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The economic and maritime impact of China's
Free Trade Zone Strategy Promotion

by

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Abstract

Historical sources have indicated that Free Trade Zones have the potential to facilitate global trade, since the concept allows importers and exporters to save time and costs.

China started to develop the Free Trade Zone Strategy as a national strategy in 2007 and established the Shanghai pilot Free Trade Zone in 2013. After this first step, China later develops three more pilot Free Trade Zones in Guangdong, Tianjin and Fujian in 2014. In the meanwhile, the Shanghai pilot Free Trade Zone expanded from 4 regions to 7 regions. With the benefits gained from developing the Free Trade Zones, China started to widely promote this strategy by approving the establishment of seven new Free Trade Zones on August 31st.2016. This research focuses on the impact of China's Free Trade Zone Strategy Promotion on the economic developing in general and the maritime industry in China.

This research provides an analysis of the advantages, disadvantages and corresponding impact of Free Trade Zones, based on variety of literatures and resources. Based on the advantages and impact structure, using a multiple-case study, we have assessed five Free Trade Zones among three different periods on their institutional, logistics and economic aspects. These five Free Trade Zones were selected based on their function and strategy position.

The impact of China's Free Trade Zone Strategy Promotion towards the maritime and logistics industry in China is obvious as it contributed to the sector's development across China, stimulated role changes and functional developments for each Free Trade Zone and their nearby area and improved the maritime and logistics collaboration among different areas in China. This was primarily achieved by setting a corresponding operating plan while avoiding unnecessary competition. In terms of general economic impacts in China, the impact from the promotion strategy is expected within a longer term horizon.

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List of Abbreviation

APEC	Asia-Pacific Economic Cooperation
CKFTA	China Korean Free Trade Area
FJFTZ	Fujian pilot Free Trade Zone
GDFTZ	Guangdong pilot Free Trade Zone
GDP	Gross domestic production
LNFTZ	Liaoning pilot Free Trade Zone
NAFTA	<i>North American free trade area</i>
NBS	National bureau of Statics of China
SHFTZ	Shanghai pilot Free Trade Zone
TTIP	Trans-Atlantic Trade and Investment Partnership
TPP	Trans-Pacific Partnership Agreement
VAT	Value added Tax
ZSFTZ	Zhejiang pilot Free Trade Zone

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Chapter1 Introduction

1.1 Research objective

Free Trade Zone as foreign-trade zone is derived from the concept of “free port”. The revised Kyoto Convention of the World Customs Organization has given the definition of the Free Trade Zone as public or private duty free area where goods can be handled, manufactured and processed as finished goods prior to be exported (Tiefenbrum, 2013). As the definition shows, Free Trade Zone could create great convenience to world trade market, especially for international trade since importers and exporters could save time and money spending. Nevertheless, the establishment of Free Trade Zone would also attract foreign capital for investment which can influence the local economy.

Historically, Free Trade Zones were usually located in port areas considering the function and operation requirement. The first Free Trade Zone appeared in Europe in thirteen century; later the American put forward the concept about enrich the function of Free Trade Zones by developing manufacture industry. Nowadays, there are over 1200 Free Trade Zones all over the world. Developed countries and developing countries have established Free Trade Zones in their coastal or inland cities in order to gain economic and maritime benefits.

China announced the Free Trade Zone Strategy as a national strategy in 2007 and established Shanghai pilot Free Trade Zone in 2013. After this first step, China later developed three more pilot Free Trade Zones in Guangdong, Tianjin and Fujian in 2014. In the meantime, Shanghai pilot Free Trade Zone expanded from 4 regions to 7 regions. With the benefit gained from developing the Free Trade Zones, China started to widely promote this strategy by approving the establishment of seven new Free Trade Zones in 31st Aug.2016. No doubt the establishment and increase of Free Trade Zones would bring impact on China’s trade market and the maritime industry. The function of Free Trade Zones would bring changes, convenience and also challenges to maritime connected processes and economical concerns.

Also, Free Trade Zone strategy would strongly support China’s One Road One Belt strategy. To what extend would the promotion of Free Trade Zone strategy affect the structure of One Road One Belt strategy shall be eye catching to the world

Interested in the economic benefits and challenges this strategy promotion would bring and how would it help shape the maritime industry in China, we choose this topic for further research.

1.2 Research Question and Sub-Research Questions

The main research question shall be what is the impact of China's Free Trade Zone Strategy Promotion towards in general the economy and in particular the maritime industry in China?

Sub-Research questions are raised through several perspectives. Form the institutional perspective, what is the impact from governance aspects of this promotion strategy? Form the maritime perspective, what is the impact for the maritime process efficiency and development and what is the impact for related sea port performance? Form the economy perspective, what is the impact of Free Trade Zone promotion strategy for trade market and nation income? These sub-research questions would be answered within the analysis which will later support the answer for the main research question.

1.3 Research Structure

This research will focus on the question about the impact of China's Free Trade Zone Strategy Promotion towards economy and maritime industry in national perspective.

The research will start with a literature review of Free Trade Zone development. It will first have an overview of the Free Trade Zone; give the definition, history and characteristics. Advantages and corresponding impact would be then introduced in three aspects: political and institutional aspect, function and service aspect and economy and trade development aspect. After that, we introduce the existing disadvantages and failures of Free Trade Zones. With this basic information, we introduce China's Free Trade Zone Strategy and the current situation of those Free Trade Zones developments from an economic and maritime perspective.

With the result from the previous parts, we build an analysis structure under the form of a case protocol within which the three aspects of the research question are integrated: 1) Political and administrative environment aspect; 2) Function and services aspects; 3) Economy and trade development aspect.

Based on the analyse structure, we use the case study method as our main methodology which will be discussed thoroughly in a later chapter. We analyse 1-2 Free Trade Zones from 3 different periods of Free Trade Zone establishment in China and make the connection and comparison among periods. Quantitative data such as economic and maritime indicators are used to analyse the improvements and/or declines in performance. Qualitative analysis will also be used in some particular parts, such as the institutional aspect in the analysis structure.

Through the data analysis and structure evaluation above, this research provides a clear idea of the impact of China's Free Trade Zone Strategy Promotion towards the economy and maritime industry from a national perspective.

Chapter 2 Literature Review

2.1 History, definition and characteristics of Free Trade Zone

Free Trade Zone as foreign-trade zone is derived from the concept of “free port”. The revised Kyoto Convention of the World Customs Organization has given the definition of the Free Trade Zone as public or private duty free area where goods can be handled, manufactured and processed as finished goods prior to be exported (Tiefenbrum, 2013). Documents have shown that the idea of Free Trade Zone may have appeared for more than 2,000 years. People like Damon (1992) pointed the potential benefit and possible developing trend of Free Trade Zone. There already existed 2301 Free Trade Zones in 119 developing and transition countries dated back in 2008; they mainly located in Asia and the Pacific and Americas (Tiefenbrum, 2013).

Free Trade Zones can bring the benefits of improving business infrastructure (Spence, 2017). The UN press has concluded the common characteristics of Free Trade Zones as flexible business regulations, offshore location, export focus and attractive incentive packages. Free Trade Zones are usually operated by government while nowadays an increasing number of Free Trade Zones is being established or operated by private investors (Valentine and Park, 2005). Historically, the development of free trade zones has helped form some successful economic growth over the world. Recently, building Free Trade Zones are used as important mean to develop different sectors within the supply chain, economy cycles.

In order to have a clear idea about how the Free Trade Zones work, we use Shanghai Pilot Free Trade Zone as an example. Gladie Lui (2014) listed the overall plan on China (Shanghai) Pilot Free Trade Zone according to different categories such as financial services, shipping services, and commerce and trade services. We also found research of Wei Yan and Ling Wang (2016) where major construction contents of Shanghai Free Trade Zone has been concluded through system innovation, legal production, expansion of functions and services industry. In conclusion, the Shanghai Pilot Free Trade Zone will carry out various reforms and liberalize modern logistics to facilitate the free movement of goods at the regional level (Wan et al. 2014). The main purpose of establishing regional Free Trade Zones would be quite similar. With the needed national policy support, Free Trade Zones will simplify regulatory procedures, reduce business costs, and develop as a large tariff-free zone (Wan et al. 2014).

2.2 Advantages and Impact

The main advantages of Free Trade Zones can be concluded as it permits the free, unhindered import of various materials and components for assembly and manufacture for subsequent export without duties and taxes (Yang, 2009). From a variety of literatures, we have found that the success of Free Trade Zone strategy can be explained in several aspects. The report from World Bank (2008) had mentioned that the success of the Free Trade Zones is linked to advantages including location, developing method and the management. These advantages have helped Free Trade Zones bring great effect towards regional trade market and economy system.

During recent years, we have seen more than 3500 Free Trade Zones showing and running around the world which account for approximately 68 million jobs and generate about 500 billion dollars' worth of annual trade. There is no doubt that Free Trade Zones has great impact (Summerfield, 2015).

The advantages and corresponding impact of Free Trade Zones would be our core reference for structuring and analysing further case studies. Thus, we have built a literature review matrix for this part in order to bring a clear view. The matrix is structured in three aspects correspond to the content of chapter 2.2. We obtained our reference literatures mainly from edited books, journals and some research articles and papers. The source selection is based on the relevance to our topic, citation frequency and whether the contents have been reviewed by peers.

Table 1 Literature Review Matrix 1

Author	Political and institutional aspect	Function and Services aspect	Economy and trade aspect	Time	Source type	Methodology
Anderson, C.M., Opaluch, J.J. and Grigalunas, T.A.			Trend of global economic integration accelerate the development of cross-border trade	2009	Journal	Quantitative model "Nested Logit Model" based on cargo routers and port services data
Benton, Napier and Ulkū		Improve the bottom line of the local supply chain which can later generate the regional economy.	Important role of port being the key link within the entire trade process. Acted as tools for global sourcing in developed countries and tools for export promotion in developing countries	2016	Journal	Case Study
Bookbinder, J.	In US, Alliance-Texas has offered different kinds of advantages like no VAT, reduce of customs paperwork etc.			2013	Edited book	Case study
Chiu et al.		The most important factor for successfully operating business in Free Trade Zones are less customs and government control and more tax incentives	Negative effects in employment as some manufacturing jobs would move from developed countries to Free Trade Zones in developing countries.	2011	Journal	Theoretical and one-way ANOVA analysis based on data from custom and official website
Deng, Wang and Yeo	The Free Trade Zones in China are usually designed with extremely open and preferential policies.	Free Trade Zones are mostly located in ports with great location advantages		2016	Journal	Case study with Quantitative model Fuzzy AHP based on rank and questionnaire data
Guruswamy, M. and van der Schoor, L.		Connect the stakeholders in the supply chain in an easier and more direct way Participate in the process of facilitating supply chain by satisfying the specific requirements of investors to move goods efficiently. Create the possibility for global supply chain and production network to grow massively.		2016	Article	theoretical paper
John Lin			Cross border trade in China has gone through several great changes as it gets closer connection to logistics industry, attracts more enterprises to enter and so on.	2016	Article	Theoretical paper
Krugman, P.			Regional free trade have the ability of hence productive efficiency and competitiveness of markets. Free Trade Zones usually lead to trade diversion. Under such condition, the Free Trade Zones could upset the balance of world trading system	1991	Edited book	Theoretical paper

Table 2 Literature Review Matrix 2

Koehler-Coluccia			Trade agreement have come out and stimulated the development of Chinese Free Trade Zones in order to response the opportunities and challenges.	2013	article	Theoretical paper
Liu, B., Wang, L., Lee, S., Liu, J., Qin, F. and Jiao, Z.	Developing services systems attracted foreign investment or enterprises.		Free Trade Zone strategy can help promote global trade development which can accelerate the recovery of world economy and economic globalization	2016	Edited book	theoretical paper
MIYAGIWA, Kaz F.			Location of Free Trade Zones within the economy would heavily affect whether a higher national income and a lower level of unemployment can be achieved.	1986	Journal	Quantitative model "Hamada Model" based on firm inside Free Trade Zone data
Min, H. and Lambert, T.E.	Help reduce lead time and smooth out the product flow in the global supply chain. Proximity to transportation is a top priority for selecting particular Free Trade Zone location			2010	Journal	Questionnaire survey based on companies
Pak, A. and Mejd, F.	having good infrastructures such as ports and communications is of prime important. Expanded international trade scale			2011	Journal	Case Study
Spence, Nicolas Kareem	Influencing the relationship between Free Trade Zones and sea port development Modern trend of port industry to develop Free Trade Zones in order to adapt to value-added logistics activities while attract logistics companies worldwide.			2017	Dissertation	Case Study
Tiefenbrum	Free trade Zones involve in logistics activities have brought advantages to companies for less concern on storage and simple bonded warehousing.	Importance of a clear, transparent and properly implanted legal and regulatory framework for the Free Trade Zones for building reliance and confidence of the foreign investors.	Direct employment impact of zones is marginal The duty exemption could help increase the cash flow of manufacturers or other users of the Free Trade Zones.	2013	Journal	Theoretical paper
Valentine, V. and Park, J.	Free Trade Zone is built to mainly focus on developing value-added logistics activities within the international trade process.		Create a large amount of job opportunities to the society. This phenomenon had brought benefits on fixing gender inequality in employment.	2005	Edited book	Theoretical paper and case study

Table 3 Literature Review Matrix 3

world bank			Free Trade Zones act as entry and doorsteps for the exporters towards foreign markets Exporters can also gain inexpensive land availability of nearby markets and other advantages through using Free Trade Zones.	2008	Report	Theoretical paper
Wang, B.			Bring a great deal of change in the field of labour relations	2017	Article	Theoretical paper
Xiao L	Policies applied to taxation, encouraging investment, financial liberalization, customs and border control have been adopted by the Free Trade Zones	Create possibilities and environment for foreign investment to enter the market and apply to national regulations.	The aim of adapting to these new rules of international trade and investment would also lead to an appearance of a more open environment to create advantages of competition in the world.	2016	Edited book	Theoretical paper
Yang	Institutional innovation and reform have been stated as the main focus of Free Trade Zone development in order to help boosting logistics development, speed up regional logistics integration and explore the high-end logistics services	Developing services systems in Shanghai Free Trade Zone has already attracted foreign investment. Increase the proportion of transshipment Help data integration among different sectors of the trade industry, and extend function for cross border e-commerce and ships in/out of port. Promote the transformation development, driving innovation in logistics services, accelerating the progress of regional logistics integration. Promote global trade development which can accelerate the recovery of world economy and economic globalization		2016	Edited book	Theoretical paper
Yang, Y.		Reduce the trading and logistics costs Port-type Free Trade Zones should integrate their functions with local industrial development models based on a port cluster perspective in the conclusion.	Free Trade Zones established in Taiwan helped create approximately 170,000 job opportunities during 2003-2007.	2009	Journal	case study

Table 4 Literature Review Matrix 4

Yang, L.	Integration might bring cluster effect on port, which would give the chance forming different industry cluster in the port region		2010	journal	Theoretical paper
Yao, D. and Whalley, J.		Financial innovations that happened in the form of freely currency exchange, free trade accounts etc. would have impact on currency balance.	2015	Journal	Theoretical paper
Zhang, G., Zheng, J. and Dai, Q.	The relation between Free Trade Zones and sea port is to support and improve each other. The main goal of integration of Free Trade Zones and port shall be that port and Free Trade Zones get uniform authority for all functions, services and managements in the region.		2006	Journal	Theoretical paper and case study
Zhu, J		One direct impact on financial liberalization and trade of Free Trade Zones following the related policies is the increase of foreign investment companies' registration.	2015	article	Theoretical paper

2.2.1 Political and institutional aspect

As the Free Trade Zones have continually improved the functions and expanded the business scope, political and institutional support began to show its role in the process. Tiefenbrum (2013) had mentioned the importance of a clear, transparent and properly implanted legal and regulatory framework to the Free Trade Zones for building reliance and confidence of the foreign investors. Policies applied to taxation, encouraging investment, financial liberalization, customs and border control have been adopted by the Free Trade Zones (Xiao, 2016).

