

Promotion of Port Investments and Model of FTZ in Northeast Asia

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ABSTRACT

Promotion of Port Investments and Model of FTZ in Northeast Asia

Recently, the business environment in the port industry has been changing very rapidly and in various ways due to the continuous increase in world container trade volume, the enlargement of container ships and terminals, the privatization of port operations and the growth of global specialized container terminals operating companies or groups, etc.

In addition, the functions of the ports have been changing and expanding rapidly from the functions of simple loading, unloading and storage to the functions of integrated logistics centers within huge port hinterland logistics zones.

The purposes of this joint study are to facilitate port investments and to compare FTZ models of the three countries of Northeast Asia.

This joint study has been carried out by the Korea Maritime Institute (KMI); by Japan's Overseas Coastal Area Development Institute(OCDI); and the China Academy of Transportation Sciences, (CATS)

The contents of this study are as follows:

- Evaluation of port investment policies and port free trade zones of Northeast Asia
 - The port investment & port FTZ policies of each country
- Comparison of port investment and port FTZ policies of other countries

- Case studies of Singapore, Hong Kong, United States of America, Netherlands
- Recommendations on port investment and port FTZ

Centering around China, the Northeast Asian region's container throughputs are continuously increasing; therefore, there is strong competition for constructing and developing new ports among the Northeast Asian nations in order to secure competitive positions in the region. Given this competitive industrial environment, Korea is driving important changes in its port investment policies including port development plans concerning container throughputs and port operations by using efficient and effective information technologies.

Although investments in port development among the Northeast Asian countries are continuing for a while, depending on increasing container traffic, the highly competitive industrial circumstances should be diminished and ways of enhancing cooperation, such as port alliances and cross-investment among the nations, should be devised.

However, there is a very uneven spread of free trade areas in various countries. Free trade areas are still at a relatively low level. In addition, some ports have faced many new problems regarding management systems, soft environments of legal systems and hardware while developing the free trade areas. So, it is very important to the Northeast Asian countries to benchmark other countries' development policies for their development of free trade areas.

In order to better facilitate port investments and to develop superior FTZs, it is recommended that the following steps be taken:

First, promote diversity in the investment funds

Second, expand diversity of logistics infrastructure

Third, improve administrative services and supporting systems

Fourth, prepare for future demand

Fifth, boost incentives for attracting foreign investment

Sixth, Implement the “integrated free trade zone and port” management mode, preparing the way for FTZs to transform into free ports.

Ultimately, harmonization of or collaboration in the logistics industry throughout Korea, China and Japan should be made to avoid wrong or over-investments in the port facilities and FTZs. One of the collaboration methods in the logistics industry among the three nations will be the establishing of joint logistics centers in each nation’s FTZ ports and formation of port alliances throughout cross investment. Furthermore, the three nations’ governments should explore and identify systematic ways in which to cooperate with each other.

Preparing for the future, the three countries should make continuous efforts toward becoming the logistics center of the world through conducting cooperative studies, such as this study, on the logistics field.

Chapter 1

Introduction

1. The purpose of project

It was determined to conduct a research on “Promotion of Port Investments and Model of FTZ in Northeast Asia” as a joint study among three countries, Korea, China and Japan, in the 4th Northeast Asian Port Director-General Meeting at Tokyo, in September 2000.

The purpose of this joint study is to make an effect to promote Port Investments and Model of FTZ in Northeast Asia among three countries.

1) The policy for promoting seaport investment

In the near future, Northeast Asian economy and trade will keep the momentum of rapid growth. As the pivot of foreign trade, ports will be in growing at top speed period.

However, port facilities are not sufficient for meeting the demand of the specialized deep-water berth such as crude oil quay, iron ore quay and the quay can meet the demand of the fourth generation of container ship. The port can't meet the demand of the trend of large scale and specialized vessel and increased foreign trade.

For improving this situation, a number of ports have made short-term or

long-term plans. The planning needs investment of hundreds of billion dollars to be come into a reality.

Korea made “promoting law for building the new ports” in 1996, which made the private investment become the leading factor in port investment. It is important to increase port facilities through privatization. Some unfavorable environments and legal factors still need to break through under this situation. That will build the capital source and open up the new channel for the port. It can also offer basis on which make the policy of new port investment policy.

2) Promoting the establishment of Free Trade Area

There are more than 800 free trade areas among 2,000 trade harbors in the world, at present. The free trade areas have been rapidly developed in recent years. Taking Asia as an example, Singapore and Hong Kong ports have established free trade area in the early time. Now Korea and China are promoting the development of free trade area actively too.

Korea passed “the law of free trade area” in 1996. Korea has made outstanding achievement in terms of absorbing the foreign capitals, and attracting transshipment goods to set up the Asian-Pacific shipping center. Japan made “the temporary regulations of encouraging importing and strengthening investment” in 1992. After then, it set up 22 “Foreign Access Zone-FAZ” near airports and ports. The aim was to promote business of importation, increase the foreign capitals enterprise investment and offer various kinds of preferential policies in tax rate and finance. In China, there are 15 bonded areas locating in Tianjin, Dalian, Qingdao, Shanghai, Zhangjiagang, Ningbo, Fuzhou, Xiamen, Shantou, Guangzhou, Shenzhen, Zhuhai and Haikou port.

However, it is very uneven of free trade areas in various countries. Free trade area is still in a low level. In addition, some ports have met many new problems in management system, soft environment of legal system and hardware while building the free trade area. So, it is very important of the Northeast Asian areas to use other countries for reference to establish the free trade area and make corresponding policy.

3) Terminology and definitions

As well as being numerous in quantity there are also a large number of types of free trade zones. Different terms have been used over time, reflecting the variety of activities performed in the zones. The most used terms are free trade zone, export processing zone, special economic zone, and industrial free zone. They all have some basic features in common.

Many definitions of FTZs can be found in literature and of these the following four highlight the main characteristics of a free trade zone

- fenced-in industrial estates specializing in manufacturing for export and offering their resident firms free-trade conditions and a liberal regulatory environment (World Bank, 1992)
- industrial zones with special incentives set up to attract foreign investors, in which imported materials undergo some degree of processing before being re-exported (ILO, 1998)
- clearly delimited and enclosed areas of a national customs territory, often at an advantageous geographical location (Madani, 1999) with an infrastructure suited to the conduct of trade and industrial operations and subject to the principle of customs and fiscal segregation.

- a clearly delineated industrial estate which constitutes a free trade enclave in the customs and trade regime of a country, and where foreign manufacturing firms, mainly producing for export, benefit from a certain number of fiscal and financial incentives (Kusago and Tzannatos, 1998)

In this study we will use the term free trade zone or FTZ as a business estate that offers investors ; an offshore location, average business infrastructure, flexible business regulations and attractive tax incentives and lower investment and operating cost near port.

Port backup area is defined an area where industrial or economic activity takes place, kept relatively or spatially separate from and functionally connect with the main port areas, and universally devoted to the logistics of port-based cargoes.

2. Main research contents

1) Research on promoting port investment

- i) To evaluate the investment current situation of Northeast Asia ports. Such as investor, capital source, investment structure, relevant policies and regulations of port at present.
- ii) To exist the problems of port investment policy in Northeast Asia.
- iii) To compare the analysis of the experience from other countries. What role the government and private sector should play in port investment.
- iv) Putting forward to the policy recommendations of investment on the ports of Northeast Asia.

2) Research in the policy on establishment of port free trade area

- i) To evaluate the current situation of free trade area of the Northeast Asia ports.
- ii) To exist the problems of port free trade area of Northeast Asia. Such as management system, legal system, software and hardware.
- iii) To compare study of lesson, experience, and characteristic of different country the establishment of free trade area.
- iv) Putting forward to the suggestion of promoting establishment of free trade area in Northeast Asia ports

3) Confirmation of the contents of the Joint Study

This joint study have been carried out for three years from 2004 to 2006.

This book is the final report of the joint study and the contents are as follows:

Terms	Contents	Institute
1st year(2004)	<ul style="list-style-type: none">▪ Evaluation on port investment policy and port free trade zone on Northeast Asia- The port investment & port FTZ policy of each country	<ul style="list-style-type: none">▪ KMI: Korea' Policy▪ OCDI: Japan's Policy▪ CATS: China's policy

□ □

2nd year(2005)	<ul style="list-style-type: none">▪ Comparing analysis of the experience from other countries and regions of port investment and port FTZ.- Case study of Singapore, Hong Kong, United States of America, Netherlands	<ul style="list-style-type: none">▪ KMI : Netherlands▪ OCDI : USA▪ CATS : Hong Kong
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3rd year(2006)	<ul style="list-style-type: none">▪ The policy recommendations of port investment and port FTZ of Northeast Asia	<ul style="list-style-type: none">▪ Suggestion- KMI, OCDI, CATS
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Chapter 2

Research of the policy for promoting Port Investment

1. The environmental changes of Port Investment

1) The trends of port cargo volume

Recently, the port environment has been changed very rapidly and variously by way of the continuous increasing of world container trade volume, the enlargement of container ships and terminal, the private operation of ports and the growth of global specialized container terminal operating company or group etc.

In addition, the function of the port has been changed and expanded rapidly from the function of simple loading, unloading and storage to the function of integrated logistics center including huge port hinterland logistics zone

(1) The increase of N.E Asian container trade volume

During past 25 years, the growth rate of world container trade volume has been increased three-folds compared with the growth rate of world economy. In fact, the world container trade volume has been increased at

the average annual growth rate of 9.8% from 38 million TEU in 1980 to 400 million TEU in 2005. Especially, that of the Asian region has achieved 12.6% of the average annual growth rate from 9.8million TEU in 1980 to 205million TEU in 2005. In relation to this, that of the N.E Asian region has achieved 12.3% of the average annual growth rate from 7.7 million TEU in 1980 to 140million TEU in 2002. The share of the N.E Asian region in the world has increased to 35% in 2005 from 19.8% in 1980.

〈Table 2-1〉 The world and Asian Container Trade Volume

(Unit : 1,000TEU, %)

Region	1980	1990	2000	2002	2004	2005	Growth Rate('80-'04)
World(A)	38,794	87,901	235,608	276,454	359,651	400,007	9.8%
Asian Region(B)	9,782	34,460	110,887	135,352	183,350	205,714	12.6%
Far East Asia(C)	7,662	23,001	71,096	87,541	123,920	139,883	12.3%
South East Asia	1,871	9,679	34,320	41,195	51,281	57,104	14.7%
South Asia	249	1,780	5,481	6,616	8,149	8,727	15.3%
C/B	78.3	66.8	64.1	64.6	67.6	68.0	-

source : Drewry Shipping Consultants Ltd.(2005)

주 : 2005년 추정치

(2) The Enlargement of Container Ships and Terminal

In entering the 1990s, the major world liner shipping companies promoted the enlargement of container ships and terminal in order to get efficiency and rationalize the business by reducing the unit cost. The enlargement of the container ship produced the hub & spoke system in the liner shipping route by changing the pattern of the ship deployment in which the large container ship calls at only a few large scale container terminal. According

to these kind of changes, the hub container terminal must be in the main trunk line and has to establish the efficient networking system with another hub ports by diversing shipping routes. On top of that, the hub port should reduced the port time of the calling vessel and expand the scale of terminal and enlarge the cargo handling facilities for berthing the large vessels

(3) Global Container Terminal Operate System

Recently, the specialized container terminal operating companies of the world such as HPH (Hutchison Port Holdings) of Hong Kong, PSA Corp. of Singapore, APM Terminals of Denmark, P&O Ports of England, Eurogate of Germany, CSX World Terminals of U.S.A, took part in container terminal development and operation actively.

They are not only expanding their investment into the worldwide container terminals actively but also taking a new turn of joint venture investment and M&A.

