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## Structure analysis and governance strategy of international containerized liner market under the shipping alliances

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**WORLD MARITIME UNIVERSITY**

Shanghai, China

**Structure analysis and governance strategy of  
international containerized liner market under the  
shipping alliances**

By

**FanXuming**

**China**

A research paper submitted to the World Maritime University in partial fulfillment of  
the requirements for the award of the degree of

**MASTER OF SCIENCE**

**(INTERNATIOANL TRANSPORT AND LOGISTICS)**

2017

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## Declaration

I certify that all the material in this research paper that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this research paper reflect my own personal views, and are not necessarily endorsed by the University.

**(Signature):** .....

**(Date):** .....2017/7/19.....

### **Supervised by**

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### **Assessor**

Professor

### **Co-Assessor**

Professor

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I would like to appreciate all the teachers and classmates I met in the World Maritime University. It's my pleasure to study with you. And this experience gave me not only further understanding of international shipping and logistics, but also a great improvement of thinking ability and broad view.

## Abstract

Title of research paper: **Structure analysis and governance strategy of international containerized liner market under the shipping alliances**

Degree: **MSc**

Most related researches about liner shipping alliance are outdated and only concentrate on the theory but lack of real data to support. Besides, laws can also restrict the shipping market. Market shares of liner shipping companies can affect other companies in different countries, so countries will create related rules and regulations to restrict the power from foreign companies and protect their interest.

The dissertation is purposed to through the development of international container transportation strategic alliance and to analyse the main structure of the alliance, to find the reason why the shipping companies would likely to form the alliance. Although shipping alliance has made a success in the shipping companies, many countries have different feelings to them. They establish related policies to restrict their power. Based on the theory of anti-monopoly theory based on the analysis of the European Union and the United States the current shipping antimonopoly law behind and monopoly standards, combined with China's current monopoly legislation, put forward suggestions for the delineation of our identification in shipping industry standard.

**Keywords:** shipping alliance, governance strategy, America legislation, EU legislation, market share

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# 1 Research Proposal

## 1.1 Background

Shipping industry is the derivative of trade. The development of shipping is related to the situation of the trade. Due to the world economic and political situation is complex and changeable in 2016; UK-based Economist Intelligence Unit (EIU) forecasts the growth of global GDP will be 3.4%. Continued stagnation in developed economies could further anti trade sentiment. The U.S. economy will grow by 2.2% in 2017-18. The weak recovery of the European economy will be strengthened, despite the influence of Brexit. In Asia, Japan's annual economic growth rate will be 0.7% during 2017-2021. China economy is expected to grow by 6.2% in 2017, down to 4.2% in 2018. India economic growth will reach 6.8% in 2017. Brazil economy will return to positive growth in 2017, but the growth rate is very low, only 0.5%. BIMCO expects the container ship capacity will increase 3.1%, higher than 1.1% in last year. BIMCO says that if the International Monetary Fund (IMF) forecast global GDP growth of 3.4% in 2017 to become a reality, the container market will be neither improved nor worsen. (WTO, 2016)

Due to the slowdown of global trade, the demand of containers also slows. Demand-side pressures have presented a key challenge to the containership sector in recent times, with container trade growth slowing to just 2.2% in 2015 (1.5% in TEU-mile terms). It appears that on the demand side, the bottom of the cycle has now been passed and expansion in box trade has picked up this year, with volumes projected to increase by 3.3% to 180.9m TEU. However, this is still a relatively moderate rate of growth, with a number of pressures still being felt on some trade routes. (Clarksons, 2016)

There are several modern characters of the international liner market in the newly economic and trade pattern. (1) Because of the imbalance of supply and demand, the surplus capacity is still high. With demand growing more quickly than supply, the

global supply/demand index is expected to reach 82.1 points by end 2016, representing some year to year improvement, and a change in direction from 2015. A further increase to 82.2 points is expected by end 2017. However, the containership sector is still subject to a significant degree of pressure from surplus capacity and the key fundamental driver of the continued pressure on the container shipping markets in recent times has been the slower pace of demand growth, against the background of the surplus capacity that built up in the sector through the global economic downturn. (2) Liner shipping companies tend to use cost control system to reduce the operation cost. However, the container freight continued to slide over the reduced cost. Many shipping companies experienced huge loss in 2016. Even A.P. Moller - Maersk A/S suffered 1.9 billion profit losses in liner shipping service. It is noteworthy that Maersk hasn't suffered a loss from 2009. (3) With the further integration of shipping resources, the pattern of the shipping alliance will change significantly. The liner shipping companies tend to build alliance, merger and asset reorganization under the depressive shipping market and fierce competence situation, which makes the Concentration Ratio continuously improve. In the top 10 liner shipping companies, CMA-CGM acquired the NOL, APL, COSCO and China Shipping merged together, Hapag-Lloyd and UASC negotiated to be merged. The old alliance G6, O3 and CKYHE disappeared. The CKYHE may change to KYE, and HMM say they reached a cooperation agreement with 2M alliance. The new alliances are 2M, OCEAN Alliance and THE Alliance. (4) Shipping companies endures pressure from environment protection and their transportation cost will be higher. Shipping companies take clean oil to reduce the pollution, but the cost may add to \$50-150/ FEU. With the expansion of the emission control area, liner shipping companies should pay the high oil cost and the shipping market is more challenging. (SISI, 2016)

Weak freight rates continued to impact liner company performance, with the high-profile collapse of Hanjin Shipping in late August, previously the eighth largest containership operator, testament to the challenging conditions. While the pace of containership fleet growth has slowed markedly this year, the continued delivery of

very large containerships continues to present challenges to liner companies regarding the management of capacity. The changing alliances present the weak and low-responding enterprises will be eliminated, shipping resources are accelerated concentration, which will help to recover the freight and raise the profit ability of liner shipping companies.

## **1.2 Purpose of research**

This dissertation is purposed to through the development of international container transportation strategic alliance and to analyse the main structure of the alliance, to find the reason why the shipping companies would likely to form the alliance. Besides, do the research on the impact of the shipping alliance to the market and forecast the future of the liner shipping market. Although shipping alliance has made a success in the shipping companies, many countries have different feelings to them. They establish related policies to restrict their power. The potential reason should be explored.

With the change of time, shipping companies have been changing their strategy to face the competence from each other. For example, shipping companies make the container ship bigger and bigger, which is based on the theory of scales economy. The other trend between the shipping companies is to establish the shipping alliance. Strategic alliance originated from the Japanese corporation under the trend of creating joint venture. The concept of the strategic alliance is presented by J.Hopland, the president of the DEC, and the management scientist R.Nigel, which has caused wide public concern in the field of management and business. There is no uniform definition of strategic alliance in the academic field. The general and accepted definition is: strategic alliance is a loose network organization with complementary advantages, risk sharing, horizontal elements between two and more firms which want to share the same market and source through different types of agreement and contract. (Xu, Zhang, & Xu, 2006)

From 1990s, the contradictions of supply and demand have been growing in liner shipping industry. Shipping market has entered an unprecedented difficult period. Although the liner shipping companies try their best to add investment and corporation in route collocation, price policy and service level, practice shows minority of one cannot offer a good service with a low cost. From the beginning of containerization, the container shipping companies have engaged in enterprise cooperation. The cooperation experienced several form such as: Liner Conference, Consortia, Stabilization Agreement and Strategic Alliance during the last years.

To analyse the structure and strategy of shipping alliance, I will start from the influence of world economy and trade, which affect the trend of shipping industry. As far as we know, shipping is a derivative of trade. Shipping develops cannot without the prosperous trade. Explore the strategy of main line shipping company to face the challenges brought by continued economic downturn. Liner shipping companies tend to charter the space each other. Besides, the liner shipping companies update container ships to raise their competitiveness, which will add operation cost. So, the situation urges liner shipping companies to establish the strategic alliance to meet the competence. Due to various kinds of operation strategy and business situation in shipping companies, the strategic alliances remain changing. The alliances are dynamic and never stop.

### **1.3 Research methodology**

To achieve the research purposes, next chapter will review the literature related to the subject of the shipping alliance and shipping market analysis, which can help me to analyse the structure of shipping alliance and strategy. In chapter3, I will introduce the history of the shipping alliance, some main form of the alliance and analyse some

forming factors in economic theory. In chapter4, I will display the market share of the different shipping alliance in 3 main liner routes and calculate the Concentration Ratio, which will affect the shipping alliance strategy. In chapter5, Policy could also influence the power of shipping alliance, some related laws are displayed. Finally, the general conclusion of the research will be written in chapter6.

The main methods used in this dissertation are Comparative analysis and Literature analysis.

By doing so the dissertation explores relation between the company's strategy and service network, and to hypothesis the alliance development. Relevant service data will be obtained from "sin.clarkson.net" and "alphaliner.com". Data related shipping companies will be retrieved their websites. The existing literature does not keep pace of stage, and it is meaningful to update the relevant research.

## 1.4 Schedule

Working plan	Date
Literature searching	7/2/2017-5/3/2017
Export's suggestion	28/2/2017-11/3/2017
Dissertation proposal	12/3/2017-5/4/2017
Revision of proposal	6/4/2017-19/4/2017
Submit proposal	20/4/2017
Composition and amendment	20/4/2017-13/5/2017
First draft	26/5/2017
Second draft	16/6/2017
Third draft	6/7/2017
Final revision	9/7/2017-19/7/2017
Submit final version	20/7/2017

## **2 Literature review**

The objective of literature review is to review the related papers and articles to the topic of strategic alliance in liner shipping industry, economics, trade, laws and Concentration Ratio.

### **2.1 Research on shipping strategic alliance**

Xu T. Zhang S. and Xu G. (2006) researched the main form of liner shipping alliance structure and development to explore the deep reason of the alliance. Authors displayed the history and development of the shipping alliance and held several examples of alliance. Shipping alliance is connected to shipping industry and analyses the business strategy. Authors thought due to the development of international trade, shipping lines changed to more intensive. The carrier wanted to get scales economy, so the ship size became bigger and bigger. Through the alliance strategy and optimization network, number of call ports would be added and service could be better. Enterprise made the scale operation but they also were independent to each other and had a fierce competence. (Xu, Zhang, & Xu, 2006)

Jiang (2014) researched the shipping alliance could affect the port operation. The result of the shipping alliance is the activity of movement of market capacity. Carrier wanted to reduce the scale of capacity and risk. Shipping alliance could exchange the capacity at the target route and reallocated the over source. The potential reason of alliance is the game and concurrence of economy. However, the change of source could influence the port. After the forming of shipping alliance, they all purposed the big vessel strategy. Port lost their advantage occupation because they negotiated with a lot of liner shipping companies at the same time not only one. The change of shipping alliance would coordinate the network in the world. The cluster would be multilevel. The hub port may change even disappear but other small port may become a huge port which can accept big vessels. (Jiang L. , 2014)

Chen (2012) analysed the relationship of different synergy management mechanisms. He researched the potential intension and action mechanisms which are affected by forming mechanisms, competence mechanisms and operating mechanisms. The result showed the constraint mechanisms were involved in market, price strategic alliance, sharing of ships, insurance and maintenance, allocation of revenue which could make each enterprise operate independently. (Chen, 2012)

Jiang (2003) reviewed the transatlantic line, briefed the trend in history and analysed the status of the development. Author thought shipping alliance is the future trend. Through the line stable agreement make macroeconomic control in the route. The future market was forecasted in the buyer market, and ensuring the background of the operator in the route. The fierce competence forced shipping companies updated the strategy which was based on the data and qualitative analysis. Finally, author gave some advice to china enterprise to compete in transatlantic line. (Jiang M. , 2003)

Gao and Liu (2012) investigated on the successful factor of the shipping alliance. They combined the structure, culture and risk with the form process of shipping alliance. Besides, they built a model of alliance structure and analyse the real case. They purposed a theory model which has 5 steps and in 3 dimension. (Gao, 2012)

Table1- Model of alliance structure

1 Start	SWOT analysis, accurate strategic position, clear alliance goal	Cultural development, positive attitude	Risk recognition, risk analysis
2 Partner choice	Related document, demand, adaption, experience	Similar sense of worth, strong management	Promise of risk-taking, positive attitude to risk
3 Establishment	Win-win result, the same goal	Build trust relationship	Sharing profit and risk
4 Achievement	Rules, responsibility,	Promise of senior	System risk

	cooperation	staff, frequency of communication	management, program risk control
5 End	Change of program	Vision of development	Successful and fail experience
	Structure	Culture	Risk

Source: Author; based on (Gao, 2012)

Ding (2003) not only researched the alliance in economic theory but also talked about the anti-trust between the shipping alliances and local government. Author purposed even the shipping companies are under the same alliance, the competence could be more fierce than others. Because the price is the only thing that company can negotiate. Maybe some companies have agreements in some routes but they may compete in other routes. The alliance is the key to the development of shipping alliances. (Ding, 2003)

Liao (2007) purposed shipping alliance controlled the capacity not to boost and made member enterprises aware only to be joint could make the stable increase in profit and avoid the fluctuation of freight. Author compared the advantage and disadvantage of alliance and conference and illustrated the oligopoly market structure is the factor leading the shipping alliance development. Model based on game theory were built to analyse the reason why shipping enterprises wanted to alliance. The performance was better than before which was analysed on data. It is helpful to establish the shipping alliance, which chased the development trend. (Liao, 2007)

Prof M. Panayides (2011) illustrated the dynamics in the container shipping market. Top 20 liner shipping companies' fleet characteristics are collected to show the capacity which can explore the potential interrelations between the service and company's size and the desire to created agreements then to hypothesis development. Authors thought the importance of alliances has become more relevant because abolition of the liner conference and the viable route and good performance. The geographic reason also affected the alliance agreements. Operative performance and



strategy adjust the alliance. The capacity increasing represented the supply over the demand, so the shipping companies signed the agreements to reduce the overall capacity. The data also showed the good market can continue the stability of the alliance. The high dynamics in the Asia market was closely connected to the economics in America and Europe (Photis, 2011).

