone so far, such as the Israeli shipping line Zim or the Taiwanese shipping line Evergreen, will give in to the consolidation wave and enter into agreements. So far, however, it does not seem as though they are in enough financial distress to make them do so.

As already mentioned before, some consolidation deals have been announced for the coming year, which shows that the shipping lines are not yet ready to stop the concentration of the industry. Another insolvency, such as Hanjin's, seems to be avoided by selling-off to stronger competitors or merging with national partners. The financial and legal consequences after the event in summer 2016 were too severe to be repeated.

A possible future for the container transport industry could look like one in which the alliances of the big players continue to expand and dominate all three major international trade routes in the world. The competition between the largest companies will only be intensified because each of them tries to have the biggest or most efficient Vessel as a flagship. The prevailing problem of constant overcapacity is therefore not resolved, although the scrapping rates could pick up again if steel prices rise. Freight rates are likely to remain at low levels as customers have become accustomed to paying little for their cargo shipments. Thus, the introduction of general rate increases (so-called GRIs) could lack customer acceptance. The shipping lines will have to look for alternative ways to continue to make profit. One example could be the performance of value-added services. Some carriers also contact their customers directly, which makes the work of maritime companies such as freight forwarders unnecessary.

The industry's big players have probably already accumulated too much power to set the tone for the future of the industry. The interests of smaller carriers are ignored. They only have the opportunity to look for niches in the market and to specialize there, such as in domestic coast-to-coast transports.

In any case, it can be said that the future of the industry will show who can keep themselves above water by making smart deals and who has to give up and risk to be taken over.

In conclusion, it can be said that the current situation at the beginning of 2018 certainly does not look great. On a positive note, a combination of several positive trends, like higher negotiated contract rates, changes the fundamentals for a healthier market environment. The year 2017 has seen the strongest growth in containerised trade for about a decade and 2018 will show if this positive trend will continue. The future of the shipping industry therefore seems to look somewhat brighter. It is certainly still too early to make adequate predictions and to be euphoric, but there will continue to be a growing world trade, international trade and global shipping in the future. One thing is for sure: the crisis is yet far from over.

5 Conclusion

5.1 Summary

In chapter two different forms of cooperation and consolidation were presented along with motivations behind consolidation, possible benefits and risks.

Consolidation refers to the combination of two companies into one large organisation. Thereby a distinction between business cooperation measures and consolidation measures in a stricter sense can be made.

Cooperation refers to voluntary affiliation between companies who stay legally and economically independent throughout the process of undertaking cooperating activities. Further, operational cooperation forms like business associations and cartels can be distinguished from strategic cooperation forms. Special importance in the practical business world lies on strategic alliances. They differ from other forms of cooperation in the sense that they influence competition in the industry since they are a form of horizontal cooperation between direct competitors. Again, different forms of strategic alliances having different implementations on the market can be differentiated.

Business consolidation in a stricter sense refers to M&A activities which is a broad field of study on its own. By undertaking M&A activities, at least one of the affiliated partners gives up its economic independence. Hereby a company can be integrated into a corporate structure in a horizontal, vertical or lateral integration depending on the position of the involved partners in the competitive environment or along the supply chain.

The most powerful form of consolidation is an acquisition. In this case, one company takes over another through an asset or share deal and a transfer of ownership takes place. In addition, acquisitions can take place in a friendly or hostile manner, although it can generally be said that in the case of a friendly takeover, more information will be made available to the acquiring company as part of a prior target company review. In the event of a hostile takeover, the acquiring company faces more challenges.

In addition to acquisitions, there are mergers in which two companies are combined economically and legally. Here, a distinction can be made between a merger through new establishment, whereby a completely new company is founded to which all the

assets of the merging companies are transferred, and a merger through absorption, whereby one company's stake is significantly higher than that of the partner.

Some key motivations behind undertaking consolidation are the desires to realise synergy effects, diversify realign strategically, gain managerial pride and market power, and share risks. The fundamental here is the pursuit of potentials for competitive advantages and their successful implementation.