As part of the goals of planting Free Trade Zones in China, institutional innovation and reform have been stated as the main focus of Free Trade Zone development in order to help boosting logistics development, speed up regional logistics integration and explore the high-end logistics services (Yang, 2016).

In order to support the services provided by the Free Trade Zones, especially for foreign business purpose, many new regulations and documents have been passed. The Free Trade Zones in China are usually designed with extremely open and preferential policies (Deng, Wang and Yeo, 2016). As Shanghai had issued some local comprehensive regulations such as the *Special Management Measures for Foreign Investment in China Shanghai Pilot Free Trade Zone* with the purpose of helping accelerate the construction of free trade zone (Yang, 2016). With the support of these institutional innovations, Free Trade Zones could perform normally and even gain some public convenience during operation. This would lead to higher efficiency and more benefit for the industry.

Globally, governments from many countries have set special regulations for their free trade zones. For Singapore, a country with five Free Trade Zones, the export and import of cargo through Free Trade Zones could apply tax exemption and postponement of customs and duties. While in Panama, the government establish the Colon Free Trade Zone where allows the customers to move cargo without paying any taxes in order to attract more cargo and foreign companies to operate their business. In US, the Free Trade Zone of Alliance-Texas offered different kinds of policy support such as no VAT, reduce of customs paperwork etc. (Bookbinder, J. 2013). The preferential tax policy in Manaus Free Trade Zone has helped develop the economy even for surrounding areas.

Table 5 Impact of political and institutional advantages

Advantages	Impacts
Political and institutional aspect	<ol style="list-style-type: none">1. Accelerate the construction of free trade zone.2. Lead to higher efficiency and more benefit.3. Attract cargo and companies to operate business.4. Help develop the economy for surrounding areas.

Source: Own elaboration

2.2.2 Function and services aspect

2.2.2.1 Logistics and supply chain perspective

Consider the aim of establishing a Free Trade Zone as attracting and running international trade and investment operation in high-standard environment, the improvement and innovation of Free Trade Zone shall be significant factors for success (Xiao, 2016). Valentine and Park (2005) have concluded that Free Trade Zone is built to mainly focus on developing value-added logistics activities within the international trade process. Over the years, Free Trade Zone has shifted to be more service-oriented and started to provide trade and investment functions.

Free Trade Zone has specific functions related to trading, supply chain and logistics development and improvement for the constructions, the operation systems have greatly help formed the success of Free Trade Zone.

Developing services systems for international ship registry, shipping finance and insurance are methods of Shanghai Free Trade Zone, which have already attracted foreign investment or enterprises. Also the proportion of transshipment of Shanghai port has increased after the implementation of the export tax rebate program (Yang, 2016). Some researches has stated that the Free Trade Zones might be able to connect the stakeholders in the supply chain in an easier and more direct way as the operating environment allows easy approach to cargo and services (Guruswamy and van der Schoor, 2016).

One of the most convenient parts of Free Trade Zones is the simplified customs clearance. This has provided the exporter and importer huge efficiency. Take Shanghai Free Trade Zone as example, its electronic One-Stop clearance mode has helped the entire clearance process to be complete within 4 minutes (Shanghaigov, 2014). Also with systems established for the construction of International Trade Single Window, which is the platform for all countries to participate in international trade, would help data integration among different sectors of the trade industry, and extend function for cross border e-commerce and ships in/out of port (Yang, 2016).

The application of those systems and modes has resulted in lots improvement of Free Trade Zones and later bring them success.

With global investment agreements like *North American free trade area* (NAFTA) and Asia-Pacific Economic Cooperation (APEC) have been made, the Free Trade Zone started to focus on creating possibility and environment for foreign investment to enter the market and apply to national regulations (Xiao, 2016).

These improvements of Free Trade Zones functions could support diverse industries to develop in Free Trade Zone and encourage new entry of enterprises which would also help attract new investment. Studies also suggested that the most important factors for successfully operating business in Free Trade Zones are less customs and government control and more tax incentives (Chiu et al., 2011).

Follow the scene we can observe that the impacts are brought on logistics industry and supply chain due to this advantage.

The trend brought by Free Trade Zones establishment in Asia had attracted different countries to focus more on logistics segment. Yang (2016) has stated the possible effect of Free Trade Zones on logistics industry in the paper, which can be listed as: promoting the transformation development, driving innovation in logistics services, accelerating the progress of regional logistics integration. Free Trade Zone as one kind of Free Zones shall also have the ability to participate in the process of facilitating supply chain by satisfying the specific requirements of investors to move goods efficiently (Guruswamy and van der Schoor, 2016).

From the historical experiences, the establishment of Free Trade Zone in Taiwan had helped reduce the trading and logistics costs by more than NT\$200 billion by 2008 (Yang, 2009). According to the operation experiences in the US, Free trade Zones involve in logistics activities such as warehousing, assembling or distribution operations have brought advantages to companies for less concern on storage and simple bonded warehousing (Tiefenbrum, 2013).

Researchers like Benton, Napier and Ülkü, (2016) also got the result that the Free Trade Zones may have the ability to improve the bottom line of the local supply chain which can later generate the regional economy. Other research has also pointed that linking local suppliers and vendors with companies in the Free Trade Zones to operate the specific industry can bring strong and cost-effective local supply relationship. Thus they conclude that the Free Trade Zones create the possibility for global supply chain and production network to grow massively (Guruswamy and van der Schoor, 2016).

It is clear that the use of Free Trade Zones may help reduce lead time and smooth out the product flow in the global supply chain (Min, H. and Lambert, T.E, 2010).

Table 6 Impact of Function and services advantages

Advantages	Impact
Function and services aspect <i>Logistics and supply chain perspective</i>	<ol style="list-style-type: none"> 1. Promoting the transformation development, driving innovation in logistics services, accelerating the progress of regional logistics integration. 2. Reduce the trading and logistics costs 3. Improve the bottom line of the local supply chain which can later generate the regional economy. 4. Create the possibility for global supply chain and production network to grow massively.

Source: Own elaboration

2.2.2.2 Location advantage and linkage to sea port

According to Tiefenbrum (2013), a Free Trade Zone should be located in the area that can leverage the country's comparative advantages. Researches over years have concluded that free zones around the world are usually positioned near borders or certain transportation routes (Elena, 2012). Obviously, lots of the Free Trade Zones over the world are located near sea ports or airports. It is necessary to consider the closeness to the international shipping routes when planning for the location of Free Trade Zones since zones who were built inside or close to ports, whether sea or air, have been proved to be more likely to gain success or high amount of transactions. Also necessary energy and natural resources or advantages can be captured in these locations (Enache, 1998). For example, the Free Trade Zone in Colon Panama, with its location advantage of approach to the Panama Canal, has attracted great amount of cargoes to be processed here; trading companies from all over the world establish and invest branches around the Free Trade Zone.

For Free Trade Zones which are settled beside sea ports or airports, measures like applying automation, expanding runways have helped some Free Trade Zones getting more efficiency.

For China, the first four established Free Trade Zones in Shanghai, Tianjin, Fujian and Guangdong are all located in main coastal cities and huge ports. The later established Free Trade Zones are all located in port cities or cities that close to One Way One Belt route or inland ports. This shows the important role of location choice when building a Free Trade Zone.

As most functions and aims of Free Trade Zones are connected to international trade and Logistics, proximity to a transport terminal like sea port or airport would

give Free Trade Zones more opportunities and bring more convenience to all the anticipators related to the construction and application of Free Trade Zones. Researchers like Miyagiwa (1986) had claimed that the location of Free Trade Zones within the economy would heavily affect whether a higher national income and a lower level of unemployment can be achieved. For the perspective of Free Trade Zones participating companies, a questionnaire survey brought by Min, H. and Lambert, T.E. (2010) has stated the view of them that proximity to transportation is a top priority for selecting particular Free Trade Zone location since they hold a view that Free Trade Zone benefits might be offset by high logistics costs.

It requires geological and management convenience when establishing Free Trade Zones. Thus, different Free Trade Zones would consider the regional features and advantages when doing the construction planning in order to help complete regional integration and avoid vicious competition (Aiznen, C. and Zhibiao, L., 2014).

With the location advantage of usually being close to sea port, the linkage and integration between sea ports and Free Trade Zones have bring further impact not only to themselves but also to the region.

The most obvious link between sea ports and Free Trade Zones is that Free Trade Zones are usually located beside or inside sea ports. Researchers like Pak and Majd (2011) has stated that having good infrastructures such as ports and communications is of prime important.

The Free Trade Zones in China are all closely linked with sea port in both location perspective and economic perspective. The function development of Free Trade Zones depend on the expansion of the scale of port logistics which relies heavily on the Free Trade Zones – sea port industry services. Thus, the relation between Free Trade Zones and sea port is to support and improve each other (Zhang, Zheng and Dai, 2006).

Since the movement of cargo and vessel through ports would attracts related economic activities such as shipping and forwarding (Yang, 2009), considering the main functions and characters of Free Trade Zones, linking with whether sea port or land port shall be a good choice for gaining opportunities. The relationship between Free Trade Zones and sea port development can be influenced by logistics facilitation within value chain development and others factors (Spence, 2017).

The reason why Free Trade Zones are usually linked with sea port can be found from researchers like Anderson (2009) and Kim (2014), who had stated the trend of global economic integration accelerate the development of cross-border trade and the important role of port being the key link within the entire trade process.

For port integration, researchers like Yang (2009) had stated that port-type Free Trade Zones should integrate their functions with local industrial development

models based on a port cluster perspective in the conclusion. Spence (2017) has also indicated the modern trend of port industry to develop Free Trade Zones in order to adapt to value-added logistics activities while attract logistics companies worldwide. The main goal of integration of Free Trade Zones and port shall be that port and Free Trade Zones get uniform authority for all functions, services and managements in the region (Zhang, Zheng and Dai, 2006).

As the Free Trade Zones start to integrate with sea ports, the cargo transport through the port would gain higher efficiency and lower cost and more cargo would be attracted afterward. This virtuous cycle due to integration of Free Trade Zones and ports would no doubt improve the port in extent of openness and freedom and the development of port business industry. Also, successful Free Trade Zones will be able to ensure the freight scale that is generated by logistics companies and shall influence the corresponded sea port.

Considering to reality, researchers like Zhang (2006) have come out the idea of how to instruct the integration. Integration through several aspects had been mentioned, such as location, economic profit, policies, logistics services, port management and constructions planning. As a result, the integration might bring cluster effect on port, which would give the chance forming different industry cluster in the port region (Yang, 2010).

Examples of Free Trade Zones integrate with sea ports can be found in research of Spence (2017), which has listed the integration condition of several countries in South America. The private container terminal DP World Caucedo has performed quite well to achieve high levels of efficiency and productivity with integrating with its inside Free Trade Zone which has the goal of supporting Port of Caucedo. This terminal has achieved high ranking in the region.

Table 7 Impact of function and service Advantage

Advantages	Impact
Function and services aspect <i>Location advantage and linkage to sea port</i>	<ol style="list-style-type: none"> 1. Attracted great amount of cargoes to be processed 2. Free Trade Zones and sea port would support and improve 3. Improve the port in extent of openness and freedom and the development of port business industry. 4. Ensure the freight scale

Source: Own elaboration

2.2.3 Economy and trade development aspect

According to the global trend and the characteristics of Free Trade Zones, it is clear that the success of Free Trade Zones have benefited from enlarged cross border trade scale and world trade developing trend.

As an efficient way of increasing cross-border trade scale and lowering the operation cost of global supply chain, Free Trade Zone strategy can help promote global trade development which can accelerate the recovery of world economy and economic globalization (Yang, 2016).

With the globalization trend of recent years, the cross border trade scale of the world has met a massive explosion. Cross border trade in China has gone through several great changes as it gets closer connection to logistics industry, attracts more enterprises to enter and so on (Lin, 2016). All these changes have provided the Free Trade Zones the opportunities to operate. Meanwhile, trade agreements such as Trans-Pacific Partnership Agreement (TPP) and Trans-Atlantic Trade and Investment Partnership (TTIP) among countries have come out and stimulated the development of Chinese Free Trade Zones in order to response the opportunities and challenges (Koehler-Coluccia, 2013). The aim of adapting to these new rules of international trade and investment would also lead to an appearance of a more open environment to create advantages of competition in the world (Xiao, 2016).

During the different stages of the development of Free Trade Zones, improvements due to the purpose of following the trend of expansion of cross border trade scale have resulted in the precise arrangement of services provided by the Free Trade Zones. This factor as an external factor has greatly affected the success and improvement of Chinese Free Trade Zones.

One direct impact on financial liberalization and trade of Free Trade Zones following the related policies is the increase of foreign investment companies' registration. Since one of the main goals of China developing Free Trade Zones is to attract foreign investment, the establishment of the Shanghai Free Trade Zone had attributed to a 13.7% increase in new joint venture enterprise based on over 90 countries and regions in its first year (Zhu, 2015). And the financial innovations that happened in the form of freely currency exchange, free trade accounts etc. would have impact on currency balance (Yao and Whalley, 2015). Besides, the duty exemption could also help increase the cash flow of manufacturers or other users of the Free Trade Zones (Tiefenbrum, 2013). However, bad impact such as money laundering may happen in a higher possibility within the Free Trade Zones

For international trade, the appearance of Free Trade Zones has help expanded its scale by enabling distribution and production of goods for distant markets and provided benefits for both importers and exporters. Krugman, P. (1991) had

concluded the main gains from regional free trade as it did have the ability of increase the size and hence productive efficiency and competitiveness of markets. Since some researchers have defined the roles for Free Trade Zones that located in different regions all over the world; for those located in developed countries, they usually acted as tools for global sourcing while for developing countries as tools for export promotion (Benton, Napier and Ülkü, 2016). Other opinions such as the Free Trade Zones act as entry and doorsteps for the exporters towards foreign markets also exist (World Bank, 2008).

The World Bank report had also mentioned that exporters can also gain inexpensive land availability of nearby markets and other advantages through using Free Trade Zones. Attracted by the benefits from Free Trade Zones, importers and exporters would increase their choice of trading through Free Trade Zones and the trade scale might also increase. From historical observation, the integration of Free Trade Zones in Caribbean area had contributed over 20% of the increase of total regional exports value by 2003 compare to 1995 (Spence, 2017).

However, the existence of Free Trade Zones does not necessarily bring a good result for economic perspective since they usually lead to trade diversion. Under such condition, the Free Trade Zones could upset the balance of world trading system (Krugman, 1991).

Employment as one significant part for evaluating national economy has also been influenced according to historical observations.

The launching of a Free Trade Zone may create a large amount of job opportunities to the society. Since creating employment was the first reason for establishing Free Trade Zones in history, analysis over these years has also clearly shown the substantial higher share of women employee numbers compare to manufacturing sector outside. This phenomenon had brought benefits on fixing gender inequality in employment (Valentine and Park, 2005).