Ji Q. and Jiang N. (2016) wrote a survey which contains some forecast of 3 big liner shipping CEO. Maersk CEO Soren S. said the a little bit change of competence pattern could influence the shipping industry. The merger and acquisition of shipping enterprise shock the market which makes shipper fearful and they wanted to 2M alliance to be their sanctuary. Due to Ocean alliance occupied larger market share than 2M in Transatlantic. So 2M attached the Hyundai shipping to sign the agreements to increase the routes. In his opinion, it is hard for the small and medium-sized enterprises to make a choice whether to be a global carrier, a zone carrier or acquainted by other big company. The advisory body SeaIntel pointed out that there are 18 enterprises in top 40 liner shipping companies have disappeared. The trend is deeply represented that the bigger of shipping company, the higher of survival rate. Research shows the survival enterprises have extraordinary growth ability. So the alliance strategy prevented the company from being squeezed out the market. (Ji & Jiang, 2016)

Dong Y. Miao J. and Xiao N. (2011) applied core theory to the liner shipping alliance's stability. They focused on the source of the revenue. The relationship between the market demand and the shipping alliance's supplies can affect the stability. Author explored the stability which can be connected to the increasing vessel size. (Dong, Miao, & Xiaoning, 2011) Song and Panayides (2002) applied core theory to shipping alliance shows it is fair to members to allocate the profit. (Song & Panayides, 2002)

Rawindaran N. (2015) researched the strategies among the container shipping companies under the regulation 4056/86. The dissertation researched the arguments created by Ministry of China, European Commission and US Federal Maritime

Commission, to reject the P3 alliance. The potential reason of the fail is the much more control of coordination centre, the slots are not used and make decisions on suspensions, which is objected by Chinese. (Rawindaran, 2015)

Ji F. and Gin S. (2004) used a MCDM method to select strategic partners for liner shipping company. Authors developed a selection model from the criteria which contained ideal, anti-ideal and entropy. The method is based on Fuzzy set theory. They found facilitates usually based on feelings. (Ji-Feng & Gin-Shuh, 2004)

## **2.2 Research on Concentration Ratio**

Concentration Ratio is a key factor which could reflect the monopoly level of the market. Concentration Ratio is involved to distribution of enterprise scale and usually as the significant dimension of market structure, which has an important effect on enterprise action and market performance. Although Concentration Ratio is not the only one standard to examine the monopoly, it is just the substitution index of the market power. Chicago school thought abusing of market power could be as the anti-trust standard and the judicial practice may be more and more inclined to this, but the monopoly market structure must aggravate the action of abusing of market power.

Che D. and Andreas B. (2016) presented a tool to calculate the market concentration ratios from a large environmental based on the Excel. The tool is capable of matching environmental media samples to biota samples based on user-defined spatial and temporal criteria to derive a representative estimate of the environmental exposure conditions of an organism and its accumulation. Some potential benefits and uses of the tool are discussed. (Doering & Bollhofer, 2016)

Guo and Li (2007) researched on the concentration ratio which could be connected to the industry market. They found the concentration ratio could be low if the market would be expanded. HHI was analysed and high concentration ratio can push the industry development. (Guo & Li, 2014)

Li (2016) analysed the increasing concentration ratio can reflect the efficiency and market power. Author purposed an optimization formula of enterprise action based on new industry research method. Then author transited the formula to industry, he applied the Lerner index to measure monopoly power, and leading the effect of oligopoly and scale economic effect formula of growth of concentration ratio. Parametric maximum likelihood method showed similar estimation effects in monopoly power, cost elasticity. The research showed the scale economy of concentration ratio growth could reduce the 60% of price in the market. However, effect of oligopoly should overall the scale economy, which would lead most prices up. (Li, 2016)

Fang (2015) purposed to develop the shipping alliance, add the concentration which is beneficial to allocate the capacity, and make the supply meet the demand perfectly, which could make the development of big vessels in reasonable situation. (Fang, 2015)

## **2.3 Research on Trade**

Lv (2015) analysed the mechanism of seaborne trade which could be influenced by liner shipping market structure. At the same time, author applied the multi-regression to analyse the influence between seaborne trade and liner shipping structure. The result shows the enterprise scale, product differentiation and barrier to entry could have a positive effect on the seaborne export. Finally, some real case and related policy should be presented to improve the liner shipping market. (Lv, 2015)

## **2.4 Research on rules and regulations of shipping**

### **alliances**

Yang (2003) researched the legislation of EU, America, Australia and China. Although the rules are different, the fundamental cause is to choose carrier or shipper as a breakthrough point and to protect the benefit of whole country. Through

Shipowners' Association and Carriers' Association have a different attitude to analyse every association have their protection action. (Yang, 2003)

Lin, Yin and Zhang (2015) compared and analysed monopoly level based on market concentration ratio and they wanted to complete anti-trust legislation in China container market, which could prevent the foreign company create monopoly and protect own market. (Yin, 2015)

## **2.5 Summary**

In this chapter, I review the related articles which are involved in many fields. From an objective perspective, shipping alliance is a product created by economic theory and business trend. Liner shipping companies establish alliance strategy to increase their operation performance but government also formulate related policy to restrict the market power shipping alliance. In next chapters, I will research the deep relationship between the two opposite groups.

## **3 Forming reasons, operations and development of liner shipping alliance**

### **3.1 Liner shipping alliance main form**

#### (1) Liner conference

International shipping alliance is a liner service agreement covered by all the service of joint operation route which is signed by some operators. During the World War 1&2, shipping conference had a significant influence in making the freight rate stable and market regulation, which provided cooperation chance to shipping company and urged the seaborne trade development in a low consume. However, the disadvantage of powerful monopoly in the shipping conference was exposed with the sustained development and perfection system of shipping market. Shipping conference is created in 20<sup>th</sup> century. The carriers who do the liner service in the same line wanted to avoid the competence, so they got an agreement on freight and the investment of capacity. The purpose of the conference is to monopoly the liner route and gets the huge profit. The strictest conference could allocate the income of all the members. To prevent the other ships which is not in the conference, they operated the “Combat ship” which used a low freight until the other ships leaved the market. The fee of “Combat ship” was paid by all the members. (Fusillo, 2006) Conference could punish the member who violated the rules of freight and investment of capacity until the member was dismissed. Many countries take the anti-trust policy to ban the conference with compulsory binding. The existing conferences are discussion of the nature of the organization which doesn't have compulsory binding. The members can decide whether to execute the rules according to their own situation.

#### (2) Consortia

Consortia are two and more shipping companies which want to start a program together so they create a temporary cooperation. The main purpose of consortia is to

reduce cost and raise service quality. The range of cooperation is in one route and company sign an agreement by route.

### (3) Stabilization agreement

In 1980s, there is huge overcapacity in the international container market. The price of the 3 main routes plummeted and cannot be controlled. Under this situation, the member of liner conference and independent carrier get an agreement whose core is to prevent the excess capacity. Sealed ships are planned to maintain a favourable level of fares for shipping companies. However, both Federal Maritime Commission in United States and European thought stabilization agreement against American Maritime Law and European anti-trust Law. Stabilization agreement has been closed in recent years to limit capacity plans under pressure.

### (4) Shipping alliance

Shipping strategic alliance originated from consortia. The agreements concluded by the liner companies in the formation of strategic alliances relate to the distribution of routes, the arrangement of shipping schedules and routes, the increase and withdrawal of the transport capacity, the port and connection inquiries, and the operation of the whole world. But the agreement does not lead to a merger, and each member maintains his relative independence.

At present, major shipping companies are adopting strategic alliances to take the advantage in the transport service, cash flow and market service, and breakthroughs in maritime transport. The cooperative effects of land transportation, wharf management and equipment management are produced in depth.

## **3.2 History & Development**

In 1970s, shipping conference development reached its peak, all sorts of monopoly means of liner conferences and outrageous size also reached appalling proportions, caused from the global shippers, especially developing countries' strong

dissatisfaction and protest, they are opposed to developed countries passed the liner shipping monopoly, and hope to develop its own merchant fleet.

The joint World Trade Centre conference held a maritime legislation conference in January 1972, requiring the development of new Guild rules. At the third session of the United Nations Conference on Trade and development in 1972, the group of 77, composed of developing countries, made a draft of the code of conduct for liner conferences through internal consultations. At the United Nations Convention on liner conferences in Geneva in April 6, 1974, the Convention on the code of conduct of the liner conference was adopted and entered into force on October 6, 1983.

The Convention of the cargo distribution principle, conditions for membership and the association rate increase period, its formulation and implementation is conducive to developing countries to develop their own merchant, limit the monopoly of developed countries on the liner shipping. This is on the rise of the alliance and the liner conference will decline, quietly foreshadowed.

First of all, the influence of liner trade is declining. With the cargo transportation has not limited to the developed countries, a large number of foreign ships will have to rise into the market, independent carrier and increasingly powerful, the status of the severe impact of liner, liner market share declined. (Winston, 2012)

Since 1998, a large number of shipping companies have been out of the trade unions, some scholars believe that the system of liner conference is beginning to disappear from this year.

Since 1990s, the contradiction between supply and demand in the liner industry has become increasingly acute, and the shipping market has entered an unprecedented difficult period.

Despite the efforts of the shipping companies in line allocation, freight policy, service level and so on, increasing input and cooperation. But practice has shown that

a shipping company has become so difficult to operate on low transportation costs and high service quality.

In this background, the world's major liner companies embarked on a large-scale joint venture.

In September 1994, the five shipping companies, including the American President Lines, the Royal P&O Nedlloyd, OOCL, Mitsui and Malaysia International Shipping Corporation Berhad, formed the first alliance called the Global Alliance.

Since then, again composed by Maersk and Sealand called "MAERSK SEALAND", besides, Hapag-Lloyd, NYK, Neptune Orient Lines (NOL) and P&O Containers for transport consisting of a "Grand Alliance" and later Hanjin, Germany Shipping Co, ChaoYang merchant formed the "United alliance" and Kawasaki, COSCO, YangMing Marine Transport Corp. component "CKY alliance"

In 21 Century, with the gradual improvement of the economic environment is becoming increasingly open and fair competition consciousness, conference organization in the areas of the end.



