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WORLD MARITIME UNIVERSITY

Shanghai, China



**Research on the overseas investment of Chinese port
operators under the Belt and Road Initiative:**

A case study on COSCO Shipping Ports and China Merchants Port

By

HUANG JUN JIE

China

A research paper submitted to the World Maritime University in partial

Fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

(INTERNATIONAL TRANSPORT AND LOGISTICS)

2020

Declaration

I certify that all the material in this research paper that is not my own work has been identified and that no materials are 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.

Supervised by

Professor Chen Yang

Shanghai Maritime University

Acknowledgements

At the point of finishing this paper, I'd like to express my sincere thanks to all those who have lent me hands in the course of my writing this paper. First of all, I am honored to participate in the ITL project. In more than a year of study, I would like to thank professors from all over the world. Their professional teaching level and rich industry experience let me see the charm of the shipping industry. Through the study in ITL, I learned the shipping related knowledge more systematically, and it was also based on this that I was able to successfully complete this thesis.

Secondly, I would like to thank my supervisor, Professor Chen Yang, who provided a lot of professional guidance during the writing of my thesis. And I also appreciate Professor Shi Xin, Professor Zheng Shiyuan, and Professor Yin Ming who made many valuable suggestions in our defense.

Finally, I would like to thank all the students in the ITL class. We from different countries exchanged and studied with each other, and established a profound friendship in the one-year study life. I will always cherish these precious friendships.

Abstract

Ports play the role of transportation hub in transportation activities as the connection point of sea transportation and land transportation, especially under economic globalisation. After the Belt and Road Initiative was launched in 2013, China increased the scale of foreign direct investment, and Chinese port operators investing in overseas ports dramatically rose as well. This article determines the impact of major policies on China's port industry through research on the relevant literature and analyses the development of China's port industry in recent years. Then, a study of 42 overseas port investment cases of two representative Chinese port operators, i.e. COSCO Shipping Ports and China Merchants Port, to find out the characteristics of their investments and commonly used entry modes attempts to provide theoretical and practical reference for other port companies.

Keywords: The Belt and Road Initiative; Overseas port investments; Case study; Outward foreign direct investment; Entry modes

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List of Abbreviations

BRI/B&R	Belt and Road Initiative
ASEAN	Association of Southeast Asian Nations
DEA	Data Envelopment Analysis
MSR	21st Century Maritime Silk Road
HPH	Hutchison Port Holdings
CM Port	China Merchants Port
SIPG	Shanghai International Port Group
PSA	PSA International Pte Ltd
APM	APM Terminals (subsidiary of Maersk)
CMA–CGM	Compagnie Maritime d’Affrètement Compagnie Générale Maritime SA
NYK	Nippon Yusen Kabushiki Kaisha
BOT	Build–operate–transfer entry mode
M&A	Merge and acquisition
FDI	Foreign direct investment
OFDI	Outward foreign direct investment
CIC	China Investment Corporation
CHEC	China Harbour Engineering Company

Chapter 1 Introduction

1.1 Research background and significance

1.1.1 Research background

Economic globalisation has become the trend of world development in the twenty-first century. Economic globalisation means that there is a large amount of capital flow, technology transfer and service provision among countries in the world so that countries are closely connected, influence each other and pursue common prosperity. As the connection point of sea transportation and land transportation, the port plays the role of transportation hub in transportation activities, which cannot be ignored in economic globalisation.

After the Belt and Road Initiative launched in 2013, Chinese port operators invested in ports situated along the ‘21st Century Maritime Silk Road’ (MSR). According to the data, there has been a dramatic rise in overseas investments by Chinese port operators. Thus, 15 years ago, there were just a few of them, and even in 2012, there were not very many; however, today, more than half of Chinese port investments are outside China.

China's ‘Belt and Road Initiative’ will help China to connect with the other countries along the ‘road’ to promote international cooperation. However, there is also a need for port and shipping enterprises to participate in the global strategic cooperation and a need to enhance the global competitiveness and internationalisation of domestic port and shipping enterprises. The Belt and Road Initiative has brought new opportunities

for Chinese port and shipping enterprises in terms of international investment.

1.1.2 Research significance

Among the world's top 10 port operators, there are 3 from China, namely Hutchison Ports (Hong Kong), COSCO Shipping Ports and China Merchants Port. Although the internationalisation of Chinese port operators started relatively late, the speed of development has been faster. Particularly in recent years, the strategy of the BRI launched, as represented by Hutchison Ports, COSCO Shipping Ports, and China Merchants Port, has accelerated the pace of investment in overseas terminals along this route. Through its internationalisation strategy, China will establish an international maritime network and global supply chain. Meanwhile, the development of China's ports will also benefit more countries and people along the MSR.

How Chinese companies, especially port companies, can improve their international influence and financial return on investment under this national strategy proposed, the entry modes and the choices of port location when investing are very important. Much existing literature has conducted in-depth research on the spatial location of overseas port investment. After determining the investment objectives through the study of existing overseas investment cases of Chinese port operators, the main entry modes and investment characteristics have been discussed in depth to find some characteristics and the main entry method choices of Chinese port operators in foreign investment.

This article attempts to provide theoretical and practical reference for other port

companies by analysing the overseas port investments of the two most representative port companies in mainland China: COSCO Shipping Ports and China Merchants Port.

1.2 Methodology

The research method of this paper is to first analyse the development of the Chinese port industry and, then, analyse the foreign direct investment (FDI) and outward FDI (OFDI) of Chinese ports by applying the literature research method, which mainly refers to the collection, identification and collation of literature and the formation of a scientific understanding of facts through literature research. Subsequently, the case study method will be applied to analyse the overseas investment of COSCO Shipping Ports and China Merchants (CM) Port, after which a comparison analysis will be given. This type of research method extensively collects relevant data to understand and analyse in detail the process of the generation and development of the research object as well as internal and external factors and their mutual relations so as to form a thorough and comprehensive understanding and conclusion of relevant issues.

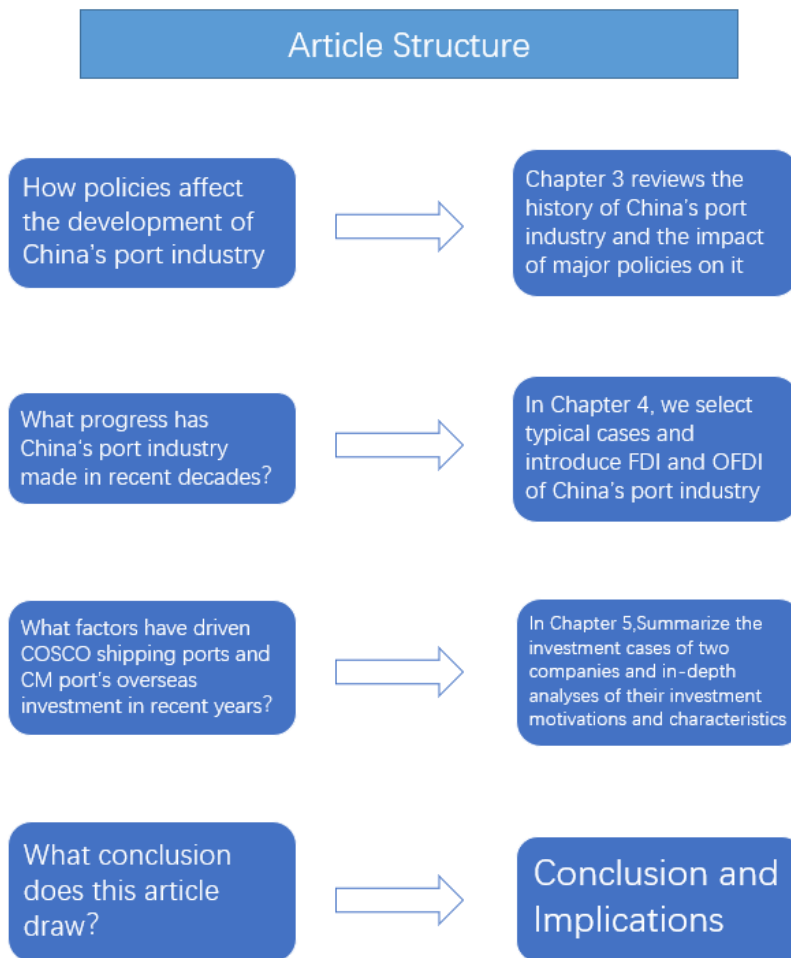


Figure 1 Article structure

Chapter 2 Literature review

2.1 Research on the Chinese port industry

The existing research on the Chinese port industry can be divided into four categories as following:

2.1.1 Research on China's port management system

Yang and Yang (2019) studied the development of the port industry and the reform of the management system in China's port industry since the reform and opening up. They compared it with the port management methods of Japan, Singapore, Germany and other countries and used these countries' experiences successful experiences to reform the port management method of our country.

Zhang and Wang (2015) traced the history of China's port administrative management system reform and described in detail how Chinese port enterprises went from 'government-enterprise integration' to 'separation of government and enterprise' (p.46), decentralisation, and functional transformation to enable efficient port operation.

2.1.2 Research on the evolution of port functions

Zhen (2013) analysed the current development trend of port transformation and upgrading and pointed out that it is currently mainstream for landlord ports to lease ports to terminal operators. Port privatisation helps improve the international development of ports.

Dong and Zhen (2008) analysed the concept and connotation of fourth-generation ports and proposed that these ports are compatible with the functions of third-generation ports, emphasising them as a link in the supply chain and more responsive to the uncertainty of the transportation market and the need for differentiated services.

2.1.3 Case study of regional port development

Many scholars have done research on port development in different regions of the world.

Wang (2007) analysed the financing mode of Qingdao Port's construction; she believed that choosing the type of investment and financing after dividing the type of port infrastructure projects will help the port maximise economic and social benefits.

Notteboom and Veenstra (2010) used statistical techniques to analyse the Yangtze River port system undergoing regionalisation and believed that it is mainly related to Shanghai Port.