As for recent years, the increase of foreign investment and registration of new companies have led to the numbers of foreign staff had increased. Similar situation happened in United State, where country Madagascar launched a new free port that employed more than 360, 000 people (Congress of the United States Foreign Trade Zone Board, 2013). We also found that the established Free Trade Zones and U.S foreign trade zones together have contributed more than 43 million employment in 2010 (ECONOMYWATCH, 2010). Free Trade Zones established in Taiwan helped create approximately 170,000 job opportunities during 2003-2007 (Yang, 2009).

However, the direct employment impact of zones is marginal (Tiefenbrum, S, 2013) and the common use of Free Trade Zones by large international companies might bring negative effects in employment as some manufacturing jobs would move from developed countries to Free Trade Zones in developing countries. (Chiu et al.,

2011) This phenomenon may cause an imbalance in job market.

Table 8 Impact of economy and trade development advantage

Advantages	Impact
Economy and Trade development aspect	<ol style="list-style-type: none">1. Acted as tools for global and export promotion2. Hence productive efficiency and competitiveness of markets.3. Help promote global trade development which can accelerate the recovery of world economy and economic globalization4. Financial innovations that happened in the form of freely currency exchange, free trade accounts etc. would have impact on currency balance.5. Increase of foreign investment companies' registration.6. The duty exemption could help increase the cash flow of manufacturers or other users of the Free Trade Zones.

Source: Own elaboration

2.3 Disadvantages and failures

However as shown in many literatures, not all Free Trade Zones in the world have been operated successfully, few Free Trade Zones even bring negative effect to the local economy and industry.

For example, the Free Trade Zone of Khorgos Eastern Gate, which is located on the border of China and Kazakhstan, has brought few contributions toward local economy or cross-border trade scale and is mainly, acting only as a hub. Its unsatisfying performance has instead brought bad reputation and even financial problems such as tax evasion (Lain, 2016).

In the meantime, however, as trading companies are heavily affected by national policies, Free Trade Zone has faced some challenges in absorbing customers. (Bookbinder, 2013) F. Chen and C.-Y. Lee (2013) also stated other pressures that Free Trade Zone developments have met, such as the appearance of other similar zones. This can somehow explain that some Free Trade Zones are experiencing slow growth and the uneven performance among different Free Trade Zones.

In fact, some Free Trade Zones established over the world have already faced failure in functioning, stimulating economy development or other parts due to different reasons such as weak regulatory framework. Even inside Shanghai pilot Free Trade Zone, there exist claims from some foreign investors as they feel not gaining the reasonable benefits from this strategy while even facing some extra troubles. The problems happen usually in financial sectors such as the currency policy, supervision system or stock level and some investors have felt disappointed.

Table 9 Impact of Free Trade Zone disadvantages and failure

Disadvantages and failures	Impact
	<ol style="list-style-type: none">1. Direct employment impact of zones is marginal2. Negative effects in employment as some manufacturing jobs would move from developed countries to Free Trade Zones in developing countries.3. Free Trade Zones usually lead to trade diversion. Under such condition, the Free Trade Zones could upset the balance of world trading system4. Financial problems such as tax evasion

Source: Own elaboration

2.4 Free Trade Zone Strategy in China

Nowadays, Free Trade Zone is an important topic in China even in the world. Related analysis and researches have given us some clue about the establishment background and other basic information of Free Trade Zones in China.

As the reform and opening up policy has brought significant improvement towards the economy and living environment, China started to seek for chances to transform its character from easy manufacturer to innovators. Jing-lei Yang (2016) stated that the wakening of traditional dynamism for China's economic growth and the severe decline of foreign trade together with the new changes in the international trade rules are the reasons for China to build up free trade zone. Similar comment also occurred in research from Wei Yan and Ling Wang (2016) as they suggested an urgent need for China to deepen the reforms in order to upgrading foreign trade. Since China had gone through the huge transition from total planned economy to a mix economy of planned economy and market economy, huge trade and GDP growth has been viewed during the years. In 2014, China became the largest economy in the world.

However during the transition and further deepening reform of economy, some policies and ministries have provided protection for industries that with less competitiveness by limiting foreign investment and controlling capital account. The idea of developing Free Trade Zones might come with the aim of removing these limitations on foreign investment and allowing free capital flow (Lin, 2015). Meanwhile, China was excluded from many important trade agreements that were led by the US. The strategy of establishing Free Trade Zones can be considered as a way to respond to those challenges. China has set the goal of realizing high technology development and improve own international competitiveness several years ago, domestic Free Trade Zones could firstly help China being more initiative in international trade market; secondly it could help reduce administrative monopoly of the government for managing companies doing international trade. Last but not least, this strategy might be able to lead China transform to mainly focus on providing value- added services or products. With all these reasons or concerns, domestic Free Trade Zones were established in China (Aiznen, C. and Zhibiao, L., 2014).

The appearance of Free Trade Zones in China had experienced several stages. In the beginning, it was established as Bonded Area offering benefits as reduced taxes for certain enterprises or other policies in order to attract investment (China-shftz 2015). The main reason of these establishments was to enhance interaction with sea ports and inland ports (Valentine and Park, 2005). This led to the emergence of next stage of Export Processing Zone. With the support of state council, these Export Processing Zones had later greatly pushed forward the logistics bonded process (Yang, 2016). In 2003, the Bonded Logistics Zone had been emerged for the purpose of simplifying the customs clearance procedure and

improving the operation efficiency, later China began to develop Bonded Port Area for further advancement in the field of customs supervision areas functions. Considering inland economy development, Comprehensive Bonded Zone had been set carried out the taxation and foreign exchange policies of Bonded Port Area. (Yang, 2016) With all the experiences and improvement from stages mentioned above, after 28 August, 2013 the state council officially approved the establishment of Shanghai Pilot Free Trade Zone (Liu et al., 2016).

Besides building Free Trade Zones inside the country, China has also invested or established several Free Trade Zones or special economic zones overseas. For example, several zones were built in some Africa countries due to the consideration of growing trade scale and investment between two regions. The exporters and investors in China also seek to take advantages of the lower labour cost in Africa in this case (Brautigam et al., 2010). There are also plans of building corporate Free Trade Areas with Japan and South Korean discussed for the aim of developing regional trade in Asia for the trade integration strategy and also improving national general strength. The Free Trade Area that operated by China and Korean (CKFTA) is an attempt to respond the expectancy of the three countries. The experience in building Free Trade Areas with different countries did bring China benefits in building its own domestic Free Trade Zones according to the regional features and expectations. The Free Trade Zones that we would analyse in this research such as Shanghai pilot Free Trade Zone are all domestic Free Trade Zones. This kind of Free Trade Zones acts the same in sectors like customs supervision like the Bonded Areas around China while provide upgrade services in other sectors such as value added services.

This strategy started to make some impacts. These impacts from establishing Shanghai Pilot Free Trade Zone towards regional economy and maritime efficiency may be possible to repeat in other regions if with their own Free Trade Zone area.

After this first step, China was able to see the positive effects on economy, logistics and other related industries; negative effects were also observed that shall be paid attention to and prevented (Lin, 2015). China later developed other three pilots Free Trade Zone in Guangdong, Tianjin and Fujian in 2014. The promotion of Free Trade Zone Strategy has begun. The three new Free Trade Zones were to enrich the contents by each considering its own regional characteristics as Guangdong and Fujian towards Pearl River Delta, Tianjin towards Bohai Economic Rim. As a result, the layout of the Free Trade Zones in the eastern coastal region and the western side of Taiwan Straits in China has been completed (X.-m. Jiang, 2016). Yang(2016) describe the possible development strategy for each Free Trade Zone towards its own region such as new economic cooperation among Guangdong, Hong Kong and Macao in order to optimizing the business environment. With the benefit gained from developing those Free Trade Zones, China started to widely promoted

this strategy as the decision of establish two new Free Trade Zones in coastal provinces like Liaoning and Zhejiang and five new Free Trade Zones in inland provinces like Henan, Hubei, Chongqing, Sichuan and Shanxi was announced in 31st Aug.2016.



Figure 1 Free Trade Zones in China

Source: China Daily (2018)

The promotion of Free Trade Zones strategy can be considered as a method to re-cluster the related industries and assist other national strategies such as the “One Belt One Road” and the “Yangtze River Economic Belt” (PwC's China Tax and Business Service, 2017).

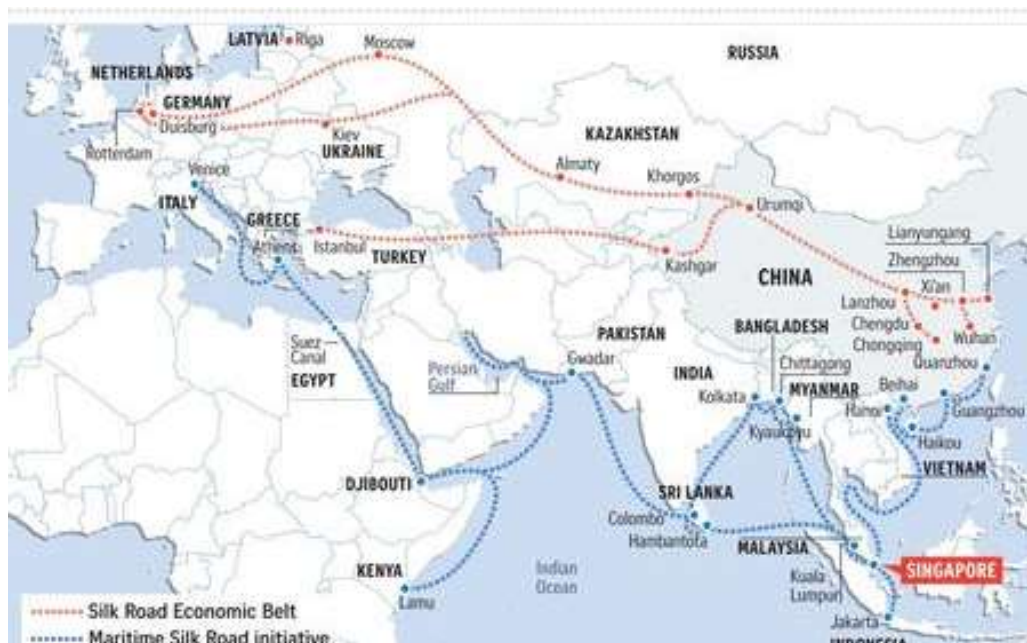


Figure 2 One Belt One Road Project

Source: Turkish centre for Asia Pacific Studies (2014)

Among these seven new Free Trade Zones, some are planned to support the operation of “One Belt One Road” strategy, such as Chongqing since it is now considered as the starting point of the new Silk Road. Free Trade Zones in area like Chongqing, Sichuan and Shanxi would try to capture the opportunities from “One Belt One Road” strategy and improve the economy condition of inland China compare to the Coastal area. Others also have their own objectives considering their geographical and industrial advantages. Located in the central China, Free Trade Zone in Henan would focus on developing transportation system and logistics industry; Inland Free Trade Zone Hubei would focus on developing high technology sectors while assist the “Yangtze River Economic Belt” strategy in the same time. And the coastal Free Trade Zone in Zhejiang would mainly focus on the trade and maritime sectors.(Efic, 2016).

2.5 Conclusion

In general, the Free Trade Zones hold three main success factors that are the enhance cross border trade scale and world trade developing trend; massive improvement in functions and political and institutional advantages. The establishment of Free Trade Zones can bring impact of different extent on logistics industry and supply chain, local employment, financial liberalization and trade. Meanwhile, Linkage and integration with sea port are always important issues toward the development of Free Trade Zones. There are researches and examples that have proven that national economy can be improved by establishing Free Trade Zones around the sea port (Spence, 2017).

Comparing those literatures, most of them use the combination of qualitative and quantitative methods to analyse the impact, performance of Free Trade Zones. Researches are mainly based on Asia and America regions as the Free Trade Zones are usually developing well there.

A great amount of historical data from different regions of the world has been used to prove the impact especially in economic perspective. Examples developing models or innovations come inter alia from Zhang and Zhu (2017), who used an AHP hierarchy model to analyse the effect of Fujian free trade zone to Xiamen international shipping centre which help build a view of Free Trade Zone strategy promotion to regional shipping industry.

Researchers like Tiefenbrum (2013) had stated that the success of Free Trade Zones requires good integration of the zone into the domestic local economy, continuous innovation and upgrading and ensured social and environmental sustainability of the zone.

From a significant body of literature we found that most of the Free Trade Zones succeed in attracting investment, creating employment and bringing other benefits in the short term while some of them failed to remain their success when facing the rising of labour cost or being less attractive to the traders (Tiefenbrum, 2013). We can initially conclude that Free Trade Zones who have established integration with port, regional logistics industry and supply chain appear to be more successful than others.

Considering our research question of the economic and maritime impact of Free Trade Zone Strategy promotion, there are still areas remain unclear. Most of the research towards Free Trade Zones development and own impact focus on one specific Free Trade Zone, which is, Shanghai; the economic and maritime impact of other Free Trade Zones and the changes brought by the Free Trade Zones promotion have not been well analysed. These unclear parts will be our main focus in the research.

Chapter 3 Methodology

Inside the research, we would choose case study as our main research method. Case study as a research method can be defined as a method that investigating a practical topic and follows a set of procedures (R.Yin, 2009). Researchers such as Abbott (1992), Easton (1995) had stated the benefits of case studies when gathering evidence about a topic. With the method of case studies, the object can be analysed in detail with rich data in a suitable depth (Easton, 1998).

There also exist limitations of the case study method. Most of the case studies would require huge amount of data collection and analysis, which might cause the researchers concerns for time and project scale. For qualitative case studies, the sensitivity and integrity of the researchers might limit the research effort. And the results of case studies would be limited to describe the fact and situation instead of give further prediction or instruction (Reis, 2009).

As our research question is about finding the impact of China's Free Trade Zone Strategy Promotion towards economy and maritime industry, we would need to evaluate the performance or expect future performance and their impact towards regional economy and logistics industry of Free Trade Zones of three different periods among 2013-2017. Thus, we shall build a multiple-case study in coming chapter. Shanghai pilot Free Trade Zone would be the first, coming with Fujian and Guangdong and later Zhejiang and Liaoning from the three new Free Trade Zones established in 2016.

Free Trade Zone as a kind of free port, its phenomenon should be consider as a single case with various occurrences in time, space and forms (Lavissière and Rodrigue, 2017). With case studies according to the specific state of every Free Trade Zones, we can analyse and compare their performance, try to state the impact of China's Free Trade Zone Strategy Promotion towards economy and maritime industry.

As developing a rich and theoretical framework is one of the most important steps among the whole procedure, the evaluation structure is built based on the diverse information and researches from literature review (R.Yin, 2009). Each case study would show the specific analysis of one Free Trade Zone in aspects of policy, function and economy. The impact of Free Trade Zones from each period would be compared in the end which shall help us get the result and conclusion.

Regarding to the data collection, we would build our case study mainly based on secondary data, such as institution reports, government reports etc. These data can be collected from government websites, Free Trade Zone official websites and press releases etc. Official data can also bring the research more authenticity and

reliability.

In order to evaluate and analyse the Free Trade Zone performance accurately, we would choose some impact indicators or index from the guidance of literature review to help develop the case study. Indicators such as container handling capacity can help measure the shipping level of a Free Trade Zone; other indicators like the total import and export volume can help measure the economic impact. We would also try to develop a comparison among different cases according to different indicators or times.