Figure1:1996 Alliance

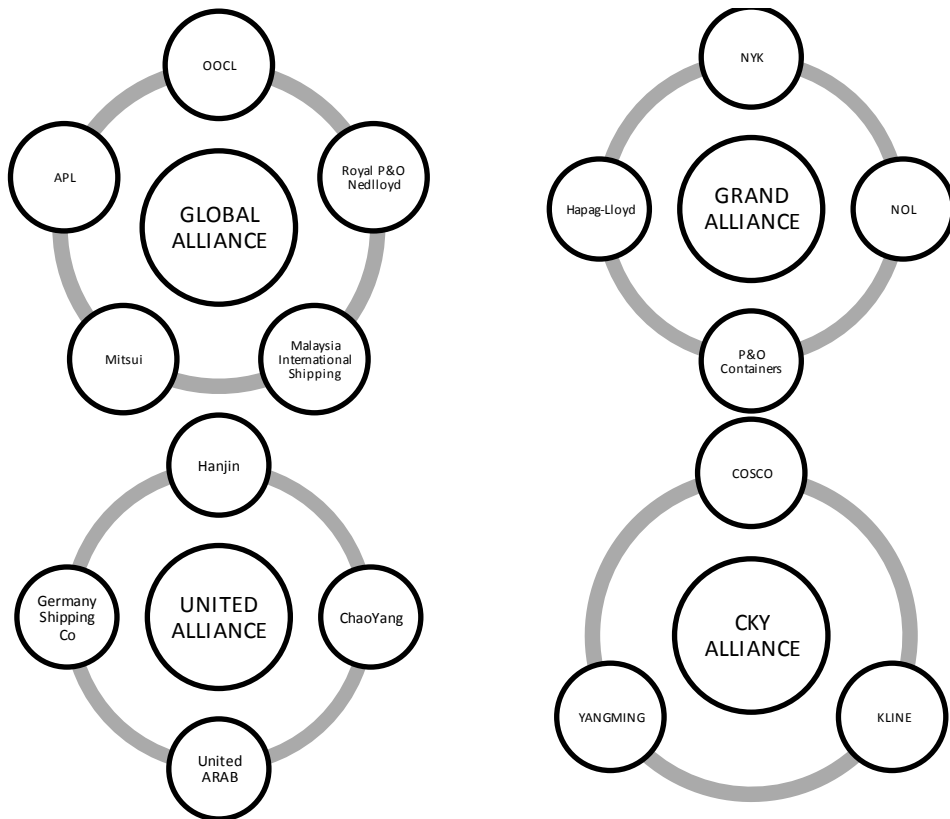
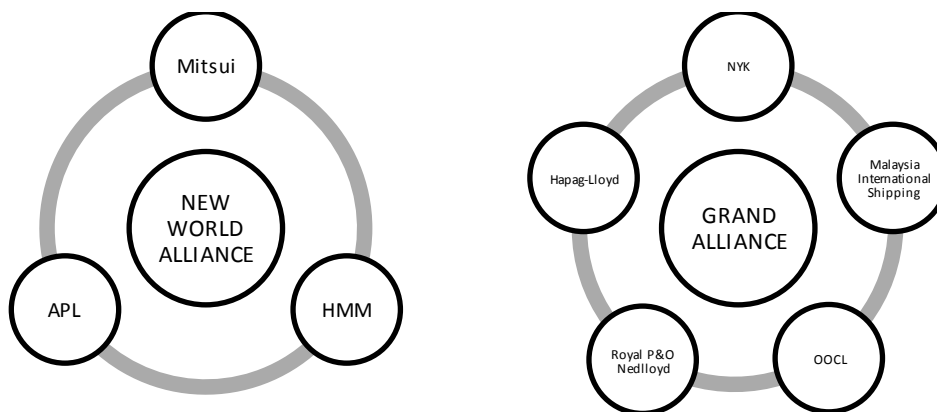


Figure2:1998 Alliance



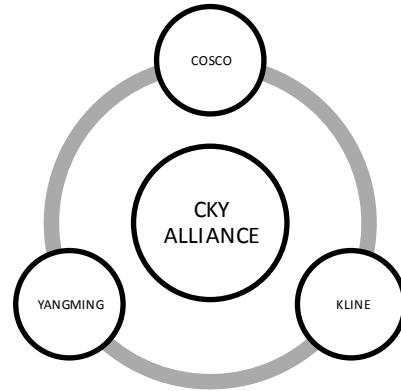
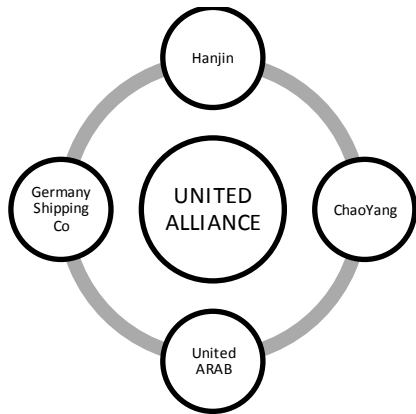


Figure3-2002 alliance

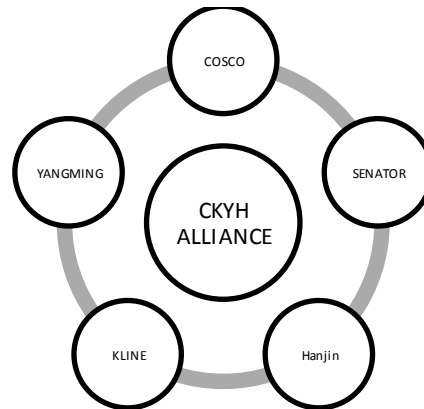
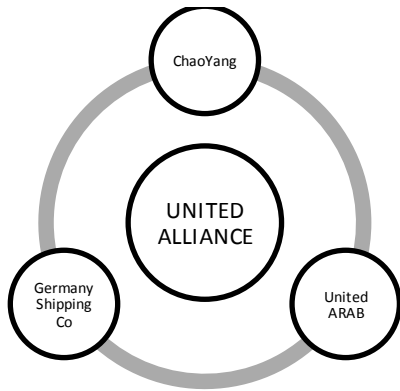
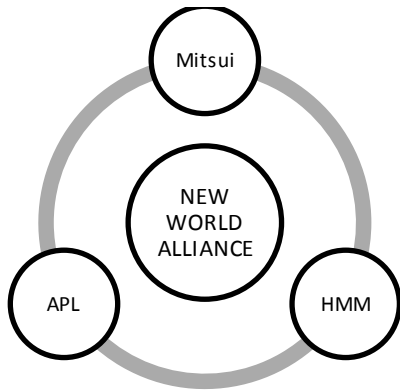


Figure4-2006 alliance

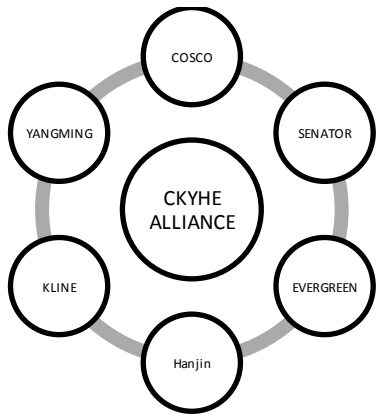
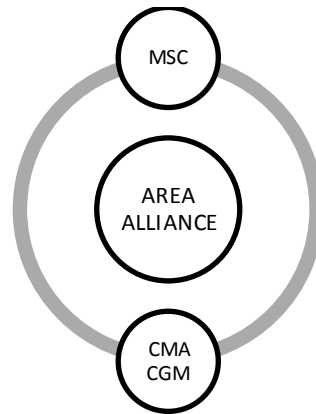
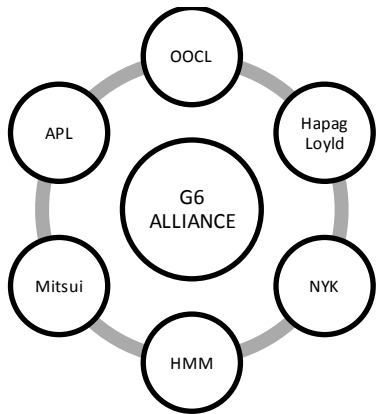
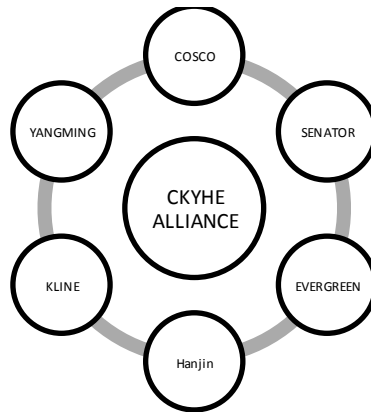
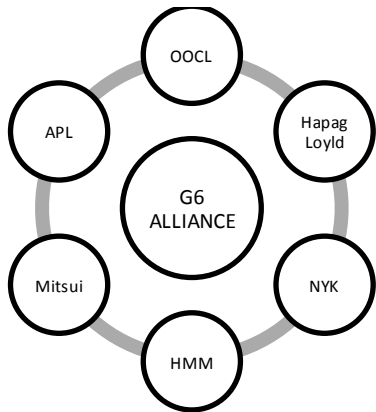


Figure5-2011 alliance



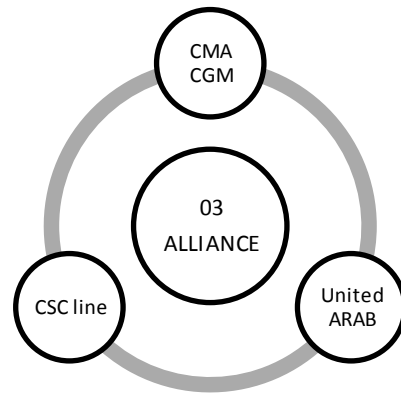
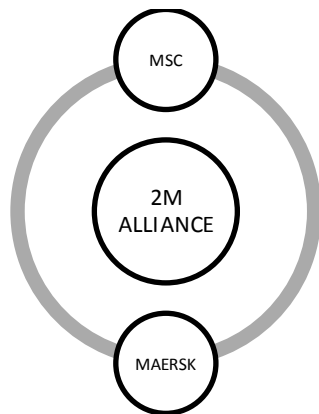
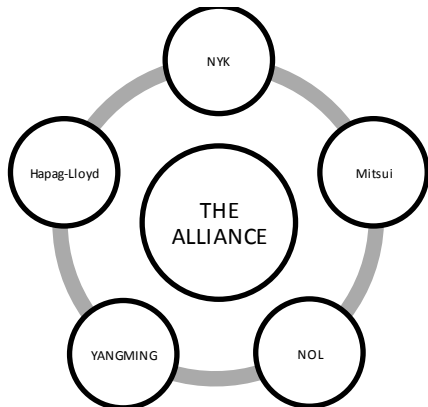
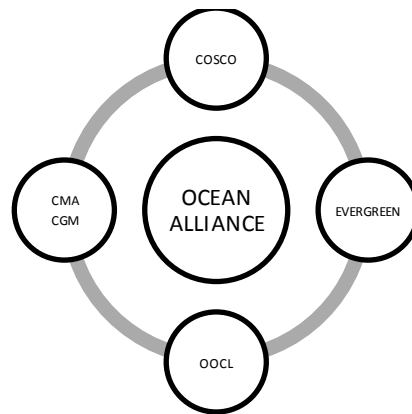
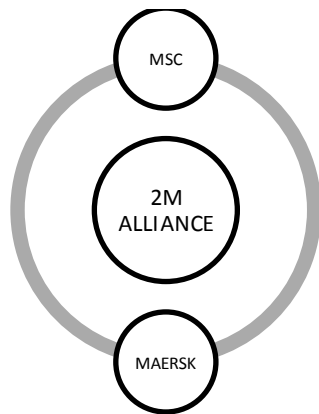


Figure6-2017 alliance



Source: Author based on current data

In March 2003, the European Commission according to the European Shippers Association cancel the conference system request ( the formal review of rationality of European Union Council Regulation 4056 / 86 ) , and in 14<sup>th</sup> December 2005 the Union Council of Ministers formally submitted and considered the "Revocation of the antitrust exemption of liner proposal".

In 2006 September, the Council of Ministers of the European Union signed a timetable for the abolition of the antitrust exemption of the liner trade, namely, the formal abolition of liner privileges from October 18, 2008.

Then, the chairman of the Federal Maritime Commission (FMC) made it clear that antitrust exemption was not necessary. After the United States, the rest of the countries followed. The brilliant liner conference went to the end.

### **3.3 Main operations in the shipping strategic alliance**

#### **(1) Connecting**

From the schedule and cost, a carrier considers using connecting carrier to provide service of completing the transportation between ports. Most of carriers through connecting carrier agreement with others to complete extend services.

The agreement sets the connecting carrier provides the service to customer in a range of transportation, bear relevant responsibility and risk and gather the freight at appointed rate. The acceptance one should pay according to the rate and quantity delivered. Besides, both can regulate the procedure in agreement (Kumar, 1999).

#### **(2) Slot charter**

The slot charter doesn't invest the vessels, but they hire a quantity of slot through others who have the lines which they wanted operate to join in the relevant route. Slot charter usually regulate the charter has no authority to intervene the provider's

operation activity. However, if provider coordinates the route, such as adjust the port of call and schedule and influence the forecast benefit of the charter. Charter has the authority to stop hiring the space. In this situation, containers are provided from charter, and charter operates independently. The only thing charters do is to pay the fixed rent regularly whether they use or not (Slack & McCalla, 2002).

### (3) Slot share

Based on the original lines, each carrier could rent others' slot. This form can add the frequency density, extend the service cover, raise the service quality and enhance competency. Besides, both companies can keep the capacity and basic cost at the same level. The significant characteristic is every company can operate their own routes independently. However, if one company adjust the route which the company operates and influence other company in using slot, charter has authority to adjust the number of slot.

In today's shipping industry, there is hardly any operator can depend on himself to meet shipper in schedule and cover etc. In case, utilise the rent part in others' route is an important and efficient strategy of raising competency and better the management effect in keeping basic cost.