Financial motives, like wanting to maximise the company value through synergy effects, are a major factor of motivation and are complemented by strategic motives that pursue the associated diversification to expand the company's portfolio, attempt to increase competitive strength and try to reduce conglomerate risks. Lastly, some speculative motives, like the attempt to achieve temporal arbitrage gains resulting from the difference between the purchase price of a company and a higher sale profit, and tax motives drive companies to perform consolidation activities.

In relation to reasons behind consolidation - if the activity turns out to be successful - some benefits may be achieved. Being able to realise different synergy effects like scale effects, scope effects and cost synergies make out a big part of that. A successful integration of affiliated partners is the key to determine whether future synergies can be realised.

Naturally, consolidation always involves certain risks and challenges that companies have to face. First of all, there is the possibility that a cooperation or consolidation activity fails or that it is completely banned in some countries, such as measures like price cartels, because it disturbs competition too much. Further, cooperation activities can pose many risks, such as a loss of flexibility or autonomy that can do more harm than good to the companies involved. Cooperation and consolidation ventures are complex structures with a high degree of coordination and communication. Not all companies manage to cope with them.

Virtually all cooperation and consolidation measures are regulated by competition and antitrust authorities and must be approved in advance in the respective jurisdictions where the participating companies operate. Their aim is to keep competition fair, so that no oligopolistic or monopolistic market structures can emerge. Companies that are in an oligo- or monopolistic power relation have a great dominance on price and quantity of output and represent dangers for the customer.

For these reasons, authorities are examining the possible effects of consolidation measures in their country and can thus influence actions of the affiliated parties.

The next chapter (chapter 3) provided an overview of the structures in the global shipping industry as well as some competitive challenges the shipping lines had to and are still facing. The history and developments of containerised trade and the growing importance regarding globalisation were presented.

The global shipping industry was truly developed with the emergence of the container box in the mid-20th century and has been shaped by one evolution and two revolutions resulting in bigger vessels and larger ports. Nowadays, there are three main arterial trade routes connecting the continents. Most larger carriers have dedicated themselves to global coverage, connecting all major routes with frequent services. The crisis in shipping was sparked by overcapacity issues that became apparent after the financial crisis alongside a slowing down of trade growth. The industry has concentrated heavily over the years when taking fleet capacity into consideration. Freight rates reached record lows throughout the years and lower demands in a combination with excess capacity has made it difficult for shipping lines to earn a profit. These developments have caused the competitors to join forces and cooperate up to undertaking consolidation activities.

Chapter 4 presented three practical examples of strategic approaches to consolidation in the global shipping industry and included thoughts on scenarios for future market consolidation in relation to the research problem which will be answered below.

At first a special form of a strategic alliances was considered, so-called Vessel Sharing Agreements. They enable shipping lines to remain independent but to share space on vessels with competitors, thus making more efficient use of their capacities and at the same time reducing operational costs. They are directly linked to the central problem of overcapacities in the shipping industry.

In May 2016, the carriers Hapag-Lloyd, K Line, MOL, NYK and Yang Ming formed the THE Alliance. The motives of the individual shipping lines included the desire to expand their networks, better allocate their space on ships, and reduce operating costs. THE Alliance has been shaped by many events since its foundation. Initially, Hapag-Lloyd has announced its intention to merge with the Arab shipping company

UASC, which would be included after the completion of the transaction within THE Alliance. Shortly after the merger announcement, the member line Hanjin went insolvent, making it the largest bankruptcy in the industry to date. The effects of this event were felt for a long time afterwards and resulted in THE Alliance members agreeing to a contingency plan in the event of further insolvency. Three other participants, the Japanese shipping company K-Line, MOL and NYK decided to join forces to form a new carrier, Ocean Network Express. Hence, the number of member lines in the VSA continued to shrink. Today, most of the largest shipping lines have merged into three major VSA alliances which control over 90% of the global market share. As a result, there is hardly any business left for smaller carriers to run, and the question arises as to whether oligopolistic competition structures have long prevailed.

As a second practical approach to consolidation, the merger between Hapag-Lloyd and UASC was considered, following the previous subchapter.