Based on these literatures and analysis, we decide to build our evaluation structure as below with three aspects. Since the research question is about "The economic and maritime impact of China's Free Trade Zone Strategy Promotion", we would select 2 Free Trade Zones that are established in each period during the application of Free Trade Zones strategy promotion in China and evaluate them according to the model we set to see the impact.

Aspects:

1) Political/Administrative environment development status

Table 10 Example evaluation table for political and administrative environment development status

	Policy quantity	Policy update frequency	Policy coverage	Policy effectiveness	Supervision effectiveness
FTZ 1					
FTZ 2					

2) Free Trade Zones function and services provided status

Table 11 Example evaluation table for function and service status

	Throughput	Functions coverage	Service efficiency	Service innovation	Port integration level	Logistics integration level
FTZ 1						
FTZ 2						

3) Economy and trade development status

Table 12 Example evaluation table for economy and trade development status

	Foreign investment scale	Foreign Investment growth rate	Currency status	Employment scale	growth rate	Import export volume
FTZ1						
FTZ 2						

Considering the three periods of China establishing Free Trade Zones, we would like to choose Shanghai for the first period in 2013 as this pilot Free Trade Zone has significant influence for the Free Trade Zone strategy promotion with its incredible achievement. Meanwhile, Shanghai pilot Free Trade Zone was established in one of the most developed cities in China with large population, economic and political advantages. This first pilot zone is considered highly important to the Free Trade Zone strategy and its further promotion.

Then, we would like to choose Free Trade Zones of Guangdong and Fujian for the second period in 2014. These two pilot zones are located in nearby provinces, while with quite different level of economic and political support from the local area. We could analyse the impact of free trade zone strategy and its promotion toward areas with different economic strength and population scale by comparing and connecting these two cases.

And for period 3 in 2016, we would like to choose Zhejiang and Liaoning for further case studies. Among the seven new Free Trade Zones in this period, these two Free Trade Zones are located near sea port while others are located near inland port. And the Free Trade Zones established in Zhejiang province will focus on international maritime services and international oil storage (The Straits Times, 2017). Considering our main research question would focus on the maritime impact of the strategy promotion, choosing these two pilot zones would fit the requirement.

The case analysis structure shall be built as below:

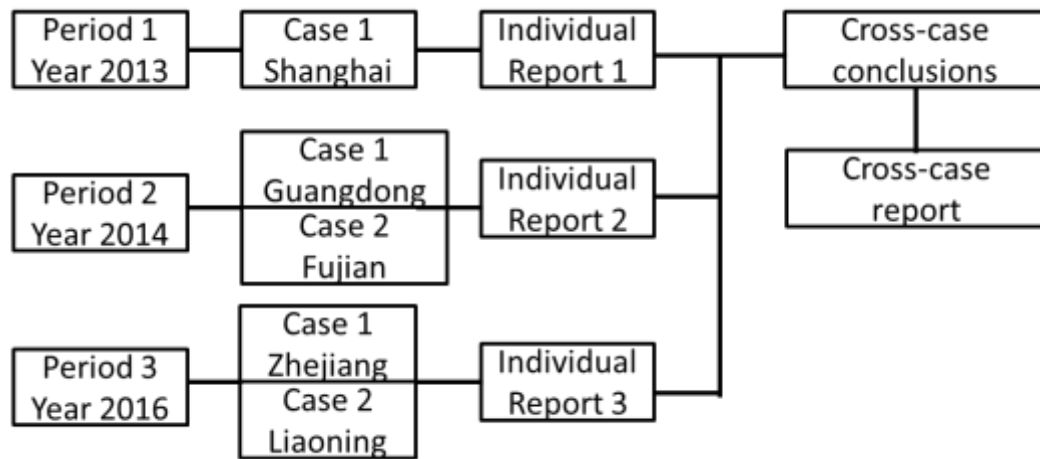


Figure 3 Case study structure

Chapter 4 Case analysis

4.1 Period 1

4.1.1 Case 1 Shanghai pilot Free Trade Zone

Based on the historical data and observation, it is clear that Shanghai is the leading city in China especially in economic and international trade and culture communication areas. According to the data of year 2016 from national bureau of statistics of China, around 3.78 percent of national GDP, 11.77 percent of total annual import and export volume comes from Shanghai (NBS, 2018). And the data from China Container Industry Association has shown that the container throughput volume of port of Shanghai accounts for about 19 percent of the total container throughput of sea ports in China in 2017 (Port container, 2018).



Figure 4 Shanghai pilot Free Trade Zone areas

Source: Clifford Chance The Wall Street Journal

Established in 2013, Shanghai pilot Free Trade Zone can be considered as a trial zone for China to reform its economic and trade system while developing the value added industry to opening up. There are several areas included in the Shanghai pilot Free Trade Zone. For customs supervision perspectives, there are the Waigaoqiao Bonded Area, Waigaoqiao Bonded Logistics Area, Yangshan Bonded port Area and Shanghai Pudong general Free Trade Area. For trade and financial perspectives,

there is Lujiazui Financial Area where stands as the financial centre in China. This area is also considered as important part of building Shanghai international shipping centre. For manufacture industry perspectives, there is Jinqiao Export Processing Zone providing eco-friendly environment for emerging industries and production services (SHFTZ Official, 2018). For high technology innovation and application, there is Zhangjiang High Tech Park. The total area of Shanghai pilot Free Trade Zone was approved to expanded to around 120.72 km² in 2014 (X.-m. Jiang, 2016).

During these years, Shanghai pilot Free Trade Zone has formed more than one hundred of applicable experiences among different sectors such as administration, trade and maritime operation. Considering the significant role of Shanghai in Chinese economy and trade, the Free Trade Zone has tried to be more comprehensive when providing services.

Based on data from official ministration of Shanghai pilot Free Trade Zone and other trustworthy resources, we analyse the case as below following our structure.

Aspects:

1) Political and Administrative environment development status

There are over 200 related or supportive policies passed for the operation and development of Shanghai pilot Free Trade Zone. Inside those policies, five of them were put out by the national people's congress of the people's republic of China containing decisions of offering the pilot Free Trade Zones and local government or related institutions the rights to provide special services related to foreign company investments, modify existing policies within reasonable limitation in order to cooperate with the operation plan. In the meantime, the state council and related ministries such as the general administration of customs as well as the government of Shanghai city has also put out new policies or modification for existing policies.

Clearly the policy update frequency for Shanghai pilot Free Trade Zone is quite high. Nearly every two weeks would there be a new release of whether policy or administrative decision especially for policies released by the state council and related ministries. During May and June in 2018, around 20 new policies and decisions have been announced to the public.

While we read those policies and institutional decisions, we found that they have covered most part of the area of Free Trade Zone operation, especially in attracting foreign investment, tariff and customs issue and financial supervision area. Key policies such as the Negative List policy, customs policy have attracted many investors or related companies. Meanwhile, innovations on policy and institutional sector can also be observed during these years. Innovations on managing foreign investment, applying high technology and upgraded service system and simplifying process of customs and tariff have appeared especially in recent two years.

Although the quantity and the coverage of new policies and laws have formed an image of developing the zone in a positive way, the effectiveness of those policies still remains limited. As lots of those policy or law innovations are more likely to be considered as trails, not all the companies inside the zone could apply every benefit policy and there are still some expected innovation policies under discussion. Also the appearance of unclear policy has brought foreign investor concerns about the reliability of running business in the zone. Besides, due to the political system design, the supervision of policy implementation has experienced some difficult.

2) Function and services provided status

As we would mainly focus on the maritime and seaborne trade aspect of Free Trade Zone function, we have collect the throughput data of two main areas in Shanghai pilot Free Trade Zone, the Waigaoqiao Bonded Logistics Area and Yangshan Bonded port Area. The data over these five years can be shown as below:

Table 13 Yearly throughput of Shanghai pilot Free Trade Zone

Unit for container throughput: 10,000 standard containers

Unit for cargo throughput: 10,000 ton

Year	Yangshan Area			Waigaoqiao Area			
	Container throughput	Year Ratio	Vessel visit	Container throughput	Year Ratio	Cargo throughput	Year ratio
2013	1436.48	+1.5%	12504	1622.03	+5.6%	15178.2	+6.4%
2014	1520.19	+5.8%	12587	1716.41	+5.8%	15761.93	+3.8%
2015	1540.8	+1.4%	13917	1816.37	+5.8%	16387.57	+4.0%
2016	1561.7	+1.4%	13977	1836.9	+1.1%	16525.3	+0.8%
2017	1652.9	+5.8%	12144	1985.1	+8.1%	17754.4	+7.4%

Source: Own elaboration and data based on SHFTZ Official (2018), SHFTZ.

Management council (2018)

From the table we can see that both areas have met increase on container and normal cargo throughput in 5 years. While in year 2015 and 2016, Yangshan Area had experienced decrease in increasing container throughput, while Waigaoqiao Area had only experienced that in 2016. Based on these data, it is clear that the establishment of pilot Free Trade Zone didn't bring huge changes towards the total port throughput. However as improving import and export product structure is also one important aim of Free Trade Zone operation, the improvement might appear in import and export value.

For basic operation environment, as the areas inside the pilot zones are all located according to own characteristics, convenient transportation and connection among areas and hubs are provided. While inside the areas, basic services such as medical services, education and culture services are widely provided. Investors and

companies can also obtain consult services for different purpose.

The function coverage of Shanghai pilot Free Trade Zone is becoming even wider especially in shipping and logistics sectors since the main strategy of Shanghai becoming the international shipping centre has aligned with the strategy of developing Shanghai pilot Free Trade Zone. J.-I. Yang (2016) stated the current development status of shipping industry in Shanghai in 3 point:1) Innovation of Ship Registry and Ship Management Policy;2)rapid development of transshipment;3) Rapid Development of High-end Shipping Service.

In order to take the advantage of proximity to Shanghai port, Shanghai pilot Free Trade Zone has implement a lot shipping services such as maritime arbitration, training and ship trade environment. As supporting the goal of building a complete maritime service industry cluster, other sectors such as shipping finance service, advanced logistics and supply chain services and ship management services shall also be considered to develop. Besides, the pilot zone has paid attention to develop services of other areas such as culture media area, high technology area.

From the researches and statistics data, it is clear that the pilot zone has put effort on providing efficient services. For customs process perspectives, the time for the whole process has shrank around 30 percent compare to last year and digital documentation system has been widely applied. Companies with high credit could benefit more in simplifying different approval process. Moreover, the pilot zone is not yet satisfied since every year hundreds of services innovation and changes have been implemented in finance, maritime and manufacture sectors inside the zone. The result could be proved in cost level, for logistics and maritime perspective, we find that the corporate logistic cost was lowered by about 10 % and the time spent on customs clearance for import was speed up by 41.3 % (Shanghai Municipal Development and Reform Commission, 2014).

3) Economy and trade development status

For financial and economic perspective, first of all, as the world saw the opportunities lies in Shanghai Pilot Free Trade Zone, foreign investors have been widely attracted. About 119.6 billion USD of foreign direct investment towards China occurred in 2014, more than any other countries, which showed an up 1.7% on a year-on-year basis (Li, 2016).

As the pilot Free Trade Zone was built, the ministries have applied the policy of using Negative List, which has specified the restricted and prohibited projects for investment. At beginning, there were around 190 projects on the list while after 5years, the latest Negative list which would be implemented in the end of July this year has only 95 projects remained. This means that investors would have more freedom in choosing investment area. In the latest Negative List, we have found that the pilot zone has release the permission of investing several areas such as

agricultural area, natural resources and telecommunication area.

According to the data from Shanghai Municipal Development and Reform Commission (2014), by the end of November 2014, there had been more than 22,000 firms invested in Shanghai Free Trade Zone, including 14,000 newly-established enterprises and 2,114 foreign enterprises; this number is 10.4 times more than that in 2013. Gladie Lui (2014) gave the reason of this phenomenon that the Free Trade Zone extends permission to wholly foreign-owned enterprises registered in the zone. With the growth of enterprises, Pilot Free Trade Zone will bring a great deal of change in this New Pilot Shanghai Zone, such as new type of labour relations (Wang, 2017).

The recent report of Shanghai pilot Free Trade Zone operation status has shown that up to now there are over 70,000 free trade bank accounts opened, over 50,000 companies registered. The Foreign investment inside the pilot has grew in a high pace since only 5% new registered companies were based on foreign investment at beginning while the percentage has increased to 20 by now.

Although both domestic and foreign investment has increased and met a good development status, the currency and foreign exchange system still works under dilemma. As one of the most attractive points for foreign investors, allowing trading in foreign currency directly could bring traders and investors great convenience and help them avoid risk from changes of currency exchange rate. However the national ministry of currency control has stopped this policy in 2016. In the meantime, investors also faced the risk from an incomplete leasing system. Though there are special policy and system related to trade and finance existed in the pilot zone, without perfect link and integration to national law and system, the trader and foreign investors could hardly gain benefit in these sectors.

Employment as one of the important indicator for evaluating the macro economy status has also shown the development of Shanghai pilot Free Trade Zone. The pilot zone was established in 2013 when large amount of graduates met trouble in finding jobs, thus, the appearance of the pilot had help providing career opportunities. Meanwhile, foreign talents have gain large benefit in working inside the pilot zone. Special ministry for foreigner employment issue had been established and working permit restrictions has been partly released inside the pilot zone. However, there is not clear data that shows the existence of Free Trade Zone has greatly contributed on increasing employment. Considering the pilot zone pays most attention in developing high value industry such as high technology or financial investment, highly educated or experienced talents instead of large numbers of simple labour would be the main demand in employment market.

For import and export volume issue, according to the data of Shanghai pilot Free Trade Zone, we have found that the total import and export value in January 2014,

the beginning of the first year after the pilot zone was established, was around 59.56 billion yuan with an increase month-on-month ratio of 2.4%. After two years, the total value of import and export in the first quarter of 2016 had reached around 172.29 billion yuan which achieved 2.1% increase. In this period, as lead by the pilot Free Trade Zone, the trade environment in Shanghai had met a peaceful recovery and even improvement. Data on the import and export structure had also shown the increase of trading high technology products, which was one of the aims of Free Trade Zone operation. The data from custom ministry later had shown that in 2016, the pilot Free Trade Zone has completed 783.68 billion yuan of import and export value in total, achieved a 5.9% increase compared to last year basis. This value accounted 27.3% of the import and export total value of Shanghai region in 2016 (SHFTZ Management council, 2018).

4.1.2 Conclusion Report

1) Political and Administrative environment development status

Table 14 Political and administrative environment of Shanghai pilot Free Trade Zone

	Policy quantity	Policy update frequency	Policy coverage	Policy effectiveness	Supervision effectiveness
SPFTZ	Over 200	High	Wide	Limited	Limited

Source: Own elaboration and data based on SHFTZ Official (2018)

2) Function and services provided status

Table 15 Function and service status of Shanghai pilot Free Trade Zone

	Through put	Functions coverage	Service efficiency	Service innovation	Port integration level	Logistics integration level
SPFTZ	Increase	Purposeful	Improving	Increasing	High	High

Source: Own elaboration and data based on SHFTZ Official (2018)

3) Economy and trade development status

Table 16 Economy and trade development status of Shanghai pilot Free Trade Zone

	Foreign investment scale	Foreign Investment growth rate	Currency/ exchange status	Employment scale	growth rate	Import export value
FTZ	Actual using 20.21 billion dollars 27328 Foreign projects	Medium	Dilemma	Increase	Low	783.68 billion yuan

Source: Own elaboration and data based on Shanghai Pudong District (2018), SHFTZ Official (2018) and SHFTZ. Management council (2018)

In general, the Shanghai pilot Free Trade Zone as a national project has brought lot benefits and it is obvious that both national government and the local government have put huge effort on developing the zone by passing great amount of laws and policies. This phenomenon can be considered as a method for enhancing Free Trade Zone software as trade liberalization, institutional support and globalization (Wan et al., 2014). Since the government consider the establishment of Shanghai pilot Free Trade Zone as an important step of Shanghai becoming the international shipping centre and financial centre, the zone has obtained a high level of legal autonomy (Wan et al., 2014). While facing difficulties in policy implementation and supervision, related institutions and government has continually put out modifications, improvement according to the problems happened in daily operation of Shanghai pilot Free Trade Zone.