They are diversifying their investment in many countries rather than concentrating on specific countries or ports. They are preferring a securing the operation right and redeveloping and capital investment on existing ports to develop the new container terminal. It means that they want to disperse their operating risk of container terminal as well as create the synergy effect by networking their own existing terminals. In 2004, the market share of the world's five largest global container terminal operators is 40.8%, 146.2 million TEU of the world container trade volume which is continuously increased from 17.8%, 17.3 million TEU of 1991.

〈Table 2-2〉 World' s 5 Largest Global Container Terminal Operator' s Handling
Container Volume

(Unit: Million TEU, %)

Operator	1991		1996		2001		2002		2003		2004	
	Volume	Share	Volume	Share	Volume	Share	Volume	Share	Volume	Share	Volume	Share
HPH	3.8	3.9	11.2	7.1	27.0	11.0	36.7	13.3	41.1	13.1	47.8	13.3
PSA	6.4	6.6	12.9	8.2	19.0	7.7	26.2	9.5	28.7	9.1	33.1	9.2
APM	3.2	3.3	5.5	3.5	16.0	6.5	17.2	6.2	21.4	6.8	31.9	8.9
P&O NED	1.5	1.5	2.9	1.8	9.8	4.0	12.8	4.6	16.0	5.1	21.9	6.1
Eurogate	2.4	2.5	3.6	2.3	8.6	3.5	9.5	3.5	10.8	3.4	11.5	3.2
Sub Total	17.3	17.8	36.1	22.9	80.4	32.7	102.4	37.1	118.0	37.3	146.2	40.8
World Total	96.3	100.0	157.1	100.0	245.8	100.0	275.9	100.0	316.7	100.0	358.6	100.0

Source : Drewry Shipping Consultants(2005).

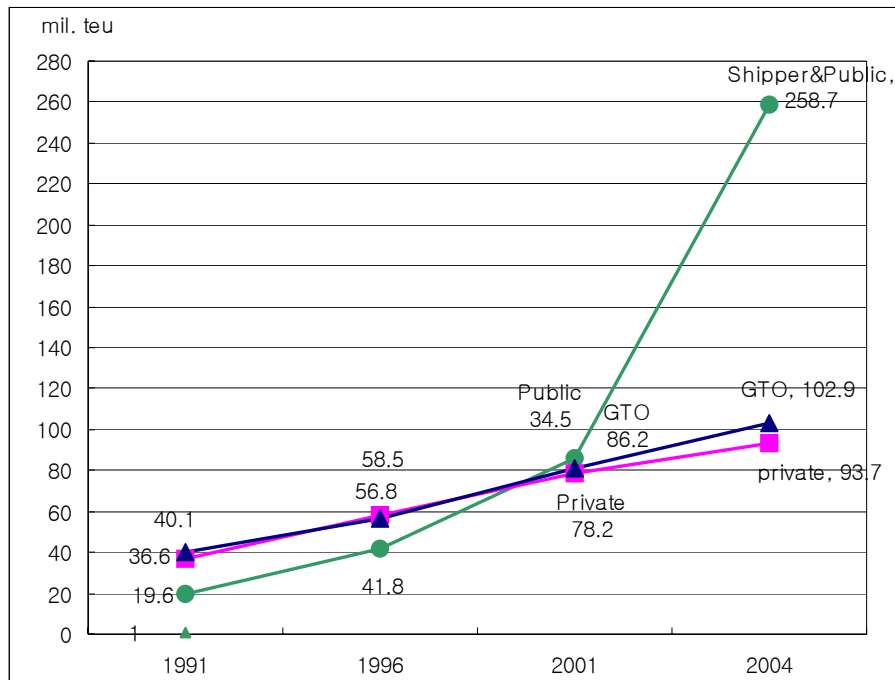
2) The Changes of Port Operating System

Since 1980s, the pattern of port operation has been changed, depending on the position of country, port and the situation of the times. The recent changes of port operation are to build up a creative and positive environment by carrying out the integrated logistics function in order to reinforce the competitiveness.

Moreover most of the world ports are making the best use of private finance in developing the port in order to make up for the shortage of the budget. They have tried to induce the private investment into the port facilities by granting the ownership or operation right of terminal with the intention of introducing the vitality and creation of the private sector.

Continuously, the container volume handled by the private terminal increased from 36.6 million TEU in 1991 to 93.7 million TEU in 2004. On the other hand, that of the public container terminal has no big change.

〈Figure 2-1〉 The changes of cargo volumes of terminal operation patterns



2. The port investment policy in Northeast Asia

1) Port Development Policy

(1) Korea

① The Direction of Port Investment

The direction of the port development in Korea is to establish the N.E Asia logistics hub countries for 21st century by developing the world-class hub port and realize the powerful nation through securing the competitive container ports.

For this direction, Korea government is trying hard to obtain an advantage of prior occupancy for the logistics hub by developing the port on time. It is trying to promote the ports as a core strategic industry. For increasing the port competitiveness, the government is trying to develop the port hinterland as an integrated logistics center. In addition, the government plans to increase the quality of life by developing the port area as a citizen's connected area. On the while, the government endeavor to induce the private investment and foreign direct investment in order to release the budget burden in procuring the necessary investment amount.

The direction of the port development policy is outlined as the two main container hub ports, 9 feeder ports and multipurpose ports.

〈Table 2-3〉 Nation Container Port Development and Operation System

Classify	Hub Ports	Feeder Ports	Multi Purpose Ports
Ports	Busan, Gwangyang	Incheon, Ulsan, Masan, Pohang	Mokpo, Pyungtaek-Dangjin, Donghae, Daesan, Kunsan
Main Function	Mother Vessel Calling Port and Transshipment Center	Support Function to Hub Port and Near Sea Ex/Im Cargo Handling	Support Function to Hub and Feeder Port.

② The Characteristics of the Port Development Investment

In Korea, the port development investment is carried out by increasing the government budget according to the port law until 1990s. After then, the inducement of the private sector's investment such as Korea Container Terminal Authority(KCTA) into the port development is regarded as an important development methods as the government budget because the demand of the port has exceeded the availability of government budget. In the meantime although the private sector investment into the port facilities has been activated as an non governmental investment as stipulated in port law, because of the limit of the government budget, the necessity of the diversifying the financial resources, the introduction of the private sector's efficiency government positively promoted the private sector's investment in port development. Government has been trying to attract the private sector's investment into the main ports such as Busan new port, Gwangyang Port, Masan port, Ulsan Port, Incheon Port, and Pyungtaek-Dangjin Port

〈Table 2-4〉 The Trend of Port Development and Operation System

Classify	Before mid 1990s	Mid 1990	After Mid 1990s
Basic Design	KMPA	MOMAF	MOMAF
Practical Design	DMPA	KCTA	KCTA, Private Co.
Management and Operation	DMPA	DMPA	KCTA, Private Co. BPA
Stevedoring Service	PECT BCTOC	Private(tenant)	Private(Tenant), TOC
Main Project (Open Year)	BCTOC('78) Gwangyang I Phase('98) PECT('91)	Uam Terminal('92) Gamman ('98) Gwangyang Phase 1('98)	Gwangyang 2-1, 2-2 Busan NEW Port Phase 1('06)

1) KMPA; Korea Maritime Port Administration, MOMAF: Ministry of Maritime and Fisheries, KCTA; Korea Container Terminal Authority, DMPA: District Maritime and Port Administration, BPA; Busan Port Authority, PECT: Busan East Container Terminal, BCTOC; Busan Container Terminal Operating Company

③ Port Developer and Procurement of Investment Fund

In Korea, Although the main body of the port development is of course the central government, the procurement of the investment fund the pattern of Port development is divided into three kinds such as government investment, KCTA(Korea Container Terminal Authority) investment, Private sector investment and Foreigner investment under the control of MOMAF's national port master plan.

In case of government investment, MOMAF develops the port facilities by securing the necessary budget from the Ministry of Planning and Budget. After developing, the port MOMAF lease the terminal to private terminal operating company through a public bidding. As explained above, the pattern of port investment is divided into three types decided by the financial feasibility study. The ports or port facilities of low feasibility would be developed by government on the while the high feasibility

facilities could be developed by private sector. However container terminal and facilities would be developed primarily by the KCTA. In developing the container terminal KCTA mainly depends on issuing the bond while the private company depends on project financing methods.

〈Table 2-5〉 Container Terminal Development Pattern

Classify	Government Budget	KCTA	Private Sector
Investor	Government	KCTA	Private Investor
Example	Break Water, Land Developing, Dredging	Gwangyang	Busan New Container Port
Fund	Government Budget	Lease Fee, Government Bounty KCTA Fund(Issuing Bond)	Equity Capital Loan (Project Financing National Subsidy)
	Public Operation	Sublease	Gratuitous use

(2) China

① Development of the China' s economy and foreign trade

Since reform and opening-up, economy and foreign trade of China have been getting the advancing development by leaps and bounds. From 1978 to 2002, the average annual increasing rate of GDP was up to 9% and the foreign trade was up to 15%. The detailed situation is shown in the following table.

〈Table 2-6〉 GDP, foreign trade and average annual increasing rate of the main years

	1978	1990	2002	Average annual increasing rate of 90 to 78 (%)	Average annual increasing rate of 02 to 90 (%)
GDP(1978=100)	100	281.7	875.4	9%	10%
Total volume of foreign trade(100 million\$)	206.4	1154.4	6207.7	15%	15%

In the future, the economy of China will keep fast growth. In order to realize the goal of the well-to-do society, GDP will reach 12,000 billion ¥, 17,000 billion ¥ separately in the year of 2010 and 2020. It is estimated that the total volume of foreign trade will reach 1,000 billion\$ in the year of 2004.

② Development of the port throughput of China

With the constant growth of economy and foreign trade, the port throughput of China has got great development. From 1978 to 2003, the average annual increasing rate of the main coastal port throughput was up to 11%. The throughput of the container was up to more than 48 million TEU in 2003. According to the good economy growth momentum and foreign trade situation, the main port throughput of China will reach 3,200 million tons in 2010, and the throughput of the container will reach 100 million TEU , 200 million TEU separately in the year of 2010 and 2020.

〈Table 2-7〉 Main port throughput in main year

	1978	1990	2003	Average annual increasing rate of 90 to 78 (%)	Average annual increasing rate of 03 to 90 (%)
Main port throughput(10 million ton)	19,834	48,321	260,000	7%	14%

③ Port system reform of China

China began new round deepened reform about the port management system since 2001. The management of central subordinate directly was changed to local government. The government function was separated from the enterprise management and the port administration system was set up perfect. These strengthen the administration of the port trade, promote the setting-up of the port modern enterprise system, give market the basic function in distributing port resources, liberate and develop port productivity further. In “the Port Law”, which implemented on January 1st, 2004, regard it as an important principle to separate government function from enterprise management too, fully reflect in the legal clause. It protects the new round deepened reform about the port management system.

(3) Japan

① Port development policy of Japan

Surrounded by sea, Japan has had to rely on ports to support physical distribution, industry, and the lives of people. Japan currently imports about 90% of its energy needs and about 60% of its food supply; in all, more than 99% of imports and exports are handled via ports. The world has now entered the “Great era of international exchange” in which people, goods and information can move freely across borders and accordingly the role of ports must undergo various changes in response to the new social and economic environments.

In order to compete in the international market and contribute to vital economy and society, we are committed to effective port administration. This has become more important than ever as people become increasingly

aware of the globalization of the economic and the need to protect the environment.

a) Port and Harbor Development System¹⁾

㊦ Direction of port Investment

The development of ports has proceeded systematically according to five-year investment plan for ports and harbors formulated along the lines of each national economic plan. Decisions on the scale of investment during the five-year period of these plans follow Cabinet meetings on the subject. Based on the port development budgets submitted by port management bodies, the Ministry of Land, Infrastructure and Transport compiles a national level budget for the development of ports and harbors to ensure the systematic implementation of each port's development plan.