In June 2016, the two carriers announced their merger, in which Hapag-Lloyd held approximately 2.5 times as much of the stake as UASC, making it a merger by absorption. The main shareholders of each company decided, in the scope of a shareholder support agreement, to boost a successful integration with a capital increase within 6 months after closing of the deal. Hapag-Lloyd was further strengthened in its competitive position by the takeover of UASC and became the fifth largest shipping line in the world.

As a third and last practical example, the acquisition of Hamburg Süd by Maersk Line was examined. In December 2016, the former owner of the Hamburg Süd, the Oetker Group, announced the sale of its container ship division to the Danish Maersk Line. This acquisition aligned with Maersk new strategy to strengthen itself through acquisitions in the future. Hamburg Süd brought better connections to their network in South America and strengthened their position as the world's largest shipping line with a combined market share of more than 19% in terms of fleet capacity. The two companies signed a sale and purchase agreement for EUR 3.7 billion on a cash and debt-free basis. In the course of the transaction, Maersk had to obtain approval from over 23 jurisdictions and their antitrust authorities. After a number of authorities imposed conditions, such as the sale of a local Brazilian shipping company named

MERCOSUL to the French shipping company CMA CGM, the acquisition partners were able to close the deal in November 2017.

Sub-chapter 4.2 offered an outlook on future developments in the shipping industry. The Asian shipping lines Cosco and OOCL have announced another major acquisition. This transaction will re-arrange the balance of power in the industry, prompting the French carrier CMA CGM to order new ULCVs. These vessels will be the largest vessels ever to be built with a capacity of 22,000 TEU. This is CMA CGM's attempt to continue occupying third place in the rankings of the largest shipping lines. In 2018 alone, however, around 1.5 million TEUs of new capacity will be pumped into the market, which will further reduce freight rates.

Consideration was also given to possible future scenarios for the industry. Consolidation seems to continue to prevail, as does the race for the largest and most efficient ship. The largest players in the industry will have to fight for profit in a tough competition, while smaller carriers will only have the chance to specialise in niches. In any case, the future of the shipping industry looks rather turbulent and the coming years will show which companies will survive.

The crisis in the global shipping industry has been going on for roughly a decade but reached its climax with the demise of Hanjin in 2016. This event sparked a wave of financial issues being brought to attention and was followed by extensive consolidation measures as some carriers' attempts to resolve some of their problems, strengthen their financial position and ultimately survive.

Some industry players have taken it upon themselves to make consolidation a part of their strategies. In this way, they pursue specific goals, mostly growth and cost-saving targets, which they want to achieve through consolidation measures.

The question to which extent container shipping lines need to undertake consolidation measures in order to survive in the global shipping industry is not easy to answer explicitly.

Past developments in the industry have indicated that carriers make certain agreements with their competitors and in doing so secure their survival in the global shipping industry by consolidation measures. Some industry participants have even managed to grow and expand their profits through consolidation. It is hard to imagine

how the shipping industry would look like today if each competitor had continued to operate on a stand-alone basis.

Especially the degree to which undertaking consolidation approaches is necessary to the carriers, is difficult to determine. On the one hand, it is possible that through consolidation the affiliated parties manage to strengthen themselves but would have survived anyway. On the other hand, it is imaginable that something like an insolvency would hit these companies if they did not combine their actions with others. Since there are many diverse reasons that go into the continued existence of a company, it cannot be said with certainty that purely financial reasons are responsible for the fact that they are consolidating. In some cases, a shipping line may solely need a change of leadership that is more strategic in its operations to make it successful again. One example for this may be Hamburg Süd. Its former owner, the Oetker Group, is a conglomerate which also holds companies that sell frozen food. Their portfolio is so wide-spread that they did not hold enough expertise to navigate the carrier through difficult market conditions. Therefore, the business was not managed profitably eventually and in the end was sold to Maersk.

It is uncertain if and when the consolidation wave will come to a halt in the global shipping industry. The top five largest container shipping lines have a combined market share of approx. 60% without taking their alliances with even more market power into consideration. As long as regulatory authorities approve of cooperative arrangements and other transactions and as long as the shipping lines can obtain enough financial resources in terms of credit from banks, consolidation will continue to unfold – maybe until there is only one monopolist left.