Shanghai pilot Free Trade Zone attaches great importance to develop its functions and services, especially in maritime and logistics sectors with the aligned goal of building shanghai as the new international shipping centre in Asia region. The pilot zone considers providing highly efficient services as method to attract customers and investors. Innovations in different sectors appear every year, which has shown that the pilot zone trying to transfer from providing basic services to providing high technology and high value services and products. Considering the location of Shanghai pilot Free Trade Zone and the fact that two areas inside the zone are located in port area, the integration between pilot zone and port is one important project. The data and facts have proved the high level of integration.

The establishment of Shanghai pilot Free Trade Zone has attracted foreign investment but the growth rate is still under improvement. As some policies and systems relate to currency, trade and finance issue has met troubles in operating and integrating with local and national laws and supervision system, investors and

traders might gain less benefit as supposed and risks do exist. The pilot zone has brought influence to regional employment status while more to the employment structure instead of employment amount. More job opportunities have been provided to educated talents. Export and import volume of the two main ports of Shanghai has experienced peaceful increase within these years with the support of Free Trade Zone pilot.

4.2 Period 2

4.2.1 Case 1 Guangdong pilot Free Trade Zone

Guangdong province as one of the most developed areas in China, has achieved huge success in economy, trade and other sectors during these years. According to the government report, the GDP of Guangdong province in 2017 has reached 8.99 trillion yuan, ranked top in China. The import and export volume of Guangdong has reached over 6 trillion yuan, accounted for 27.5 percent of total national volume. Over this 29 years Guangdong province has act as the top economy in the country with an average 7.9 percent f increase rate in GDP. Considering the location of the province and its economic strength, establishing pilot Free Tarde Zone here seems quite reasonable (NBS, 2018).

The project of establishing pilot Free Trade Zones in Guangdong was approved in the end of 2014. The pilot zone was designed to cover three areas based on the location and function designing. Three areas are all located in coastal area inside the Pearl River Delta Area: Nansha Area of Guangzhou, Qianhai and Shekou Area of Shenzhen and Hengqin Area of Zhuhai. The total area size of this pilot Free Trade Zone is around 116.2 km². Each area of the pilot zone has its own main function and development focus. The Nansha Area of Guangzhou would focus on developing in shipping logistics, international trade and high technology manufacturing industries and so on; the Qianhai and Shekou Area of Shenzhen would mainly focus on providing services in sectors such as finance, modern logistics and information technology. These two areas tend to put more effort on logistics, shipping, finance and trade sectors while the Hengqin Area of Zhuhai would focus on developing tourism and cultural services. According to develop strategy, it is clear that this pilot Free Trade Zone is designed to be the crucial hub functioning in both national Free Trade Zone strategy and the One Road One Belt strategy while connecting and collaborating Hong Kong and Macao within the Pearl River Delta Area (GDFTZ, 2018).

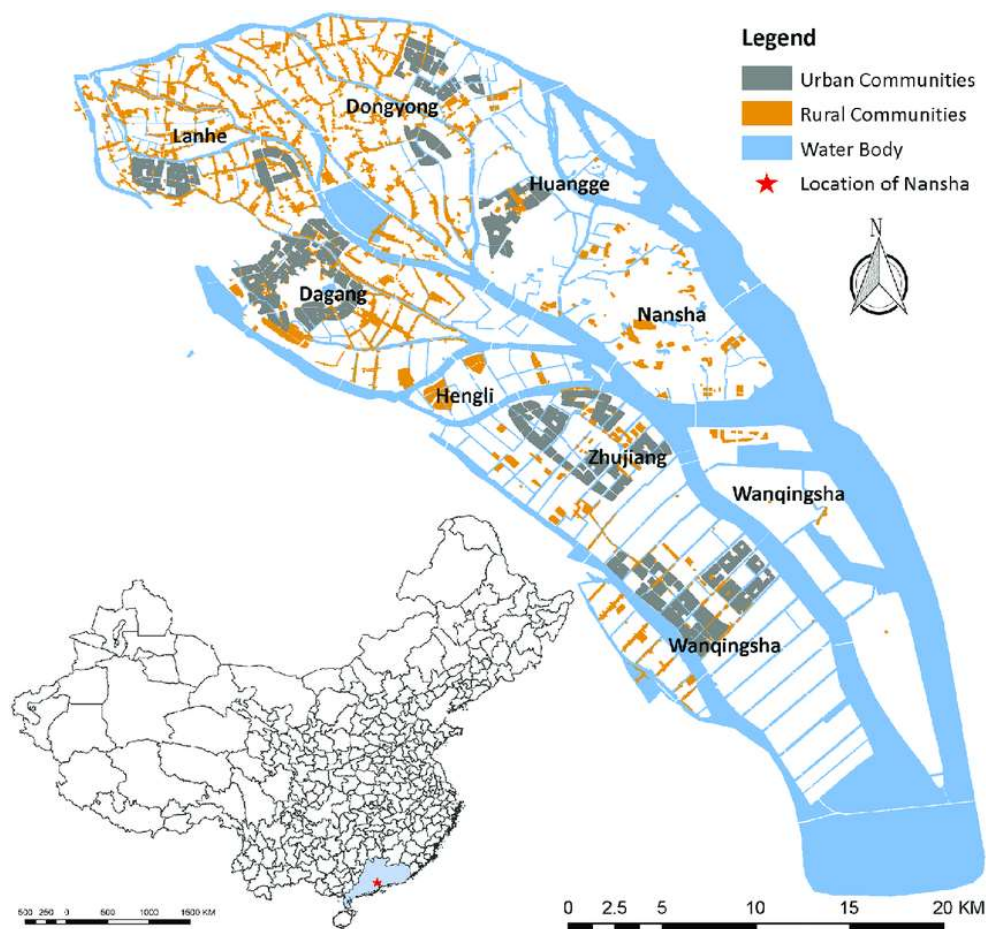


Figure 5 Guangdong pilot Free Trade Zone areas

Source: Song, Huang and Li (2018)

Based on data from official ministration of Guangdong pilot Free Trade Zone and other trustworthy resources, we analyse the case as below following our structure.

Aspects:

1) Political and Administrative environment development status

There are around 150 different policies has been passed for issues related to the Guangzhou pilot Free Trade Zone (GDFTZ, 2018). Except for part of the policies are applied for several pilot Free Trade Zones in China together such as the Negative List policy, there are also lots of policies that are designed for the Guangdong pilot Free Trade Zone. Similar to Shanghai pilot Free Trade Zone, related ministries of the national and the province have all participated in the policy promotion. The pilot zone has quite high frequency of policy update. There would be several new or revised policies that affect different sectors almost at the beginning of every season in a year. This has shown that the government regularly check the political and administrative

environment status inside the pilot zone.

For the policy coverage issue, we found that the policies functioning in the pilot zone have been put into five catalogues: General policy, investment policy, trade policy, financial policy and fiscal tax policy. Most policies were passed for economic issue which shows that the pilot zone might be built more into obtaining economic profit and benefits. Besides, the pilot zone has also tried to integrate the policy system related to finance trade and service industry with Hong Kong and Macau areas. This is also one of the main developing points for the pilot zone in the future since plans have been made to enhance the trade scale and liberalization level under the political structure of 'One country and Two system' and Closer Economic Partnership Arrangement.

Regarding to the actual application of the political and administrative system, the first general plan of structure the Guangdong pilot Free Trade Zone formulated different policy strategy for each area inside the pilot zone as some preferential policies would not apply to all the areas as well as the supervision system. The investors and companies could choose the rightful area for operating their business according to their demand for policy and supervision status. (Pwc, 2015) Among the three year after the pilot zone was built, around 400 policy and system innovations and revise have appeared.

While the latest deepen revolution and opening program has listed several policy and administrative changes that would be applied from this year such as the new financial general supervision system which would be launched in Qianhai and Shekou area.

2) Function and services provided status

According to the function overview of each area inside the pilot zone and the latest strategy concept of 'Guangdong, Hong Kong and Macau Bay Area' brought in 2017, Guangdong has been putting effort on building international shipping hub and international trade centre. The report from Guangzhou Customs has shown that over these three years, the pilot zone has achieved around 1 billion tons of cargo throughputs supported by the rapidly development of maritime industry (Guangzhou customs, 2018).

Since the three areas inside the Guangdong pilot Free Trade Zone are all located in port area and two of them mainly focus on developing logistics and maritime sectors, the function of the pilot zone has covered most logistics and shipping services demand and specific service divide have been provided. New services such as multimodal transportation service, special trade service with Hong Kong and Macau and international cruise project has appeared correspond to the demand from investors and customers.

As an important method for attracting investors and customers, providing highly efficient services is one essential part of the development strategy of the pilot zone. Take custom service as example, during the three years of operation, the customs of each area has processed to achieve paperless clearance according to the destination and several terminals are able to work 24 hours in specific operations. Meanwhile for trade issue, the pilot zone has provided special operation and supervision system for cross border e-commerce business; with the convenience in custom clearance, cargo transportation and well insured investment environment, lots of e-commerce companies have been attracted to build their business inside the zone. While putting effort on providing efficient services, the pilot zone also value the impact of service innovation. More than 140 innovations for different services inside the zone have been put out these years, tested by the areas and save important experiences to the pilot zone and even other Free Trade Zones around China.

From the most information resources we have found that Guangdong pilot Free Trade zone attaches great importance to port and logistics integration. Services innovations, infrastructure renewal and development, special supervision system and other project have help the pilot obtain high integration level. Now with multimodal innovation service, companies could save 25 percent of logistics time and 30 percent of logistics cost for transporting cargoes between Qianhai area and Hong Kong (China news, 2018).

3) Economy and trade development status

According to the data from institute of Free Trade Zone in Sun Yat-Sen University, up to October of 2017, more than 8800 foreign companies have been invested to operate inside the pilot zone with an investment amount of 12 billion dollars. For Nansha area, over 300 new foreign companies has appeared around year 2017, whether the numbers of new company or the amount of foreign investment value have all met a rapid increase. The actual foreign investment value for this area has increased 66.8 percent. High quality investment projects focus on shipping, technology and other innovation industries were popular. For other two areas, foreign investments mainly come from Hong Kong and Macau.

However for currency and exchange status, same as Shanghai pilot Free Trade Zone, the policy of allowing trade in foreign currency under special condition was stopped. Thus, the main currency used in the pilot zone is Renminbi. The data has shown that about 85 percent of the currency income and expenditure happened inside the pilot zone are with Renminbi. While in the beginning of 2018, new documents related to foreign currency have come out which shows this issue is still under heavy restriction. Innovations such as “NRA” account which can be applied specially for business running in foreign currency might help lose the restrictions and give foreign investors more opportunities (GDFTZ, 2018).

Another important indicator for evaluating the economy status of the pilot zone is the employment. The general development strategy of the pilot zone this year has mentioned the planned employment scale is around 890,000 of people (Guangzhou Daily, 2017). However there is no evident report that shows a rapid increase of employment has appeared since the establishment of the zone. Different kinds of financial subsidy and living subsidy are provided to the employees and companies inside the zone. Talents training projects are also arranged for helping companies improve the employee ability. Clearly the pilot zone attach importance to attract improve the employment condition and the quality.

Regarding to the import and export value, Guangdong pilot Free Trade Zone has achieved yearly value of around 989.8 billion yuan in 2017 with an increase of 4.81% compare to year 2016. Clearly, the pilot Free Trade Zone in Guangdong has achieved higher import and export value and higher increase rate compare to pilot zone in Shanghai. The impact of the pilot zone has also helped the regional import and export value increase (GDFTZ, 2018).

4.2.2 Case 2 Fujian pilot Free Trade Zone

Located in south east coastal area of China, Fujian province has huge potential and advantages to gain more benefits and profit in economic and logistics sectors. While due to geographical and population reason, compare to neighbour provinces such as Guangdong and Zhejiang, Fujian province gains less achievement in GDP value and other indicators. According to the statistics report of national economic and social development in Fujian province provided by national bureau of statistics of China, Fujian province has achieved GDP value of 3.23 trillion yuan in year 2017 with an 8.1% increase compared to year 2016. And the Fujian's GDP per capita in 2017 has reached 82,976 yuan, nearly the average level of east China (NBS, 2018). Highly developed transportation system, industrial connection with Pearl River delta area and Yangtze River delta area have brought Fujian province the advantage of providing the pilot Free Trade Zone convenience and benefit in operation. Establishing pilot Free Trade Zone in Fujian would not only serve the One Road One Belt strategy, but also help connecting and cooperating with Taiwan province (FJFTZ, 2018).

The pilot zone covers three areas inside Fujian province. Fuzhou area, located in the coastal area of the capital city, would mainly focus on developing advanced manufacture industry and support the One Road One Belt strategy and trade with Taiwan province. Xiamen area would mainly focus on developing shipping centre of south east region and support the finance and trade service between main land China and Taiwan province. Pingtan area would mainly focus on providing investment convenience and building tourism industry. The total area size of Fujian

pilot Free Trade Zone is around 118 km², close to the size of Guangdong pilot Free Trade Zone (FJFTZ, 2018).



Figure 6 Fujian pilot Free Trade Zone Areas

Source: HKTDC Research (2017)

Based on data from official ministration of Guangdong pilot Free Trade Zone and other trustworthy resources, we analyse the case as below following our structure.

1) Political/Administrative environment development status

Based on the record and catalogue of passes policies shown on official site of Fujian pilot Free Trade Zone, we have found that around 160 policies related to different sectors inside the zone. Nearly every month would there be several new policies or adjustment documents whether from the national ministries or local governments or other related institutions (FJFTZ, 2018).

While for the function coverage issue, besides the basic policies for providing investment, trade and financial convenience, the pilot zone has also attached importance to government functional conversion and talents introduction. With great amount of innovations in developing administrative environment with higher freedom level, new policies have helped the pilot zone achieve high efficiency in operation. The needed documents number for the approval process of investment project in the pilot zone has been cut down to 20 and the process time has shrunk 75 percent due to the impact of these policies and new rules (Xinhuanet, 2018).

As the pilot zone is continually decentralizing the management rights, though has

brought huge convenience to investors and companies, the supervision might meet some difficulties. Therefore, policies and rules especially for supervision in different specific industries have appeared in the pilot zone. Thus the pilot zone is able to keep a steady operation status.

2) Free Trade Zones function and services provided status

According to the data from ministries of the pilot Free Trade Zone, several areas inside the zone have achieved rapid increase in import and export volume. The inspection and quarantine bureau of Haicang port inside the Xiamen area indicated that the port has achieved 7533,600 throughputs of standard containers in year 2017 with an increase rate of 19% compare to year 2016 (FJFTZ, 2018). Haicang port as an important part of the south east shipping centre has met huge growth and development; the total cargo of this area has reached 9, 94 million ton in the first month of 2018 with an increase rate of 27% compare to last year. Similar situation also happened to ports in Fuzhou area, where they has achieved high increase in both cargo and container throughput.