㊦ The characteristics of the port Development Investment

The Japanese national government shoulders a portion of the cost for the development of port that significantly affect the national interest (specially designated major ports, major ports and harbors of refuge) based on the characteristics of the port and its benefits to the public. When a particular need is recognized and the national budget allows, the government may assist with the costs of port construction borne by port management bodies, in order to support use by the general public.

In the cast of the development of facilities that are neither directly maintained by the national government nor partially subsidized, the Ministry of Land, Infrastructure and Transport provides basic capital to finance the issuing of local bonds by port management bodies.

1) source : www.mlit.go.jp

In addition, certain measures support the development of specially designated facilities by local governments and private entrepreneurs (including the third sector) in the form of finance guarantees for project implementation and tax incentives.

〈Table 2-8〉 Port Facilities Development System

Project name	Area of development	Financing system
Development of port facilities	Water area and outlying facilities, berthing facilities, port traffic facilities, sites for port facilities	National government works project, subsidy system, etc.
Port environment improvement	Port ecological conservation facilities, waste disposal facilities	Subsidy system
Port projects financed by issued bonds	Cargo handling facilities (warehouses, cargo handling equipment, wharf sites), storage facilities, industrial sites, urban redevelopment sites, etc.	Public financing (local government bonds)
Private sector activities	Construction of passenger Facilities, port office facilities, port cultural exchange facilities by private entrepreneurs (including the third sector)	Tax incentives, subsidy system, low interest financing

〈Table 2-9〉 Portion of development costs borne by the national government
and management bodies

	Water area and outlying facilities	Berthing facilities	Port traffic facilities
Specially designated major ports			
National government works project	National government 5.5/10 Management body 4.5/10 The national government, however, bears 2/3 for breakwaters and shipping channels.	National government 5.5/10 Management bodies 4.5/10 The national government, however, bears 2/3 for retrofitting of gateway ports.	National government 2/3 Management bodies 1/3
Subsidized projects	National government 5.5/10 Management bodies 4.5/10 The national government, however, bears 4/10 or less for basin for small crafts and other small facilities		National government 5/10 or less
Major ports			
National government works projects	National government 5.5/10 Management bodies 4.5/10 The national government, however, bears 4/10 or less for basin for small crafts and other small facilities		National government 5.5/10 Management bodies 4.5/10
Subsidized projects			National government 5/10 or less
Local ports			
Subsidize Projects			

Source : Ports Viewed in Terms of Figures 2003 (p. 80)

The revision of the Port and Harbor Law in 2000 increased the percentage of costs borne by the national government for the construction of quay walls and shipping channels in major ports deemed to significantly affect the national interest. Conversely, the share of costs borne by the national government for the construction of small-scale facilities has been decreased.

② The Status of Port Investment Policy

(a) Korea

㉑ The Status of Port Investment

In 2003 the amount of the port investment is actually USD 1.2 billion which is 9.6% share of the social overhead capital investment scale. The port investment amount has increased continuously since 2000.

〈Table 2-10〉 The Trends of Fiscal Scale, SOC Investment and Port Investment

(unit : ₩100million, %)

		1998	1999	2000	2001	2002	2003
	Fiscal Scale(A)	807,629	836,851	887,363	991,801	1,096.298	1,181,323
	SOC Investment Scale (B)	115,002	134,088	140,767	146,352	155,329	173,853
	Port Investment(C)	10,059	10,170	9,739	10,200	13,059	16,752
	Rate of Increase	8.6	1.1	-4.2	4.7	28.0	28.3
Share	B/A	14.2	16.0	15.9	14.8	14.2	14.7
	C/B	8.8	7.6	6.9	7.0	8.4	9.6

Source : MOMAF

㉒ Government Budget and KCTA

Owing to the shortage of the port facilities, Korea has faced with the serious port congestion which caused the logistic cost of the import and export transaction increased rapidly since the end of 1980s. Due to these circumstance of the shortage of port facilities, the large scale of port investment demand happened. Owing to the limit of the budget, Korean government has searched for a solution to these problems and decided to concentrate on developing the container terminal. As a consequence, KCTA can be responsible for the container terminal development was established in 1990.

Before KCTA was established in 1990, Korea developed 8 berths invested by the government budget of ₩305billion. Thereafter KCTA began to develop the container terminal enthusiastically and secured 20 berths of 4.5 million TEU handling capacity such as Gamman Terminal 4 berths, Gwangyang Phase1 Terminal 4 berths, Gwangyang Phase2 Terminal 4 berths by pouring ₩1,395 billion until 2002.

KCTA has a long term plan to develop 34 berths of 8.5million TEU by investing ₩4,269 billion from 2003 to 2011.

〈Table 2-11〉 KCTA' s Results of Container Port Development and Future Plan

(Unit: 10 thousands TEU, ₩100Million)

Classify		Terms	Berths	Handling Capa.	Invest Amount
Government Investment		'74~'91	8	216	3,052
KCTA	Sub Total	'90~'11	54	1,300	56,642
	Existing	'90~'02	20	450	13,951
	Future	'03~'11	34	850	42,691

Source : KCTA

© Private Investment

The purpose of inducing the private investment into the port development is to obtain the necessary sufficient port facilities at appropriate time and supplement the shortage of public budget from the private sector. On top of that by utilizing the private sector's creation and efficiency in design, construction, securing the investment fund, and operation in social overhead costs, national economy can be grown continuously and the life quality of the people can be enhanced directly and indirectly.

In 1994, the government introduced the law of private investment in order to increase the social overhead capital investment and increase the

efficiency. Owing to the introducing the law of private investment, the large scale of the port project began to start and the private sector emerged as a subjective body of investing berth facilities.

After introducing the law of the private investment, the private sector directly invested the berth facilities and managed them without any interference from the KCTA. That is to say the private sector which provided only the simple loading and unloading service by using the berth facilities until then has begun to design, construct, invest, operate and manage the berthing facilities and terminal.

〈Table 2-12〉 The Comparison of the Condition of Private Investment

	BTO	BOT	BOO
Definition	After construction the ownership of the facilities attributed to state. The Investor can operate and manage the facilities for a certain period	After Construction, the Ownership is attributed to investor for a certain period. After the completion of that period the ownership attributed to state	After Construction of facilities the ownership is attributed to the Investor
Main Features	The right of managing and operating the facilities attributed to nation free of charge must be established. In Case of Loan Raising the Mortgage is difficult. No case in the world except Korea.	In Case of Loan Raising the Mortgage is easy. Popular Methods for the large Scale Private Investment	
Budget Support	In Case of maintaining the Charge at a certain Level or Preventing the Liquidation of the Company	Same with Left	Impossible
Procuring Fund	Guaranting the Operating Revenue and Supporting by Budget. Procuring by Project Financing	Same with Left	Loan from Bank or Project Financing
Tax	Exemption(Abolition) VAT Tax for the User Fee. Exemption for the Acquisition and Registration of Real	Exemption(Abolition) VAT Tax for the User Fee. Exemption for the Acquisition and Registration of Real Estate	VAT, Acquisition and Registration Tax. Real Estate Tax

〈Table 2-13〉 The Current Status of Private Investment

(unit: ₩100million, 10,000Ton)

Project	Contents	Handling Item	Progressing
Busan New Port (1st Phase)	<ul style="list-style-type: none"> Period : '96. 08 Invest Amount: 19,984 Scale; Berths 9 (5) 	Container	Start : '00. 12
Mokpo New Port (Phase1-1)	<ul style="list-style-type: none"> Period : '95. 04 Invest Amount : 991 Scale; Berths 2(3) 	Multipurpose (General CGO)	Start : '00. 12
Mokpo New Port (Phase 1-2)	<ul style="list-style-type: none"> Period : '01. 04 Invest Amount : 352 Scale; Berths 1(3) 	Multipurpose (General CGO)	Start : '02. 2
Incheon N. Port (Phase 1-1)	<ul style="list-style-type: none"> Period : '97. 05 Invest Amount : 1,364 Scale; Berths 3(5) 	Scrap Iron	Start : '02. 6
Incheon N. Port (Phase 2-1)	<ul style="list-style-type: none"> Period : '02. 06 Invest Amount : 1,986 Scale; Berths 3(5) 	Multipurpose (General CGO)	Designating Negotiator : '02. 1
Masan Port (Phase 1-1)	<ul style="list-style-type: none"> Period : '01. 07 Invest Amount : 2,200 Scale; Berths 4(3) 	Container Multipurpose (General CGO)	Designating Negotiator : '01. 6
Pohang New Port (Phase 1-1)	<ul style="list-style-type: none"> Period : '02. 05 Invest Amount: 2,742 Scale; Berths 4(2) 	Container Multipurpose (General CGO)	Designating Negotiator : '01. 10
Ulsan New Port (Phase 1-1)	<ul style="list-style-type: none"> Period : '01. 06 Invest Amount: 1,909 Scale; Berths 6(2) 	Container Multipurpose (General CGO)	Designating Negotiator : '01. 12
9 Projects	Berths 32(315.28bil)		

㉔ Inducing Foreign Direct Investment

In addition to launching the private investment system, the government promotes the foreign direct investment system in order to overcome the limit of the domestic procuring scale.

In accordance with the government policy, the foreign direct investment

have increased very actively from the end to 1990s. In 1999, Evergreen took part in the Gamman container terminal expansion Project, the phase 4 of Busan port with 30% of US\$ 30 million. In 2000, PSA participated in developing the multipurpose terminal in the Incheon South Port with 60% of US\$ 200 million. In 2001, Hutchison Port Holdings(HPH) has invested US\$ 200 million in the Gwangyang Phase 2 container terminal.

Furthermore, the Busan New Port Inc. developing the 1st Phase of Busan New Port attracted CSXWT of USA to undertake 24.5% of US\$ 60 million in 2002.

〈Table 2-14〉 The Status of Foreign Direct Investment into Port Project

(Unit: 10,000 TEU, Million US\$)

Company	Project	Capacity	Share of Investment	Invest Amount and Methods
HPH	Gamman(1), BCTOC, Gwangyang Phase 1	180	100%	US\$216 Undertaking('01)
	Gwangyang Phase 2	120	80%	US\$200 Undertaking('01)
DPW (CSXWT)	Busan New Port Phase 1-1(2km)	205	24.5% & Right of Management	US\$60 (BTO)('02)
PSA	Incheon South Port(900m)	110	60%	200 BTO('01)
Evergreen /Uniglory	Gamman Expansion	65	30%	US\$30 Investment('01)
OOCL/ZIM	Gamman(350m)	30	20%	Investment('98)

(b) China

④ Reform on investment and fundraising policies of the Chinese ports

The evolution of investment and fundraising system of the Chinese ports is the same as that of source of infrastructure funds of China, experiencing several phases, that is the state financial appropriation, loans changed from appropriation, coexistence of multiple investment and fundraising modes.

i) The port investment mode by the state financial appropriation

From the foundation of the PRC to 1983, the construction investment of the Chinese ports had adopted the mode of the traditional planned economy for a long time, which is characterized by investment body with the single mode and highly centralized investment decision by the state. Once a construction project was approved, it would be invested by the state financial appropriation adopting the mode of sliced distribution per department and per area, and the fund would be used “free for charge”. Meanwhile, all the profits gained from port operation would also basically be delivered to the state treasury. This kind of highly centralized investment system with separate channels for revenue and expenditure has effectively pooled the limited financial and resources of the country in the condition of very poor port infrastructures in the preliminary stage after the foundation of the PRC, consequently guaranteeing the construction of key ports.

ii) The port investment mode of loans changed from appropriation

Through the establishment of the “loans changed from appropriation” system, our country has changed from free use of the state financial appropriation to paid use. The implementation of the policy had wobbled the essence of the traditional port investment system, which has also made the investment and fundraising system of the Chinese ports fundamental

changes, consequently lifting the curtain of the reform on investment and fundraising system for port infrastructure. The core of the reform is as follows: the Ministry of Finance and the Ministry of Communications check and ratify the amount of capital for maintaining ports as the base of profits over the years, which will be remained unchanged for a period of five years to be used for investment in capital infrastructure of the Chinese ports. This also means maintaining ports by ports, expenditure by revenue, turning in the margin with the fixedness.

iii) The port investment mode of setting up port infrastructure funds

In October, 1985, Measures of Collecting Port Infrastructure Fees promulgated by the State Department and Implementing Rules about Collecting Port Infrastructure Fees subsequently published by the Ministry of Communications specified that port infrastructure fees will be imposed on open ports (the scope was enlarged after 1993), which will be used as a source of special fund for speeding up the port infrastructure and managed as extra budgetary funds. Its scope of use is mainly for the infrastructure of wharfs, jetty, dock basins, waterways, sea-route and other infrastructure projects of coastal ports (including berths for docking ocean going vessels) as well as projects for over-water barge measures.

iv) The port investment and fundraising mode through multiple channels

In the late nineties of 20th century, China had launched related policies to further expand the mode of the port investment and fundraising. The country made the change from planned loans to commercial bank loans and meanwhile launching various measures such as introducing foreign capital, attracting investments from economy organizations inland and abroad and so on. Since then, the market economy oriented guideline had become more

clear in the reform on the port investment and fundraising system on the state level and the reform had also accelerated gradually. In December, 1997, the State Department promulgated Guideline Directory of Foreign Investment Sectors, of which water transportation projects are included for implementing policies of encouraging investments. In April, 2002, the Chinese Mainland removed restrictions on share ratio for foreign investment in the port construction.