The fee of slot share is negotiated by each part. Fee is constituted by cost of ship, fuel and THC. The fee is referenced from average level in the market but not the fixed cost of each ship. So, the fee is nearly equalled, which the two lines with nearly ship type, number of ports of call and voyage mileage. Sometimes, the fee can use the same for simple; if carriers use the same slot each other and they don't need to use real cash settlement.

### (4) Joint dispatch

Two and more operators get an agreement in one or more lines to dispatch together and regulate schedule, classes, port of call and specific quantity of ship investment, and ensure the available slot according to the proportion of investment ships. The

most significant specific is companies operate the route together. However, each company does the marketing independently. This form can make each one develop the market with a little cost and lower the barriers to entry and investment risk.

An alliance agreement may include one or more of these forms of cooperation.

## **3.4 Economic meanings**

### **3.4.1 Scales of economy and shipping alliance**

Generally speaking, scales of economy means when companies expand the scales of manufacture and operation, the unit cost will reduce. The traditional way to achieve economies of scale are usually rely on their self-expanding reproduction or by means of enterprise merger and the enterprise scale is continually expanding, but company rely on the single enterprise scale to achieve economies have scale limitations: one is to expand the scale of enterprises has its own internal boundary. When the scale of production and operation of enterprises expands to a certain stage, it leads to the decrease of scale efficiency and the phenomenon of diseconomies of scale. This is mainly because the scale of the enterprise meeting leads to "Organizational Failure" and rising cost of management. Second, if the scale of the enterprise is too large, it will be prohibited and controlled by the anti-trust authorities.

Under the double restriction of enterprise scale and internal and external obstruction, through setting up enterprise strategic alliance, it opens up third ways for enterprise to realize scale economy". Strategic alliances don't need to rely on expanding the scale of enterprises to achieve economies of scale. Two types of economies of scale can be realized through strategic alliances: economies of scale in technology and market.

The Influence of Large International Container Ships is a trend in the last 15 years, and the unit capacity cost of container ships also obeys the scale effect principle. The

larger the carrying capacity of a single vessel, the lower the average unit carrying capacity (in USD/TEU/ days) is usual.

By the end of 2013, there were 5586 container ships in the world, with a total capacity of 17988 thousand TEU. The >5000TEU ships are 1155, occupying the total ship number 20.68%. Capacity is 9169 thousand TEU, occupying the total capacity of 50.97%. 8000TEU ships number: more than 558, occupying the total number of ships 10%, and capacity up to 5393 thousand TEU, the total capacity of 30%. 10000TEU ships number: more than 214, the total number of ships 3.83%, transport power was 2684 thousand TEU, occupying the total capacity of 14.92%.

The world's top 20 liner shipping company has a total of 3339 ships, a total of 15694 thousand TEU, which owned 1401 ships, a total capacity of 7953400 TEU. The average DWT is 5677 TEU. Leasing 1938 ships, the total capacity of 7740500 TEU, the average DWT is 3994TEU. Among them, Maersk shipping owns ship average box of 6195.25TEU; the president of the United States (APL) owns container ship average box is reached 7730.86TEU.

According to these statistics, the average size of new shipbuilding has increased from 4000TEU in 2009 to 8000TEU in 2014. At present, the proportion of container ships with ship sizes exceeding 8000TEU has reached 82% in new ship orders. Modern container ships are developing in large scale and high speed.

With a premise of economic scale, the ship use rate is not reduced. Otherwise, the bigger the ship, the higher the cost is. According to Grimstad and Neumann Larson's (Neumann, 2013) "Economies of scale giant container vessels to quantify", the point of view is: compared to a ship loaded with 14000 TEU ships, if an 18000 TEU ship wants to achieve cost savings, the space utilization rate will have to reach at least 91%. Thus, large ships caused a major consequence of "Alliance effect", that is to say, the allocation of super ships on the main route not only to increase the average capacity of ships on the route, but also to speed up the vessel carrier between the sharing protocol (VSA) and the establishment of strategic alliance. In the final



analysis, it is impossible for any carrier to sell all the cabins of every large ship carrying out regular voyage, so they have to continue to learn how to cooperate, not how to fight.

The scale economy in the market means that the alliance enterprises have stronger market power in the target market by setting up the enterprise alliance. It can lower the market price to buy inputs and cut costs, can produce alliance "scale supply effect"; in addition, enterprises can also further expand its market boundary, that can achieve economies of scale in larger market scope, the so-called alliance expansion effect. These two economies of scale are formed by the expansion of market forces and market capacity after the establishment of an enterprise, and thus can be regarded as a scale economy on the market. Specific performance as follows: alliance enterprises to achieve the scale of procurement, reduce transaction costs; through the alliance to expand market space, achieve economies of scale in larger market scope; the transnational enterprise alliance, to achieve economies of scale on a global level; the construction of alliance network, achieve economies of scale in cooperation in the management of excessive; the inhibition of competition enterprises through the alliance, to achieve the industry's external economies of scale.

To sum up, enterprise alliance can not only carry out specialized division of labour in a larger scope, reduce production costs, but also coordinate transaction costs by means of alliance coordination, and realize economies of scale in technology. At the same time, enterprises can further expand the boundaries of market activities through the alliance, and expand the scope of economies of scale, that means we can realize economies of scale in a larger market scale.

Space rental, slot charter and mutual joint dispatch of ships can not only make the alliance members to fully enjoy low rent ship. Fixed costs bring large ships, and the alliance often leads to members of the same alliance in the country to use the same dock, stevedoring company and water land transportation service providers, alliance members can often be combined with negotiation these suppliers, make contract conditions more favourable than separate negotiations with suppliers, thereby

reducing the cost. Through the alliance, we can expand the coverage of the routes, expand the market space, and make the existing resources more effective and realize economies of scale in a larger market.

### **3.4.2 Alliances and economies of scope**

Economies of scope is refers to an enterprise diversification which means having a number of products in the market, which combined the business a number of business projects in different product or business, rather than confined to a single product or field more revenue, reduce and bring cost savings and risk. The scope economy can be divided into two levels: the scope economy of the product and the scope economy of the industry. (Kumar, 1999) The former realizes the scope economy of production through the diversification of products in the same industry; the latter gains the scope economy by permeating to other fields and carrying out industry diversification.

Strategic alliances enable enterprises to expand the scale of production and operation without expanding their organizations, and expand the scope of business in the same way and realize economies of scope. The enterprises with some complementary resources and technologies can enter the new industry field through the formation of strategic alliances, which can produce "synthetic effect".

Strategic alliances can also help companies effectively break the barriers to entry in diversification. For enterprises which want to achieve economies of scale in the new business areas will be faced with various barriers to entry restrictions, such as cannot transfer the patent technology, control of the key elements of production supply and marketing channels, the learning unique curve and implicit proprietary technology and the government's industrial policy. These factors are likely to become the new insurmountable entry barriers. Through establishing the alliance with relevant enterprises and using source can pass the above barriers.

In the process of obtaining economies of scope, enterprises are faced with various risks, such as investment risks, technical risks and market risks, etc., which can disperse and reduce all kinds of risks through alliance cooperation.

The alliance can make the container liner operators expand the scope of route business and realize economies of scope. International container transportation industry is a capital intensive industry. In order to maintain a full container fleet composed of 12(3000TEU) in the east coast of the United States and Asia / Mediterranean / pendulum route, the ship fixed costs (ship depreciation or rent), fuel costs and port charges costs about \$200 million a year. When operators acquire the economies of scope and enter the new route, they always face huge risk. Through the alliance can use a smaller investment expansion route of the scope of the operation, greatly reducing the barriers to entry and exit routes, effectively reduce the risk posed by a variety of environmental uncertainty.

### **3.4.3 Speed economy**

In management theory, speed economy is the ability to respond quickly, that means the ability of an enterprise whether respond quickly in a competitive environment. If the enterprise is regarded as a resource conversion system, the economic efficiency of the enterprise will come not only from the quantity of the resource transformation, but also from the time of the resource transformation, which is the speed. Especially with the shortening of product life cycle and the change of market demand and the restriction of market capacity, it is difficult for enterprises to build their competitive advantage simply relying on scale economy. In this situation, agility and quick natural source become the first choice of enterprise organization, and the value of speed economy becomes more and more important. In order to adapt to the rapid change of environment, the key to survival and development of enterprises is to have high flexibility and quick response ability. The enterprise adapts the user's speed superiority and its function which is no less than the product cost and the quality competition superiority.

To establish cooperative relations between enterprises through the alliance, each enterprise focus its resources in the most areas of expertise, not only can reduce the cost and the accumulation of various technical development risks, but also can accelerate product development and shorten new product time to market, which obtains the speed of economic competitive advantage.

Enterprise alliance does not require the formation of strict hierarchical structure, but the organization is each part of the loosely combination which is conducive to maintaining the flexibility of the organization, which can better adapt to the rapid changes in the market for products and shorten the period of technological innovation caused by the requirements. Cooperation plays an important role in the joint defence alliance cooperation group of enterprises. It can not only improve the member enterprise self-discipline, and promote mutual exchanges, so as to continuously improve the enterprise rapid changes of technology and market environment and to achieve the speed of economic development in the dynamic market environment.

The alliance can greatly shorten the route scope expansion time, achieve comprehensive utilization expansion route because the alliance members of the transport resources' speed is much faster than one company own strength to rely solely on the route expansion speed, and the speed of economy gain competitive advantage.

### **3.3.4 Symbiosis economy**

Symbiosis economy is an economic category which is put forward according to the principle of symbiosis in biology. "Symbiosis" means that in the natural environment, the two objects cannot exist alone and are attached to each other, and they are given to each other coexistence and symbiosis.

The independent economic organizations form a symbiosis for the realization of similar resources sharing or heterogeneous resources complementation, so that the

optimization of resource allocation efficiency can be regarded as "symbiotic economy". Symbiotic economy is a kind of "Pareto" improvement, which can promote economic organizations to improve their own benefits, but also bring about the growth of social welfare. In general, when enterprises in the alliance process, resources can be realized in the mutual sharing and complementary and can effectively inhibit the alliance between members of the "excessive competition" behaviour, so as to improve the efficiency of resource allocation and achieve mutual economic. In addition, when the alliance is in the process of cooperation and competition, mutual complementary resources and core competence integration, alliance want to obtain new competitive advantage and win the favourable competitive position, which can be regarded as another form of economic symbiosis.

Through cooperation with partners and even competitors, alliances, competitions and symbiosis have been widely accepted by the world enterprises. As the McKinsey consulting senior expert Joel Black and David Ernst pointed out: For most global companies at the expense of the complete competition era has ended, the traditional competition has not been possible to ensure a winner in the "Darwin game" has the low cost, the best products and services as well as the highest profit. The long, close battle has only dried up its resources and is unable to cope with the next round of competition and innovation.

Many multinational companies increasingly understand: In order to compete in a cooperative, they must replace selfish behaviour. The enterprise should not blindly compete, but should only be competitive in its own core advantage, strengthen the competition in terms of value or be involved in order to maintain industry or field, and should cooperate in other related value chain and alliance partners or competitors, in order to maximize access to economic symbiosis.

With the development and deepening of social division of labour, enterprises form an interdependent relationship with each other. But enterprises are in a highly competitive market environment. In order to maximize their own interests, they often do nothing to destroy this interdependent symbiosis. In fact, some enterprises adopt

selfish means: they will lead to a mutual dependence between enterprises suffered losses, thus may lead to other enterprise's revenge and finally lead to "Double lose".

Through the formation of strategic alliances between enterprises can not only bring direct benefits to the enterprise, but also will change the pattern of market competition. The enterprise wants to win a favourable competitive position, which is the concrete manifestation of the economic symbiosis in enterprise strategic alliance. Especially in the oligopolistic competition structure, strategic alliance has become an important competition way for enterprises to develop their own living space, realize symbiosis economy, and also a new strategy of "following the leader". In the oligopolistic competition structure of one industry or regional market, one or more strategic alliances will cause more enterprises to respond mutually, which will lead to the development of more intercompany symbiosis alliance.

The international container liner operators are able to realize the optimization and improvement of the efficiency of resource allocation by realizing the sharing and complementarity of resources, which can be regarded as "symbiotic economy". Through international container liner transport operator establish alliances, resources can be realized in the mutual sharing and complementary, effectively inhibit the single operator blindly increase resources and avoid the waste of resources, so as to improve the efficiency of resource allocation and to achieve symbiosis economic. International container transportation industry is a typical oligopoly market with an oligopoly competition structure. Strategic alliance has become the enterprise to expand the development space and an important way to achieve symbiotic economic competition, but also a new kind of "follow the leader" strategy, the one or two alliance will inevitably lead to more enterprises to make corresponding reaction of symbiotic alliances to drive the development of more companies, and the alliance has become the inevitable trend of development of international container transportation industry.