While for the function and the service provided of the pilot zone, we found that most area would mainly cover the basic services and necessary function. However, lacking of providing value-added services still exist inside the pilot zone, especially in logistics and finance sectors. Apparently, the pilot zone is trying to improve with quite amount of service innovations. New enterprise credit guarantee system which cooperates with customs has appeared in Fuzhou area; supporting service system for e-commerce business based on the infrastructure and special supervision system has attracted international e-commerce companies and promoted the development of the pilot zone.

Since Fujian province owns high quality of shipping resources and developing shipping and logistics industries is one of the main goal of the pilot zone, the ministries has put effort on integrations and met some good results. The first fully automatic terminal in China was built inside Haicang port of Fujian pilot Free Trade Zone. Efficient infrastructures and sufficient support services system has helped cut down the time cost and logistics cost. Ports clusters inside the pilot zone have gained competitiveness through integration process. While in the meantime, the integration of logistics sectors has met some delay. For logistics related services and business, the pilot zone is still mainly working on the basic level such as providing transportation of cargoes. Service and function innovations related to logistics are mainly focus on simplify the process instead of value added services.

3) Economy and trade development status

According to the data from business administration of Fujian province, over 3100 foreign companies have invested and registered in the pilot zone, including companies from Taiwan. In the first two years, the pilot zone has experienced

increase rate of around 140% in foreign investment scale development. After year 2016, the increase rate has dropped down to around 70% (FJFTZ, 2018). Thus the development pace might keep slowing down in the future. As for the currency status, Renminbi still stand the main position, the national foreign exchange bureau has recently passed the documents of foreign exchange management reform which would loosen the restriction. There is no evident resource to show whether the establishment of the pilot zone has helped stimulate the employment scale. However there exists lot of policies and documents that aim at attracting and keeping talents to work in the zone, especially toward talents from Taiwan province. The ministries consider it a good chance to deepen the connection with Taiwan.

For international trade perspective, the import and export value of the pilot zone in year 2017 has reached 192.93 billion yuan, with an increase rate of 31.5% compare to year 2016. The pilot zone has stimulated the pace of import and export development in Fujian province. However, areas inside the pilot zone have met different developing pace as the data from Fuzhou customs has shown that the import and export value has decreased by over 15% in Fuzhou area while increased by 120% in Pingtan area for the first four months in year 201 (FJFTZ, 2018).

4.2.3 Conclusion Report

1) Political/Administrative environment development status

Table 17 Political and administrative environment development status of Free Trade Zone in period

	Policy quantity	Policy update frequency	Policy coverage	Policy effectiveness	Supervision effectiveness
FTZ 1	About 150	Seasonal	Focus	Unbalanced	Improving
FTZ 2	About 160	Monthly	Wide and specific	High	Stable

Source: Own elaboration and data based on GDFTZ (2018), FJFTZ (2018) and Xinhua net (2018)

2) Free Trade Zones function and services provided status

Table 18 Function and service provided status of Free Trade Zones in period2

	Through put	Functions coverage	Service efficiency	Service innovation	Port integration level	Logistics integration level

FTZ 1	Rapidly improved	Focus and specific	High	More than 140	High	High
FTZ 2	Rapidly improved	Basic	High	About 160	High	Medium

Source: Own elaboration and data based on Guangzhou customs (2018) and FJFTZ (2018)

3) Economy and trade development status

Table 19 Economy and trade development status of Free Trade Zones in period 2

	Foreign investment scale	Foreign Investment growth rate	Currency exchange status	Employment scale	growth rate	Import/export value
FTZ1	Actual 12billion dollars 8800 foreign companies	28.52% high	Mainly in Yuan	890,000 of employees	Low	989,8 billion yuan
FTZ 2	Over 3100 foreign companies	High	Similar as others	Stable	Low	192.93 Billion yuan

Source: Own elaboration and data based on Institute of Free Trade Zone in Sun Yat-Sen University (2018), GDFTZ (2018), Guangzhou Daily (2017) and FJFTZ (2018)

From the content before we can see that in this period, Free Trade Zones are established in areas where own great location advantages.

The political and administrative environment is developed well and has share part with other Free Trade Zones. The national ministries, local government and related organizations have all contributed to form the environment by frequently updating policies and providing needed supervision. Many policy innovations and reforms have been applied to other Free Trade Zones. Shortcomings exist in policy coverage, effectiveness and the supervision system.

Both pilot Free Trade Zones have met rapid improvement in throughput volume, especially in the sea port area. Though there are gaps among the ability of

functioning and providing services of each areas, data and report have confirmed the high service efficiency inside these pilot zones. In this period, the pilot zones are actively pushing innovations in service and functions. Innovations and reforms such as “single Window system” and “One Net supervision system” have brought great convenience to investors and companies and improved the pilot zone efficiency. The pilot zones established in this period are all located in coastal area, thus, integration of pilot zones with the sea port and logistics sectors become significant. The integration level of pilot zones from this period is quite high. Both pilot zones have achieved higher efficiency in shipping services and lower logistics cost. Value added services such as vessel consult have also contributed to the integration process.

For economy and trade development perspective, the pilot zones have met boom of increase of foreign investment, especially Fujian pilot zone. However, the growth rate of foreign investment scale is becoming lower. As the heavy currency restriction still applies to the Free Trade Zones, investors and companies have met difficulties in trading in foreign currency inside the zone. New policies and experimental documents have come out to find the best way for improving the trade and investment environment.

The pilot zones didn't bring huge impact to the local employment scale. As the policies and strategies of the pilot zones towards employment tend to improve the employment structure, thus, attracting and introducing high level talents become more important.

All three pilot Free Trade Zones established in this period are located in coastal areas, supporting the national strategy of connecting and cooperating with nearby areas. The Guangdong pilot Free Trade Zone is designed to connect the Hong Kong and Macau and the Fujian pilot Free Trade Zone is designed to connect Taiwan. Apparently, the pilots have attached great importance to this task by applying special policies and rules, providing convenience in investing, trading and talents treat. Areas like Hong Kong have brought large amount of investment to the pilot zone. The connections and cooperation have helped strengthen the communications among the mainland and Hong Kong, Macau and Taiwan, whether in trade, investment or culture.

However, the problems exist. Unbalanced developments in different sectors have appeared. Both pilot zones have met difficulties in integrating the operation system and political system with areas like Hong Kong and Taiwan. The unclear function divide of areas inside the zone might cause unnecessary competition and resource integration trouble. Meanwhile, since the economy scale of each pilot zone and their belonging provinces differs a lot, each pilot zone might need special and specific development instruction instead of applying the same experience worked for Shanghai pilot zone or other zones.

4.3 Period 3

4.3.1 Case 1 Zhejiang pilot Free Trade Zone

Zhejiang province has one of the biggest regional economies in China. Different from other provinces, Zhejiang owns a high proportion of private economy account. Ever since China started to reform its economic system in 1978, Zhejiang province has shown its strength in developing private sector. Nowadays, Zhejiang province ranks top five in province level GDP contribute in China. With location advantage of near the East Sea and huge trade and business potential, Zhejiang as one of the main export bases, account about 12.8% of the total export in China (HKTDC, 2018). Meanwhile, Zhejiang province has received large amount of foreign investment mainly from Hong Kong, Japan and Europe.

The pilot Free Trade Zone is located in Zhoushan Island including three areas: the offshore island area, north area and south area. Unlike pilot zones in other province that develop areas in several cities, areas in Zhejiang pilot Free Trade Zone are all developed around Ningbo-Zhoushan port and near Shanghai Yangshan port area. According to the official definition of the functions of each area, the offshore island area would mainly develop oil fuel trade, transport and storage; the north area would focus on developing oil and other commodity trade and providing supporting logistics and manufacture services; the south area would focus on developing aviation industry, tourism, trade and finance in shipping. The total area size is about 119.95 km² (ZSFTZ, 2018).



Figure 7 Zhejiang pilot Free Trade Zone

Source: Own elaboration and data based on ZSFTZ (2018)

Based on data from official ministration of Guangdong pilot Free Trade Zone and other trustworthy resources, we analyse the case as below following our structure.

1) Political/Administrative environment development status

According to the official data and report of Zhejiang pilot Free Trade Zone, among Free Trade Zones of the third period, Zhejiang pilot zone is the first one that has gained support from local policies. In addition, there are more than 290 supporting policies and documents from 18 related ministries providing legal and political help to the pilot zone (ZSFTZ, 2018). The policy update happens nearly every season.

Considering the functional positioning of the pilot zone, clearly developing oil trade scale and supporting shipping and transport are the main targets of establishing the zone. Thus, most of the policies passed are designed for supporting in these sectors, especially oil and commodity trade and investment and transport. The policy coverage is not as wide as pilot zones from last two periods.

The People's government of Zhejiang province and the national bureau of statistics have also issued the yearly report of the pilot zone development status, which has pointed that the policy effectiveness and supervision system still need improvement. The fact that there are different ministries involved in the policy

process and supervision system has brought troubles in carrying out the policies and supervision. Meanwhile, heavy restrictions on trading sectors have slowed down the development of Zhejiang pilot zone.

2) Free Trade Zones function and services provided status

Zhejiang pilot Free Trade Zone officially started its operation in April 1st 2017. During the first year, the pilot zone has functioned mainly in supporting oil trade commodity trade and achieved 149.86 million tons of total cargo throughputs. In order to form the international oil trade and transport base inside the pilot zone, the pilot zone has absorbed over 110 experience and case application from Free Trade Zone operation of former periods. Special service system designed for oil trade related to domestic transshipment and new trade models have improved the efficiency and trade scale (ZSFTZ, 2018).

The pilot zone also put huge effort on service and function innovations. Over the first year, the pilot zone has applied 40 reforms or innovations in different sector (ZSFTZ, 2018). The “One Visit Only” reform trend started in the end of 2016 has brought impact on the pilot zone service providing as nowadays over 97% of the service procedures can be complete in only one visit to the service window. Other innovations such as the “single window” system have helped integrate the information resources among different ministries. With these methods, companies and investors would be able to cut down a great amount of cost. As a result, investors and customers coming for the oil service have met 100% of increase (Institute of Free Trade Zone in Sun Yat-Sen University, 2018).

Regarding to the integration of sea port and logistics sector, the pilot zone has performed well and planned to go further. The pilot zone is located in one of the top 3 port clusters in the world. The establishments of international oil trading centre, international oil storage and transport centre, international petrochemical centre and international shipping service centre shall help form the cluster of oil and commodity trade in the pilot zone. World class shipping companies and societies such as DNV GL have opened their branches inside the pilot zone (Institute of Free Trade Zone in Sun Yat-Sen University, 2018).

3) Economy and trade development status

The report from the People’s government of Zhejiang province and the national bureau of statistics has shown that over the first year of operation, the pilot zone has attracted around 9000 companies to invest inside the zone including 93 foreign companies. The foreign investment scale has reached 0.42 billion dollars. Statistic report from the pilot zone has mentioned that the import and export value for year 2017 is 23.83 billion yuan in total including 23.13 billion yuan come from oil trade (NBS, 2018) (The people 's government of Zhejiang province, 2018).

Considering the high demand of oil product in China and international oil trade model of combining storage and selling, the pilot zone has focused on providing professional trade environment and attracting foreign investment in oil and commodity industry chain. In March 2018, the pilot zone has signed the agreements of cooperating with Shanghai Futures Exchange who would later support the pilot zone in building the international oil trade market system.

For currency and financial status, since the pilot zones now focus on promoting trading in Renminbi, financial organizations and associations has gathered inside the zone. During year 2017, the cross border trade scale in Renminbi has reached 3.965 billion yuan (Zhoushan Statistics bureau, 2018).

Regarding to the employment issue of the pilot zone, there is not evident source that shows the impact to the total employment scale. Similar as other pilot zones, attracting worldwide high level talents is main strategy for improving employment structure in this period.

4.3.2 Case 2 Liaoning pilot Free Trade Zone

The Liaoning pilot Free Trade Zone is another coastal pilot zone that has been established in this period besides Zhejiang pilot zone. Unlike Zhejiang province, Liaoning province, as one of the three north east provinces that mainly developing heavy industry such as mining and machinery has met troubles in recovering its economy. As fact, this province has met huge decline in the economic performance these years. The GDP in Liaoning province has fallen by nearly 20 percent for year 2017 compare to year 2016, the possible of involving inflated data might even lead to worse result. In addition, private sector and high Technology industry development in Liaoning province are below the national level. Under this circumstance, the establishment of the pilot Free Trade Zone might be a great chance.

The Liaoning Pilot Free Trade Zone has covered three areas, the Shenyang area, Yinkou area and Dalian area. Shenyang as the capital city of Liaoning province and the core city of this economic region, owns advantages like wide hinterland, complete transport infrastructures. Shenyang area of the pilot zone is located in the south of the city, aims at developing high technology and manufacture industry and modern service in finance and logistics sectors. Yinkou area, located in the North West area of the Liaoning province, owns the top ten sea ports in China and high level of multimodal transportation ability. Inside this area, five different function blocks exist and would focus on five industries: advanced equipment manufacture industry, trade and logistics industry, financial industry, high technology industry and tourism industry. The main area of this pilot zone is the Dalian jinpu new area, which account for half the total size of the pilot zone. This area has covered over 70 percent of the cross border trade cargo sea transport and over 90 percent of cross border trade

container transport in the northeast part of China. Dalian area would mainly focus on developing shipping logistics, finance trade, shipping service and cycle economy (LNFTZ, 2018).

The Liaoning pilot Free Trade Zone also has the function of supporting the One Belt One Road strategy especially in multimodal transportation sector. Besides, establishing the pilot has also been considered as a solution to revitalize the economy of industrial provinces in northeast China.

Based on data from official ministration of Guangdong pilot Free Trade Zone and other trustworthy resources, we analyse the case as below following our structure.

1) Political and Administrative environment development status

According to the 11th brief report of the Liaoning pilot zone that during the first year of operation, 124 supportive policies from national ministries, regional government department have been passed and functioned. While checking the policy update frequency, we found that the inside the pilot zone, the new policies are published seasonally. As the data of both policy amount and the update frequency have not reached a high level, the policy coverage in the pilot zone is still shallow and specific instruction is needed. Most policies that are applied at this moment focus on processing system reform and improvement and providing financial service and shipping services. The operation system in trading and other sectors has been improved due to the application of those policies, meanwhile the pilot zone has completed over 75 percent of the operation tasks in the general plan (LNFTZ Report, 2018).

For supervision effectiveness issue, related ministries such as the customs and the maritime bureau have actively approached to high level supervision system by collaborating and building the digital supervision net.

2) Function and services provided status

According to the annual report from information office of Liaoning provincial people's government, the Liaoning pilot Free Trade Zone has completed over 362 million tons of cargo throughputs in year 2017. During the first year of operation, the pilot zone has provided service and convenience in several sectors, especially in logistics, finance and trade. In order to attract more investors and companies to build their business, the pilot zone has launch series of measures for trade and investment facilitation. Companies or investors with higher than 10 million dollars of investment could receive registration service free of charge in Shenyang area; Yinkou area has launched new approval process system which cut down the time need for companies obtain necessary certificates from 50 days to 2 days. The series of measures had also brought companies opportunity to cut down their transportation and time cost. Mining companies inside the Dalian area has achieved profits of 98.4 million yuan

within 10 months due to the pilot zone system reform. The yearly national assessment of Free Trade Zones in China has shown that Liaoning accomplished all the requirements and ranked second place for the general service cover rates compare to other provinces. The custom clearance time in the pilot zone has shortened for 49% with the supportive service (Information office of Liaoning provincial people's government, 2018).