2.1.4 Recent research on impact of the BRI for port development

Li (2019) defined the development status of China's ports and what strategies should be adopted to enhance port competitiveness under the MSR strategy: Chinese port enterprises should integrate resources and improve port functions.

Sun and Hong (2017) believed that the BRI is a major economic diplomatic practice for China in the new era. It is not intended to challenge or replace the existing

international system but to help promote its transformation and improvement.

Huang and Jia (2015) studied the main spatial scope of the MSR and analysed potential trading partners in its construction, such as ASEAN (Association of Southeast Asian Nations) countries.

2.2 Research on the FDI and OFDI of China's port industry

Shu et al. made a quantitative assessment of the policy impact of the BRI on China's OFDI. They used enterprise-level information (such as ownership structure and department information), as other studies have used total OFDI data but ignored the heterogeneity of companies to the BRI. It was concluded that the BRI has a positive impact on China's FDI activities.

Fei (2017) classified the entry mode of OFDI carried out by Chinese port enterprises, used the DEA (Data Envelopment Analysis) model to calculate the port operation efficiency value and, then, concluded that the overseas ports using merger and acquisition (M&A) have the highest operating efficiency. It was also recommended that Chinese port enterprises should not blindly invest in overseas port investments but should choose an investment method that is harmonious with themselves according to actual experience.

Wang and Liu (2019) built a database of Chinese companies' overseas port investment cases, analysed the global spatial evolution of China's overseas port investment pattern from 1978 to the present and clarified Chinese companies' entry into overseas ports in terms of regional structures, participating entities and equity

changes' features and methods.

Heli (2018) systematically analysed the overseas port investment models of Chinese-funded enterprises and the advantages and disadvantages of each investment mode in response to the existing problems in the overseas port investment of Chinese-funded enterprises. In combination with the management modes of major foreign ports, the case of investment in container ports in Venice, Italy, as a typical case was used to improve the funding strategy for overseas ports.

Liu (2017) discussed the implementation and characteristics of cross-border M&As by Chinese port companies, explained the internal and external conditions for cross-border M&As by Chinese port operators, and, then, conducted empirical research on the cross-border M&As of COSCO Shipping Ports and Dubai Ports (DP) World.

Lina (2017) analysed the FDI situation of China's port industry by collecting and analysing the annual reports and collating the data of the world's major terminal operators and found that professional foreign port operators tend to diversify their investments in Chinese ports and are gradually losing port operation rights.

Although there are many documents describing the situation of FDI and OFDI in China's port industry, there are very few documents that link the two to analyse the reasons why China's port industry changed from being invested in to carry out overseas port investments.

Chapter 3 Impact of policies on China's port industry and classification of port operators

3.1 Overview of the port industry

Modern ports have generally undergone a process of transformation from general basic industries to multi-functional industries and from urban general communities to economic integration areas of a port city.

From the perspective of functional evolution, the modern port was born after the British Industrial Revolution in the middle of the eighteenth century, and the development process over the following 200 years was roughly divided into three stages. The first generation of ports was as a pure 'transportation centre'. From the time the port was born until the 1960s, the port was only used as a connection point for maritime and inland transportation systems, providing general bulk cargo operations. Port functions were limited to cargo handling, storage and other services. The second generation of ports began after the 1960s, with general cargo, dry bulk, liquid bulk and component cargo as the main cargo types. It had the functions of the port industry and related industries. In addition to cargo handling and storage, it also increased industrial and commercial activities, which have certain value-added functions near ports. The third generation of ports began in the 1980s and was characterised by containerisation. With the globalisation process and the rapid development of container transportation, multimodal transport systems emerged. The port further expanded the functions of logistics services and distribution

services, becoming a centralised international logistics centre with tangible goods, technology, capital and information. With the development of supply chain management theory and the expansion of port functions, the 1999 United Nations Conference on Trade and Development put forward the concept of ‘the fourth-generation port’, which means that the new generation of ports will provide more flexible, agile and punctual service via advanced technologies such as big data and the Internet of Things.

Container transportation was born in the middle of the 1950s and late 1960s. In order to meet the needs of container transportation, new or rebuilt container-specialised terminals gradually appeared. Due to a high loading and unloading efficiency, fast ship turnover and high degree of standardisation, container transportation has become the mainstream method of the development of maritime transportation. Therefore, container terminals have also become the most important part of modern ports and have become a symbol of evaluating the development level of ports.

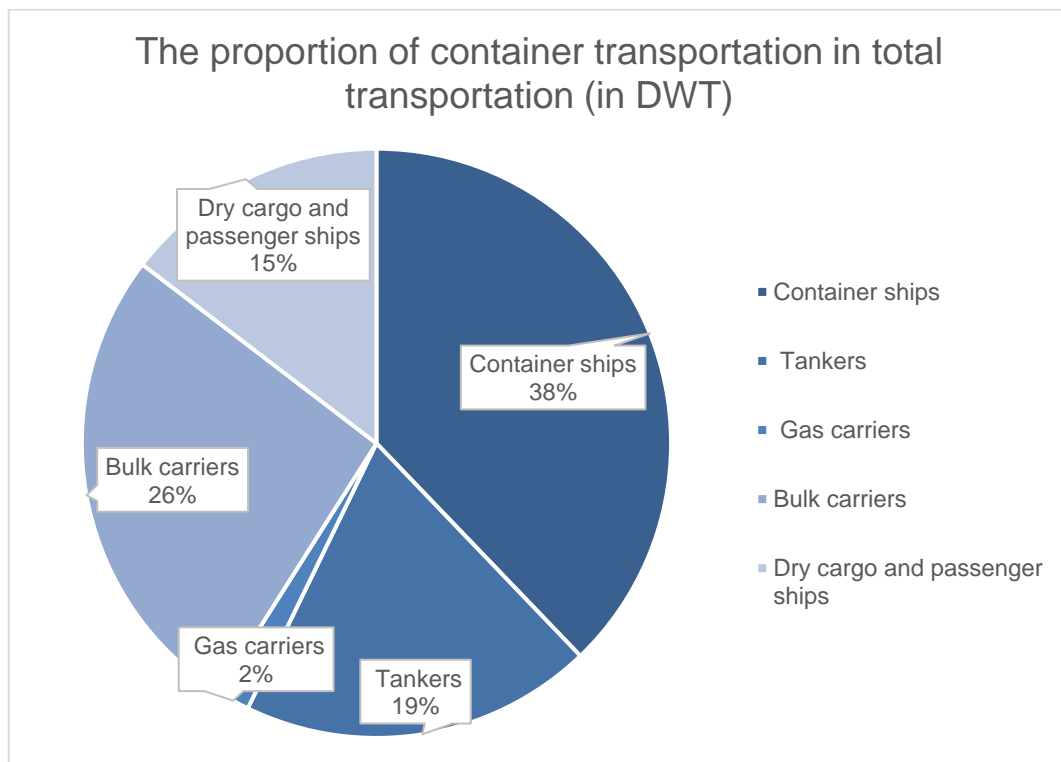


Figure 2 Different types of cargo transportation in 2018. Author's compilation based on Marine Traffic 2018

Figure 2 shows the proportion of container transportation (38%) in total transportation in 2018. The main reason for this large proportion is the widespread use of containers in multimodal transport because this can reduce the cost of logistics, protect the safety of goods and improve the efficiency of logistics. Due to the unique status of the container hub port in the port system and its role in the regional economy, all countries regard the construction of container hub ports as a priority for their port development, and the competition between container ports is very acute. Since the 1970s, the ranking of container ports has changed dramatically. At present, as the world economy shifts to Asia, represented by China, East Asia

has become the fastest-growing container port region. In 2018, Asia accounted for 14 out of the 20 largest container ports in the world, of which 9 accounted for China’s mainland. For 16 years, it ranked first in the global container throughput (see Table 1).

Table 1 2017–2018 Global top 20 container port ranking (in thousand TEU)

Rank	Port	Country/Region	Throughput		YoY increase
			2018	2017	
1	Shanghai	China	42,010	40,233	4.4%
2	Singapore	Singapore	36,599	33,667	8.7%
3	Ningbo-Zhoushan	China	26,351	24,607	7.1%
4	Shenzhen	China	25,740	25,208	2.1%
5	Guangzhou	China	21,922	20,370	7.6%
6	Busan	South Korea	21,663	20,493	5.7%
7	Hong Kong	China	19,596	20,770	-5.7%
8	Qingdao	China	19,315	18,262	5.8%
9	Tianjin	China	15,972	15,040	6.2%
10	Dubai	United Arab Emirates	14,954	15,368	-2.7%
11	Rotterdam	The Netherlands	14,512	13,734	5.7%

12	Port Klang	Malaysia	12,316	11,978	2.8%
13	Antwerp	Belgium	11,100	10,450	6.2%
14	Xiamen	China	10,702	10,380	3.1%
15	Kaohsiung	Taiwan	10,445	10,271	1.7%
16	Dalian	China	9,770	9,707	0.6%
17	Los Angeles	US	9,458	9,343	1.2%
	Tanjung				
18	Pelepas	Malaysia	8,960	8,260	8.5%
19	Hamburg	Germany	8,730	8,820	-1.0%
20	Long Beach	US	8,091	7,544	7.3%

Source: Author's compilation based on Lloyd's List

3.2 Impact of policies on China's port industry

Ports have a long history as an industry. The creation of modern ports began more than 200 years ago, but as an independent industry, especially for industries that allow private capital to enter and operate in accordance with market principles, it has been in China for only 40 years. Therefore, in this sense, China's port industry is a young industry. Seaports are important in the development of the economy because they are gateways for imports and exports. As Professor Goss (1990a, p. 218) stated, 'the economic functions of a seaport are to provide benefits to the original producers of the exports and the ultimate consumers of the imports passing through it'.

3.2.1 The influence of ‘reform and opening up’ on China's port industry

‘Reform and opening up’ is a policy of reform and opening up to the outside world that Deng Xiaoping put forward in 1978. This policy has made a huge leap forward for China's economy; all industries are booming, and the port industry is no exception. Just like the name of this policy, China's port industry has also undergone a ‘reform and opening up’.