## **4 Present situation and structure of shipping strategic alliance**

### **4.1 Trade situation**

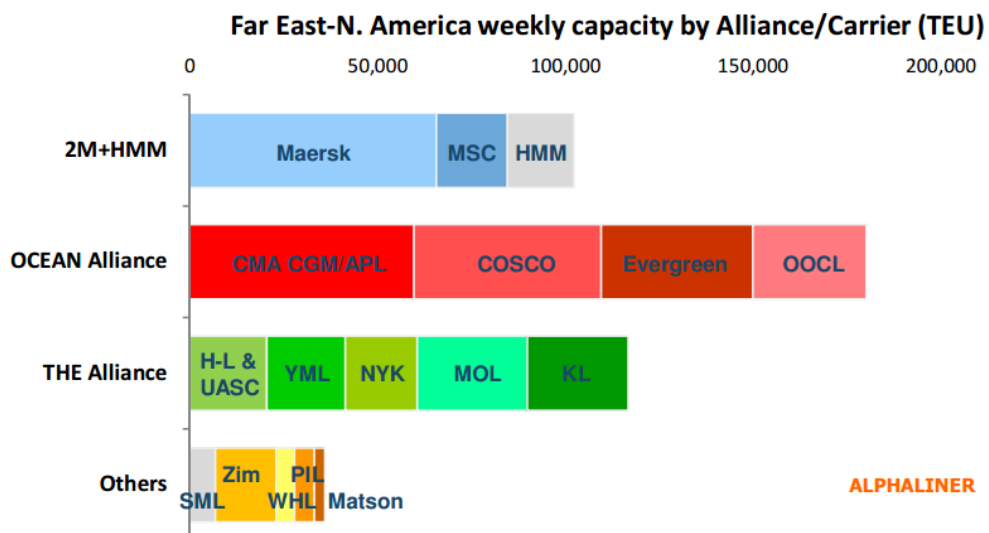
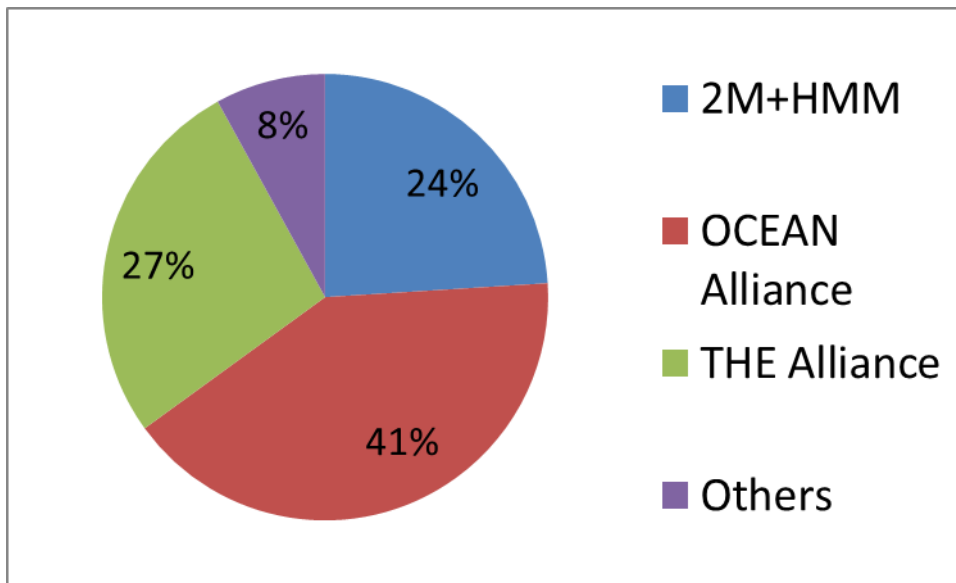
The ship on the delivery of cargo capacity, the market continues to expand the scale, single ship capacity continued to rise. By the end of 2015, the global container capacity reached 3644TEU, which an increase of 5.59% compared with 2014. Global container total capacity was 21688 thousand TEU, an increase of 7.06%; global container fleet capacity was 19696 thousand TEU, an increase of 7.95% of 2014, which is an average annual acceleration.

Container trade growth appears to have improved so far in 2016, reflecting the reversal or softening of two of the trends which slowed global container trade growth to just 2.2% last year (or just 1.5% in TEU-mile terms). Firstly, box volumes grew slightly on the Asia-Europe peak leg route in January-May 2016, after falling in 2015. Secondly, intra-Asian trade growth appears to have accelerated slightly in the year so far, having softened considerably in 2015. However, North-South box trade growth has remained weak in the year to date. While there remain a number of risks, global box trade growth is projected to improve to 3.8% this year, or 3.4% in TEU-mile terms.

Global container trade growth is projected to accelerate in 2016, following limited expansion last year, with indicators of trade growth on several key routes improving in the year to date. Peak leg Far East-Europe trade volumes have improved in 2016 so far, which is partly expected to underpin an increase in the rate of mainland trade growth this year to 3.2%. Growth in intra-Asian box trade is also expected to pick up pace to reach 4.1% in full year 2016. However, elsewhere, trade on North-South routes remains weak and some risks remain in the global economy. Overall, global box trade is projected to expand 3.8% in 2016 to total 181.6m TEU. (Clarksons, 2016)

## 4.2 Market share in Far East - N. America and Far East – Europe

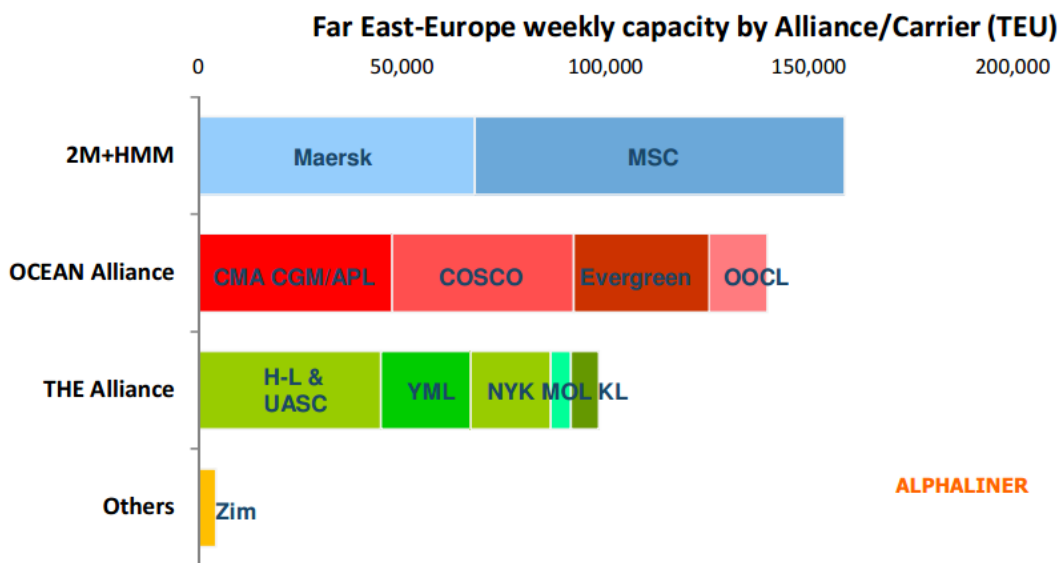
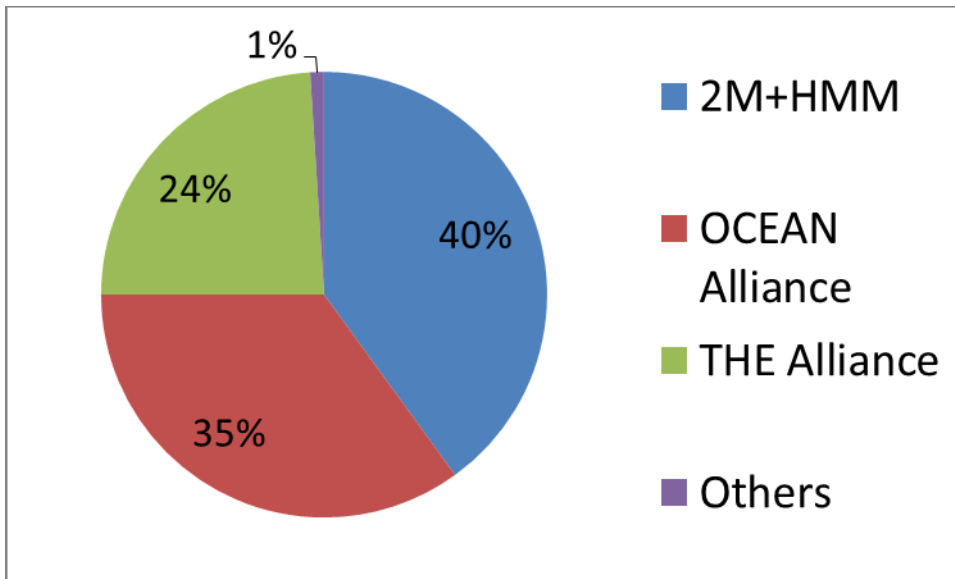
Figure7-Far East - N. America capacity by alliance 2017



Source: Alphaliner



Figure8-Far East – Europe capacity by alliance 2017



Source: Alphaliner

2M alliance:

Maersk announced in October 10, 2014, and the Mediterranean Shipping set vessel sharing agreement in Asia and Europe, across the Atlantic, across the Pacific route for a period of 10 years, named 2M approved by the U.S. Federal Maritime Commission (FMC). FMC is the last regulatory authority that the ship sharing

agreement needs to be approved. This means that the 2M alliance has been approved by all relevant regulatory authorities and will be operational as planned from January 2015. The ship sharing agreement includes about 185 ships, with an estimated capacity of 2100 thousand TEU. Among them, Maersk shipping will have 110 ships sharing agreements, the design capacity of about 1 million 200 thousand TEUs, will account for 55% of total capacity. Mediterranean Shipping will have 75 ships to participate in the sharing agreement. The design capacity is about 900 thousand TEUs, accounting for 45% of the total capacity. Maersk said it will achieve cost savings by deploying larger, more efficient ships and increasing ship stowage rates. In the new East-West route network, the Maersk Line will increase from the current 18 to 21, and the number of anchored ports will increase from 212 to 291.

Unlike previous P3 alliances involving market monopolies, the 2M does not need approval from China's regulatory authorities. The 2M attribute is just an ordinary vessel sharing agreement, 2M lack of overall market share in the East-West route 30%, only slightly higher proportion of the Asia Europe route, so it is not under the jurisdiction of China "anti-monopoly law" range, without the approval of the Chinese Ministry of Commerce. In accordance with relevant regulations, 2M just needs to be submitted to the Ministry of transportation before the implementation of the filing, and Maersk has fulfilled this process. Compared with the P3, 2M reduces volume, market share, and meet regulatory requirements.

In addition, there is no "network centre" as an entity in the establishment of the operating institutions, and one of the regulatory bodies is used to coordinate the shipping space. The alliance operates from London operations centre downgraded Coordination Committee to monitor daily operations, and in all the cargo stowage, voyage arrangements, port operations, sales, pricing, marketing and customer service etc. are completely independent, sharing does not include any business tasks and responsibilities.

Hyundai Merchant Marine's (HMM) plans to join the 2M Vessel Sharing Agreement are still pending, according to Caroline Becquart, MSC's senior vice-president and

head of Asia Network and VSA. Although HMM signed a Memorandum of Understanding with Maersk and MSC on 14 July in order to join the 2M in April 2017, talks with HMM have not been concluded yet and MSC hinted at the possibility that an agreement may not be reached.

Ocean alliance:

The three major alliances were launched in April 1st, and the ocean alliance has 350 ships (3500 thousand TEU), which is the largest of the three major alliances and the most of direct line covers. In the Pacific (41%), Asia and Europe routes (35%), the Far East to the red sea line (38%) of transport capacity share, which occupy the main position. On the East and West trunk line, it is not the competition between the liner companies, but the alliance competition. The company delivered 5 large vessels in 2017, totalling 40 thousand TEU, and the company's overall breakeven point is higher than the industry average.

The world's fourth largest shipping company COSCO Group and the SIPG intends to HK \$78.67 / share offer the world's seventh largest shipping company 100% stake in OOCL. If the tender offer is completed, COSCO Shipping and sea control under the two companies OOCL team total capacity will total more than 2 million 900 thousand TEUs (including orders). Operating fleet of more than 400 vessels in size or will race to third place in the world, COSCO will replace CMA-CGM, becoming the third largest companies in the world container transportation.