5.2 Critical Acclaim

The topic of this bachelor's thesis is an ongoing subject in relation to past, current and future developments in the global shipping industry. The aim was to provide an analysis and a comprehensive picture about consolidation concepts in a theoretical and in an applied sense.

Information displayed in this paper focussed on more recent events which occurred in the last decade. Especially information about consolidation developments of the shipping lines, namely in chapter 3 and 4, is of very recent nature. Future developments presented in chapter 4.2 include information as recent as of January 2018. Nonetheless, this means that references used for this thesis had to be narrowed down in terms of publishing date.

In the past, numerous scientific articles and papers relating the shipping industry, M&A activities, or similar topics have been written. However, only few papers focus on the general provision of causes and developments of consolidation in the global shipping industry related to shipping lines. This was a main driver in developing the topic for this bachelor thesis. Moreover, scientific research always requires a certain amount of time to be composed and published, which, with such current events and changes as in the shipping line industry, was not given in this case. Hence, the sources suitable for this bachelor thesis had to be expanded to press releases and news articles. Also, many sources were inaccessible to the author due to access restrictions e.g. of some scientific journals. Nevertheless, the sources used in this paper had to be carefully studied and analysed in order to gather and integrate comprehensive information for the reader.

In addition, many scientific quantitative approaches have already been used for work on consolidation issues, including consolidation in shipping. Numerous quantitative models and formulas for calculating the degree of concentration in an industry were developed. However, the focus of this work was on a qualitative search for causes and the application to practical and current events from the global ship line industry.

Lastly, this research was limited in time and scope due to the requirements imposed to a bachelor's thesis.

5.3. Outlook

This bachelor thesis is an analysis of causes and recent practical developments regarding consolidation measures. As explained in the critical acclaim before, this paper was limited in time and scope. Hence, it would be of interest to continue research and take other considerations into account.

For example, it would make sense to proceed monitoring the developments in the global shipping industry to investigate if consolidation measures will come to a halt at some point or continue to be performed until all smaller players vanished. Additionally, the future regarding the height of freight rates and levels of overcapacity is of interest to examine whether both will return to normal levels.

Another interesting approach would be to conduct a comparison between the hopes and motivations of shipping companies' pre-consolidation versus post-consolidation. Some, rather large, market participants made consolidation and the linked growth in size part of their strategies. It could be interesting to prove if their approaches to consolidation result in positive effects and match their expectations and help to eliminate the prevailing industry problems. This raises the question of the "crisis in shipping" will end.

In addition to the research carried out in this paper, the topic could have also been addressed from a different angle. A financial view or approach, for instance, would probably have entered deeper into the financial implications for the shipping lines and would have been more concerned with consolidation within the meaning of IFRS 10.

Furthermore, conducting a quantitative analysis and developing a model based upon this bachelor thesis would make sense to extend the research in this field. For instance, working with the Herfindahl-Hirschmann Index (HHI) to measure the industry's concentration could be a sensible complement to the findings in this paper. One approach to this would be the question if the global container shipping industry becomes more or less competitive through consolidation.

IV List of references

Alphaliner: Top 100, 2017

<https://alphaliner.axsmarine.com/PublicTop100/>, 16. Dec. 2017

Ariño, Africa; de la Torre, José: Relational Quality: Managing trust in corporate alliances, in: California Management Review Vol. 44 Issue 1, pp. 109-131

Berens, Wolfgang; Brauner, Hans; Strauch, Joachim; Knauer, Thorsten (ed.): Due Diligence bei Unternehmensakquisitionen, Stuttgart (Schäffer-Poeschel), 2013

Bowman, Robert J.: The two faces of Vessel-Sharing, in: Distribution 3 (1996), pp. 40-42

Business Dictionary: Consolidated Industry, Definition

<http://www.businessdictionary.com/definition/consolidated-industry.html>, 18. Nov. 2017

Chemla, Gilles; Habib, Michel A.; Ljungqvist, Alexander: An analysis of shareholder agreements, in: Journal of European Association 5:1 (2007), pp. 93-121