Taking into accounts of the reform on the investment and fundraising system of the Chinese ports, the investment of the central financial funds is shown in <Table 2-13>.

<Table 2-15> Characteristics of historical phases of port investment made by the central financial funds

Years	Source of funds and mode of investment	Targets of investment
Before 1984	The state financial appropriation	Port enterprises
1984-1988	“Loans changed from appropriation”	Ports under dual leadership
		Local ports
	“Special kind of loans changed from appropriation”	Ports under dual leadership
		Local ports
1988-1994	The Central Government-level capital infrastructure operation funds	Ports under dual leadership as well as local ports
1984-2001	“Maintaining Port through port operations” funds	Ports under dual leadership
1986-2002	Port infrastructure funds	Port infrastructure and navigation assistance and support system

⑥ Status quo of investment and fundraising of the Chinese ports

i) Port attribute

According to the prescribing of the Law on Ports, the facilities of the Chinese ports are generally classified into two parts: one belongs to infrastructures, such as waterway, jetty, road to port, anchorage, service wharfs and so on; another belongs to operating facilities, such as productive wharfs and berths, operation pontoons, warehouses, storage yards, machinery, equipment and so on. According to the 20th, 21st article of “the Port Law”, the local governments above county level should guarantee essential fund input for the construction and maintenance of infrastructure, such as public channel, breakwater, anchorage of port, etc.. They also should organize the construction the assistant facilities, such as channel, railway, and highway related to port, giving draining off water, power supply, communication, etc.. Under the present port investment and fundraising system, the public infrastructures are invested by the government and large port enterprises, the infrastructures and operational facilities dedicated to an enterprise are mainly constructed and managed by the proprietors of such facilities.

As for investment return period and direct return, the investment and fundraising for the port public infrastructures is more difficult than the operational one. In a very limited number of ports including Shenzhen Port, port enterprises construct and maintain waterways, beacons under use with their own investments (while Shanghai Port maintains waterway completely relying on the government finance). Other ports perform the port infrastructure and maintenance mainly relying on financial and fund investment at various levels, which is also a big disadvantage in the current

investment and fundraising system of the Chinese ports with insufficient investment in the public port facilities, poor fundraising channel and a shortage of sources of maintenance funds. The analysis of port investment and fundraising below mainly focuses on the operational port facilities.

ii) Port investment modes

Since the nineties in the 20th century, funds actually used for the infrastructures of the Chinese ports mainly came from the following seven sources: the state budget, the local government budget, domestic loans, use of foreign capital, special funds arranged by the Ministry of Communications, funds raised by corporation or institutional units on their own, and other channels, among which domestic loans and funds raised by corporation or institutional units on their own amounts to 70%, the state budget and special funds arranged by the Ministry of Communications amounts to about 8%.

- The state budget. It is the fund used for investment in the port infrastructures obtained from the central financial and tax revenues, which are placed into the state financial budget. It can be divided into the financial appropriation and loans arranged by the financial authority, the former is the non-operational fund within the budget while the latter is the operational fund.
- The local government budget. It is the fund used for investment in the port infrastructures obtained from the local financial and tax revenues, designated local transportation fee levies and other modes that are placed into the local financial budget including funds raised by the local governments on their own.

- Domestic loans. Loans that enterprises obtain from domestic banks and financial organizations for the port infrastructures, such as loans obtained from the four state-owned large policy banks or other commercial banks.
- Use of foreign capital. As for the port infrastructures, foreign capital is used with foreign direct and indirect investment, including foreign capital invests, operates and manages directly or through their subsidiaries. In addition, there are also loans obtained from foreign banks, international financial organizations or other institutions for the Chinese ports investment.
- Special funds arranged by the Ministry of Communications. The special funds for the purpose of transportation are collected by the Ministry of Communications through various kinds of charges. At present, they include tax of vehicle purchase, port infrastructure fees and freshwater expenditure (or fund).
- Funds raised by corporate or institutional units on their own. They include funds owned by enterprises, and funds used for the port infrastructures that are raised through issuance of bonds and IPOs.
- Other channels. In the investment of the Chinese ports infrastructures, other channels of fund sources in addition to the six modes above, including privately-run capital and so on.

The following table shows the proportion of investment and fundraising in permanent assets of the Chinese ports in 2002.

〈Table 2-16〉 Proportion of investment and fundraising in permanent assets of ports in 2002

Source of funds	Proportion of investment and fundraising in ports	Description
Total percentage	100%	-
Investment within the state budge	1.1%	Funds within the state and local financial budgets
Domestic loans	20.0%	Loans by domestic commercial banks and financial institutions
Utilization of foreign capital	6.5%	Loans by foreign investment, foreign banks and financial institutions
Port infrastructure funds	5.7%	Re-investment including returns and retention after being delivered to the state
Freshwater expenditure	0.7%	Originally freshwater funds
Funds raised by corporation or institutional units on their own	51.7%	Self-owned funds of enterprises, bond issuance, fundraising through IPO and so
Locally raised funds	7.9%	Fundraising of local governments through collection of charges and other modes
Others	6.4%	Privately-run capital and so on

The data above show that the investment within the state budget, port infrastructure funds and freshwater expenditure altogether amount to 7.5% of port investment, while domestic loans, utilization of foreign capital, and funds raised by corporate or institutional units on their own altogether amount to 78.2%. The main source for infrastructures of the Chinese ports is funds raised by corporate or institutional units on their own, domestic loans and utilization of foreign capital.

iii) Operation modes of the port privatization in China

At the medium and small port of Jiangsu, Zhejiang, Fujian and Guangdong, especially among the inland port, quite a lot of these are the private self-built enterprise. In the harbor of Quanzhou, one of the main seaports of Fujian, 1/3 berths which accounts for the total amount are private port enterprises. The operation modes of the port privatization in China are as follows:

- Assets of the state-run port are sold. The assets are sold to the private directly, the private capital participating in port construction and operating through owning the original share holding. Original enterprises of state-run port withdraw the state-capital from and transfer operator and worker to enterprises. The port was transformed into the new-type private share enterprise.
- Port stock is listed and circulated. Private buy the Port stock which circulates publicly, which makes the listing port become the public company. The port listed company at present in China are: Chiwan Port , Yantian Port , Fuyuehua, North Sea Xinli, Shanghai Container Co., Jinzhou Port , Chongqing Container Co., Yingkou Port, Wuhu Port and Tianjin Port.
- Port enterprises reform system. With the ports system reform of new round in China, dismantle a pure business management group from the harbor bureau. It affords the investment and management function at ordinary times. As an independent entity, the employees hold the group's share holding after reforming system.
- Establish the co-partnership company with the non-governmental fund. Port authorities offer the land water front, facility, rear under water to collect the network and convert into the share, the partner offers the

fund, technology and equipment. These generally adopt the form of the Limited Company, which cooperates in managing, and has the common development. For example, Hutchison China Trade Holdings manages the container terminal of Shanghai by cooperating with port office of Shanghai, Singapore an port office makes the investment and participates in the construction of the container terminal of Dalian, Nantong, Taicang Container Port.

- Adopt BOT way. That is after private capital invested built the port, it will be handed free property right to the government. The government then rents former investors to manage and operate with the symbolic expenses. This is the new commonly mode in using private finance of container terminal in the world. Generally allotted time of management is relatively long. The benefit of doing it in this way is solving financing smoothly while developing the new harbor. At the same time, it can improve the handling capacity of port within short-term. In April 2002, China cancelled share-restrain for foreign capitals investing port, but there are no port enterprise that takes BOT way of privatization at present.

Besides above-mentioned modes of operating, in the privatization course of investment of port at present of China, there are exist and lease the existing place with equipment too, or the lease holder makes the investment and extends and acquires with the equipment the place. The harbor bureaus are only responsible for supervising the port privatization of management operating.

Because the private enterprise relatively smaller and weaker in China, and large-scale port assets larger, so the private capitals in China at present enter port investment only in coastal medium and small port and inland port

mainly. It is still the main form of present port privatization of our country to build and manage the port in Sino-foreign joint venture. It is the main characteristic.

iv) Foreign capital in the port investment and fundraising system

Provisional Regulations on the Preferential Treatment in the Construction of Wharfs with Sino-Foreign Joint Venture promulgated in 1985 has opened the door of port infrastructure investment to international capital by the Chinese port industry. At the end of 1987, Nanjing Port Authority and Encinal Terminals (a US container terminal company) jointly set up Nanjing International Container Terminal Service Co. Inc. (NICC), thus becoming the first Sino-foreign terminal enterprise in China.

In order to speed up the pace of opening up the port industry, the Ministry of Communications promulgated Implementing Rules about Road and Water Transportation Industry Policies in January, 1990, attracting much more foreign investments through multiple channels, forms and levels to be used for the infrastructure of key ports.

In 1993, Shanghai Port Container Integrated Development Co. and Hutchison Whampoa Limited (HWL) jointly set up Shanghai Container Terminal Co., Ltd. (SCT), of which the latter owned 50% of shares, representing that the utilization of foreign capital of the Chinese ports has moved up to a new stage. In July, 1994, Shenzhen Yantian International Container Terminal Co., Ltd was jointly established by HWL and Shenzhen Yantian Port Group. After being specially ratified by the Central Government, HWL owned 73% of shares, which has been the first time for a foreign company to hold controlling shares in a large scale container port direct.

As of the end of 2001, among 1,467 commercial ports having already been built in China, 55 ports have been established with participation of foreign capital. Basically all container terminals of the main Chinese ports have foreign capital. There are more than 40 container terminal enterprises are operated and managed by foreign capital among the ports in Mainland China.

The 4 largest port investment groups in the world, namely HWL, PSA Corp., Maersk of Denmark and P&O of UK, have all entered China port industry. The two largest port proprietors in Asia, namely HWL and PSA Corp. represented the groups. The company with the highest proportion of foreign shares is Shenzhen Yantian International Container Terminal Co., Ltd., with up to 73% of foreign shares and more than 50 years of joint operational period.