‘Reform’ mainly refers to the reform of China's port management system. Looking back on the reform process of China's port management model, the model has mainly gone through three stages. The first stage was the period of planned economy. At this time, the port business was managed by the central transportation authority. The port authority implemented the dual functions of administrative management and production management in the port area, forming a ‘highly centralized, unified management, independent operation, and national monopoly management model’(Liu,2017). The second stage was after the 1980s, when reform and opening up was proposed. At this time, the management system was the dual leadership of the central government's transportation department and the local government. Under this system, most of the enterprises within the scope of China's ports had two major categories, namely the subordinate units of the bureau and the port enterprises managed by the local government, manifested as the integration of government and enterprise. The port operation market had a clear monopoly, and the operation and dispatching authority was mainly in the hands of the port

authority. The third stage was the deepening stage of reform, wherein the port management system gradually realised the separation of government and enterprise. Government and port company began to operate independently. As a result, the operation of the port enterprises has broken through geographical restrictions, and their investment management decisions are no longer subject to excessive government interference. Port enterprises can carry out diversified business activities such as port production and asset investment, increase the vitality of production and operation and actively use the market as a guide to obtain high investment returns and improve economic benefits as their main purposes.

As for ‘opening up’, since the central government implemented the policy of opening to the outside world in 1978 and joined the World Trade Organization in 2001, China joined the wave of world port privatisation in the 1990s. Privatisation, whether it is the privatisation of operations or the privatisation of port entities, is a common practice that encourages the private sector to participate more in port operation and management to improve efficiency and meet customer needs. The experience of world port privatisation shows that the port operation function has been devolved to the private sector, so the public/private model has been favoured by many countries to a large extent. This is also known as the landlord approach. Therefore, investors from China or other countries can enter the Chinese port market. Particularly after the implementation of the People's Republic of China Port Law in 2004, foreign investment in China's port industry has not only been allowed but also actively encouraged. The mode of port privatisation is joint venture, which attracts foreign companies and international financial institutions to participate in

the construction and operation of Chinese ports as the private sector. The joint ventures have not only rapidly expanded the infrastructure and service capabilities of China's major ports but have also accumulated expertise and capabilities in port operations and construction for port-related industries.

In summary, the reform and opening-up policy has had a profound impact on the development of China's port industry. The separation of government and enterprise through management system reform and the attraction of FDI through opening up have greatly increased the competitiveness and development potential of China's port industry.

3.2.2 The interaction between the BRI and China's port industry

The BRI was proposed by Chinese President Xi in the fall of 2013, and it aims to create a profound regional and global impact by promoting the economic development and integration of countries (mainly in Asia, Europe and Africa). The BRI consists of two parts: the Silk Road Economic Belt and the 21st Century MSR Economic Belt. Since the proposal of the BRI, China's economic development has been more closely linked to the international market. This initiative was proposed by China in response to the trend of economic globalisation and regional economic integration, which is important for Chinese companies to achieve globalisation. According to UNCTAD (United Nations Conference on Trade and Development) data, since the BRI was proposed, the amount of foreign investment by Chinese companies has increased significantly, from \$123,120 million in 2014 to \$196,149 million in 2016.

On the one hand, the BRI facilitates the development of Chinese port companies. Since the BRI was proposed, Chinese port operators have carried out investment and construction activities in Djibouti Port, Aden Port, Yemen, Kyaukpur Port, Myanmar, Chittagong Port, Bangladesh, Colombo Port, Sri Lanka, Maldives Port and Piraeus Port, Greece. Port operators such as CM Port, COSCO Shipping Ports and Shanghai Port Group have all seized the strategic opportunity of the BRI to fully promote the globalisation of ports.

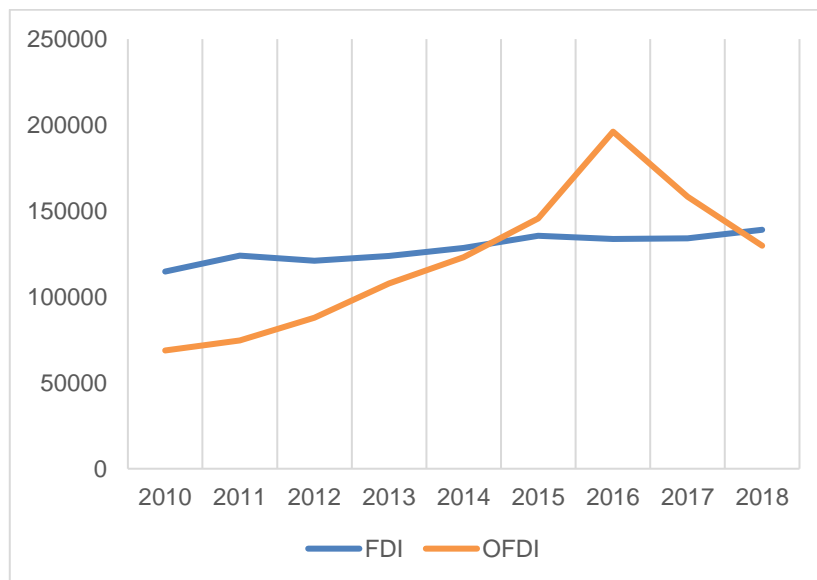


Figure 3 Overview of China's FDI and OFDI (in million USD); author's compilation based on UNCTAD (financial profile of China)

On the other hand, Chinese port companies make great contributions to the BRI. Chinese port companies help to promote industrial agglomeration and optimise the structure of regional industries. The BRI has accelerated the development of maritime ports, making the supporting facilities of maritime ports increasingly

complete and expanding their functions, bringing a strong impetus to the development of industrial clusters. The development of maritime ports has promoted the formation of relevant industrial chains and extended industrial clusters to both ends of the industrial chain, driving the development of logistics, trade, tourism, insurance, catering and other related services. Regional industrial structure is thus optimised through the efficient allocation of resources.

As the strategic fulcrum of the BRI, seaports will drive the economic development of its hinterland along the shipping route through the radiation and linkage effect. With maritime ports as the centre, BRI could build a collection and distribution system with the surrounding areas to expand the scope of regional radiation and connect the hinterlands at home and abroad to form complementary industries so as to achieve win-win economic development in the region.

The BRI was put forward under the background that China's economic development speed has entered the 'new normal' and that a new round of reform and opening up is needed. Countries and regions along the Belt and Road can make use of seaports to allocate superior resources, conduct cross-regional trade and achieve industrial cooperation so as to better integrate into the BRI. When China conducts trade and cooperation with countries along the Belt and Road, the advanced and comprehensive system of seaports is conducive to strengthening geo-economic ties, promoting the development of international trade, expanding China's 'circle of friends' and building a new economic opening pattern.

If reform and opening up are encouraging foreign companies to enter China to

expand FDI, then the BRI is encouraging Chinese companies to go abroad to carry out OFDI after decades of experience accumulation.

3.3 Classification and ranking of port operators

Port operators usually refer to port authorities or companies that have contracted with port authorities. They may be state-owned (like COSCO Shipping Ports) or private companies. Port operators should cover container, bulk cargo (oil, iron ore, coal, etc.) and dry cargo business, but due to the importance of the container business in the port industry, the so-called port operators generally refer to container terminal operators. According to Drewry's statistical standards, the term 'port operator' refers to an enterprise holding two or more terminal stocks that holds at least 10% of the invested terminal and uses the port as an independent business that manages it. According to the positioning and investment motivation of the port industry, port operators can be divided into the following three categories.

3.3.1 Professional port operators

Ports are positioned as their core industries, and most of them exist in the form of independent enterprises or enterprise groups (even if they are affiliated with a comprehensive consortium, they also come out individually to become professional entities operating ports). Within this enterprise, there is a group of perfect port operation and management talents, and there are specialised departments or agencies with complete functions such as port investment, construction, operation, marketing and daily management and control. The purpose of this investment in the port industry

is to operate and manage and to obtain long-term and reliable investment returns. This type of operator serves all shipping companies and cargo owners and does not specifically serve one or several shipping companies and cargo owners, so it is also called a public operator. In terms of the equity ratio, such operators tend to seek a controlling position in the invested terminal. For example, in 2019, DP World's (DPW) average shareholding in its investment terminal was 66% (according to its 2019 annual report).

Moreover, according to the geographical distribution of port assets, professional port operators can be roughly divided into three types, namely local operators, regional operators and global operators. The growth routes of these operators also basically follow the model of 'local operators–regional operators–global operators'; that is, after their home ports dominate the position of the market, they begin to expand to neighbouring countries or regions through small M&As or joint ventures and complete global expansion and international strategies.

3.3.2 Port operators with a shipping company background

The shipping company is the earliest terminal operator. For shipping companies, the main purpose of their investment and construction of terminals is not to operate and manage the terminals but to ensure the efficiency of their fleet. Therefore, many shipping companies have set up specialised terminal management companies, such as APM Terminals of Maersk and COSCO Shipping Ports of COSCO Group. However, compared to the main shipping business, the terminal business has always been a supporting role. In the terminal asset structure of such operators, the shareholding

companies as small shareholders account for a considerable proportion, which makes them unable to dominate the daily operation management of the invested companies. Compared with professional port operators, operators with a shipping company background are more like strategic investors, and they are not very concerned about holding a controlling share. As long as they can establish a strategic cooperation relationship with the terminal with equity as a link, they can achieve their strategic goal. Port terminals have become a common trend, and today's container terminal shipping companies are the largest investors and controllers overall. Among the world's 10 largest port operators, there are 5 shipping companies with such backgrounds, including APM Terminals under Maersk and COSCO Shipping Ports under COSCO Group.

3.3.3 Port operators with a financial group background

The parent companies of these types of operators are mostly diversified financial groups. Ports are only their business segments and are often not their core industries. Their investment purpose is to pay more attention to financial returns and further reflect the characteristics of financial investors, such as the terminals in Hong Kong, New World, Hutchison Whampoa and CM Group. If the port business develops well, it may also become an independent business sector and increase its investment to become a professional port operator and, thus, a new core industry of the group. For example, HPH (Hutchison Port Holdings), the port business subsidiary of Hutchison Whampoa, has become one of the largest port operators in the world.