Membership of a global alliance was one of the conditions for HMM's major creditors to agree to a debt adjustment plan. The Korean carrier originally sought to join the 'THE' Alliance, but was not included in the initial group of six carriers (Hanjin, Hapag-Lloyd, K Line, MOL, NYK and Yang Ming), which on 13 May announced an agreement to create a new alliance that is scheduled to begin operations in April 2017.

THE alliance:

The demise of Hanjin will affect the size of ‘THE’ Alliance and the overall capacity distribution between alliances. The five remaining ‘THE’ members, together with UASC which has since signed a merger agreement with Hapag-Lloyd, would have a combined market share of 28% on the Transpacific and of 23% on Asia-Europe, based on Alphaliner projections, compared to 35% and 28% respectively if Hanjin’s capacity share was included. None of ‘THE’ Alliance members have made any announcements on their future plans so far, but it is expected that they could still proceed with their joint services, even after the exclusion of Hanjin Shipping.

## **5 Governance strategy of shipping alliance**

### **5.1 Theory basic of governance strategy**

#### **5.1.1 The structuralism of Harvard School**

Harvard School is the mainstream economics foundation of American antitrust law from 1930 to 1960s. It puts forward the theory of structural anti-monopoly. They claim SCP system, which means Structure→Conduct→Performance. The market structure determines the behaviour of the enterprise in the market, and the market behaviour of the enterprise will further determine the performance of the enterprise in the market (Xu G. , 2015). The final performance of enterprise market plays an important role in antitrust regulation policy determination and antitrust law. Therefore, Harvard school pays attention to the market structure, the market structure that is eventually a key point of antitrust policy.

The school believes that the key factor affect the market structure is the concentration of firms in the market and barriers to entry. High barriers to market entry will have a negative impact on market performance. The Harvard School according to the data and the experience found there is a positive relationship between the high degree of market concentration and the rate of profit. High market concentration rate tends to get more profit than the low market concentration, while the high market concentration is often created by large enterprises and its own market forces or Oligarch. As a result, the competition in the market will be further weakened. Leading to monopoly enterprises to benefit alone, but the market performance is obviously low. According to structuralism, the market structure with higher concentration of market usually has higher market entry barriers. Based on the market structure, enterprises often take anti-competitive market behaviour, such as monopoly or collusion. Free competition mechanism of the existence of such acts would undermine the market, resulting in relatively low market economic benefits. In order to correct the market failure, promoting market competition and ensure good market performance, Harvard School proposed the government must pass the anti-monopoly law to intervene in the market structure, which can prevent monopoly and collusion. Change individual firms in the market monopoly restrictions in large enterprises' merging and acquiring, and not allowed to set the man-made obstacles (Tang, 2008).

### **5.1.2 Efficiency doctrine of Chicago school**

The efficiency doctrine was put forward by the Chicago school which started in 1980s to become the mainstream thought of the American antitrust law, which is the reform of the Harvard School of structuralism, known as the "Chicago revolution", has made a significant contribution to the development of its anti-monopoly law.

The efficiency doctrine of view: first, the market mechanism is perfect, most of the market is competitive, and can realize the effective competition in the market only with many enterprises in the market, as long as there is no conspiracy, also can

realize the competitive market. Even if the market competition is not enough, the price monopoly will be attempted because of the entry of the enterprise. The free entry enterprise will eliminate the market power of the monopoly enterprise. The market monopoly and low market performance not lead to market failure, but because mandatory government intervention caused by the monopoly is often the result of government intervention policy caused by barriers to entry. The doctrine of efficiency advocates that the government should reduce market interference and make the market mechanism full play its role of self-regulation so as to realize the full competition of the market. Second, although horizontal mergers between enterprises impact on the market price, it will also have a cost saving effect, such as vertical restraints, tying price discrimination and integration between enterprises. The enterprises want to realize the saving of transaction cost and make the efficiency of selection. Third, the high degree of concentration is positively related to the efficiency of the enterprise, which is the result of market competition, beneficial to the whole market and society, and does not support the existence of monopoly in the market structure. Fourth, the enterprise purpose is to maximize profits, they make rational decisions according to the market. The strategic behaviour is mostly adopted in order to get efficiency of the normal competitive behaviour. Supply is decided by the nature of the enterprise, which should not be defined as entry barriers or monopoly. Fifth, cartel is not only required to reach a conspiracy agreement between enterprises, but also needs information symmetry between each other to maintain monopoly status, and general restrictions are difficult to produce adverse consequences.

That means, the market share of the views of Chicago school are not so seriously as Harvard school. Market share will be just as one of the judges of the monopoly factors. High market share of enterprise does not have absolute prohibition. Market will adjust their performance. The enterprise with high efficiency can survive in the competition, and occupy more market share. Simply speaking, the Harvard School believes that the huge market share will affect the market performance, they pay more attention to the market structure, but the thought of Chicago School is that only

enough market performance can enable enterprises to occupy more market share, so they pay more attention to the market performance. Two kinds of theories of the causal relationship between the market structure and market performance is completely opposite.

Therefore, the Chicago school is different from Harvard School, whose think is freedom of competition. They believe that the power of market mechanism that is the normal market economy competition. Monopoly is only temporary, and the market mechanism can adjust by itself to achieve a completely competitive market, so this does not require mandatory government intervention in the market. It is a relaxation of enterprise behaviour. Prevent the government excessive intervention of antitrust, advocate the establishment of effective anti-monopoly mechanism and implementation system, and construct political and legal system can effectively monitor and control the government's interference behaviour. The purpose is to realize the anti-monopoly system which has self-regulating ability and under government intervention.

### **5.1.3 The strategic theory of the latter Chicago school**

The latter Chicago school thought was born in 1980s. It mainly analyses the strategic behaviour of enterprises to explain some industrial organization problems which are not accurate or unclear by traditional theory. Different from the Chicago school believed perfect market mechanism. Latter Chicago school believes the market is not perfect. "Not perfect" is the main effect of asymmetric market information, sunk cost, enterprise strategy and network effects based on various factors.

Latter Chicago School thought: first, the market strategy of enterprises between the interactions of enterprise is the people involved in each game. The results caused by the competition behaviour are not only the competitors will out of the market, but also they enhance the competition of production and sales cost. Thus they weaken the opponent competition ability. The latter Chicago school holds the view that the

market structure is the endogenous result of the game of enterprise strategy rather than exogenous. Second, the information is not symmetric in the market and even the existence of information asymmetry generally. Whether between enterprises or consumers have asymmetry. Enterprise with information superiority is bound to achieve strategic advantages and use own advantage in the market. Third, the competition between enterprises will be incomplete because of the existence of sunk costs in the process of the game between the enterprises. Their advantages are asymmetric, compared with other enterprises in the competition usually has a certain first mover advantage, they can through a series of strategies, such as investment, the first patent, space pre-emption, to interfere or hinder competition or to enter the enterprise strategy, so as to realize their own strategic advantage. Fourth, the Chicago School thought that is the collusion between enterprises cannot be maintained, but latter the Chicago school through the super game theory to analyse the problem believe that if the effective punishment mechanism exists, collusion can actually be maintained. Fifth, they don't object to the use of market structure as the criteria of monopoly. The strategic behaviour is influenced by the structure of the market. Companies have a market advantage may provide convenience for the various restrictions on competition strategy behaviour. If the enterprises do not have market advantage, the strategy of enterprises won't help to choose based on efficiency reason. Moreover, the market structure, as the judgment standard of anti-monopoly law enforcement, can reduce the cost of law enforcement and enhance the effectiveness and efficiency of law enforcement. (PUENPATOM, 2006)

In summary, we can see that the latter Chicago school combines the viewpoints of Harvard School and Chicago school, and believes that the strategic behaviour taken by enterprises in the market is likely to lead to monopoly. Besides, after monopoly is formed, it is difficult to eliminate itself only through self-regulation of the market mechanism. It is necessary for the government to formulate corresponding anti-monopoly policies or enact anti-monopoly law to intervene and adjust the strategic behaviour of enterprises. Only market adjustment and government intervention work together can eliminate monopoly. Therefore, the latter Chicago school does not



oppose the intervention of the Harvard School, nor oppose the efficiency of the Chicago school. Instead of trusting and relying solely on the government or the market, it advocates a careful analysis of all behaviours restricting competition, and then carries out options and rulings.

## **5.2 The governance of shipping alliance monopoly in European**

### **5.2.1 European Union Shipping anti-monopoly Legislation**

The anti-trust legislation of EU shipping alliance can be divided into “EC Treaty” , legal documents enacted by EU council & commission and rules established by the European Commission.

First of all, the EC Treaty is the most fundamental legal norm of the European Union, and its provisions on competition and monopoly are the basis of the European Union's anti-trust system of shipping. It has the highest legal force and is binding on all governments, enterprises and individuals of the member states of the European Union. The most important content of the EU anti-monopoly legislation is the provisions of the No. 81, 82 Treaty of the European community, which are about prohibiting restrictions on competition and prohibiting the abuse of market dominance.

As the main decision-making body of the European Union, the Council of the European Union has the function of making laws and regulations of the European Union. It has developed a series of regulations on how to apply the No. 81 and 82 article of the EC Treaty. In the field of shipping, it is mainly embodied in the regulation No. 4056 / 86 of the rules for the implementation of the No. 85 and 86 article of the EC Treaty on maritime transport. Apart from this, there are various

antitrust laws and regulations relating to maritime transport, such as the regulation of 4057/86 on unfair pricing practices.

Most of the EU regulations on anti-trust of the shipping association are promulgated by the European commission. Include the rule of “joint exemption in the EC Competition Law” (870/95) promulgated in 1995. There are also No. 611/2005 rule for the revision of 23/2000 rule and the existing No. 906/2009 rules.

### **5.2.2 Standard of European shipping alliance monopoly**

The identification of the monopoly of the shipping alliance is mainly from the following two aspects, as long as the alliance involves one aspect of the content, it will be considered to be monopoly:

One aspect is whether judgment actions are belonged to a restrictive competition agreement between shipping companies. Restrictive competition agreement refers to may affect trade between member countries, which aims to impede, restrict or distort the common market competition between enterprises and enterprises signed the agreement to make joint decisions or actions. Restrictive competition agreements can be represented as: (1) Enterprises use a direct or indirect method to fix the prices of goods traded together in the market. (2) Enterprises restrict and control the production, sale, market investment and technological improvement of the products. (3) Enterprises split the market or share the supply of goods. (4) Enterprises put forward different trading conditions for different trading objects in the same trading market, leading to the other side in a bad competitive position. (5) In the contract signed by the enterprise, additional conditions which have not relevant purpose with the basic purpose of the contract have been attached to the contract as the prerequisite for signing the contract. The EU considers the situation to be ineffective since it meets the characteristics of the restrictive competition agreement. That is to say, as long as it constitutes an agreement restricting competition, it will have no

effect from the date of its creation, and shall not go through the judgment of the court or the arbitration institution.

The European Union has a level of demand for its restrictive competition agreements, which are supposed to be significant. Non-significant restrictions on competition agreements are not prohibited by the European Union. The development of judicial practice and to judge the standard of degree, that limits the competition agreement in the total annual sales of enterprises should be more than 200 million euros, or enterprise horizontal agreement in the market share occupy more than 5% enterprises, vertical agreements in the market share occupy more than 10% belong to a significant degree. However, the significant degree of this standard applies only to the general business, for the identification of significant degree of shipping enterprises in the liner market competition restriction agreement can reach 30% because of its special and different from other companies (Li, 2016).

However, not all the competition agreements that have reached significant levels will be ineffective from beginning to end. The third paragraph of article 81 of the European Community Treaty provides exceptions. As long as the restriction of competition agreements is conducive to the production, sale and perfection of products, consumers will be ensured to enjoy the fair benefits and without restricting the competition between enterprises, and the right of monopoly exemption can be applied.

Another aspect is to determine whether shipping companies have the advantage of abusing the market dominance. The abuse of dominant position behaviour refers to one or more enterprises in all or most of the common market dominant position, abuse of the dominant position of influence between the other members of the trade behaviour. The EU special list of abusive behaviours: the use of dominance will be unfair trading price directly or indirectly imposed by traders; take advantage of the status of limited production and marketing of products, control products for the improvement of production technology and damage the interests of consumers; take different trading conditions on the same trading market in different transaction to

object the traders who have competitive disadvantage; the additional condition has not relevant purpose with the purpose of the contract as the contract condition coincidence. Although the EU lists these behaviours superficially similar to the above restrictive competition agreement, the difference between the two is that the key is the abuse of dominant market position of the companies have the advantage position and realize the means of behaviour is the abuse of dominance or not, however, the restriction competition agreement is realized through the collusion agreement among enterprises. Moreover, the law restricts the competition agreement merely as invalid. It also stipulates the exceptions of individual exemption, and the abuse of advantageous position is absolutely prohibited. Even if the alliance behaviour of the liner company is entitled to antitrust exemption, the market share of the alliance or shipping union will also be stipulated. If members of the relevant market share of the market exceed 30%, the abuse of dominant position cannot be exempted.