HWL has been the first to hold controlling shares in a large scale Chinese container port district. In addition to the investment in Shanghai Port, Ningbo Port and Yantian Port, it has also invested in six ports including Xiamen, Shantou, Gaolan of Zhuhai, Jiuzhou of Zhuhai, Jiangmen and Nanhai located in Pearl River Delta Region through its subsidiary Hutchison Delta Port. PSA Corp. made investment in China with a total amount of more than RMB 3 billion, including Dalian Container Terminal, Fuzhou Qingzhou Container Terminal, Fuzhou Jiangyin International Container Terminal, Guangzhou Container Terminal and so on.

〈Table 2-17〉 List of inland wharfs partially invested by foreigners

Ports	Terminals	Designed Size (TEU/Container berth quantity)	Foreign investors	Share percentage
Dalian	Dalian Container Terminal (DCT)	1.80 million/5 berths	PSA Corp., Maersk	49%
Tianjin	CSX WT	1.40 million/4 berths	CSX World Terminals	49%
Qingdao	Phase II of Qingdao Qianwan Container Terminal (QQCT)	1.50 million/3 berths	P&O	49%
	Phase III of Qingdao Qianwan Container Terminal (QQCT)	2.45 million/7 berths	P&O, Maersk, COSCO Pacific Ltd	29%, 20%, 20%
	Qingdao Cosport International Container Terminals Co., Ltd.	1 berth	COSCO Pacific Ltd	50%
Shanghai	Shanghai Container Terminal 'SCT'	1.70 million/10 berths	HWL	50%
	Phase IV of Shanghai Waigaoqiao	1.80 million/4 berths	AP Moller	49%
	Shanghai Pudong International Container Terminal	1.60 million/3 berths	HWL, COSCO Pacific Ltd	30%, 20%
Ningbo	Phase II of Beilun Port, Ningbo	0.80 million/3 berths	HWL	49%
Guangzhou	Guangzhou Container Terminal (GCT)	1.02 million/6 berths	PSA Corp.	49%
Shenzhen	Yantian International Container Terminal	4.00 million/5 berths	HWL	73%
	Shekou Container Terminal	0.50 million/2 berths	ChinaMerchants Holdings (CMH), COSCO Pacific Ltd, P&O, HKG Swire	32.5%, 17.5%, 25%, 25%
	Chiwan Container Terminal	0.85 million/3 berths	China Merchants Holdings (CMH), Kerry Properties	20%, 25%

* As of the end of 2003

(a) Japan

(Various support systems for reorganization and effective use of coastal areas)

Since the land of coastal area is substantial, it is suitable for large-scale development. Moreover, since it is in contact with a city and the sea, it has high potential as a base of exchange. In order to reorganize the coastal area for optimum use, various kinds of port related support systems have been introduced.

For example, since the year 2000, the national government has been supporting “Port renovation projects” which are implemented by concerned parties such as port authorities, local governments, landowners and private companies.

① Port renovation projects

(Coastal area reorganization utilizing existing facilities)

In a port renovation project, ports are transformed into high-quality, comprehensive coastal areas that not only serve as distribution and industrial spaces but also include green belts and marinas. By converting existing facilities or developing under utilized areas, coastal zones can both contribute to the economy and provide communities with ample space to relax.

② Private sector support project

(Various support systems for reorganization and effective use of coastal area)

In order to promote reorganization and effective use of coastal areas, support systems for private sector participation in port development are available.

Private sector support projects utilize the know-how and vitality of the private sector in constructing facilities that have become necessary due to socioeconomic changes.

㉔ Facilities specified under the Private Participation Promotional Law

The construction of facilities which are specified under the Private Participation Promotional Law (e.g., international conference halls, passenger terminals, port operation buildings, observation facilities, warehouses etc.) is supported by this system.

Contents of support

- A subsidy from national government and port authority
(Rate of assistance: 5% of working expenses)
- An interest-free loan from the national government
- A low interest loan from the Development Bank of Japan etc.

㉕ Specially designated urban development projects

Support for construction of buildings of fixed scales, such as passenger terminals, and accompanying public facilities, (such as roads, green belts, quays, physical distribution institutions, exhibition halls etc.).

Contents of support

- A subsidy from the Organization for Promoting Urban development
- An interest-free loan from the national government
- A low interest loan from the Development Bank of Japan etc.

㉖ The core-institution construction project which is useful to the advancement of the function of a port

Support for construction of a core-institution which enhances a port's functions, such as a passenger terminal, a port operation building,

Fisherman's Wharf, and a port promotion plaza (import exhibition institution)

The contents of support

- A subsidy from the national government and port authority for port promotion plaza construction (Rate of assistance : 5% of working expenses)
- A low interest loan from the Development Bank of Japan etc.

2) The Current Status and Future of Port Development

(1) Korea

① Port Development Plan

In the past, ports of Korea have been developed as a demand following development pattern, according to the growth rate of cargo demands because of the difficulty of securing the budget, the shortages of port facilities and the rapid increase of the cargo volume.

However, a number of port experts and port related industry emphasize that port must be developed before the demand rush. Nowadays, the pattern of port development has been slowly changed to the supply initiative pattern in order to reinforce the competitiveness and uplift the service quality. In other words, even though demand is not produced the port facilities, they must be provided in advance.

In Korea, the Ministry of Maritime affairs and Fisheries prepared The National Master Plan of Port Development in 2000. According to that National Master Plan of Port Development, Korea will develop total 333 berths consisted of 205 berths in new port, 82 berths in existing port, 46

berths in newly designated new port in 1999 from 2000 to 2011. With the completion of the port development plan, the handling capacities will be added about 609 million ton of cargo including 24.6 million TEU of container trade volume. It means that the cumulative handling capacities of Korean ports will be 1,027 million ton and 30.3 million TEU. It is to say 100% of attained facilities against the cargo demand.

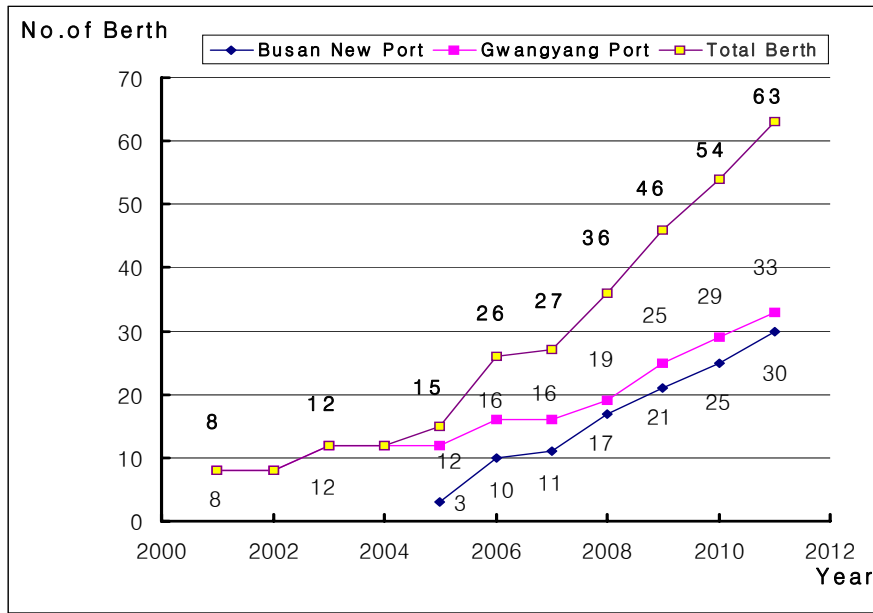
It will take ₩37 trillion to complete that National PORT master plan. The total required investment amount consisted of two sectors, that is, the government sector and private sector. The government will supply 57%, ₩21 trillion of the total required amount and the remnants of 43%, ₩16 trillion including the share of KCTA's ₩4.8 trillion will be raised from private sector. It is very important to look into by subject port side to be invested. It will be invested ₩24 trillion, 65% of total amount to the new port, 11% of ₩4 trillion to newly designated as a new port, and 24% of ₩9 trillion to the existing port.

〈Table 2-18〉 The Summary of Korea Port Development Plan

(Unit : ₩100 million)

Grouping	Berths /Container	Total Investment			Handling Capa.(2011) (Million ton/ 1,000TEU)
		Total	Government	Private/KCTA	
New Port	205 / 73	239,918	124,600	115,318/47,298	318 / 17,959
Busan	30 / 30	74,578	42,495	32,083/12,440	93 / 8,040
Gwangyang	29 / 29	48,349	13,491	34,858/34,858	93 / 8,361
Incheon	18 / -	9,922	4,596	5,326/-	17 /-
Pyungtaek	60 / 3	36,590	23,358	13,232/-	61 /321
Ulsan	29 / 4	35,241	18,093	17,148/-	26 /428
Mokpo	13 / 3	6,824	3,338	3,486/-	9 /321
Youngil	14 / 4	18,692	9,507	9,185/-	12 /428
Boryung	9 / -	2,948	2,948	-/-	5 /-
Saemangum	3 / -	6,774	6,774	-/-	2 /-
Existing Port	82 / 15	85,208	55,885	29,323/1,083	255 / 5,524
Total	333 / 98	370,036	210,011	160,025/48,381	609 / 24,553

〈Figure 2-2〉 Port Development Plan By Year



② Waterfront Development Plan

The basic direction of the waterfront development plan is to create the buffering zone between port and city and provide the marine space for amusement in order to up lift the quality of citizen's life. The waterfront development plan should be designed and reflected in time of designing the new port and remodeling the old facilities. In designing the waterfront development plan, the main functions or facilities to be considered and invited are a culture and recreational function such as public park and green areas, theme park, marina resort, exhibition center as well as the maritime transportation function like the passenger terminal for domestic and foreign tourist. The basic design and execution design for the waterfront development is carried out by the district of maritime affairs and fisheries with an intention of preparing more adaptable plan for local area.

〈Table 2-19〉 The Development Plan of Waterfront

(Unit: ₩100million)

Classify	No.	Budget			Duration	Remarks
		Total	Public	Private		
Total	25	12,820	3,536	9,284	`01~`20	
Existing Port	15	10,850	2,791	8,059	`01~`20	
New Port	10	1,970	745	1,225	`02~`20	

(2) China

① Port development plan and investment in the future in China

In the first three years when the Tenth Five-Year Plan is implemented, the newly-built coastal port of China increases by 111 deep-water berths, 41 medium and small berths. This formed 280 million tons of over passing ability. The coastal port has a net increase of 105 million tons of over passing ability, among which the container over passing ability is 9, 450 thousands. The handling capacity of the total coastal ports will reach 3 billion tons, 100 million TEU by 2010 to expect, which will meet the demand for development of national economy basically. By 2020, the handling capacity will reach 4.4 billion tons, 170 million TEU, which will meet the development of national economy.

(a) Dalian Port

It is estimated that by 2010 , the gross investment used in the port and build is expected to be up to 27 billion ¥, which can reconstruct two new Dalian ports in other words. In the tenth Five-Year Plan, the throughput of Dalian petrochemical port will reach 25 million tons and become the biggest

petrochemical sea base in Northeast. It also planed to build the 200 thousand tons ore harbor, designed capacity is 11 million tons. By the end of 2010, the throughput in Dalian port will reach more than 200 million tons, 7 million TEU. By the end of 2020, the throughput will reach 300 million tons, 15 million TEU.

(b) Tianjin Port

In order to meet international shipping such as deep water, maximization, specialized, Tianjin Port planed to invest 27.3 billion (15.4 billion before 2006) for port construction, expansion in the scale, promotion in the grade, expansion about the function, adjustment in the structure. By 2006, there will be been built up a 200 thousand-ton channel grade and 200 thousand-ton port. There are 10 container berths will be built in the north Jiang before 2010. Meanwhile, 250 thousand-ton crude oil berth and large-scale bulk cargo berth will be built by 2007. It is estimated that the throughput of the port will be up to 300 million tons in 2010, 10 million TEU. The port will have the ability to receive supreme luxurious ocean liner in the world.