CMA CGM: CMA CGM to acquire MERCOSUL from Maersk Line, Press Release, 13th June 2017

<http://www.cma-cgm.com/news/1653/cma-cgm-to-acquire-mercosul-from-maersk-line?print=true>, 30. Nov. 2017

Dr. August Oetker KG (Oetker-Gruppe): Oetker Group divesting the shipping division, Press Release, 1st December 2016, Bielefeld

<http://www.oetker-group.com/en/press/press-releases.html>, 28. Nov. 2017

Dr. August Oetker KG (Oetker-Gruppe): Signing of Sales and Purchase Agreement, Press Release, 14th March 2017, Bielefeld

<http://www.oetker-group.com/en/press/press-releases.html>, 28. Nov. 2017

Faulkner, David; Teerikangas, Satu; Joseph, Richard: The Handbook of Mergers and Acquisitions, Oxford (Oxford University Press), 2012

Foit, Kristian; Lorberg, Daniel; Vogl, Bernhard: Volkswirtschaftslehre: Grundlagen und Mikroökonomie, Herne (NBW Verlag), 2015

Gabler Wirtschaftlexikon, Konnossement, 2017

<http://wirtschaftslexikon.gabler.de/Definition/konnossement.html#definition>, 04. Jan. 2018

Gerpott, Torsten J.: Integrationsgestaltung und Erfolg von Unternehmensakquisitionen, Stuttgart (Schäffer-Poeschel), 1993

Glaum, Martin; Hutzschenreuter, Thomas: Mergers & Acquisitions – Management des externen Unternehmenswachstums, Stuttgart (W. Kohlhammer), 2010

Goebel, Jacqueline; Steinkirchner, Peter; Brück, Mario: Oetker verkauft Reederei Hamburg Süd, in: WirtschaftsWoche, 2016

<http://www.wiwo.de/unternehmen/handel/oetker-verkauft-reederei-hamburg-sued-was-die-uebernahme-fuer-kaeuffer-maersk-und-verkaeuffer-oetker-bedeutet/14919560.html>, 28. Nov. 2017

Hagemann, Stefan: Strategische Unternehmensentwicklung durch Mergers & Acquisitions, Frankfurt am Main (Peter Lang GmbH), 1996

Hamburg Süd: Hamburg Süd to remain Hamburg Süd, Integration website, 1st December 2017 https://www.hamburgsud-line.com/liner/en/liner_services/integration_1/subpage_integration.html, 03. Jan. 2018

Handelsblatt: Schwerste Reederei-Krise seit 145 Jahren, in: Handelsblatt Online, 2017a
<http://www.handelsblatt.com/unternehmen/handel-konsumgueter/hapag-loyd-maersk-hamburg-sued-schwerste-reederei-krise-seit-145-jahren/19198178.html>, 02. Jan 2018

Handelsblatt: Deutschlands größte Reederei in schwierigen Gewässern, in: Handelsblatt Online, 2017b
<http://www.handelsblatt.com/unternehmen/handel-konsumgueter/hapag-loyd-deutschlands-groesste-reederei-in-schwierigen-gewaessern/19325756.html>, 05. Dec. 2017

Handelsblatt: Container-Riese macht Milliardenverlust, in: Handelsblatt Online, 2017c
<http://www.handelsblatt.com/unternehmen/handel-konsumgueter/moeller-maersk-container-riese-macht-milliardenverlust/19362358.html>, 02. Jan. 2018

Handelsblatt: Neustart für die Schifffahrtsbranche, in: Handelsblatt Online, 2017d
<http://www.handelsblatt.com/unternehmen/logistik-spezial/hapag-loyd-maersk-und-co-neustart-fuer-die-schifffahrtsbranche/19755902.html>, 05. Dec. 2017

Handelsblatt: Containerangriff aus China, in: Handelsblatt Online, 2017e
<http://www.handelsblatt.com/unternehmen/logistik-spezial/cosco-uebernimmt-oocl-containerangriff-aus-china/20039362.html>, 02. Dec. 2017