Drewry, a professional shipping consulting company, announces the annual ranking

of global port operators but only includes those that have invested in port projects in more than two countries or regions, excluding a large number of local port operators and regional operators. Therefore, the ranking does not accurately reflect the development of operators in the port industry. Nonetheless, as the most authoritative ranking in the industry, this ranking has a certain reference significance.

Table 2 Global terminal operators' equity-based throughput league table

Ranking	Operator	TEU (m)
1	PSA International	60.3
2	Hutchison Ports	46.7
3	China COSCO Shipping	46.1
4	DPW	44.2
5	APM Terminals	42.8
6	CM Port	35.1
7	Terminal Investment Limited	26.5
8	ICTSI	8.9
9	Evergreen	8.5
10	SSA Marine	8.1

Source: Author's compilation based on Drewry Maritime Research

Chapter 4 The development of China's port industry in recent years

4.1 Analysis of international port investment entry modes and comparison

According to previous case studies, when port operators invest overseas, they usually use the following four entry modes: new investment, M&A, joint venture and cooperation and concession.

4.1.1 Build–operate–transfer

Build–operate–transfer (BOT) refers to investors undertaking overseas investment projects by building a new facility. It can be a new terminal construction project or an expansion project of an existing terminal.

Since ports are a strategic place for a country and the lifeblood of development, most countries in the world do not allow the existence of private ports (Fei, 2017). Ports are mainly controlled through the establishment of port management agencies or enterprises controlled by the state to operate the port, in line with the national economic development trends to determine port development direction, they grant a concession to terminal operators with shoreline, land and other resources for development, construction and operation management.

At present, BOT is mainly used for the greenfield projects of overseas terminals. Specifically, the terminal investor signs a franchise agreement with the local

government port management department or a government-led port management company. The concession period is generally 30 to 50 years. During this period, the investor establishes a project company according to the agreement and is responsible for the development plan and specific projects of the port area and obtained investment returns through the operation. After the concession period expires, the investor transfers the project to the host country's government and withdraws from the operation management of the project, and the investment project ends.

4.1.2 Joint venture

Joint venture refers to two port operators forming a new enterprise to enter the international market through joint investment. Under this entry mode, all parties in the cooperation jointly manage, operate together, share the profit and loss and share the business risks. Joint venture arrangements can be public-private entities or private-private entities. For instance, private sector participation in port operations in China usually takes the form of joint ventures between private terminal operators and public port companies. Usually, foreign investors have a minority stake in Chinese ports.

4.1.3 Concession

Concession is a contract between a private enterprise and government. Normally, the government retains the ownership of assets (especially land), and the private enterprise obtains the right to operate and use this piece of asset (e.g. land) for a period of time and obtains profits through this period of commercial operation.

There are two main forms of concession used in ports: operation and maintenance

concessions and BOT concessions. However, as mentioned above, BOT is applied more in new projects.

4.1.4 M&A

The M&A entry mode is a cross-border M&A. Among merge and acquisition, the cross-border merger is an absorption merger behaviour. When the merged terminal or operator signs the agreement, the company is cancelled, and it will be directly merged into the merger company's institution. Meanwhile, a cross-border acquisition is different. The enterprise can still operate independently, but it only allows the acquiring company to take control of the company's shares. In the practice of Chinese port M&A, acquisition is used more frequently than merging. During the twenty-first century, cross-border M&As, as a form of FDI, are becoming the main stream for multinational companies to expand their business scope and quickly enter other countries' markets because of their characteristics of saving fixed asset investment construction time and quickly obtaining production factors.

Herein, the author will study the overseas port investment cases over the years to determine the attitudes of Chinese port operators regarding the above four entry modes. Table 3 summarises the advantages and disadvantages of the above four entry modes for reference.

Table 3 Advantages and disadvantages of the four entry modes

Entry mode	Advantages	Disadvantages
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BOT	Many sources of funding	High financing costs Large total investment Long investment cycle
Joint venture	Reduce risks with the influence of joint ventures and complementary capabilities with joint ventures	Disagreement in operation and management
Concession	Low investment risk Obtain policy and economic support from the franchisor High degree of corporate control during the operating period	Fixed assets need to be handed over after concession period Operating time limit
M&A	Save time for construction of fixed assets Effective use of acquired resources to quickly enter the market	Difficulties in value evaluation

4.2 FDI in Chinese ports

As mentioned above, after the reform and opening up, China's shipping market opened to the outside world, attracting much attention as an emerging economy. The amount of FDI has gradually increased and added competitiveness to the Chinese shipping market. The following are selected international well-known port operators and some research on their investment in Chinese ports.

4.2.1 PSA (PSA International Pte Ltd)

PSA International Pte Ltd is one of the world's largest port operators. It was restructured from the Port of Singapore Authority with a strong national background. In 2018, PSA International's total throughput reached 81.0 million TEU, and the annual total revenue was \$4.1 billion. Its current footprint spans over 17 countries with 28 coastal terminals and 12 railway terminals, of which 11 are in China. PSA is not only the first foreign port company to invest in China but also the company with the largest number of ports invested in China. As for the entry mode it has adopted, it frequently invests in Chinese ports through establishing a joint venture with Chinese state-owned companies such as COSCO Shipping Ports or a local port authority. For example, in 2017, the operators of the four major port and shipping companies Dalian Port Authority, PSA, COSCO Group and NYK (Nippon Yusen Kabushiki Kaisha) jointly funded the establishment of Dalian Container Terminal Co., Ltd. This approach not only used limited capital to enter the Chinese market to complete the regional port integration but also effectively reduced PSA's debt ratio and investment risk. It can be seen from Table 4 that PSA's investment in Chinese ports is mainly concentrated in the Pearl River Delta region and the Bohai region and that it owns multiple ports in one region. This is inseparable from the process of China's regional port integration.

Table 4 PSA's investment in Chinese ports

Investment object	Holding shares/%	Number of berths	Berth depth/m	Shoreline length/m
Dalian Container Terminal Co., Ltd.	26	7	14.0	1846

Tianjin Port Pacific	49	6	16.5	2300
International Container Terminal Co., Ltd.				
Lianyungang New	55	5	16.5	1700
Oriental Container Terminal Co., Ltd.				
Dongguan Humen Port	49	2	14.3	678
International Container Terminal Co., Ltd.				
Guangzhou Container	49	3	12.5	840
Terminal Co., Ltd.				
Fuzhou Qingzhou	45	2	11.5	519
Container Terminal Co., Ltd.				
Fuzhou Xingang	45	3	14.0	983
International Container Terminal Co., Ltd.				
Fujian Jiangyin	45	2	17.5	667
International Container Terminal Co., Ltd.				
Guangxi Beibu Gulf	39	2	15.1	1014
International Container Terminal Co., Ltd.				

Source: Author's compilation based on PSA International's 2018 annual report

4.2.2 DPW

Formerly, DPW was DP International (DPI), which was founded in 1999. In 2005, DPI officially merged with the DP Authority to form DPW. It uses Jebel Ali as its home port, pays attention to the port hinterland and expands its business in emerging

markets and developed regions. Its business coverage is the widest among the professional terminal operators. By 2020, the company operated 78 ports in 40 countries around the world. Among them, the terminals invested in China are shown in Table 5. We can see from Table 5 that DPW's investment in China is relatively small in both scale and holding share. Its main investment is concentrated in the Bohai Rim, only taking a small share of the investment port.

Table 5 DPW's investment in Chinese ports

Investment object	Holding shares/%	Number of berths	Berth depth/m	Shoreline length/m
Tianjin Orient Container Terminal Co., Ltd.	24.5	4	15.0	1137
Qingdao Qianwan Container Terminal Co., Ltd.	29.0	11	17.5	3400
Yantai International Container Terminal Co., Ltd.	12.5	4	14.0–17.0	1303

Source: Author's compilation based on DPW's 2019 annual report

4.2.3 APM Terminals

APM Terminals is an international container terminal operating company and is the terminal business segment of Maersk Group. It is ranked the fifth-largest container terminal operator. According to the company's annual report, the throughput of its Chinese-invested terminals has reached nearly 40 million TEU. As a subsidiary of the world's largest shipping company, its investment in China is also concentrated in the

Bohai Rim with 20 berths.

Table 6 APM's investment in Chinese ports

Investment object	Holding shares/%	Number of berths	Berth depth/m	Shoreline length/m
Qingdao Qianwan Container Terminal Co., Ltd.	20	11	17.5	3400
Dalian Gangwan Container Terminal Co., Ltd.	20	5	17.8	2097
Tianjin Port Union International Container Terminal Co., Ltd.	--	4	15.5	1100
Shanghai Hudong Container Terminal Co., Ltd.	49	4	14.2	1250
Guangzhou Nansha Haigang Container Terminal Co., Ltd.	20	6	15.5	2100
Xiamen Songyu Container Terminal Co., Ltd.	25	3	17.0	1246

Source: Author's compilation based on APM Terminals' annual report 2018–2019

4.3 Characteristics of the FDI of a foreign port company

4.3.1 Mainly investing in container ports

The three companies mentioned above have different investments in Chinese ports in

terms of scale and shareholding ratio. However, all have invested in ports in the Bohai Sea region, such as Qingdao Port, Lianyungang Port and Tianjin Port, and the main investments are container ports. This also indirectly confirms that the port throughput of China's Bohai Bay region is at the forefront of the world. As China's container terminal market income is relatively stable and the return on investment is high, the world's major terminal operators are optimistic about the development prospects of China's container terminals. In addition, dry bulk and oil terminals have not yet been fully opened to foreign investment due to national energy security issues.

4.3.2 Low shareholding and gradually losing port operation rights

After nearly 30 years of modern port management experience and capital accumulation, China's third- and fourth-generation ports have developed rapidly. The operating experience of the large domestic port groups is not only as good as that of professional terminal operators but also has advantages in that professional terminal operators do not have such market expansion rights and route allocation rights, prompting large domestic port groups to take the operating rights of joint venture terminals back from professional terminal operators through integration and other methods. For example, among the nine terminals invested in by PSA, six of them have been taken back by the Chinese port company.