In addition to the above two aspects, the European Union has also granted collective exemption to the action of the shipping alliance. In the premise of companies not exceeding the prescribed market share, between liner-shipping companies on sharing and integration of transport capacity resources, adjust their use of ports and related services to cope with supply and demand fluctuations, and relates to the alliance in order to achieve the purposes of they are able to use the monopoly exemption. However, once there is a fixed liner service price, or other exempt from the temporary adjustment capacity of other trade restrictions or transport behaviour, or the allocation of behaviour of market and customers, company will no longer enjoy monopoly exemption rights.

In summary, it can be seen that the EU judged the monopoly of the shipping alliance are mainly by whether the behaviour of the shipping enterprises will have a negative impact on the fair competition in the market. The main index used is the market share of the enterprises in the relevant market. This standard is more inclined to the Harvard School structuralism and pays attention to the market structure. Based on the

market structure adjustment to ensure fair competition in the relevant market, and antitrust policy developed by the government to regulate shipping alliance

## **5.3 Antitrust system of EU shipping alliance**

### **5.3.1 Antitrust enforcement agency**

The European Union does not set up a special anti-monopoly enforcement organization of the shipping alliance, but the general antitrust enforcement agency is responsible for the regulation of the shipping joint venture and anti-monopoly. (Wish, 1992) Under the European Union system, the European Commission, as an executive body of the European Union, will be responsible for the implementation of antitrust related issues. Its functions mainly include the following aspects:

First, it has the right of investigation, if there is a violation of the EU's antitrust regulations on the shipping agreements between the liner companies, the European Commission can investigate the suspected enterprises.

Second, it has the right to punish the monopoly. It is possible to impose more severe fines on the parties involved in monopolistic conduct, or to order the monopoly to be separated from the alliance.

Third, the European Union country has the right to prosecute the government of the member state in violation of European Union competition law.

In addition to the above-mentioned functions of the law enforcement, the European Commission may also make laws, regulations drafting, promulgation and revision of the relevant legal issues concerning the anti-monopoly, and have a certain legislative power.

### **5.3.2 Antitrust exemption**

Although the European Union announced its decision to remove the antitrust immunity of the liner conference from October 18, 2008, the antitrust still remains exempt for the shipping alliance. There are three ways for exemption from monopoly in the shipping industry in EU:

The first is the right to automatically obtain antitrust exemption from the date of action, such as the collective exemption of the shipping union mentioned earlier. As long as it meets the conditions of exemption, alliance can obtain the qualification of anti-monopoly exemption from the date of implementation.

The second is the eligibility of the European Commission to decide exemption. The situation may be based on complaints from interested stakeholders or members of the government, or the European Commission. Investigating for an alliance or an agreement that may constitute a monopoly may be granted only if it meets the conditions for exemption. And the date of validity of the waiver is decided by the European commission.

The third one is voluntarily declared by the parties concerned. The parties voluntarily apply to the European Commission, and the European Commission will issue an announcement in the official gazette of the European Union if the review fails to form a monopoly after examination by the European Commission on the basis of the application. A member or interested party disagree, he may make an objection within 30 days. If 90 days of the announcement still do not indicate that the application has a monopolistic objection, then the relevant behaviour will be exempted. The right of exemption start from the date of action or declaration. On the contrary, if the discovery of suspected monopolistic behaviour during the announcement, the European Commission will turn to investigate it. The European Commission reserves the right to revoke its post and to determine the illegality and fines for the act of obtaining exemption (Liu, 2006).

### **5.3.3 Monopoly penalty system**

If there is a monopoly agreement or an action without a monopoly exemption and the monopoly is formed, the punishment will be imposed by the EU mainly includes:

(1) To stop illegal activities, the 1/2003 Ordinance allows the European Commission to stop the monopoly of enterprises through two forms of action relief or structural relief. The Action relief is to prohibit the monopoly of the enterprise under the traditional supervision system, and the European Union can ask the shipping alliance to dissolve if the structural relief measures are taken; (2) If severe restrictions are imposed on competition, or even the competition is cancelled, special relief measures required by the European Commission should be implemented; (3) Fine: what in determining the amount of fines on the EU guidelines clearly stipulate strict penalty system. When the European Commission makes a penalty decision, it will determine the base of the penalty according to the extent of the monopoly. Then, according to the duration of the behaviour, the weighted base is determined, and the final decision is made according to the market background, the benefits obtained by the enterprise and the payment ability of the enterprise; (4) Punitive continued fines: this form of punishment is to achieve the purpose of allowing enterprises, stop monopoly activities, abide by temporary measures and fulfil commitments. The European Commission requires the implementation of monopoly enterprises in a certain period of time each day to pay according to the standard specified amount, continue to pay time depends on the duration of the monopolistic behaviour. That is to say, as long as the monopoly exists one day, it will be punished as an independent monopoly (Yu, 2005).

## **5.4 The governance of shipping alliance monopoly in America**

### **5.4.1 Anti-monopoly Legislation of American shipping**

The antitrust legislation in the United States consists of three main forms: The first is a series of statutes, including the Sherman law, the Clayton law, the Federal Trade Commission Act; the second is a large number of judicial precedents formed in judicial practice; the third is the various judicial guidelines issued by the Department of justice and the Federal Trade Commission. And the specific antitrust issues in the field of shipping, American statute law are mainly embodied in three laws, which are the Shipping law of 1916, the Shipping law of 1984 and the Ocean Shipping reform act of 1998.

### **5.4.2 The criterion of monopoly of American shipping alliance**

The United States does not define the joint operations of shipping, consortium and shipping alliance, nor does it make the issue of antitrust as a key issue of the linkage between the liner companies as the European Union. Moreover, compared with the European Union, which tends to the Harvard School structuralism, the definition of monopolistic behaviour in the shipping field in the United States is more inclined to the Chicago school. It pays more attention to the final market efficiency between shipping enterprises. The shipping reform act of 1998 stipulated several agreements that could not enjoy anti-monopoly exemption. First, any agreement between the seagoing ocean carrier in the United States and the carrier of the air / rail / road carrier, or the waterway common carrier who does not apply to the law (Ocean Shipping Reform Act of 1998, 1998); The second is the agreement between the carriers of the law concerning inland sector costs during the United States transit (Ocean Shipping Reform Act of 1998, 1998); Third is the agreement between the



common carriers of the law concerning the establishment, operation or maintenance of marine terminals in the United States; Fourth is all loyalty contract, which means an agreement between the shipper and the seagoing common carrier or the seagoing common carrier. Through the contract, the shipper shall deliver all or part of the goods to the carrier or the agreement within the stipulated time. A lower rate is obtained and the contract shall be subject to deferred rebate terms. Apart from that, for other shipping agreements, As long as it is filed in accordance with shipping reform act of 1998, in line with the relevant substantive conditions and procedural conditions, the right to antitrust exemption can be obtained. From this point of view, the United States has given more subjects of the right to enjoy antitrust exemption. The United States has not abolished the antitrust exemption of the liner conference as much as the European Union. The shipping reform act of 1998 also sets out different provisions for different types of agreements regarding the substantive aspects: special agreements such as liner conferences, ship sharing agreements, wharf operator agreements and other special regulations have been made. And the agreement between other general ocean common carriers applies the corresponding general provisions.

At the same time, FMC will oversee the implementation of competition law in the shipping sector. In the event of opposition to a cooperation agreement, the Commission provides evidence of the harm of competition arising from the agreement (Wang, 2000). Therefore, the United States will be more flexible in the control of the shipping alliance and other shipping agreements than the European Union. Its regulation of the shipping agreement is free. In fact, the United States was the first country to issue the competition law and establish the exemption system of shipping monopoly. In the 1916 shipping law, it granted the right of antitrust exemption for the shipping industry. In the 1984 shipping law and the 1998 Shipping Reform Act, the government has maintained an attitude towards reducing the government interference in the shipping market. Of course, it does not mean that the United States has no regard for the market structure in terms of the standard of monopoly and not judged by market share. In the Federal Maritime Commission's

regulations on the exemption of agreements for low market share in the shipping market also reflect the United States' attitude towards market share standards. Overall, the United States for the shipping alliance monopoly standard dominated by the free market regulation of Chicago School. Government intervention in the market structure of Harvard School as a supplement to the judge, it gives more freedom to compete for shipping enterprises.

## **5.5 Antitrust system of the American shipping alliance**

### **5.5.1 Antitrust enforcement agency**

Unlike the European Union, the United States has an exclusive maritime antitrust enforcement agency, the Federal Maritime Commission (FMC). It is an independent law enforcement department established under the federal organization programme, which is responsible for international shipping operations and enterprise management related to the United States and especially responsible for monitoring and management agreement between liner conferences and other shipping companies as the core. The functions of antitrust regulation in the shipping alliance include: whether the agreement violate the provisions of the relevant laws, the existence of monopoly or whether the agreement has the right to enjoy exemption granted by the law; to supervise the implementation of the agreement; to submit to the carrier the freight rates, additional charges and other details of the freight; to approve the freight level, punish monopoly, etc. (Wang, 2000). It can be said that FMC comprehensively regulates and manages the monopoly behaviour of shipping association from all aspects.

The main difference between the European Commission and the FMC is that: Firstly, FMC has been set up in accordance with the provisions of the corresponding competition law, and is responsible for shipping related law enforcement powers, besides the law enforcement, the European Commission has the right of interpretation and legislative power; Second, FMC is generally regarded as a quasi-

judicial body, while the European Commission is only an administrative organ, lower independent to the former; Third, FMC is a specialized law enforcement agency for shipping competition, and is not responsible for regulating monopoly in other fields. The European Commission is not only responsible for regulating monopoly in the shipping field, but also in other areas of monopoly.

### **5.5.2 Antitrust exemption**

The United States does not have the right to grant collective exemption to the shipping alliance as the European Union does, in order to qualify for exemption in the United States, they are required to report to and submit to the FMC for approval. The FMC has the right to decide whether to grant antitrust exemption. As long as the exemption does not reduce the substance of the competition or cause damage to the business activities, the committee may waive the relevant legal obligations of any type of agreement in the field of shipping in accordance with the application or its own motion. Therefore, in order to obtain the qualification of antitrust exemption, the relevant alliance enterprises should be asked to submit their reports to the committee, after filing, the committee will notify the Federal Register within 7 days for publication, and will examine the reported agreement. If it is not rejected by the committee within 45 days after the date of filing, or the notice of notification shall be published in the Federal Register for 30 days. The agreement came into force at a later date.

### **5.5.3 Freight management system**

The management system of the United States Freight in international shipping market can be within the scope of the whole world against is quite perfect, the price in the shipping market transparency and stability to a great extent, and is a very useful tool for judging the existence of monopolistic behaviour of shipping alliance.

The freight management system of the United States began during the World War 1. In the 1916 shipping law, the United States Freight reporting system was first established. This system has been stipulated as a nuclear system in the subsequent 1984 shipping law and the 1998 Shipping Reform Act, and has made several changes. Today's freight management system has cancelled the freight reserve system, but the freight open system is still reserved. That is to say, the requirements for preparing the freight for the Federal Maritime Commission in the early days have been cancelled. The carrier is required to develop its own automatic electronic freight rate system, and the Commission will provide regular and periodic checks on the accuracy of the system information and the conditions for access to the system. The public can obtain the right to enter the system by paying reasonable fees, and the establishment of these systems enables the publication of American Freight rate. In general, in addition to the law clearly stipulates the price without a public goods, public carrier, conferences etc. should open their tariff in the automatic open system (Yu, 2005), which can also be released through agents to complete the task.

The establishment of an open system of freight rates guarantees the right of the shipper, interested parties and other public to obtain accurate, reliable and useful fees and rates. Anyone can get the price book electronically without any restrictions. The carrier may charge for access to the system, but the standard of the charges should be reasonable and equitable, and the Federal Maritime Commission or other institution does not have the right to charge.

Freight management system is also beneficial to the Federal Maritime Commission to open the freight carrier to carry out supervision and management and to ensure the accuracy of the information and monitor the behaviour of the carrier. At any time they can know whether the carrier has formed the trend of monopoly.