Handelsblatt: Zurück auf dem richtigen Kurs, in: Handelsblatt Online, 2017f
<http://www.handelsblatt.com/unternehmen/handel-konsumgueter/schifffahrtsbranche-zurueck-auf-dem-richtigen-kurs/20284782.html>, 02. Dec. 2017

Handelsblatt: Integration von arabischer Reederei abgeschlossen, in: Handelsblatt Online, 2017g
<http://www.handelsblatt.com/unternehmen/handel-konsumgueter/hapag-loyd-integration-von-arabischer-reederei-uasc-abgeschlossen/20657070.html>, 05. Dec. 2017

Hapag-Lloyd: 2014 financial year impacted by one-off effects and freight rate trend, Press Release, 27th March 2015

https://www.hapag-lloyd.com/en/press/releases/2015/03/2014-financial-year-impacted-by-one-off-effects-and-freight-rate_39623.html, 03. Dec. 2017

Hapag-Lloyd: Hanjin, Hapag-Lloyd, “K” Line, Mitsui O.S.K. Lines, Nippon Yusen Kaisha and Yang Ming to create a new partnership “THE Alliance”, Press Release, 13th May 2016a

https://www.hapag-lloyd.com/en/press/releases/2016/05/hanjin-hapag-lloyd-kline-mitsui-o-s-k-lines-nippon-yusen-ka_48455.html, 04. Dec. 2017

Hapag-Lloyd: Disappointing rate development affects results in first half of 2016, Press Release, 10th August 2016b

<https://www.hapag-lloyd.com/en/press/releases/2016/08/disappointing-rate-development-affects-results-in-first-half-of-.html>, 03. Dec. 2017

Hapag-Lloyd: THE Alliance announces completed product and unveils unique contingency plan, Press Release, 9th March 2017a

<https://www.hapag-lloyd.com/en/press/releases/2017/03/the-alliance-announces-completed-product-and-unveils-unique-cont.html>, 03. Dec. 2017

Hapag-Lloyd: Hapag-Lloyd with positive operating result in a challenging environment, Press Release, 24th March 2017b

<https://www.hapag-lloyd.com/en/press/releases/2017/03/hapag-lloyd-with-positive-operating-result-in-a-challenging-envi.html>, 03. Dec. 2017

Hapag-Lloyd: Hapag-Lloyd und UASC vollziehen Zusammenschluss, Press Release, 24th May 2017c

<https://www.hapag-lloyd.com/de/press/releases/2017/05/hapag-lloyd-and-uasc-complete-merger.html>, 05. Dec. 2017

Hapag-Lloyd: Hapag-Lloyd achieves significantly better operating result and will complete integration soon, Press Release, 29th August 2017d

<https://www.hapag-lloyd.com/en/press/releases/2017/08/hapag-lloyd-achieves-significantly-better-operating-result-and-w.html>, 05. Dec. 2017

IFRS Foundation: IFRS 10 Consolidated Financial Statements

<http://www.ifrs.org/issued-standards/list-of-standards/ifrs-10-consolidated-financial-statements/>, 18. Nov. 2017

K Line: Hanjin, Hapag-Lloyd, "K" Line, Mitsui O.S.K. Lines, Nippon Yusen Kaisha and Yang Ming to create a new partnership "THE Alliance", Press Release, 13th May 2016a

<http://www.kline.com/News-and-Press/2016/160513-The-Alliance-Hanjin-Hapag-Lloyd-K-Line-Mitsui-OSK-Lines-Nippon-Yusen-Kaisha-Yang-Ming.html>, 04. Dec. 2017

K Line; MOL; NYK: Notice of Agreement to the Integration of Container Shipping Business, Press Release, 31st October 2016b

<http://www.kline.com/News-and-Press/2016/161031-Notice-of-Agreement-to-the-Integration-of-Container-Shipping-Businesses.html>, 04. Dec. 2017

K Line; MOL; NYK: Notice of Establishment of Holding Company and Operating Company for New Integrated Container Shipping Business, Press Release, 10th July 2017

http://www.nyk.com/english/news/2017/_icsFiles/afieldfile/2017/07/14/July10.pdf, 05. Dec. 2017