4.4 Chinese port operators' OFDI

Chinese port development largely relied on FDI in past decades, especially before 2008. However, after 2008, the ports owned by the state have been more efficient, and the improvements have been very persistent (Chen et al., 2020) now that Chinese

operators have gained much expertise at managing terminals. In the above section, we discussed the impact of policies on the development of China's port industry. If the focus of reform and opening up is on attracting foreign investment and encouraging port privatisation, then that of the BRI is to encourage Chinese port operators to increase their OFDI after Chinese port operators have gained considerable experience. Through the study of a large amount of extant literature, there are roughly two types of Chinese port-related companies that have made OFDIs in recent years. One is relatively large international port operators, such as COSCO Shipping Ports and CM Port. As the two largest port companies in China, they have made a large number of overseas port investments after the BRI proposal. We will discuss the overseas investments of these two companies in detail in the next chapter.

The other is Chinese local port companies. With the global economic downturn and the slowdown in port throughput growth, Chinese local port companies have regarded overseas investment as one of the business strategies to increase profits and international market shares, including Shanghai International Port Group (SIPG), Yantian Port Group and Qingdao Port Group. Compared with COSCO Shipping Ports and CM Port, the local port group's international port investment started relatively late. Most of the investment began after 2013. For example, SIPG acquired a 25% stake in Belgium APMTZ (APM Terminals Zeebrugge) in 2010. Since 2013, the local port company has accelerated the process of overseas port investment with nine overseas port shareholdings, which means that the BRI may become one of its main motivations for implementing international strategies.

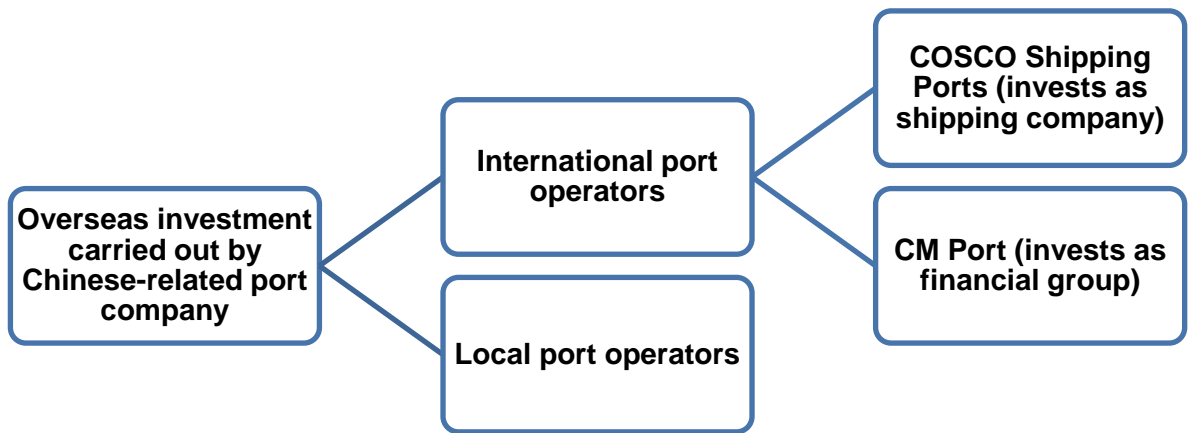


Figure 4 Types of Chinese companies investing in overseas ports

Chapter 5 Analysis of the motivation and characteristics of COSCO Shipping Ports' and CM Port's overseas investments

5.1 Overview of COSCO Shipping Ports' overseas investment

5.1.1 Situation of COSCO Shipping Ports' overseas investment

The predecessor of COSCO Shipping Ports was COSCO Pacific, which officially changed its name to COSCO Shipping Ports after the restructuring announced by China Ocean Group and China Shipping Company in December 2015. Its main business covers terminal operations, container leasing, logistics and container manufacturing, but its core business is concentrated in terminal operations. As its parent company, COSCO Group is a top-three global liner operator with a 12.5% market share (2,921,465 TEU). The customers served by the port industry are mainly consignor and shipping companies, and the direct customers of the container port business are shipping companies. Therefore, COSCO Shipping Ports can provide a lot of convenience for its parent company.

Table 7 World's top 10 liner/container operators

Rank	Liner Operator	TEU	Share
1	APM–Maersk	4,155,250	17.6%
2	Mediterranean Shipping Co.	3,766,386	15.9%
3	COSCO Group	2,921,465	12.3%
4	CMA CGM Group	2,671,044	11.3%
5	Hapag-Lloyd	1,758,171	7.4%
6	Ocean Network Express (ONE)	1,600,633	6.8%
7	Evergreen Line	1,236,261	5.2%
8	Yang Ming Marine Transport Corp.	599,538	2.5%
9	Hyundai MM	446,419	1.9%
10	Pacific Int. Line)	371,748	1.6%

Source: Author compilation based on Alphaliner TOP100 (updated 15 Apr 2020)

As a world-leading ports operator, COSCO Shipping Ports has considerable amounts of terminals in the five main port regions in mainland China, Southeast Asia, the Middle East, Europe, South America and the Mediterranean. As of 30 September 2019, it operated and managed 297 berths at 37 ports worldwide, of which 206 were for containers, with a combined annual handling capacity of approximately 114 million TEU. COSCO Shipping Ports is also the earliest port company in China to begin overseas investment. In 2003, it cooperated with Singapore International Port Group and took a stake in Singapore COSCO Newport Terminal Co., Ltd. (CPT) with a 49%

stake. Subsequently, COSCO Shipping Ports successively invested in Antwerp Port and Suez Canal Container Terminals in 2004 and 2007, respectively, through acquisition. In 2008, COSCO China Shipping Ports successfully bid for the 35-year franchise of Terminals 2 and 3 at Piraeus Port in Greece, which was the first port project wholly owned by COSCO Shipping Ports. In 2009, COSCO Group established Piraeus Container Terminals Ltd. On 1 June 2010, COSCO Group took over container Terminals 2 and 3 in Piraeus Port, Greece. COSCO then actively participated in the bid by the port authority of Piraeus in Greece to sell a majority stake. On 8 April 2016, COSCO Shipping Ports acquired a 67% stake in Piraeus Port Authority for about 370 million euros.

Since 2009, COSCO Shipping Ports has been making high-quality investments in the port of Piraeus. After years of efforts, COSCO Shipping Ports has successfully enhanced the competitiveness and importance of Piraeus in the international shipping market, which has played a positive role in promoting the development of Greece's national economy. At present, Piraeus Port has become a large and technologically advanced modern container terminal in Greece. It is one of the top 100 container terminals in the world, with fast throughput growth for several years. It is also an important hub port for many international container liner companies in the Eastern Mediterranean region.

After the BRI was proposed, COSCO Shipping Ports significantly accelerated its acquisition of equity in overseas ports. According to statistics, from April 2016 to July 2017, COSCO carried out nine equity acquisitions, involving an amount of more than

73 billion RMB.

Through the above historical research, COSCO's overseas investment showed several significant characteristics: first, the number of investment ports surged after 2016 when the BRI was proposed, and 12 overseas ports were invested in in 2017. Second, the share of overseas ports has increased significantly. Overseas investment ports were dominated by equity participation before 2016. After 2016, except for COSCO-Xingang Terminal and Vadoo Port, all of them achieved controlling shares. Last is the change in the form of equity acquisition. Before 2016, the port equity was mainly acquired from the port authority and enterprises, but after 2016, a new form of direct acquisition of corporate equity to enter the overseas ports of the company began to emerge. Through the acquisition of equity of Notatum and OOCL (Orient Overseas Container Line), COSCO's capital entered nearly 10 overseas ports. Table 8 shows the investment details of COSCO Shipping Ports.

Table 8 Overseas port investments of COSCO Shipping Ports

Port/Terminals	Year	Participating enterprises	Region/Country	Held share	Entry mode
Pasir Panjang Terminal (two berths)	2003	CPT	Singapore	49%	Joint venture
Antwerp port	2004	P&O Ports (acquisition by Maersk Group)	Belgium	25%	Acquisition
Suez Canal Container Terminal	2007	Suez Canal Container Terminal S.A.E.	Egypt	20%	Acquisition

Seattle terminals (Nos. 25, 28, 30)	2008	Seattle Port Authority	US	33.33%	Concession
Vado Terminal	2016	Reefer Terminal S.P.A. (APM)	Italy	40%	Acquisition
Khalifa Port Container Terminal 2	2016	Abu Dhabi Khalifa Port	United Arab Emirates	90%	Concession
Busan Port	2015	CJ Korea Express	Korea	20%	Acquisition
Kumport Terminal	2015	Turkey Port Authority	Turkey	26%	Acquisition
Pasir Panjang Terminal (three mega berths)	2016	CPT	Singapore	49%	Joint venture
Zeebrugge Terminal	2013 2017	APM Terminals	Belgium	24% 100% (+76%)	Acquisition Acquisition
Noatum Container Terminal Valencia Noatum Container Terminal Bilbao	2017	Noatum Port Holdings, S.L.U. (NPH)	Spain	51% 51%	Acquisition Acquisition
Euromax Terminal	2006	Europe Container Terminals CKYH (COSCO Pacific, 'K' Line, Yang Ming and Hanjin)	Netherlands	12.50%	Joint venture
	2016	Europe Container Terminals	Netherlands	47.5% (+35%)	Acquisition
Piraeus Port	2008	Piraeus Port Authority	Greece	33%	Concession
	2016	Piraeus Port Authority	Greece	67%	Acquisition

Source: Author's compilation through the collection of COSCO's annual reports and various literature and news

5.1.2 Motivations

First is to acquire high-quality port resources and increase revenue. As an infrastructure, a port has a characteristic difference from the general manufacturing and service industries. The operating benefit of a port largely depends on the location of the port, and the geographical location of the port is its core competitiveness. The number of core hub ports in a country or region is limited. Owning or participating in the operation of terminals in these hubs has become an important strategic resource for the long-term development of port operators (Li, 2010). The ports invested in by COSCO Shipping Ports are strategically located and serve as transit hubs for Eastern Europe, the Mediterranean, the Balkans and the Black Sea. As China increasingly trades with countries in these regions, the demand for shipping services and transshipment terminal services will increase. From 2010 to 2015, the port throughput of Piraeus increased from 880,000 TEU to 3.36 million TEU. COSCO Shipping Ports hopes to acquire the port of Piraeus, a quality port resource, through acquisition so as to bring long-term stable cash flow and ideal returns to the group (Liu, 2017).