(c) Qingdao Port

Qingdao Port is planned the fund which invests in port construction is up to 16 billion ¥ during the following 7 years. It aims to be the regional international shipping centre by the end of 2010. The port throughput will reach 150 million tons, among them the container is up to 7 million TEU. The port throughput will reach 230 million tons by 2010, 10 million TEU. It will also realize the second great leaps of the throughput.

(d) Shanghai Port

Shanghai port is now in the national-level construction of Yangshan harbor. The gross investment is expected to be up to ¥100 billion. The first stage will contain 14.3 billion investments. The first project includes the quay of 1.6 km of water front, 5 container berths, which can dock five to sixth container shipping. The first stage will be completed by 2005, which designs the handling capacity of 2.2 million TEU and may be up to 3 million TEU. By 2020, Yangshan deep water harbors form the south and north harbor relying on big and little Yangshan Island. The harbors have the water front about 18 kilometers and more than 50 deep-water berths of containers, which are designed annual handling capacity of above 15 million TEU.

The whole development plan of Shanghai Port is that the handling capacity of container is up to 17 million TEU in 2010, up to 25.4 million TEU in 2020.

(e) Ningbo Port

By 2007, Ningbo Port throughput will reach 200 million tons, which aims to ranking the top of 5 large ports. The throughput of container will reach 6 million TEU, which aims to ranking the top of 15 large ports in the world and the top of 4 large ports in China. The precondition is building up the international ocean arterial container port. By 2020, the throughput of the whole port will reach more than 280 million tons and keep the top 5. The throughput of container will reach above 15 million TEU, entering the top of 10 large ports in the world. The international ocean arterial container port will be consolidated and strengthened further.

(f) Shenzhen Port

Three-stage of Yantian harbor, two-stage and three-stage of Shekou harbor projects in Shenzhen port are building hot and under construction. The B of three-stage project in Yantian harbor will be invested 10 billion ¥, which contains newly build 6 to 7 berths. There will be annual 4 million TEU to be disposed in the big-shovel gulf port. The first-stage of the project plans to build 1830-meter-length of the berth. The depth of water of the front is -15.5 meters along the 5 large-scale special-purpose berths for container. The comprehensive handling capacity will reach 2 million TEU.

By the year of 2005, there will be 10 special-purpose berths for containers in the port of Shenzhen. The bronze drum channel will also get development and construction. By 2010, there are 10 special-purpose berths for containers will be building again. Meanwhile the big-shovel gulf will be developed into special-purpose harbor for container at the same time. It is predicted, in 2005, the throughput of the Shenzhen port will be close to 150 million tons, the throughput of the container is up to 13 million TEU.

(3) Japan

The following is an example of the latest port development in Japan.

① Hibiki Container Terminal PFI Project

(a) Introduction

In 1995, the Ministry of Land, Infrastructure and Transportation, then the Ministry of Transportation, released a long-term port policy named “Ports in the Age of Global Exchange”. It provided for the development of an international hub port in Northern Kyushu. Accordingly, the Kitakyushu-city government has formulated a plan to develop a hub port catering to

container traffic from the Yellow Sea area to North America and Europe.

Kitakyushu-city government adopted PFI for the financing as well as the construction and operation of terminals in the framework.

(b) Outline of the project

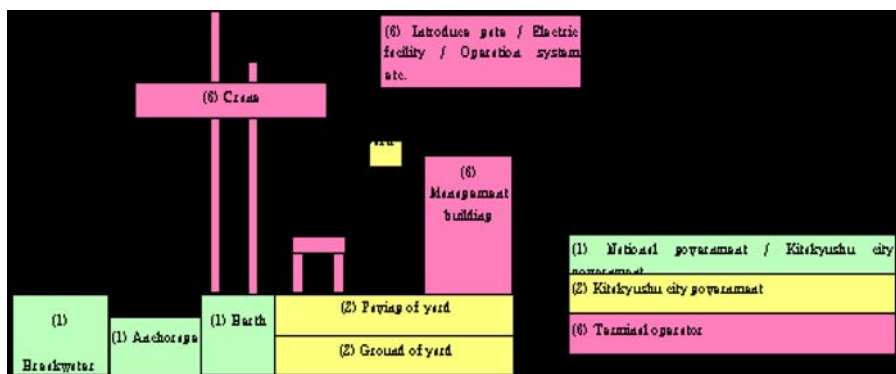
No. of Berths (-15m) : 2 (length: 700m)

No. of Berths (-10m) : 2 (length: 340m)

Area of the terminal : approx. 43ha

Total cost : approx. 100billion JNY

(Including cost of berth construction etc. by governmental-sector)



(c) Project features

① PFI method

PFI organizer, selected through open tendering, raises its own financing, constructs and manages port and terminal facilities over a 25-year concession period.

② Construction of port facilities / Form of management

The public-sector constructs basic infrastructure such as berth, lane-anchorage, breakwater, backup-yard, etc. On the other hand, PFI organizer

uses its own funds to construct / procure superstructure such as crane, loading facility, management building, introduce gate and operation systems, etc., and receives permission to manage the terminal area by city government.

The PFI operator uses its cargo handling revenues to cover management expenses and the fee it pays to the city government for usage of the yard. The PFI operator must thus be financially self-supporting.

© Status of the project

This PFI project commenced in May 2000. Sixteen private enterprises represented by PSA and Kitakyushu-city government concluded an agreement for investment in the “Hibiki container terminal Inc.” on January 26, 2004. Then PFI organizer and Kitakyushu-city government concluded an agreement for operation on February 5, 2004. The PFI organizer and governmental-sector are currently constructing facilities in the terminal area.

(d) Expected effects of PFI

By introducing PFI, the private sector, operating the terminal area, attempts not only to obtain port equipment at a lower price but also to construct port facilities timely in accordance with handling volumes. Therefore, true cost reduction can be achieved. And in order to recover its investment, the PFI organizer will have to increase the operating ratio by offering internationally competitive cargo handling charges and services. By inviting tenders from both within and outside the country, a superior company having an abundance of technical and management skills was selected.

In this way, the port will be able to offer container handling services that can compete with any of the major ports in Asia. Cargo handling volumes will rise and service levels will continue to improve. Such an internationally

competitive hub port will contribute not only to the development of the Kitakyushu harbor as a whole, but also to local production and the revitalization of the economy in the Kitakyushu city area.

〈Figure 2-3〉 Hibiki Container Terminal



② Super Central Port Project

(a) Introduction

In recent years, the status of Japanese container ports has fallen as a result of severe competition from neighboring Asian ports. In 2002, the council for ports and harbors, after reviewing its earlier submission, “Port and Harbor Development and management in Response to Socioeconomic Changes”, recommended the establishment of a super central port to increase the country’s competitiveness in the international container market. The aim is to increase cooperation between the private sector and governmental agencies in order to offer high-quality service at a price which is competitive with the large ports in Asia.

(b) Outline of the project

- Realization of the reasonable charges which can compete with the main ports in Asia
- 30 percent of the present port charge will be reduce to bring it in line with that at Busan port and Kaohsiung port.
- Lead time will be shortened from the present 3 or 4 days to 1 day the same as at Singapore port.

(c) Project features

In fiscal year 2004, each super central port will try to introduce an integrated terminal system and adopt IT (Information Technology). In the budget for fiscal year 2005, the government will include necessary support measures.

Chapter 3

Research for promoting the Establishment of Free Trade Zone

1. The changes of the FTZ environment in port

With the departure of the World Trade Organization and the Economic Block like the Free Trade Agreement, the suggestion of the world economy is actively reorganized and deployed to the opening era. The business management is also globalized by the progress of the internationalization, the advancement of information and communication and transportation technology. The global companies have established the international logistics system at the specified area like the main hub port or airport, where is convenient and advantageous for procuring, producing, and distributing activities

Especially, a lot of countries are trying to activate the port hinterland logistics complex in order to cultivate the port as a focal point of the international logistics by introducing the free trade zone where the global logistics companies can be easily located and can enjoy the excellent location

2. The FTZ policy in port of each country

1) The policy of the FTZ and back up area in port

(1) Korea

① The Background and Current Status

Although the recent free trade zone of the world has been transformed and progressed to the pattern of complex free trade zone where the logistics companies and the manufacturing companies are interconnected, that of the Korea, the free custom zone and the free trade zone, have been separately operated until 2003 in which this is for the logistics and that is for manufacturers. By that kind of system, Korea has experienced many problems that we cannot expect the synergy effect and make the foreign companies which want to move into confused.

Therefore, in2004, Korean government revised and integrated the law of the free customs zone into the law of free trade zone in order to improve the environment of foreigner's investment and prepare the institutional basis for becoming the economic and logistics hub in the N.E Asia.

The condition of designating any area as a free trade zone is as follows

- The industrial complex as stipulated in item 5 of article 2 of the law of industry location and development

The airport and back up area of airport as stipulated in item 5 of article 2 the law of air

- The distribution park as stipulated in the item 1of article 2
- The cargo terminal as stipulated in the item 7 of article 2
- The port and back up area of the port as stipulated in the item 2of the

article 2 of the law of port.

On top of that, if a certain area needs to be designated as a free trade zone following the individual law, it must secure the sufficient social overhead capital such as road and establish the necessary facilities for the efficient taking in and out of cargoes as decreed by the order of the president and must establish the control facilities or plan to establish it.

The designation of the commerce free trade zone is generally responsible for the Ministry of the Industry and Energy with the exception of the port and it's back up area which is responsible for the Ministry of Maritime Affairs and Fisheries.

By this separated FTZ designation system, it can be possible to designate the FTZ according to the characteristic of port, airport, industrial complex and to manage it professionally.

By introduction of the real FTZ system in April 2004, the logistics area of the Busan New Port and Gwangyang Port will be designated as a FTZ and induce the foreign companies with a huge incentive such as the exception of the corporation tax, customs tariff and cheap rental fee.

In addition, the FTZ's of Korea have introduced the Special Economic Zone System in 2002 for increasing the national competitiveness as a Business Hub Nation of N.E Asian area by attracting the foreign business companies of high value added and knowledge basis.

In November of 2002, the law of designation and operation of the economic free zone was passed in national assembly and that law was effective from January 2003. Especially, the law of economic free zone is concentrating on supporting the necessary condition institutionally for establishing the foreigner's friendly environments of managing business and life. The economic free zone is a kind of special zone or special industrial

complex for inducing the foreign direct investment in the chain of the policy of attracting foreign investment and technology by providing the various infra and the benefit of tax and other administrative privilege.

② The Function and Role of FTZ

The law of the FTZ divided the FTZ into three category as a production facility zone, logistics facility zone, a support facility zone. The production facility zone is an area where the manufacturing company can be induced on the condition of free from the restriction of the related law and regulation. The logistics facility zone is an area where the company can manage and operate the function of warehousing, transportation, cargo handling, packing, exhibition, sale and maintaining, etc. The support facility zone is an area where the company provides the service of supporting the residing company, such as banking, custom clearance, information and social welfare function for the workers.

The FTZ will play an important role of contributing the national economic growth by promoting the inducement of foreign investment, promoting the international trade, harmonizing the international logistics and developing the local area.

(2) China

① Purpose to set up FTZ

Later stage of the eighties of last century, China has raised a discussion upsurge of building the free port, free trade area and FTZ in China under the push of reform and opening-up. The government considered at that time that the condition of building the free port and free trade area in China was

still unripe, so 15 FTZs were examined and approved successively.

According to the understanding at that time, it is opened that the free port was whole open, but the free trade area is a free trade area in the harbor. The scale of the FTZ should be smaller than the former two greatly. So the FTZs are approved and opened for examination. According to the definition of FTZ, the FTZ should belong to the domestic outside customs supervision. According to international practice, the customs does not supervise so long as operate legitimately, which namely be called outside customs supervision.