Kummer, Christopher; Eiffe, Franz F.; Mölzer, Wolfgang: Mergers & Acquisitions – Leitfaden zum Kauf und Verkauf von Unternehmen, Vienna (LexisNexis), 2014

LV Management Update: An executive summary of industry news – Ocean carrier woes, in: Logistics Management (2016), p. 1

Maersk Line: Maersk Line to acquire Hamburg Süd, Press Release, 1st December 2016

<https://www.maersk.com/press/press-release-archive/2016/maersk-line-to-acquire-hamburg-sud>, 28. Nov. 2017

Maersk Line: Maersk Line and Hamburg Süd sale and purchase agreement approved, Press Release, 28th April 2017a

<https://www.maerskline.com/en/news/2017/04/28/maersk-line-hamburg-sud-sale-approved>, 28. Nov. 2017

Maersk Line: Announcement by the boards of Maersk Line and Oetker Group, Press Release, 04th May 2017b

<https://www.maerskline.com/en/news/2017/05/04/announcement-by-the-boards-of-maerskline-and-oetker-group>, 28. Nov. 2017

Maersk Line: Maersk Line obtains final regulatory approval and closes the acquisition of Hamburg Süd, Press Release, 30th November 2017c

<https://www.maerskline.com/news/2017/11/30/ml-final-regulatory-approval-hamburg-sud>, 28. Nov. 2017

Mankiw, N. Gregory; Taylor, Mark P.: Grundzüge der Volkswirtschaftslehre, Stuttgart (Schäffer-Poeschel), 2011

Midori, R.; Musso, E.; Parola, F.: Maritime liner shipping and the stevedoring industry: market structure and competition strategies, in: Maritime Policy & Management 32:2 (2005), pp. 89-106

MSC: MSC, Maersk and HMM'S Strategic Cooperation officially launched, Press Release, 16th March 2017

<https://www.msc.com/mdv/press/press-releases/2017-march/msc-maersk-and-hmm's-strategic-cooperation-offici>, 16. Dec. 2017

Oxford Dictionaries: Consolidate, English Oxford Living Dictionaries, Definition

<https://en.oxforddictionaries.com/definition/consolidate>, 18. Nov. 2017

Pandya, Dhvani; Nag, Anirban: A Caution From the World's Biggest Shipping Line, in: Bloomberg, 2017

<https://www.bloomberg.com/news/articles/2017-12-10/maersk-warns-of-falling-freight-rates-in-bearish-sign-for-trade>, 11. Dec. 2017

Pasetti, Alessandro: Analysis: names to watch in M&A this year as major US shippers eye supply chain control, in: The Loadstar, 2018c

<https://theloadstar.co.uk/analysis-names-watch-ma-arena-year-us-shippers-eye-supply-chain-control/>, 17. Jan. 2018

Schlautmann, Christoph: Franzosen bestellen neun Frachter der Superlative, in: Handelsblatt, 2017

<http://www.handelsblatt.com/unternehmen/logistik-spezial/reederei-cma-cgm-franzosen-bestellen-neun-frachter-der-superlative/20138036.html>, 03. Dec. 2017

Slack, Brian; Comtois, Claude; McCalla, Robert: Strategic alliances in the container shipping industry – a global perspective, in: Maritime Policy & Management 29:1 (2002), pp. 65-76

The Economist: Profits overboard – A.P. Moller-Maersk, in: The Economist, 2016

<https://www.economist.com/news/business/21706556-shipping-business-crisis-industry-leader-not-exempt-profits-overboard>, 07. Dec. 2017

The Economist: Shipping's blues – Still at sea, in: The Economist, 2017a

<https://www.economist.com/news/business/21718001-many-barriers-scrapping-cargo-ships-shippings-blues>, 07. Dec. 2017

The Economist: An illustrious Hong Kong container firm sells to China – The other handover, in: The Economist, 2017b

<http://www.economist.com/node/21725035/comments>, 11. Dec. 2017

Tjemkes, Brian; Vos, Pepijn; Burgers, Koen: Strategic Alliance Management; Oxfordshire (Routledge), 2012

Transportation Maritime: Bigger ships, Bigger lines, in: Traffic World '05 -06 Review-Preview (2005), pp. 46-47