#### **5.5.4 Investigation and hearing system**

The Commission may investigate the possibility of monopolistic alliances or agreements on the basis of complaints or their own motions. After the investigation, the Commission may reject, cancel or modify the decision made on the recorded agreement before it acts as a monopoly on the actual violation of the provisions. But if the agreement is determined to reduce the market competition and lead to the unreasonable transportation service to reduce, increase or unreasonable transportation costs, the committee can only submit the case to the court according to the regulations and provide relevant evidence to the court. Then, the court issued an injunction to stop the implementation of the agreement. It should be noted that the act or agreement investigated by Commission, except according to court injunction to terminate the contract before the Committee make a decision and issued the relevant orders, the behaviour or the agreement is still valid (Ocean Shipping Reform Act of 1998, 1998). In accordance with the law, the Commission shall make a written report on the findings and to hold hearings. Report the findings, rulings, facts and final orders of the investigation and provide copies of the reports. A written report should be published for public understanding.

#### **5.5.5 The punishment system of monopolistic behaviour**

As the monopolistic behaviour in violation of the provisions of the law, the law on Shipping Reform of 1998 stipulated the system of punishment including compensation, injunction, civil punishment and other prohibited acts.

Compensation means damages, which include compensatory damages as well as punitive damages. For the complainant's request, the Commission may request compensation for the actual damages and reasonable attorney fees of the complainant after the notification has been made and the hearing has been held. Actual damages should include loss of interest calculated at the rate of commercial interest starting from the damage. If the damage is caused by the exclusion and restriction of

competition by the associated act, the Commission may demand additional damages from the perpetrator. However, the total amount of compensation shall not exceed two times the actual damage. If the damage is caused by the offender in the rates and charges of unfair, unfair discrimination behaviour, then the amount of compensation is the difference between the victim pay rates and other shippers pay the most preferential rates. The injunction will be sent after the Commission's investigation and could be brought to court to prohibit the formation of monopolistic alliances. After the court hearing that the alliance has issued a ban on the conditions. The court will issue a temporary injunction or preliminary injunction (Ocean Shipping Reform Act of 1998, 1998).

The civil penalty is the fine, which is the most important form of punishment for the shipping monopoly in the United States. For general shipping violations, the fine is not more than \$5000. For intentional violations, the maximum amount of fines will be raised to \$25000. Moreover, if the act is a continuing offence, then daily violations will be considered an independent offence. Use this cumulative punishment system to calculate the amount of the fine.

Of course, in addition to compensation, injunction, civil punishment of the above three forms of punishment, for illegal activities, the committee may also make a request according to the actual situation to let the party operate or not operate.

## **5.6 The governance of shipping alliance monopoly in**

### **China**

#### **5.6.1 China Shipping anti-monopoly Legislation**

China's current laws and regulations do not carry out separate legislation on the issue of shipping alliances or shipping anti-monopoly issues. In legislation, there are only a few references to shipping joint ventures or shipping alliances, and there is no specific regulation. The main legal basis of China's shipping anti-monopoly is the

anti-monopoly law, the international maritime regulations and the rules for the implementation of the international maritime regulations.

### **5.6.2 The criterion of monopoly of shipping alliance in China**

Shipping monopoly must comply with the "anti-monopoly law" for the general provisions of monopoly identification. From Agreement constitute a monopoly agreement or abuse of market dominance or from operators occupation to determine whether it is the monopoly.

Monopoly agreements prohibited by the antimonopoly law refer to agreements and actions that restrict or exclude the influence of market competition. For example, the price of the product is fixed, change limit, the number of products and sales of related market segmentation, restrictions on the improvement of production technology, to boycott the behaviour of transactions or agreements are a monopoly agreement, which will be subject to legal regulation (Chinese Antimonopoly Law, 2007). Not all of the monopoly agreements will be banned, which will not have a serious effect on the restriction of competition in the relevant market, and will bring benefits to consumers of the agreement. If the agreement is sent in order to improve the production technology, product quality and market competitiveness of small and medium-sized enterprises, or for treatment of the economic downturn, overcapacity, Even if the monopoly standard is reached, the right to exemption will also be granted. So, from the monopoly agreement is prohibited in China and the EU banned the restrictive competition agreement content is quite similar, including the fixed price behaviour, limiting sales behaviour, market allocation behaviour of monopoly (Chinese Antimonopoly Law, 2007). The provisions can be found whether the restrained competition agreement is banned in the European Union and China's prohibition of monopoly agreement are to ensure fair competition in the market, to achieve both equity transactions, and obtain the rights monopoly exemption agreements restricting competition. Monopoly agreements are conducive to the

related products. Therefore, maintain fair market, also ensure the realization of market performance.

In the anti-monopoly law enforcement, the determination of the dominant position of the enterprise market is mainly determined by the market share of the enterprise. The standard of domination of the market from the "anti-monopoly law" in view of its dominant position than the EU for shipping alliance standards come loose, the market share of more than 30% will be the European Union as a dominant position. Even if a single company has a minimum market share of more than 50%, it will be regarded as the dominant position by China's anti-monopoly law. The alliance is at least two or more than two enterprises cooperation, and need to make up more than 2/3 of the market share will be recognized as the dominant position. The EU's demands will be more stringent and more consistent with the Harvard School's views and practices than banning such abuses. China combines the ideas of free competition advocated by the Chicago school.

If the enterprises through mergers, equity, assets, agreements and other means to obtain control of the other enterprises or exert a decisive influence on other business, this kind of behaviour is the behaviour of concentration prohibited by the anti-monopoly law. Once the operator has to implement centralized action, he must declare to the antimonopoly organ of the State Council before it can be implemented. The relevant agencies for the examination of concentration of business operators also mainly consider enterprise market share, efforts to control the consumer market and economic impact. Such concentration may not be banned if the concentration of managers will be more competitive or more in line with the public interest of the community.

For the alliance between liner companies, the rules for the implementation of the international maritime regulations require that their agreements be filed in accordance with the law. Within 15 days from the date of the conclusion of the contract, the shipping companies participate in the alliance shall file their records with the Ministry of communications respectively, and the acts of the alliance that



have not been filed in accordance with the law will be punished by the Ministry of Communications. In addition, the provisions of the international shipping regulations also stipulate that any agreement between the liner trade agreement, the operation agreement or the freight rate signed by the carrier between the international liner carriers and the port of China may impair the fair competition. Or in the international liner shipping business services related to the particular route of our port shipping share if a year for more than the total volume of the 30% routes, and may damage the fairness of the competition, the relevant department will be eligible to export its investigation.

To sum up, we can see that both the standard of monopoly for general monopoly and the monopoly of shipping alliance are more inclined to Harvard school. The relevant market share in the market is mainly as a basis for judgment, and the government has more interference with the shipping alliance. But it also combines the view of the Chicago school, and also considers the factors of market performance in the formulation of shipping antitrust regulation. It does not regard it as a monopoly if the alliance help improve the market performance.

### **5.6.3 The lack of antitrust regulation in China's shipping alliances**

(1) The definition of shipping alliance is not clear

China's legislation on the definition of the shipping affiliation when they can be found in our legislation while the use of the concept of shipping pool and shipping alliance, but no further definition of it, this makes the public doubt in the distinction and contact. In addition, the joint action or agreement of the shipping joint venture and the shipping alliance into the scope of the operation agreement, the negotiation agreement is also included in the operation agreement. Negotiation agreements and shipping pools are essentially agreements of different nature, the former is to stabilize the transport capacity and freight rates, and the latter is to rationalize the

operation. For example, the European Union has granted the right to the antitrust exemption of the shipping Union, but the negotiation agreement can only apply the general rules of the anti-monopoly law (P. R. China Implementation Rules of International Shipping Ordinance, 2003). China's legislation classify the same kind of agreement between the above two case, and the anti-monopoly regulation of the two parties will be very unfavourable.

(2) There is no uniform law enforcement agency

From the provisions of the international maritime regulations and the rules for their implementation, the record of the actions or agreements of the shipping alliance shall be carried out by the Ministry of transport. However, the right to investigate the monopoly or agreement between the shipping enterprises is subject to the joint efforts of the transportation department under the State Council, the administrative department for Industry and Commerce and the pricing department. This impedes the efficiency of antitrust enforcement and increase the cost of enforcing the law.

(3) The form of punishment is too simple

China's legislation on the shipping alliance monopoly or punishment form of agreement is quite vague. For violation of the relevant provisions of the act or by joint agreement to eliminate or restrict competition, there is only the provision done by the competent communications department of the State Council, the administrative department for Industry and commerce or the competent department to give the appropriate punishment for the action or agreement according to the provisions of the relevant laws and administrative regulations. In legislation, the form of punishment is too simple, and the form of punishment is mainly based on fines. It is necessary to change the form of punishment in a variety of ways.

(4) The system of anti-monopoly exemption has not yet been established

China's legislation has not only made no provision for the antitrust exemption of the shipping alliance, but also does not specify the right of the liner trade to enjoy

antitrust exemption. China only provides more specific market share for the union, but it cannot be further investigated whether the alliance enjoys exemption.

#### **5.6.4 Suggestions on the establishment of anti-monopoly system of shipping alliance in China**

At present, China does not have any special anti-monopoly laws for shipping. It can only be regulated in accordance with the general provisions of the anti-monopoly law. However, the anti-monopoly law is a general regulation of monopolistic conduct, and it does not specify the special provisions which are different from the general anti-monopoly law according to the special circumstances of the shipping market. Although the provisions of the international maritime transport ordinance and the international maritime regulations implementing rules on shipping antitrust have some provisions, they are incomplete in the end, and their legal effect is still lower than that of the general law.

First of all, the concept of shipping alliance should be defined. Define and differentiate the shipping joint venture and shipping alliance. This will help the shipping companies to grasp the bottom line of cooperation between them, and also help to improve the efficiency of the monopoly regulation of the shipping joint venture. The behaviour of shipping alliance should be focused on its regulation, but the behaviour of the shipping alliance which has not reached the monopoly standard should be more focused on monitoring and prevention. The shipping alliance behaviour getting the monopoly standard should first determine whether the exemption conditions of the rights according to the regulations, only the shipping alliance or agreement in accordance with the conditions of the party can be given according to the provisions of the antitrust exemption qualifications, and for company not meeting joint monopoly exemption conditions, should punish them according to the law. For shipping alliances that have not yet reached a monopoly standard, the preparation, contents, forms, procedures and the law enforcement

agencies for the acceptance of the shipping agreement shall be stipulated in detail. The law enforcement agencies have a clear grasp of the contents of all shipping agreements or actions so that they can correctly control the trend of the shipping alliance. Monitor the market share of shipping union members. For the occasional alliance behaviour beyond the specified market share or due to external factors beyond the Union Act of market share, compared to the other yet beyond the alliance behaviour, law enforcement agencies should strengthen the supervision on it. A careful analysis of the key reasons beyond the specified market share is essentially, and market share should not only as the judgment factor.

We can draw on the experience of the United States and set up a special anti-monopoly law enforcement agency for shipping. However, our shipping company have joined in some shipping alliance, so we should establish some exemption. Besides, there is no shipping company in America, so we should also prevent the overly exacting terms. To be responsible for the regulation of the union agreement or the conduct of the alliance of the liner companies, to receive the shipping agreement and to be responsible for the review. The agency implements the supervision of shipping alliance agreement or behaviour. The complainants based on the complaint or self-decide investigate the alliance behaviour suspicious. Punish illegal monopolistic behaviour, comprehensive supervision and management of the shipping alliance.

For the establishment of China's shipping alliance antitrust regulation system, the key is to improve the legislation on the shipping alliance norms. Set up antitrust exemption system for shipping association and special anti-monopoly law enforcement agency. Based on the criterion of the monopoly of the shipping alliance, different measures are taken for the shipping alliance under or above the standard.

## 6 Conclusion

From many years of operation development of the shipping market and the shipping companies, shipping alliance is a good choice in liner shipping market, shipping company can through the alliance to improve their competition in the relevant market. It also enables liner companies to maintain the company's operations in a global economic downturn, bringing many advantages to liner companies. Therefore, compared with the liner conference and negotiation agreement, the shipping alliance is more favoured by liner companies in recent years, and the global shipping alliance pattern is changing constantly. Even if the shipping alliance has many advantages for the development of the liner company, it cannot change its nature of monopoly. Therefore, it is very necessary for China's shipping market and liner shipping company to establish a shipping alliance anti-monopoly mechanism in advance.

This paper first summarizes the history, form economic meanings of the development of liner alliances. Then update the shipping alliance structure, and analyse the governance strategy in America, European and China. Give some advice to legislation in China's governance. For the shortcomings of China's shipping alliance antitrust system, the author believes that we should improve the anti-monopoly regulation of China's shipping alliance from the legislative level, the law enforcement level and the system level.

This paper hopes that through the study of the antitrust regulation of the shipping alliance and the relevant recommendations, it will play a role in the development of China's liner shipping market.

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