The difference between FTZ and other special economic zones, processing exporting area, technological open district is not very clear. Generally speaking, the preferential policy of FTZ should be a little more favorable. The achievements of FTZ are often connected greatly with the emphasis degree of the local government, understanding degree and measure because there aren't any laws to ensure FTZ perfectly and the main body is not very clear. Commonly, the achievement will be large in the area which has the developed economy and the form goes ahead, such as Shenzhen, Shanghai, Tianjin etc. These three FTZs achievements are remarkable and they are the representations which economy developed well in the Zhujiang River Delta, the Yangtze River trigonometry and Bohai Gulf.

Because the construction purpose of FTZ is indeterminate, FTZ is often wrongly regarded as the general export processing zone or special economic zone. The favorable export and import conditions are not utilized more convenient to develop foreign trade and international logistics ,etc. These made the similar in industrial structure between FTZ and export processing zone, technological open district, etc. The economic benefits of some FTZs are not so good. For example, although the FTZ area of Zhuhai larger than that of Shenzhen, but the GDP is only about 2% of Shenzhen and the

import-export volume of the foreign trade is only 2.4% of Shenzhen. At the same time Haikou FTZ of Hainan Province give little play to any advantage in view of GDP, especially in foreign trade imports and exports and utilizing foreign capitals, etc.. That is to say, the construction purpose of FTZ is indeterminate is the result that law and behavior system lag behind. These are the main factors which cause widely different in achievement and industrial structure among the several FTZs.

(a) Types of zones²⁾

China has many types of zones and bonded areas (both of which offer relaxed import restrictions) at the state, provincial, city, and district level. Both foreign and Chinese companies may set up in all types of zones. National level zones fall into seven main categories as follows: (Walton, 2003)

- Economic and technological development zones (ETDZs) are areas that provide international standard facilities and supporting services. In general, these zones cover relatively large areas. (example : Dalian ETDZ, Guangzhou ETDZ)
- Free trade zones (FTZs) are specialized areas for international trade, foreign investment, bonded warehouses, and export processing. (example : Shanghai Waigaoqiao FTZ, Tianjin FTZ)
- High-technology industrial development zones encourage the transformation of scientific and technological advances into marketable products. (example : The Shanghai Zhangjiang Hi-Tech Park, Tianjin Hi-Tech Industrial Park)
- Border and economic cooperation zones encourage border trade and export processing, improved relations with neighbouring countries, and

2) 출처 : ESCAP, KMI, Free Trade Zone and Port Hinterland Development, 2005

better economic conditions in areas populated by national minorities. (example : Dongxing Border Economic Cooperation Zone, Yining Border Economic Cooperation Zone, Hunchun Border Economic Cooperation Zone)

- Export processing zones (EPZs) are special enclosed areas supervised by the General Administration of Customs. (example : Tianjin Export Processing Zone, Chengdu Export Processing Zone)

(b) Incentives

Enterprises in FTZs can basically enjoy almost same preferential policies with those of other special zones in China. Due to the unique advantage of treating FTZs together with EPZs as outside of Customs supervision areas, FTZs provide more incentives compared to those of other special zones in China. Major preferential policies are as follows (Walton, 2003)

○ Tax incentives

- The prime income tax rate for foreign-invested enterprise (FIE) is 15 percent of profit.
- The national government has standardized most preferential policies for FTZs, including a package of tax incentives.
- For the first two years of operations, companies are exempt from enterprise income tax. During the next three years, companies are taxed at 50 per cent of the normal FIE tax rate.
- If more than 70 per cent of the finished product is re-exported outside China territory, any remaining product is taxed at a reduced rate based on the original imported components.

○ Customs duty incentives

- There are duty exemptions on all construction or infrastructure

imports necessary for production and on all equipment, parts, and components imported for self-use.

- Import entering the FTZ from outside China proper are exempt from customs duties and VAT (value-added tax) : customs duties and VAT are assessed only after the finished products leave the FTZ for regions outside the bonded area.
- All finished goods 'imported' from the FTZ into China proper will have customs duty and VAT assessed based on a ratio of locally sourced inputs to imported components.
- Local level incentives
 - Each zone can, and often does, offer its own incentives on top of the central government ones.
 - Local authorities can establish land-use or utility incentives and may also decide to exempt in-zone enterprises from local income tax.
- No participation limit
 - FTZs remain the only locations in which a foreign company may establish a wholly foreign-owned trading company, initially these wholly foreign-owned companies did not possess trading rights (the right to import and export). To sell products in mainland markets, these companies were required to engage agents with trading rights to handle customs procedures for transactions with the non-FTZ enterprise. This changed in June 2003 when the State Council, the Ministry of Commerce and Customs, issued a notice allowing enterprises in Fuzhou-Shatoujiao, Tianjin, Waigaoqiao, and Xiamen Xiangyu FTZs to register for the right to conduct domestic trade without using an intermediary with trading rights, and the notice leaves the drafting of detailed application rules to the zones.
- Bonded Commodities Exchange Market or exhibition centre

- FTZs offer a Bonded Commodities Exchange Market or exhibition centre through which in-zone enterprises sell their products to Chinese buyers and distributors for sale in mainland markets.
- Exchange market administrators clear the goods through Customs and issue VAT invoices.

Like other special zones, FTZs in China provide other advantages in addition to the preferential policies

- simplified and efficient administrative structure
- one-stop service for official procedure settlement
- top-flight infrastructures
- professional service system on a par with international standards
- catering actively to the individual and diversified demands of different investors
- Tailor made service and the readiness to help investors overcome difficulties
- strategic locations

(c) The difference between FTZ and EPZ

EPZs and FTZs are the same in that those zones are considered as outside of customs supervision territory. However, there are also differences between two zones mainly due to the EPZ's exclusive focus on export processing.

- First, EPZs permit fewer types of business activities such as only export processing, warehousing for providing services for processing activities of in-zone enterprises, and transportation service suppliers who are authorized by the customs authorities to do the transportation business for enterprises in the zone.
- Unlike in FTZs, there are no VAT charges on public utilities.

- Only companies with exports of more than 70 per cent of their outputs are eligible for the income tax benefits available to all companies in FTZs.
- There is a different in the export rebate policy. If a company within an EPZ purchases goods from an enterprise within China, the selling enterprise will receive an export rebate, and the in-zone buying enterprise will not have to pay VAT. In contrast, companies in FTZs, or bonded facilities outside of zones, must pay VAT up front on any goods sourced in China and apply for an export rebate only after the good has been exported.
- Enterprises in EPZs also benefit from priority Customs clearance over those located outside the zone and more streamlined clearance than those in FTZs. All companies in an EPZ must have a computerized database connected with Customs to clear goods electronically. EPZs enjoy 24-hour Customs support (Walton, 2003, Guangzhou Development District, online)

(d) Bonded logistics zones

All of China's 15 free trade zones have ports, but almost all the free trade zones are isolated from the ports. One direct impact from this situation is the FTZs working independently from nearby seaports. As a result, the roles of the free trade zones, such as export processing, entrepot trade and bonded warehouses, are not supported by the ports and vice versa, which has resulted in China's own seaports remaining small in transport capacity because of insufficient demand.

In addition, under these situations the cargo cannot directly access the free trade zones from the ports. Import, export and distribution of the cargo have to undergo Customs check procedures of both the ports and the free

trade zones. It is difficult for Customs to supervise the process due to the complicated procedure during cargo distribution within the zones. At the same time, it is difficult for the ports to make use of the open advantages of the free trade zones.

〈Table 3-1〉 The differences between investing in Songjiang EPZ and in Waigaoqiao FTZ

<p>Business Scope</p> <p>EPZ</p> <ul style="list-style-type: none"> - Only the processing trade of self-produced goods is permitted. - Over 70 per cent of the Products should be sold to other countries. <p>FTZ</p> <ul style="list-style-type: none"> - Enterprises can be engaged in international trade, domestic trade and manufacturing and processing. - All products can be sold out domestically <p>Taxation</p> <p>EPZ</p> <ul style="list-style-type: none"> - The entrance of spare parts and raw materials from enterprises outside the zone to the zone is regarded as export and VAT can be refunded. - Customs duty will be levied according to ready-made products sold domestically and manufactured by enterprises in the zone with spare parts and raw materials from abroad. <p>FTZ</p> <ul style="list-style-type: none"> - VAT on spare parts and raw materials entering the zone from enterprises outside will not be refunded. - Customs duty will be levied according to the standard of spare parts and raw materials from abroad on those ready-made products sold domestically and manufactured by enterprises in the zone with spare parts and raw materials from abroad <p>Customs inspection</p> <p>EPZ</p> <ul style="list-style-type: none"> - Cancellation of verification is carried out every half year or whole year. <p>FTZ</p> <ul style="list-style-type: none"> - Cancellation of verification is carried out upon each contract. <p>(Shanghai Foreign Economic Relations & Trade Commission, online)</p> <p>source : UNESCAP(2005)</p>

In 2004 the State Council has approved seven other boneded logistics zones, a total of 15 FTZs (bonded zones) to fully utilize FTZs (bonded zones) and port (see <Table 3-2>)

<Table 3-2> Bonded logistics zones

Shanghai Waigaoqiao Qingdao	Dalian Zhangjiagang	Xiamen Xiangyu Shenzhen	Tianjin Ningbo
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(e) Activities permitted within bonded logistics zones

The intended functions of the Bonded Logistics Park will cover the following activities : bonded warehousing, allotment and distribution, information processing, import and export trade, check and maintenance, commodities exhibition, and centralized Customs declaration. At the same time, preferential taxation policies and port functions will be in place, Cargo handling inside the park will include inter-Customs transfer, Customs declaration and claim between special regions within Customs supervision, such as in the Bonded Logistics Park, the Bonded Logistics Centre, free trade zones, export trade processing areas, bonded warehouses, and export supervision warehouses (The Hong Kong Shippers Council, online)

For example, the Shanghai government encourages multinational companies to use the Bonded Logistics Park as a regional procurement and distribution centre, supplying goods to overseas markets, regional markets and the PRC. The Bonded Logistics Park may serve as a hub for international transportation and international sourcing(i.e. the sorting and simple processing of goods sourced domestically and abroad for sale to domestic and overseas destinations), as well as entrepot trade, In terms of trade, domestic companies registered in the Bonded Logistics Park are granted import and export rights. They may also provide support services such as transportation.

It has been reported that the Chinese Government has intentions of developing the bonded logistics zones as free ports or free trade areas in the future, like Hong Kong, although it will take a lot of time before really adopting free port or free trade areas.

(3) Japan

To protect domestic industries, imports are generally subjected to complicated customs procedures including examination and tariff payment. However, to promote trade, some countries have allocated zones, often behind specific trading ports, where the usual customs laws related to import transactions and processing is not be applied. Generally such zones are called FTZs “Free Trade Zones”for Free Zones. In an FTZ, shipping and discharging of foreign cargo, storage, processing, etc. are performed freely, and customs duty is not levied on cargo re-exported from there. With globalization of the world economy and international physical distribution, many FTZ(s) are established all over the world, and the trade volume through these FTZs is said to 20% of the world total.

In addition to FTZs, some countries have Economic Zones. An Economic Zone is a geographical region where a specific economic policy can be followed in order to promote commercial and industrial development. Such zones are also useful for attracting foreign investment.

① Bonded area

In Japan, there are bonded areas similar to so-called Economic Zones, FTZ, etc. Foreign cargo placed in a bonded area is not subject to customs duty, thus making it similar to an Economic Zone. There are five kinds of bonded areas; designated bonded area, in bond warehouse place, in bond

factory, in bond exhibition hall, and integrated bonded area. An outline of each is provided below.

(a) Designated bonded area

Foreign cargo can be placed and stored in a designated bonded area temporarily. Simple and quick processing of customs formalities is realized.