Under the supervision of ministry of commerce and third party consolidations, the pilot zone has formed 29 service innovations in year 2017. These innovations have covered the areas such as government functions transformation, invest and trade facilitation, financial innovations and more.

As the Dalian area and Yinkou area are mainly designed to develop logistics and shipping sectors, the pilot zone has put the integration in quite important position. For Yinkou port inside the pilot zone, with the support of wide hinterland and the launch of cross border e-commerce platform, the multimodal transportation and CHINA RAILWAY Express scale have both increased. The total sea-rail combined transportation scale of Yinkou area has ranked the first place in the whole country. While regarding the logistics integration level, the pilot zone is still at medium level. There is no evident record show the improvement of logistics integration. But clear the integration level would improve in the future as the related ministries has approved the launch of international express centre, Huahai logistics base and central commercial area inside the Yinkou. Meanwhile, commercial projects linked to international trade have been signed to bring opportunities to logistics development. In July 2018, the pilot zone has officially joined the world Free Zones Organization. Further cooperation in international shipping, logistics and cross border trade with other Free Trade Zones in the world would later benefit the Liaoning pilot zone.

3) Economy and trade development status

Regarding to the economy and trade development status, we found that in 2017, the Liaoning pilot zone has attracted 274 foreign companies build their business inside the zone and the actual used foreign investment has reached 14.96 million dollars. In order to gain more foreign investment and improve the actual capital using status of foreign companies inside the zone, the foreign exchange administration of Liaoning province has approved experimental implementing regulations. This regulation has lowered the standard for international companies operating capital in foreign currency and allowed the using of NRA account.

The establishment of the pilot zone would also bring Liaoning province plenty of job opportunities. Projects inside the zone could create at least 50,000 jobs especially for talents major in international trade, logistics and finance.

For import and export value of year 2017, the Dalian area has achieved around 83.5 billion yuan, account for 98% of the total value of the pilot zone (Information

office of Liaoning provincial people's government, 2018).

4.3.3 Conclusion report

Aspects:

1) Political/Administrative environment development status

Table 20 Political and administrative environment status of Free Trade Zones in period 3

	Policy quantity	Policy update frequency	Policy coverage	Policy effectiveness	Supervision effectiveness
FTZ 1	More than 290	Seasonal	Focus	Need improve	Need improve
FTZ 2	124	Seasonal	Shallow	Need improve	Actively improving

Source: Own elaboration and data based on ZSFTZ (2018), LNFTZ (2018) and LNFTZ Report (2018)

2) Free Trade Zones function and services provided status

Table 21 Function and service status of Free Trade Zones in period 3

	Through put	Functions coverage	Service efficiency	Service innovation	Port integration level	Logistics integration level
FTZ 1	149.86 million ton	Focus	High	40	High	High
FTZ 2	362 million ton	Focus	High	29	High	Medium

Source: Own elaboration and data based on Institute of Free Trade Zone in Sun Yat-Sen University (2018), ZSFTZ (2018), Information office of Liaoning provincial people's government (2018)

3) Economy and trade development status

Since the pilot zones of this period have just been operated for one year, we would not include the growth rate in this part of case study.

Table 22 Economy and trade development status of Free Trade Zones in period

3

	Foreign investment scale	Currency/exchange status	Employment	Import/export value
FTZ1	93 Foreign companies Actual using 0.42 billion dollars	Cross border trade in Renminbi: 3.97 billion yuan	Stable	33.9 billion yuan
FTZ 2	274 Foreign companies Actual using 14.96 million dollars	Processing to liberalize the using of foreign currency	Providing great amount of employment chances.	84.6 billion yuan

Source: Own elaboration and data based on NBS (2018), ZSFTZ (2018) and Zhoushan Statistics bureau (2018), Information office of Liaoning provincial people's government (2018)

In this period, seven new Free Trade Zones located whether in inland provinces or coastal provinces have started their operation. From the analysis and other data information, the Free Trade Zones established in this period usually have own operation focus such as the Zhejiang pilot zone would focus on developing oil and commodity trade sector.

Comparing the two example Free Trade Zones we analyze in this period, for political and administrative environment status, Zhejiang pilot zone has built a thorough policy system with specific policies needed for their development strategy while Liaoning pilot zone has been supported by less policies and the system still focus on the basic services of Free Trade Zone. But both pilot zones are in need of improving the policy effectiveness and supervision effectiveness. As each pilot zone has different developing focus and economic strength background, pilot zone in Zhejiang would try to build beneficial political environment for developing its oil and commodity trade while pilot in Liaoning would focus on applying those supportive policies to revitalize the regional economy. Starting in a lower level, Liaoning pilot zone are actively doing improvements.

Regarding to Free Trade Zone function and service provided status. Both pilot zones have made achievement. While in this part Liaoning pilot has reached higher throughput volume. This can be explained that the Zhejiang pilot zone focus on transporting oil product and commodity while the Liaoning pilot zone on all kinds of cargo. Based on the development strategy, the pilot zones in this period would

mainly provide services and function in focus sectors. For Zhejiang pilot zone that is the convenient and benefit process for oil product transport and storage and for Liaoning pilot zone that is simplified investing and operating procedure for business inside the zone. Both pilot zone has high level of service efficiency and put effort to service innovations. Since the development strategy of the two pilot zones are linked to sea port as the Zhejiang pilot zone aim at building the oil trade and transport cluster and the Liaoning pilot zone attach importance to develop the CHINA RAILWAY Express in multimodal transportation. Both pilot zones have achieved high level of integration with the sea port. While due to the processing construction of logistics assets and related project, the logistics integration level for Liaoning pilot zone would be lower at this moment. While the pilot zone and related ministries have actively made future plan and tried to pushing forward the construction schedule. We shall see the result in coming years. In the meantime, pilot zones in this period have built connection with international associations which would bring opportunities obtaining international resources with high quality.

While analysing the economy and trade development status, Liaoning pilot zone has met more foreign companies placing their investment in year 2017 while Zhejiang pilot zone has obtained higher amount of actual used foreign investment value. Apparently Liaoning pilot zone has found the problem and placed series of measures and new regulations liberalizing the using of foreign currency and simplifying the procedure for international companies to running business in both Renminbi and foreign currency in order to encourage international companies inside the pilot zone increasing the capital using. Meanwhile, Zhejiang pilot zone focus on encouraging trading in Renminbi as a solution to the strict registration of using foreign currency directly running business in China.

For macroeconomic perspective, the establishment of Free Trade Zones in this period would help several provinces who have poor economic performance chances to improve. The Liaoning pilot zone has brought great amount of job opportunities, high amount of trade profit and cost cutting for companies to Liaoning province. While for provinces such as Zhejiang, who has continually keep high position in Chinese economy, has gained chance to improve its economic structure. The Liaoning pilot zone has achieved higher import and export value than Zhejiang pilot zone in year 2017.

In general, Free Trade Zones from this period have more specific develop focus and they are also established for the aim of encouraging and improving economy in less developed area. Most of the Free Trade Zones in this period have the mission of supporting the One Belt One Road strategy, such as Liaoning pilot zone and some of the Free Trade Zones would also cooperate with Free Trade Zones from former periods, such as Zhejiang pilot zone with Shanghai pilot zone.

4.4 Comparisons and connection

While making the comparisons among these three periods, since the Free Trade Zones established in each period might have different levels of economy base, we would focus more on the development status.

For comparisons among Free Trade Zones from three periods, we build the analysis based on the conclusion table as below:

Aspects:

1) Political/Administrative environment development status

Table 23 Political and administrative environment status of all three periods

	Policy quantity	Policy coverage	Policy effectiveness	Supervision effectiveness
Period 1	Over 200	Wide	Limited	Limited
Period 2	Around 150	Wide or focus	Depends	Limited
Period 3	Depends	Focus	Limited	Limited

Source: Own elaboration

2) Free Trade Zones function and services provided status

Table 24 Function and service status of all three periods

	Throughput	Function coverage	Service innovation	Port integration	Logistics integration
Period 1	Improved	Wide	Over 100	High	High
Period 2	Improved	Depends	Over 100	High	Depends
Period 3	Improved	Focus	Over 20	High	Depends

Source: Own elaboration

3) Economy and trade development status

Table 25 Economy and trade development status of all three periods

	Foreign investment scale	Currency/exchange status	Employment	Import and export scale	GDP
Period 1	High; Grow slower	Liberalizing restriction	Improve structure	Increase	Stably increasing
Period 2	High; Grow slower	encouraging using	Improve structure	Increase	Stably increasing
Period 3	Medium	Renminbi	Depends	Increase	Stably increasing

Source: Own elaboration

For political and administrative environment status, Free Trade Zones from three

periods have all received amount of policy support from related national ministries and local institutions. The policy coverage for operation is wide for Shanghai pilot zone from first period while tend to becoming focus on specific sector for pilot zones of later periods. However the policy and supervision effectiveness for most Free Trade Zones from all three periods are limited. Clearly every pilot zone is putting effort to improve this situation.

For function and service providing status, Free Trade Zones from all three periods have met improvement in cargo throughputs while the improvement scale would depend on the original region status and development strategy of the zone. Similar to the policy coverage, the function coverage of Free Trade zones is wide for the first period while tends to focus more on sectors and give specific instructions. Nearly all the Free Trade Zones have attached great importance to innovations on services and function as every Free Trade Zone would put forward around 15 original innovations annually.

The Free Trade Zones we choose to do analysis are all located near sea ports. As the location advantage has been considered significant in the Free Trade Zone development strategy, zones from three periods have all achieved high level of port integration by cooperating with international related institutions, connecting with local industry and hinterland, developing cluster economy.

From literatures related to the logistics development in China due to the Free Trade Zone strategy, researchers such as Yang (2016) had listed that the strategy and its promotion might promote the industry transformation, elevate the enterprise international competitiveness and accelerate the regional logistics integration. We have observed quite similar conclusions within our case studies. While for logistics integration, some Free Trade Zones from later periods still meet drawbacks from infrastructures or other parts.

For economy and trade development status, Free Trade Zones from the first and second period have met huge increase in first two years, thousands of foreign companies has built business and projects inside the zones, but the growth rate of foreign investment is decreasing. One reason for this situation can be the strict currency restriction. Policies and regulations are continually being updated to liberalizing the restriction of using foreign currency directly for business on one hand; on the other hand, the Free Trade Zones are now actively encouraging companies and investors trade and run business in Renminbi. Nearly all the Free Trade Zones have met increase in import and export scale.

For employment issue, Free trade zones of first two periods have provided job opportunities tend to improve the employment structure with higher account of high level talents. While for the third period, Free Trade Zones build in less developed province would focus more on providing common job opportunities to ease the

regional employment difficulties.

According to the national bureaus of statistics, the regional GDP for each province have met a quite stable increase during recent five years which means the establishments of the Free Trade Zones didn't bring significant improvement in this issue.

Regarding to the connections among the three periods, first of all, the development experiences are widely shared, Free Trade Zones from later periods are built based on the experience from former periods; meanwhile all the Free Trade Zones would raise and test innovations in policy, function and services and share the outstanding innovations with each other.

For strategy perspective, Shanghai pilot zone as the first Free Trade Zone in China is built for experimental purpose and supporting the regional development strategy of establishing international shipping centre. Supported by experience from Shanghai pilot zone, Free Trade Zones of second period are all located in important coastal areas with purpose of connecting nearby area such as Hong Kong and Taiwan and integrating regional resources. When turning to the third period, some Free Trade Zones are located in less developed provinces for purpose of driving local economy development and others focus on developing industry cluster. The Free Trade Zone strategy promotion would in the meantime support the One Belt One Road strategy

Chapter 5 Conclusion

During doing the multiple-case study, we have found that the promotion of Free Trade Zone strategy in China has brought impacts in different aspects. The government and related ministries have continually tested great amount of policies supporting Free Trade Zone operation. With the ministry guidance based on experience in each period and improved policies and rules, the strategy promotion process has gained huge convenience. Meanwhile, the Free Trade Zone strategy promotion has linked with other national development strategies such as the One Belt One Road strategy and participated in connecting with nearby areas and helping balance the regional economy development. Data and analysis has shown the periodical success.

5.1 Impact on maritime and logistics industry

Regarding to the maritime and logistics service and functions, nearly all the Free Trade Zones among the three periods are able to provide basic services in high efficiency. During the strategy promotion, Free Trade Zones has covered 11 provinces and cities in both coastal and inland area, which has helped balancing the maritime and logistics sector development among China. Innovations and experiences based on the zone operation have stimulated the role changing and functional development for each Free Trade Zone and their nearby area. The strategy promotion has improved the maritime and logistics collaboration among different areas in China by setting corresponding operating plan while avoiding unnecessary competition.

All sea port related Free Trade Zones in China have achieved high integration level; the strategy promotion has improved the seaport performance in cases before in infrastructure developing, procedure simply and more.

In the future, Free Trade Zones in China would put more effort on transfer from providing basic maritime and logistics services to providing high technology and high value services and products.

5.2 Impact on economy

One of the most significant reasons of establishing Free Trade Zone is attracting foreign investment. The Free Trade Zone strategy itself has brought impact in this issue as most Free Trade Zones have gained large amount of foreign investment in the beginning of the establishment, but the strategy promotion didn't help slow down

the investment growth rate decreasing afterward. Strict restriction of currency using still exist. More and more foreign companies have been encouraged to trade in Renminbi.

For the import and export trade market, considering the convenience brought by the Free Trade Zones, whether in specific cargo sectors or advanced transportation service, the regional trade scale have been developed. However, the develop extent for most regions are considered low.

This phenomenon has also reflected in the GDP of those provinces with Free Trade Zones. No obvious increase in GDP during Free Trade Zones operation was observed. While for employment issue, the pilot zones didn't bring huge impact to the local employment scale, as improving the employment structure and attracting and introducing high level talents are more important.

5.3 Limitations of this study

Though the result of this study has shown part of the impact of China's Free Trade Zone Strategy Promotion towards in general the economy and in particular the maritime industry in China, limitations in research method, data analysis still exist.

Considering the time and project scale, we could only choose five Free Trade Zones among different periods for analysis. This might lead to limitation of evaluation result regarding to regional economic and maritime impact from the strategy promotion, especially in period 2 and period 3. During doing the multiple-case study, we have met some difficulties in gathering required data for each single case. And using the method of case study might lead to some limitation for the analysis result since we have to rely more on our own instincts.