UASC: UASC's shareholders unanimously approve proposed merger with Hapag-Lloyd, Press Release, 29th June 2016a

<http://www.uasc.net/en/news/160629/uasc-shareholders-unanimously-approve-proposed-merger-hapag-lloyd>, 04. Dec. 2017

UASC: Hapag-Lloyd and UASC sign Business Combination Agreement, Press Release, 18th July 2016b

<http://www.uasc.net/en/news/160718/hapag-lloyd-and-uasc-sign-business-combination-agreement>, 03. Dec. 2017

Van de Voorde, Eddy; Vanellander, Thierry: Market Power and Horizontal Integration in the Maritime Shipping and Port Industry, in: OECD International Transport Forum 2009-2 (2008), pp. 1-30

van Marle, Gavin: Gloomy outlook for transpacific rates as Maersk becomes latest to quit TSA, in: The Loadstar, 2017

<https://theloadstar.co.uk/gloomy-outlook-transpacific-rates-maersk-becomes-latest-quit-tsa/>, 13. Dec. 2017

Wackett, Mike: Carriers start to defer ULCV deliveries in the face of overcapacity and softer demand, in: The Loadstar, 2018a

<https://theloadstar.co.uk/carriers-start-defer-ulcv-deliveries-face-overcapacity-softer-demand/>, 10. Jan. 2018

Wackett, Mike: Rising oil price another profitability problem for containership operators, in: The Loadstar, 2018b

<https://theloadstar.co.uk/rising-oil-price-poses-another-profitability-problem-containership-operators/>, 17. Jan. 2018

Wagner, Adolf: Marktformen, Verhaltensweisen und Spielregeln – Leichte Züge zur volkswirtschaftlichen Mikroökonomik, Marburg (Metropolis), 2016

Wang, Dong-Hua: Ocean shipping deregulation restructures the liner shipping industry, in: Maritime Policy & Management 41:1 (2014), pp. 97-111

WiWo: Schifffahrt im “perfekten Sturm“, in: WirtschaftsWoche, 2016

<http://www.wiwo.de/unternehmen/industrie/krise-geht-weiter-schifffahrt-im-perfekten-sturm/14527292.html>, 02. Jan. 2018

Wirtz, Bernd W.: Mergers & Acquisitions – Strategie und Organisation von Unternehmenszusammenschlüssen, Wiesbaden (Springer Gabler), 2014

World Maritime News: CMA CGM Confirms Order for 22,000 TEU Giants, in: World Maritime News, 2017a

<https://worldmaritimenews.com/archives/229960/cma-cgm-confirms-order-for-22000-teu-giants/>, 07. Dec. 2017

World Maritime News: Brazil Gives Green Light to Maersk Line’s Acquisition of Hamburg Süd, in: World Maritime News, 2017b

<https://worldmaritimenews.com/archives/230820/brazil-gives-green-light-to-maersk-lines-acquisition-of-hamburg-sud/>, 16. Dec. 2017

World Maritime News: South African Regulator Gives Nod to Maersk Line’s Hamburg Süd Deal, in: World Maritime News, 2017c

<https://worldmaritimenews.com/archives/231683/south-african-regulator-gives-nod-to-maersk-lines-hamburg-sud-deal/>, 15. Dec. 2017

World Maritime News: China Approves Maersk Line’s Acquisition of Hamburg Süd, in: World Maritime News, 2017d

<https://worldmaritimenews.com/archives/234645/china-approves-maersk-lines-acquisition-of-hamburg-sud/>, 16. Dec. 2017

World Maritime News: Korea Okays Maersk's Hamburg Süd Takeover, Orders
Corrective Measures, in: World Maritime News, 2017e

<https://worldmaritimenews.com/archives/236352/korea-okays-maersks-hamburg-sud-takeover-but-orders-corrective-measures/>, 16. Dec. 2017

V Declaration of Originality

I hereby declare that this thesis and the work reported herein was composed by and originated entirely from me. Information derived from published and unpublished work of others has been acknowledged in references in the text and sources are provided in the list of references.

Hamburg, 16th February 2017

.....