Second is to expand the port network. Port operators tend to invest in the terminals of feeder ports and hub ports that have a stable business relationship with them in order to facilitate the strategic development of their company. Thus, they can ensure a stable cargo source for feeder operations (Liu, 2008). The chairman of COSCO Shipping Ports, Feng Boming, said that 'as a leading global ports operator, expanding business

network and providing quality services are indeed the top priorities of COSCO Shipping Ports' (COSCO Shipping Ports annual report, 2018, p. 45). Additionally, the expansion mainly focuses on existing ports (Zhang & Chen, 2019), e.g. the port of Piraeus, which can provide container transfer service for shipping routes to Eastern Europe, the Mediterranean, the Balkans and the Black Sea. COSCO Group is trying to make Piraeus an international hub port and, thus, the first stop for Chinese trade into Europe. As such, COSCO Shipping Ports has continued to improve its port layout in the Mediterranean region, using the port of Piraeus as its base.

Third is a favourable political environment. Since the outbreak of the Greek debt crisis, the political environment in Greece has been quite complex. Particularly in 2015, Greece experienced events such as capital control, a referendum and even almost left the European Union. COSCO Shipping Ports' merger and acquisition project of the port of Piraeus in Greece also went through twists and turns in this complex background. After the new government came into power in 2015, it quickly announced it would stop the privatisation of the port of Piraeus but, then, established the austerity and reform of the agreement, agreeing to facilitate the port authority to denationalise so that the plan of equity transfer of the port administration could restart. It hoped to sell the state-owned assets at a good price and that the port of Piraeus could be managed by a company with rich experience in international management that is able to help the Greek economy recover by promoting the development of the port. This political environment created the conditions for COSCO Shipping Ports' acquisition plan. Additionally, COSCO Group is backed by the Chinese state. Since the port of Piraeus is an important strategic asset of the Greek government, COSCO Shipping

Ports' acquisition plan has encountered many obstacles created by the local authority. In order to facilitate the plan, the Chinese government has conducted several rounds of negotiations with the Greek government and supported the whole acquisition financially.

5.1.3 Investment features

Although some investment features of COSCO Ports are mentioned above, we will discuss more detailed and practical characteristics here.

1. Increasing long-term terminal asset holdings

Recently, COSCO Shipping Ports has been increasing its investment in terminal acquisition activities year by year. From 2012 to 2016, COSCO Shipping Ports spent about \$1.45 billion on terminal acquisition projects, and the contracted terminal acquisition projects in 2016 and 2017 needed to pay about \$2.037 billion. In acquisition form, COSCO Shipping Ports is more inclined to acquire a large proportion of overseas terminals. In recent years, four of the seven overseas terminal projects acquired by COSCO Shipping Ports have had a holding ratio of more than 50%, and Vado Terminal has a holding ratio of up to 40%. For COSCO Shipping Ports, increasing the holding of long-term core assets is an important channel to extend its industrial chain and improve its comprehensive service level. Strengthening the port layout will provide a strong base for COSCO Shipping Ports to build a regional comprehensive functional platform and a globally integrated logistics supply chain service. In addition, the increase in investment in long-term assets of terminals is also in line with the group's five-year development goal of '50% increase in total assets by

2021' (COSCO Shipping Ports annual report, 2018, p.13).

2. Acquiring ports that are more developed or have a bigger capacity

In the process of terminal acquisition and merger, COSCO Shipping Ports is more inclined to acquire ports with a relatively high maturity and a certain scale, even using the whole port area as the investment target. In November 2017, COSCO Shipping Ports completed an increase of 76% stake in Zeebrugge Terminal from APM and took over 100% shareholding (it had only 24% shareholding in 2014). The Port of Zeebrugge is the second-largest port in Belgium and is well-located. Zeebrugge Pier is adjacent to Hamburg and Le Havre, close to the United Kingdom. Moreover, it is also a natural deep-water port that can meet the requirements for large-size ships to call. As the first holding terminal of COSCO Shipping Ports in Northwest Europe, Zeebrugge Terminal will promote the construction of an important gateway port of COSCO Shipping Ports and be a global strategic pivot.

3. Focus on Europe and the Mediterranean.

In terms of overseas terminal acquisition, the ports acquired by COSCO Shipping Ports are mainly located on the shipping routes to Europe so as to play a supporting role in the group's operation. As of 2018, six of COSCO's seven acquisitions in the previous five years were in Europe and the Mediterranean, with the exception of Port Khalifa. As the East–West route is the most important route for COSCO Shipping Ports and the Ocean Alliance, ports purchased along the route can directly serve the group and the fleet of the alliance. Hub ports in Europe and the Mediterranean region are the focus of investment and acquisition by COSCO Shipping Ports.

In July 2017, COSCO Shipping Ports' acquisition of Spain's Noatum Port Holding fully demonstrated the group's emphasis on European Mediterranean ports. Among the ports operated by NPH, Bilbarch Port, Las Palmas Port, Baraja Port and Valencia Port are located in the north, east and south of Spain, respectively, which have very important geographical advantages. They not only serve as the hub ports of the European routes but also as the main nodes of the Mediterranean routes.

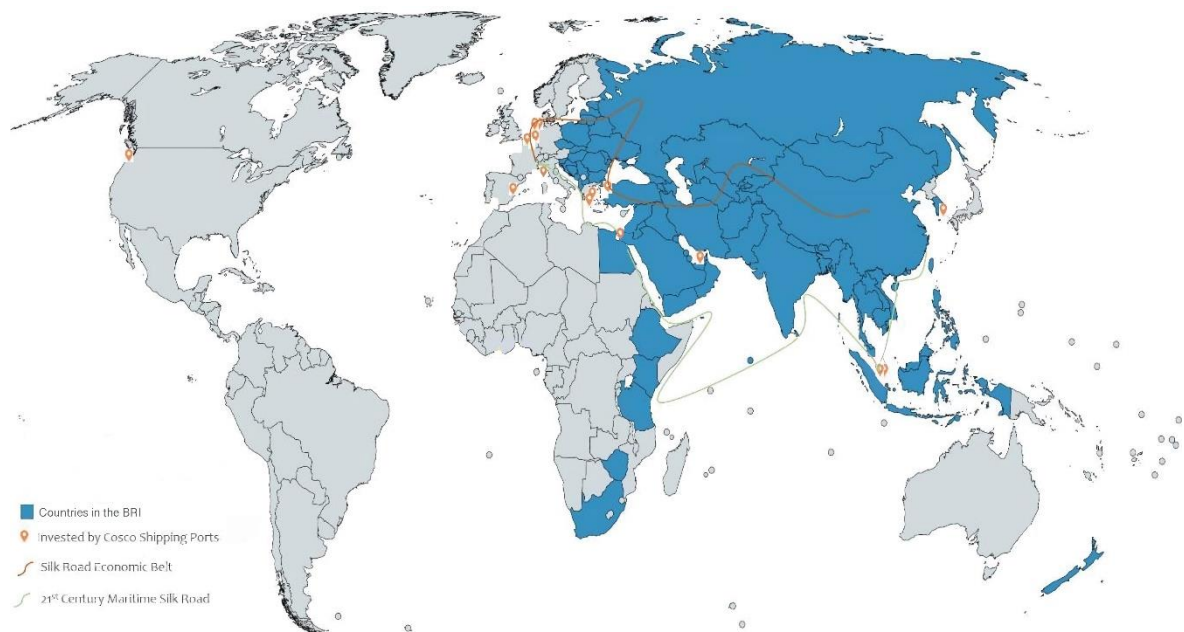


Figure 5 Locations of the overseas ports invested in by COSCO Shipping Ports; author's compilation based on Table 8

5.2 Overview of CM Port's overseas investments

5.2.1 Investment overview

Formerly, CM Port Holdings Company Limited was CM Holdings International before August 2016. Its parent company, CM Group, is a Hong Kong-based conglomerate established in 1872 whose three core businesses include transportation, finance and property. CM Port is the largest and most globally competitive public port developer, investor and operator in China, with investments in mainland China, Hong Kong and overseas. Since 2008, CM Port has broadened its focus from China to the global market and now has a port network portfolio spanning 36 ports in 18 countries and regions. Benefiting from the BRI, CM Port has further strengthened its position in relevant markets in recent years.

Compared with COSCO Shipping Ports, CM Port started overseas investment relatively late. However, CM Port has accumulated rich experience in its initial domestic port operations. It has implemented overseas port investments since 2008 to gain the practice and development of more mature business models by overseas investment projects. In 2008, CM Group signed a joint venture agreement to establish a joint venture company in Hanoi, Vietnam. This project was the first overseas port project of CM Group. A joint venture company named Vung Tau International Container Port Corporation (VICP) was established in 2010. CM Port began to acquire shares in overseas ports in 2010. In 2013, it acquired 49% of the shares of French terminal operator Terminal Link, a subsidiary of CMA CGM Group, and therefore entered 13 ports, including Antwerp Port, Mongolia Tova Port, Le Havre Port and

Foch Port. Although CM Port's overseas port investments started late, its investment model is quite mature, as we can see from the cases of CM Port's acquisition of Kumport Terminal and Kyaukpyu Port. In 2015, CM Port formed a consortium with COSCO Shipping Ports and China Investment Corporation (CIC) to enter Kumport Terminal with 40%, 40% and 20% equity, respectively. In the same year, CM Port formed another consortium with China Harbour Engineering Company (CHEC), TEDA(Tianjin Economic-Technological Development Area) Investment Holding, Yunnan Construction Engineering Group and Thailand's Charoen Pokphand Group (the only non-Chinese state-owned company), using BOT to enter a deep-sea port and industry park project of Kyaukpyu Special Economic Zone in Myanmar with a 50-year operation period. At present, a relatively complete global terminal network has been formed. In terms of the global distribution of terminal business, as of 2018, CM Port has participated in investment in 15 terminals located in mainland China, Hong Kong and Taiwan and in 21 terminals located in 15 foreign countries. In the first half of 2018, the cumulative container throughput of the overseas terminals of CM Port was 10.09 million TEU, a year-on-year increase of 18.2%.