Reference

- Abbott, A (1992). 'What do cases do? Some notes on activity in sociological analysis.' In: Ragin CC, Becker HS (eds) What is a case? : exploring the foundations of social inquiry. University of Cambridge, Cambridge, pp 53–82
- Aiznen, C. and Zhibiao, L., (2014). 'Free Trade Pilot Zone: Second Season of China's Opening Economy'. Academic Monthly, 1, p.003.
- Anderson, C.M., Opaluch, J.J. and Grigalunas, T.A. (2009). 'The demand for import services at US container ports'. Maritime Economics & Logistics 11(2): 156–185
- Benton, C., Napier, M. and Ülkü, M. (2016). 'On Supply Chain Integration to Free Trade Zones: The Case of the United States of America'. Global Business Review 17(4), pp.779-789.
- Bookbinder, J. (2013). Handbook of Global Logistics New York, NY: Springer New York, pp.19-20.
- Deborah, B., Thomas, F. and Tang, X. (2010). China's Investment in African Special Economic Zones: Prospects, Challenges, and Opportunities. Economic Premise, [online] No.5. Available at: <https://openknowledge.worldbank.org/handle/10986/10202> [Accessed 1 Sep. 2018].
- Congress of the United States Foreign Trade Zone Board (2013) 74th annual report of the foreign- trade zones board to the congress of the United States
- Chinanews (2018). 'Three years for Guangdong pilot Free Trade Zone, Customs services and the trade convenience'. [online] iftzr.sysu.edu.cn. Available at: <http://iftzr.sysu.edu.cn/node/16396> [Accessed 24 Jul. 2018].
- Chiu, R., Lirn, T., Li, C., Lu, B. and Shang, K. (2011) 'An Evaluation of Free Trade Port Zone in Taiwan'. The Asian Journal of Shipping and Logistics, vol. 27 No 3 pp.423-445.
- DAMON, D. (1992). 'Free Trade Zone May Appear in Far East'. Wall Street Journal, (Jun 10,1992), pg.A11.
- Deng, X., Wang, Y. and Yeo, G. (2017). 'Enterprise Perspective-based Evaluation of Free Trade Port Areas in China'. Maritime Economics & Logistics, vol. 19 No 3, pp.451-473.

- Easton G (1998) 'Case research as a methodology for industrial networks: a realist apologia'. In: Naude P, Turnbull P (eds) *Network dynamics in international marketing*. Pergamon, Oxford, pp 73–87
- Elena, E. (2012). 'Free zones in Romania—success or failure'. *Strategii manageriale*, vol. 2, 8-66.
- Efic. (2016). 'China—free trade zones provide stepping stones to liberalisation'. [online] Available at: <https://www.efic.gov.au/resources-news/news-events/world-risk-developments/2016/world-risk-developments-september-2016/china-free-trade-zones-provide-stepping-stones-to-liberalisation/>
- Enache, E. (1998), *Managementul zonelor libere contemporane*, Editura Independența Economică, Brașov
- ECONOMYWATCH (2010). International Free Trade Zone | Economy Watch. [online] Available at: <http://www.economywatch.com/international-trade/free-trade-zone.html> [Accessed 24 Jun. 2018].
- FJFTZ. (2018). China (Fujian) Pilot Free Trade Zone. [online] Available at: <http://www.china-fjftz.gov.cn/html/en/> [Accessed 12 Aug. 2018].
- GDFTZ (2018). China (Guangdong) Pilot Free Trade Zone. [online] China-gdftz.gov.cn. Available at: http://www.china-gdftz.gov.cn/zjzmq/zmsyqjj/201604/t20160414_1723.html#zhuyao [Accessed 23 Jul. 2018].
- Guangzhou.customs. (2018). Cargo throughput exceed 0.9 billion ton since Free Trade Zone established. [online] Available at: http://guangzhou.customs.gov.cn/guangzhou_customs/381558/381572/381574/1894001/index.html [Accessed 12 Aug. 2018].
- Guangzhou Daily. (2017). Future plan for nearby area of Guangzhou pilot Free Trade Zone. [online] Available at: <http://house.people.com.cn/n1/2017/0714/c164220-29404910.html> [Accessed 12 Aug. 2018].
- Guruswamy, M. and van der Schoor, L. (2018). 'Role of Free Zones in Facilitating Global Supply Chains - Opportunities and Challenges' [online] Available at: <https://www.worldfzo.org/AnnualReports/Global%20Supply%20Chains%20Research%20Paper.pdf> [Accessed 6 Jul. 2018].
- HKTDC (2018). Zhejiang: Market Profile | HKTDC. [online] China-trade-research.hktdc.com. Available at:

- <http://china-trade-research.hktdc.com/business-news/article/Facts-and-Figures/Zhejiang-Market-Profile/ff/en/1/1X000000/1X06BYYH.htm> [Accessed 30 Jul. 2018].
- HKTDC (2018). China (Fujian) Pilot Free Trade Zone | Hong Kong Means Business. [online] Hong Kong Means Business. Available at: <http://hkmb.hktdc.com/en/1X0A2URR/hktdc-research/China-Fujian-Pilot-Free-Trade-Zone> [Accessed 12 Aug. 2018].
- Information office of Liaoning provincial people's government. (2018). Annual report of Liaoning Free Trade Zone. [online] Available at: <http://www.scio.gov.cn/xwfbh/gssxwfbh/xwfbh/liaoning/Document/1626352/1626352.htm> [Accessed 12 Aug. 2018].
- Institute of Free Trade Zone in Sun Yat-Sen University. (2018). Foreign investment utilization status of Guangzhou pilot Free Trade Zone in 2017. [online] Available at: <http://iftzr.sysu.edu.cn/node/16283> [Accessed 12 Aug. 2018].
- Institute of Free Trade Zone in Sun Yat-Sen University. (2018). First anniversary of Zhejiang pilot Free Trade Zone. [online] Available at: <http://iftzr.sysu.edu.cn/node/16364> [Accessed 12 Aug. 2018].
- LNFTZ Report. (2018). 11th brief report of the Liaoning pilot zone. [online] Available at: <http://www.china-lnftz.gov.cn/Government%20details.php?id=1274&edition=0&dhid=3&dhids=271> [Accessed 12 Aug. 2018].
- LNFTZ. (2018). China Liaoning pilot Free Trade Zone. [online] Available at: <http://www.china-lnftz.gov.cn/Introduction%20of%20kilometer%20area.php?edition=0&dhid=297&dhids=305> [Accessed 12 Aug. 2018].
- Lain, S. (2016). Trade Connectivity: The Missing Link in the Belt and Road. [online] The Diplomat. Available at: <https://thediplomat.com/2016/11/trade-connectivity-the-missing-link-in-the-belt-and-road/> [Accessed 8 Jul. 2018].
- Lavissière, A. and Rodrigue, J. (2017). 'Free ports: towards a network of trade gateways'. *Journal of Shipping and Trade*, 2(1).
- Lin, J. (2016). 'Five Ways China's Cross-Border Trade has Matured'. [online] Ebayinc.com. Available at: <https://www.ebayinc.com/stories/news/five-ways-chinas-cross-border-trade-has-matured/> [Accessed 9 Aug. 2018].

- NBS (2018). National Data. [online] Data.stats.gov.cn. Available at: <http://data.stats.gov.cn/english/easyquery.htm?cn=C01> [Accessed 12 Aug. 2018].
- Kim, J.Y. (2014) 'Port user typology and representations of port choice behavior: A Q-methodological study'. *Maritime Economics & Logistics* 16(2): 165–187.
- Krugman, P. (1991) "The Move toward Free Trade Zones," *Economic Review - Federal Reserve Bank of Kansas City*, Vol.76 No.6, pp. 5–5.
- Koehler-Coluccia, K. (2013). 'The Shanghai Free Trade Zone-One year down the line'. [online] Koehlerservices.com. Available at: http://www.koehlerservices.com/images/stories/pdf/In_the_News/OAV_-_The_Shanghai_Free_Trade_Zone_One_year_down_the_line.pdf [Accessed 21 May 2018].
- Li, X. (2016). 'China Pilot Free Trade Zones call reform of arbitrator liability'. *Journal of Shanghai Jiaotong University (Science)*, Vol. 21 No 2, pp.220-224.
- Lin, J. (2015). "One Belt and One Road" and Free Trade Zones—China's New Opening-up Initiatives. *Frontiers of Economics in China*, 10(4), pp.585-590.
- Liu, B., Wang, L., Lee, S., Liu, J., Qin, F. and Jiao, Z. (2016). *Contemporary Logistics in China Proliferation and Internationalization*. Berlin, Heidelberg: Springer Berlin Heidelberg, pp.194-210.
- Lui, G. (2014). 'Shanghai Pilot Free Trade Zone: Shaping of China's Future Foreign Investment Environment'. *INTERNATIONAL TAX JOURNAL*, JULY-AUGUST 2014, pp.31-43.
- LNFTZ. (2018). China Liaoning pilot Free Trade Zone. [online] Available at: <http://www.china-lnftz.gov.cn/Introduction%20of%20kilometer%20area.php?edition=0&dhid=297&dheids=305> [Accessed 12 Aug. 2018].
- Min, H. and Lambert, T.E. (2010) 'The utilisation of foreign trade zones in the global supply chain: an exploratory study', *Int. J. Services and Operations Management*, Vol. 6, No. 2, p.110-125
- MIYAGIWA, Kaz F. (1986), Reconsideration of The Welfare Economic of A Free Trade Zones.
- Pacific, A. (2014). Silk Road and China&Turkey. [online] Asian Pacific. Available at: <http://www.asianpacificcenter.org/silk-road-and-china-turkey.html> [Accessed 12 Aug. 2018].
- Pak, A. and Majd, F. (2011). 'Integrated coastal management plan in free trade zones, a case study'. *Ocean & Coastal Management*, Vol.54 No 2, pp.129-136.

- Portcontainer. (2018). China port and container industry. [online] Available at: <http://www.portcontainer.com/newsAction.do?command=viewData&rootCategoryId=8a9287fa300b0b0001300b6261aa0017&categoryId=8a9287fa300b0b0001300b64672f0019&dataId=e563d2845f23f755016052b42d970128> [Accessed 12 Aug. 2018].
- Pwc (2015). Comprehensive tracking of Guangdong Free Trade Zone. NEW KNOWLEDGE, Vol.17. Available at: <https://www.supplyfinder.com/downloads/pdfs/2253.pdf>
- PwC's China Tax and Business Service (2017). "1+3+7" China's brand new pattern of pilot free trade zones(1) Achievements review and general introduction of the new PFTZs.
- Reis, R. (2009). Strengths and limitations of case studies. on <http://cgi.stanford.edu/~dept>.
- Shanghai Municipal Development & Reform Commission (2014) Achievements of reform. Shdrc. http://www.shdrc.gov.cn/main?main_colid=361&top_id=316&main_artid=25479.
- Shanghai.gov (2014) Independent declaration of duty and taxes is being piloted. Shanghai.gov. available: <http://www.shanghai.gov.cn/shanghai/node2314/node2315/node15343/u21ai962179.html>.
- Shanghai Pudong District. (2018). Shanghai Free Trade Zone attracts global investors. [online] Available at: http://www.pudong.gov.cn/shpd/news/20180605/006001_79e077bf-bff9-4fab-9781-98e0fd5082ab.htm [Accessed 12 Aug. 2018].
- SHFTZ Official (2018). Introduction | China (Shanghai) Pilot Free Trade Zone. [online] En.china-shftz.gov.cn. Available at: <http://en.china-shftz.gov.cn/About-FTZ/Introduction/> [Accessed 13 Jul. 2018].
- SHFTZ.mangement council (2018). Statics and Data. [online] Available at: <http://www.shftz.gov.cn/InformationList.aspx?CID=E753ECDC-ECCE-4133-B8F0-7319CC83D3A7&MenuType=1> [Accessed 12 Aug. 2018].
- Siteresources.worldbank.org. (2008). THE WORLD BANK ANNUAL REPORT 2008. [online] Available at: http://siteresources.worldbank.org/EXTANNREP2K8/Resources/YR00_Year_in_Review_English.pdf [Accessed 24 Jun. 2018].

- Song, J, Huang, B, Li, R. (2018). 'Assessing local resilience to typhoon disasters: A case study in Nansha, Guangzhou'. *PLOS ONE*. 13. e0190701. 10.1371/journal.pone.0190701.
- Spence, Nicolas Kareem (2017). "A critical evaluation of how free trade zones and maritime activities impact on port development: a case study of the port of Kingston" World Maritime University Dissertations. 566.
- Summerfield, R. (2015). 'Impact of China's free trade zones'. [online] Financier Worldwide. Available at: <https://www.financierworldwide.com/impact-of-chinas-free-trade-zones/#.WykJwLaWblU> [Accessed 19 Jun. 2018].
- The people 's government of Zhejiang province. (2018). Zhejiang pilot Free Trade Zone development status report. [online] Available at: http://www.zj.gov.cn/art/2018/7/11/art_5499_2283501.html [Accessed 12 Aug. 2018].
- The Straits Times. (2017). China approves 7 new free trade zones in bid to open economy. [online] Available at: <https://www.straitstimes.com/asia/east-asia/china-approves-7-new-free-trade-zones-in-bid-to-open-economy> [Accessed 8 Jul. 2018].
- Tiefenbrum, S. (2013). 'U.S. foreign trade zones, tax-free trade zones of the world, and their impact on the US economy'. *Journal of International Business and Law* Vol.12 No 2, 149-222.
- Valentine, V. and Park, J. (2005). *Free trade zone and port hinterland development*. New York: United Nations ESCAP.
- Wan, Z., Zhang, Y., Wang, X. and Chen, J. (2014). 'Policy and politics behind Shanghai's Free Trade Zone Program'. *Journal of Transport Geography*, Vol. 34, pp.1-6.
- Wang, B. (2017). 'Employment in China (Shanghai) Pilot Free Trade Zone'. *The Chinese Economy*, Vol. 50 No 4, pp.266-273.
- Wang, L., Lee, S., Chen, P., Jiang, X. and Liu, B. (2016). *Contemporary Logistics in China. New Horizon and New Blueprint*, Springer Nature, pp.191-216.
- Xiao, L. (2016). *National Test System Design of China (Shanghai) Pilot Free Trade Zone*. p.6.
- Xinhuanet (2018). Numbers: Chinese pilot Free Trade Zone. [online] Xinhuanet.com. Available at: http://www.xinhuanet.com/politics/2016-04/21/c_1118699532.htm [Accessed 26 Jul. 2018].

- Yang, L.(2010). 'Wuhan Bonded Area and Wuhan Harbor Linkage Effect Research'. *Logistics Engineering and Management*, Vol. 12 No 198, pp.19-21.(in Chinese)
- Yang, Y. (2009). 'A Comparative Analysis of Free Trade Zone Policies in Taiwan and Korea based on a Port Hinterland Perspective'. *The Asian Journal of Shipping and Logistics*, Vol. 25 No 2, pp.273-303.
- Yao, D. and Whalley, J. (2015). 'The China (Shanghai) Pilot Free Trade Zone: Background, Developments and Preliminary Assessment of Initial Impacts'. *The World Economy*, Vol. 39 No 1, pp.2-15.
- Yin, R. (2009). *Case study research*. 4th ed. London: Sage Publication, p.21.
- Zhang, G., Zheng, J. and Dai, Q. (2006). 'The Integration development of Bonded Area and port'. *Observation*, pp.6-7.(in Chinese)
- Zhu, J. (2015). Shanghai Free Trade Area: Adjusting the change of labour relations. Retrieved from <http://right.worker.cn/893/201504/09/150409160633639.shtml>
- Zhoushan Statistics bureau. (2018). Economic status of first year in Zhejiang Free Trade Zone. [online] Available at: <http://www.zstj.net/ShowArticle.aspx?ArticleID=7473> [Accessed 12 Aug. 2018].
- ZSFTZ. (2018). China Zhejiang pilot Free Trade Zon. [online] Available at: <http://www.china-zsftz.gov.cn/article/8707> [Accessed 12 Aug. 2018].