In general, CM Port is one of the largest integrated terminal operators in China, and its overseas terminal business is quite large in the world. It is also a major beneficiary of the BRI, whose investment in overseas terminals did not start before the financial crisis. Suddenly, it invested in 13 overseas terminals in 2017 alone, all of which are located along the MSR. This is obviously helped by the China–Africa development fund for the BRI (Wang et al., 2019). The existing overseas terminal investment pattern of CM Port is shown in the above analysis. To a large extent, this reflects the overseas

terminal investment strategy of CM Port, which has a global port layout, as well as its investment orientation, which focuses on South Asia, Africa and other emerging developing regions. Table 9 shows the overseas ports invested in by CM Port.

Table 9 Overseas port investments of CM Port

Port	Year	Participating enterprises	Region/Country	Held share	Entry mode
Vung Tau International Container Port	2008	VICP	Vietnam	49%	Joint venture
Tin Can Island Container Terminal	2010	Nigeria Port Authority	Nigeria	28.50%	Acquisition
Colombo International Container Terminal	2011	The Colombo International Container Terminal Co., Ltd.	Sri Lanka	85%	BOT
Lome Container Terminal	2012	Thesar Maritime Limited	Togo	50%	Acquisition
Houston and Miami Port			US		Acquisition
Montoir, Le Havre, Dunkirk, Fos			France		Acquisition
Zeebrugge, Antwerp	2013	Terminal Link	Belgium	49%	Acquisition
Tangier, Casablanca			Morocco		Acquisition
Marsaxlokk			Malta		Acquisition
Abidjan			Ivory Coast		Acquisition
Busan			Korea		Acquisition
Djibouti Port	2013	Djibouti Port Authority	Djibouti	23.50%	Acquisition
Bagamoyo Port	2013	Oman's State General Reserve Fund and Tanzania's government	Tanzania	–	BOT

Newcastle port	2014	Australia Infrastructure Fund	Australia	50%	Acquisition
Zarubino Port	2014	The Summa Group	Russia	–	BOT
		The CITIC consortium CHEC			
Kyaukpyu Port	2015	TEDA Investment Holding Thailand's Charoen Pokphand Group	Myanmar	--	BOT
Kumport Terminal	2015	COSCO Shipping Ports CIC Capital Corporation	Turkey	26%	Acquisition
Hambantota Port	2017	Hambantota Port Authority	Sri Lanka	85%	Acquisition
Terminal de Contêineres de Paranaguá	2017	Paranagua Container Terminal Company	Brazil	90%	Acquisition
Pasir Panjang			Ukraine	50%	Acquisition
Pasir Panjang			Singapore	49%	Acquisition
Kingston Freeport Terminal			Jamaica	100%	Acquisition
Maasvlakte 2 terminal			Netherlands	30%	Acquisition
First Logistics Development Company	2020	Terminal Link	Vietnam	47.25%	Acquisition
Laem Chabang International Terminal			Thailand	14.50%	Acquisition
CMA CGM Terminal Iraq S.A.S.			Iraq	100%	Acquisition

Source: Author's compilation through the collection of CM Port's annual reports and various literature and news

5.2.2 Motivations

The parent company of CM Port is CM Group, which mainly focuses on the development of the industrial park behind the port and wants to apply the 'Shekou Model' to other ports, such as the Port of Djibouti. Port development could facilitate

the growth of industry based on it and, then, drive the growth of the regional economy. Thus, CM Port will become a world-class port operator.

Since the reform and opening up, CM Group has summed up a unique regional development mode, namely the 'Shekou Model', from the development experience of Shekou Industrial Zone in Shenzhen. Through a lot of practice, innovation and upgrading, the model has gradually evolved into the business development model of 'port-park-city' with 'China Merchants characteristics' (CM Port annual report,2018,p. 13)and has been actively promoted in a number of overseas greenbelt projects invested in by CM Group (Lin & Zhang, 2019). The port-park-city model emphasises improving port infrastructure construction as the forerunner and port industrial park development as the support based on the development of the port city, thus realising overall regional linkage development and comprehensive development. The former general manager of CM Port, Fu Gangfeng, said in 2019 that:

With the port business as the core, the group continues to promote the practice of the comprehensive development model of "port-park-city" with the linkage of port area and the integration of industry and city as the starting point.

5.2.3 Investment features

1. Overseas port business is the profit growth point

As the largest terminal operator in China, CM Group has established a relatively complete network of ports in China's coastal areas. From the perspective of port business profit in various regions, overseas port business is the main growth point of CM Group's port business. The large increase in the throughput of CM's overseas

terminals has brought about a synchronous increase in profits. Therefore, in recent years, CM Group has been increasing its holdings of overseas ports to enhance its profitability.

2. Focus is on the acquisition of ports in the emerging economy

For the BRI, in its overseas port acquisition, CM Port attaches great importance to the expansion of Latin America and Africa's emerging market business development and the BRI. The Port of Paranagua, which was acquired in September 2017, is located in Brazil and is a major trade gateway for Latin America. Kumport, a Turkish port acquired in 2015, opens a new gateway to the group's Mediterranean region. The Port of Djibouti, which was acquired in 2013, is a stronghold on the Red Sea in East Africa, and the Port of Lome in Togo, in West Africa, was acquired in 2012. Ports in Latin America and Africa have relatively low prices and few competitors, making them ideal investment choices.

The Colombo Terminal and Hambantota Port acquired by CM Group in Sri Lanka are important locations under the strategic guidance of the BRI. Located on the southern coast of Sri Lanka, Hambantota Port is located in a golden position, within 10 miles of the main shipping route from Asia to Europe. It is a transit station in Africa and an important node of the BRI. The port hinterland of the acquired project is able to cover South Asia and East Africa. It can bring a sufficient supply of goods and vast market space for the BRI trade lane and, at the same time, achieve synergy with the Colombo Terminal in the west of Sri Lanka acquired by CM Group in 2012.

3. Attach great importance to the prevention and control of investment risks

In order to reduce the risk of overseas investment projects and avoid incurring huge loss, CM Port has taken a series of risk prevention, management and control measures, namely, localisation and cooperation.

Since CM Port is a state-owned company, its development and construction of infrastructure related to national security and national livelihood are easily rejected and seen as hostile by the local government, enterprises and people and could be regarded as an ideological invasion and state intervention. Therefore, the implementation of localised management measures for overseas projects is particularly important for overseas port investment business.

For localisation management, CM Port usually adopts the method of communication and cooperation with local governments and enterprises. Through joint ventures and cooperation, CM Port and local governments and enterprises jointly operate and share the dividends, which not only brings benefits to all parties but also promotes the development of the regional economy. In this way, this also achieves the purpose of sharing risks with local governments and enterprises so as to realise the risk prevention and control of overseas investment.

CM Port not only provides a large number of jobs for local people but also adopts a way of purchasing materials such as building materials and food locally, which makes it establish a close relationship with local people, enterprises and the government. In addition, CM Port also considers listing overseas project companies on the local stock exchange so as to share project profits with local people and improve the localisation level of project companies.

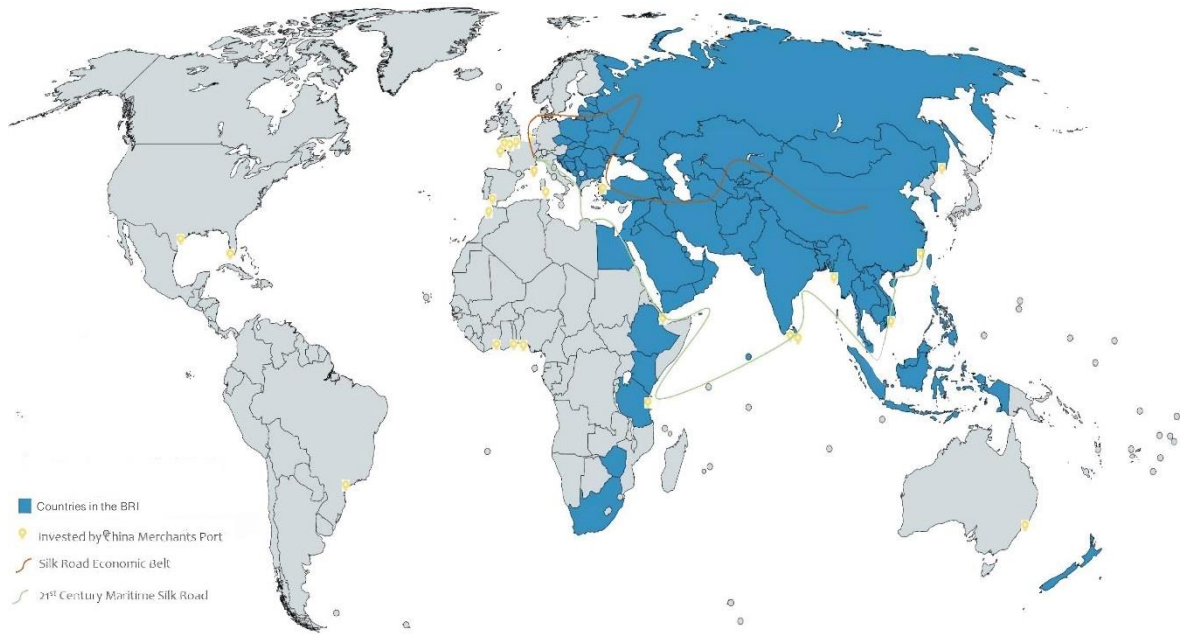


Figure 6 Locations of overseas ports invested in by CM Port; author's compilation based on

Table 9

Chapter 6 Comparison of overseas investments between COSCO Shipping Ports and CM Port

6.1 Similarities between the two companies' overseas investments

6.1.1. M&A is the main entry mode

Through the investigation and discussion above, it is not difficult to see that whether it is the port of COSCO or the port of CM, the main entry mode is mergers during the investment process. In all overseas port investment cases of COSCO, M&A used as the entry mode accounted for 11/17, with investment promotion accounting for 21/25. The main reason for this situation is that an M&A has the characteristic of being able to enter the market quickly in the short term.

As one of the most important ways for global port operators to invest abroad, the world's leading port operators have adopted the method of M&A to expand their business to achieve higher economic benefits and international competitiveness in the process of development. These cases of M&A of two Chinese port operators can provide abundant experience for port enterprises to practice M&A in the future.

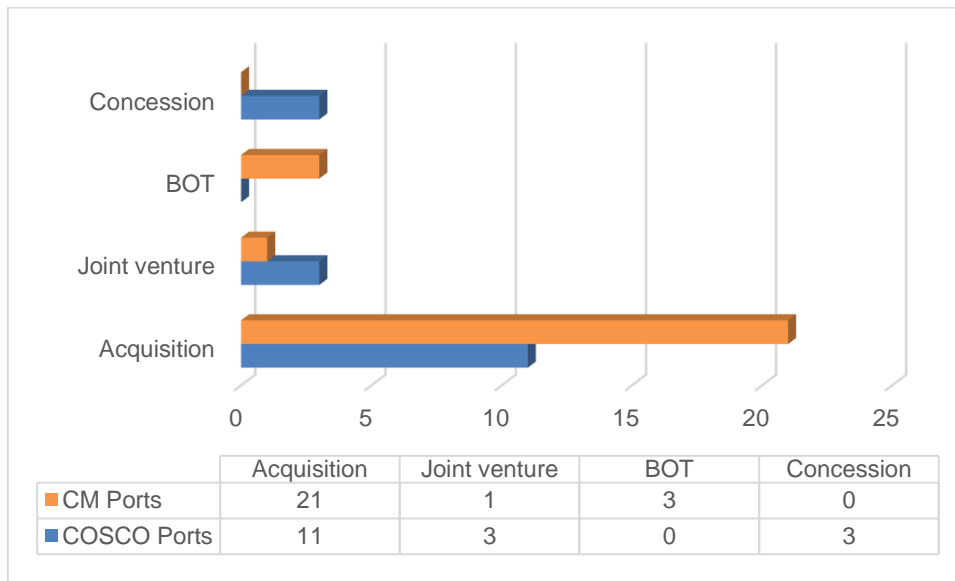


Figure 7 Comparison of overseas investment entry modes; author's compilation based on Table 8 and Table 9

6.1.2. The BRI is the key driver

Whether in terms of time or space, the previous research on the overseas investment cases of the two companies revealed that the BRI is the main factor driving them to make overseas investments at a faster pace. In terms of time, the BRI was proposed in the autumn of 2013, so we chose overseas investment in 2014 and later for comparison. It was found that COSCO Shipping Ports had 12 out of 17 overseas investments after the BRI was proposed, and the data for CM were 13 out of 25. From a spatial perspective, we can see in Figure 5 and Figure 6 that most of their major investment ports are distributed along the BRI.

Additionally, some ports and terminals face financial difficulties and require foreign

investment after the financial crisis. In emerging countries, they need to be invested in with capital, technology and expertise in port development and management. In addition, the growth rate of domestic port throughput slows down. In the context of overcapacity and limited market growth, Chinese port companies have been looking for new market opportunities, using foreign port business investment as a profitable new market, especially in countries and regions along the ‘Belt and Road’.

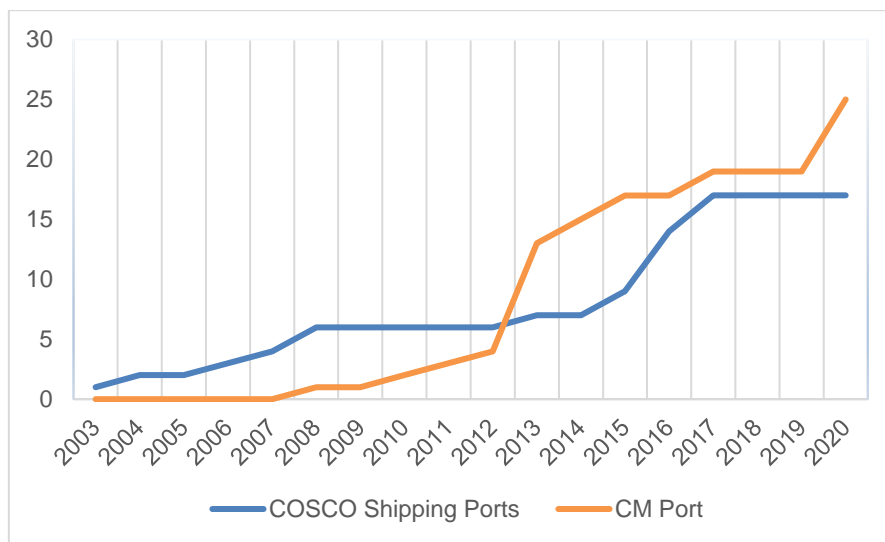


Figure 8 Trend chart of the number of ports that two port operators entered

6.1.3. Major investment in container ports

COSCO Shipping Ports is currently one of the top three container shipping companies in the world and an important member of the Ocean Alliance. In the future, the group may increase its investment in container ports to meet its own business needs and ensure the supply of goods for terminals it invests in. Meanwhile, CM Port was mainly engaged in tanker and bulk cargo transportation before, but it has invested in 21

container ports in 15 countries. This is because the infrastructure of many countries along the Belt and Road is incomplete, and most of the invested countries are developing countries. They are mainly supported by manufacturing, and the international trade of products depends on containers, which can be multimodally transported.

6.2 The difference between the two companies' overseas investments

6.2.1. The main regions of the investment ports are different

In terms of ports acquisition, CM Port and COSCO Shipping Ports may continue their preferences. COSCO Shipping Ports has almost completed its expansion in Europe and the Mediterranean, and the Ocean Alliance is going to extend its service to the north and south routes to focus on the ports along major shipping routes. Thus, COSCO Shipping Ports will probably make investments in Latin America in accordance with the strategy of the alliance. At the same time, due to the huge market potential in Latin America and Africa and low number of ports, CM Port may continue to invest in the ports in emerging markets such as Latin America and Africa.

6.2.2. Different investment strategies

Based on the principle that the port hinterland has economic potential, CM Port chooses to invest in ports with good hinterland. In recent years, the developing countries along the Belt and Road have witnessed rapid economic development. The ports of these countries are located in the main shipping routes of the world, which is

undoubtedly the main potential investment choice for the overseas ports of CM Group. As for COSCO Shipping Ports, its investment strategy is greatly influenced by its parent company, COSCO group, which is a shipping company. It determines that COSCO Shipping Ports will focus more on the hub ports along existing shipping routes. These investments, which are significantly related to shipping service, could facilitate the operations and save costs for the parent company. However, CM Group owns vessels, too, and it is much bigger than COSCO and encompasses more industries than COSCO, which determines that the group views port investment from a different perspective than a shipping company would.

Through the comparison of the similarities and differences between the two companies and the previous analysis of their investment motivations and characteristics, we have drawn the following conclusions:

COSCO Shipping Ports: invests as a shipping company. From the point of view of its investment characteristics, it tends to invest in high-quality container port resources in developed countries, especially in the European Mediterranean region, and hold this estate for a long time, which is conducive to expanding its port network and thereby further serving its parent company, COSCO Group's shipping business.

CM Port: invests as a financial group. From the point of view of the investment characteristics of CM Port, it prefers to invest in ports in developing countries that have a good location and a large potential for development. Regarding the port, it seems to value the industrial park after the port more, using the port as a guide and using the port-park-city model to enable its parent company, CM Group, to enter the

industrial park and vigorously develop the local economy.

6.3 Implications

Chinese port operators, like the Chinese shipping industry, have undergone a lengthy process of reform and development. At the initial stage of the reform and opening up, Chinese port operators largely relied on FDI. With the development of the Chinese port industry, those operators gradually became much stronger, which gave them the capability to engage in OFDI through the method of M&A. This process was largely facilitated by the BRI, and Chinese port operators made contributions to the implementation of BRI in return, forming a positive interaction. Two major players emerged during this process, COSCO Shipping Ports and CM Port. Both are benefiting from the BRI, each with distinct features of oversea investment that are rooted in the nature of their parent companies.

According to Drewry's report, in the context of global economic recovery, the demand for container terminals is expected to be more positive, and the compound annual growth rate is predicted to reach 4%. By 2021, the global port throughput will have increased by 152 million TEU. Against this background, it is expected that COSCO Shipping Ports and CM Port will continue the pace of their port acquisition and merger transactions.

Learning from the lessons provided by COSCO Shipping Ports and CM Port, Chinese port companies should invest in overseas terminals that are more mature and promote cooperation to reduce risk. For example, CM Port finds other companies to form a consortium for investment, which not only reduces the cash flow required for

investment but also allocates the investment risk. Terminal acquisition is a large long-term investment project, with a slow return on investment and policy risks for overseas assets. Chinese enterprises are not yet mature at mastering and controlling the social risks of overseas projects. Moreover, most Chinese port operators have a state-owned background, so the impact of policies on the companies is huge to some extent. However, China's port companies should also pay attention to choosing the right investment target and investment method while enjoying the policy dividend. COSCO Shipping Ports and CM Port may cooperate to reduce the financing difficulty of acquisition activities and facilitate the operation and management of terminals in the future to reduce the operating costs and risks, reduce the investment and development cycle and bring in profits quickly.

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