(b) In bond warehouse place

Import cargo can be stored here as foreign cargo. Exporter maintains title until cargo is cleared through customs by normal import procedures.

(c) In bond factory

Foreign cargo can be processed and assembled without paying a customs duty, and then returned to the country of origin.

(d) In bond exhibition hall

Foreign cargo can be exhibited at an exposition, a trade fair, a museum, etc., without being subject to customs formalities.

(e) Integrated bonded area

At this type of bonded area, storage, manufacturing, processing, exhibition (i.e. all of the above functions) can be comprehensively carried out.

② Other tax exemptions related to customs duties

Three other tax exemptions are available: processing re-import tax cut system, re-export duty-free system, and the exemption tax and tax rebate system covering the raw materials for export freight manufacture. The processing re-import tax cut system is applied for goods that are processing and assembled overseas using domestic raw materials, while the two latter

are applied, when importing raw materials, for the purpose of processing and manufacturing at home.

(a) Processing re-import tax cut system

Under this system, re-imported products which were processed or assembled using raw materials from Japan are eligible for a tax cut. Originally started in 1969 to promote international-division-of-labor / imports, in recent years, this system is seen to be promoting the export of domestic raw material.

(b) Re-export duty-free system

Imported cargo that is re-exported within one year is eligible for a tax exemption. For example, this system is often applied to textiles and fabrics which are dyed at home and then re-exported.

(c) Exemption tax and tax rebate system

Customs duty on raw materials used for the manufacture of designated export cargo is waived or reimbursed provided cargo is exported within a two-year period. For example, this system can be applied to imported sugar which is used to make export goods such as caramel sauce.

2) The Current Status of FTZ

(1) Korea

① The Status of Designation

Since 1970s, the FTZ in Korea has been introduced about 2,349,000m² in the sea side and inland area such as Masan FTZ, Iksan FTZ and Kunsan FTZ. In 2002, we introduced additional FTZ in Daebul industrial complex about 1,155,000m² and expanded the existing Masan FTZ 303,000m².

〈Table 3-3〉 The Status of Existing FTZ

Classify	Masan FTZ	Iksan FTZ	Kunsan FTZ
Date of Designation	1970. 1. 1	1973.10.8	2000.10.6
Total Area	793,000m ²	310,000m ²	1,254,000m ²
- Factory Area	519,000m ²	275,000m ²	1,124,000m ²
Service	Manufacturing, Logistics, Int'l Trade	Same	Same

In addition, the FTZ has been designated in the area of port such as Busan Port, Gwangyang Port and Incheon Port mainly on the terminal in 2002~2006.

In the Busan port area(5,451,000m²) has been already designated(Gamchon 277,000m², Yongdang 1,097,000m², Busan New port area 4,077,000m²), and in the near future another 897,000m²(Gamchon 770,000m², Yongdang 127,000m²)

In the Gwangyang Port area, the FTZ has been already designated 6,755,000m² which is connected with the hinterland of the Gwangyang port.

In the Incheon Port area, the FTZ has been also designated about 2,294,000m². The expansion of the FTZ is possible because of securing the huge site proposed at Incheon South Port of reclaim area.

〈Table 3-4〉 The Status of the Designated Port FTZ*

Busan Port		Gwangyang Port	Incheon Port
Designated Area	Proposed Area	Designated Area	Designated Area
<ul style="list-style-type: none"> ▪PECT Container Terminal ▪Gamchon <ul style="list-style-type: none"> - Hanjin Con Terminal - CJ Site ▪Busan New Port <ul style="list-style-type: none"> - North Container berth (phase I, II-1) - Logistics zones 	<ul style="list-style-type: none"> ▪Yongdang(Near PECT Terminal) ▪West Gamchon 	<ul style="list-style-type: none"> ▪Phase 1 and Phase 2-1 <ul style="list-style-type: none"> - LME warehouse ▪phase(II-2, III-1, 2) 	<ul style="list-style-type: none"> ▪Incheon (Terminal 1~8) ▪South port container Terminal
5,451,000 m ²	868,000 m ²	6,755,000 m ²	2,294,000 m ²

* As of 2006

(2) China

① Status of port FTZs

So far, there have been altogether 15 port FTZs in China, namely Qingdao, Tianjin, Dalian, Shanghai, Zhangjiagang, Ningbo, Fuzhou, Xiamen, Shantou, Zhuhai, three in Shenzhen (respectively Yantian, Shatoujiao and Futian), Guangzhou and Haikou. After Shenzhen City combined the three port FTZs administration bureaus in 2001, port FTZs of the whole country are distributed in 13 port cities. So far, China's FTZ has experienced a history of 14 years.

As of the end of 2002, the total areas of these 13 port FTZs stood at 51.2 km², there were almost 30,000 enterprises existed aggregately, of which the foreign investment enterprises amounts to approximately a half. The FTZs achieved about RMB 60 billion ¥ of GDP for that year, \$32.2 billion

in the amount of import and export for foreign trade and \$2.12 billion in the amount of foreign capital actually utilized. By the end of 2002, the aggregate amount of foreign capital actually utilized reached \$11.684 billion in the above 13 regions, taking up almost 2.6% of the whole country. The main economic indexes of port FTZs of the whole country are shown in <Table 3-5>.

<Table 3-5> Comparison between main economic indexes of various port FTZs of the whole country in 2002

Port FTZs	GDP(RMB billion ￥)	import and export(100 million US dollars)	export(100 million US dollars)	foreign capital actually utilized(100 million US dollars)	Ratified area(km ²)
Ningbo	32.8	6.16	3.15	1.8	2.3
Waigaoqiao, Shanghai	228.62	119.32	31.25	3.24	10
Dalian	45.3	13.5	6.07	1.42	9.75
Tianjin	61.5	23.45	6.04	6.5	5
Qingdao	10.76	4.49	2.23	2.34	3.8
Zhangjiagang	32.51	10.06	1.16	2.3	4.1
Fuzhou	-	1.07	0.19	0.06	1.8
Xiamen	5.46	15.15	4.7	0.131	2.3
Shantou	5.7	1.93	-	0.08	2.34
Guangzhou	30.76	9.79	2.98	0.42	2
Shatoujiao, Shenzhen	57.8	44.51	24.21	0.35	0.2
Futian, Shenzhen	58.71	64.56	30.46	1.58	1.68
Yantian, Shenzhen	-	4.75	4.61	0.08	0.85
Zhuhai	2.3	2.8	0.8	0.8	3
Haikou	6.14	0.09	-	0.07	1.9
Total	578.4	321.6	117.9	21.2	51.02

① Several main port FTZs

(a) Shanghai Waigaoqiao Port FTZ

Shanghai Waigaoqiao Port FTZ is the largest in terms of area among the port FTZs of the whole country, covering an area of 10² with all kinds of economic indexes ranking the first, among which GDP has reached RMB 22.86 billion ¥, accounting for nearly one-thirds of the overall 13 port FTZs. Its economic development speed is apparently higher than the nationwide growth rate and that of Shanghai City.

In the FTZ, there are 5,022 approved projects aggregately, attracting a total amount of \$6.55 billion in investment, among which there are 3,561 foreign investment projects with a total value of \$ 5.4 billion (as of the end of 2001). There are more than 105 enterprises with the amount of investment topping \$ 10 million. There are 72transnational corporations among Top 500 in the world who have settled down in the FTZ, including such big names as Philips, Intel, HP and so on. The amount of investment made by Hong Kong and USA in the FTZ stands respectively at \$ 1.651 billion and \$ 1.264 billion, accounting for 30.5% and 23.4% in the overall amount of investment within such zone.

Shanghai Waigaoqiao Port FTZ is very nice in investment environments, which is also a determinant factor for the fast development of Shanghai Port FTZ. The planned area of Shanghai Port FTZ is 10km². Through enlarged construction over many years, customs blockade for six times, the FTZ has been placed completely under closed customs supervision on April 5, 2004, and all the Port FTZ of 10km² has been put into use. Its good investment environments are represented in the following aspects:

A high level of information. The inauguration of e-government and e-commerce platform of the FTZ has allowed implementation of Internet

access to all enterprise directories within such region, all kinds of instant product supply and demand information as well as transaction information of real-estates (leasing, buying or selling).

Standardized environmental management. In August, 2001, the port FTZ ISO1400 environmental management system has been certified in Shanghai International Convention Center with certificates awarded.

Good management and services. Waigaoqiao Port FTZ is one of the trial units of Shanghai City for administrative examination and approval system. Starting from August 1, 2001, some administrative examination and approval formalities have been cancelled or simplified one after another with the administrative management system going closer to the international practice, the handling efficiency has become higher and higher.

(b) Shenzhen Port FTZ

The free tradezone of Shenzhen does not cover a large area, adding the three port FTZs together gives a total area of 2.73 km², ranking the seventh among the port FTZs of the 13 regions. In 2001, the free trade zone accounting for 0.13% of the overall area of the City realized RMB 30.56 billion ¥ in industrial production value, up 36.8% on a year-on-year basis. Among the port FTZs of the 13 regions all over China, Shenzhen ranks the second in terms of GDP and aggregate amount of import and export, which is slightly lower than Shanghai.

As for the economic development of Shenzhen Port FTZ, it has five characteristics as follows:

- i) A higher percentage of foreign investment enterprises, being more than 86%.
- ii) A higher capital density, attracting \$1.1 billion of foreign capital per km².

- iii) The scale of enterprises is large. Among more than 1,000 enterprises registered within the FTZ, the average registered capital per enterprise is \$ 2.70 million.
- iv) A higher amount of industrial production value. The amount of industrial production value reached \$ 11.9 billion per km² in 2001.
- v) A higher percentage of high-tech products in the overall industrial production value, and these two indexes account for 86% and 89.6% respectively in the FTZ.

Shenzhen Port FTZ is very pleasant in investment environments and has taken the following measures in the aspect of “software” of the FTZ:

- Revised Regulations on the Port FTZ of Shenzhen Special Economic Zone, thus providing a law reference to the improvement of investment environments on which administrative activities are based.
- Further deepened the reform on the examination and approval system, simplified handling links, enhanced handling efficiency. The right to examine and approve for 7 items remains unchanged, but the right to examine and approve for 18 items has been removed.
- Through active coordination, enhanced customs efficiency and adopted 19 measures to solve the issue of the delayed customs clearance as well as the issue of raising customs clearance efficiency.

(c) Tianjin Port FTZ

Tianjin Port FTZ ranks the 3rd in the overall 13 FTZs of China in terms of several main economic indexes, but there exists a great difference as compared to Shanghai and Shenzhen Port FTZs. In 2002, its amount of foreign capital actually utilized was at the top of the whole country,

accounting for 30.2% of the total port FTZs of the country with outstanding performance among the port FTZs to the north of Yangtze River.

Tianjin Port FTZ realized RMB ¥ 6.15 billion in GDP in 2002, up 56.8% on a year-on-year basis. Its GDP, amount of import and export for foreign trade and amount of foreign capital actually utilized had all exceeded the sum of Qingdao and Dalian Port FTZs. As of 2002, 97 countries and regions, 27 provinces (including municipalities under the control of the State Council and autonomous regions) had set up more than 4,000 enterprises within the FTZ, which included 35 transnational corporations in the list of Top 500 in the world.

Tianjin Port FTZ has aimed at building into an international logistics center and industrial park, being very advantageous in the development of the third industry and greatly different from other port FTZs that mainly rely on the processing industry. In 2002, it sold an overall number of more than 40,000 vehicles, up more than one fold as compared to the last year, ranking the first in the overall amount of imported and exported vehicles of the country. It takes the lead in the aspect of logistics all over China. In 2001, the aggregate value of import and export cargo to and from the FTZ realized \$ 5 billion.

The FTZ is very nice in investment environments. In the aspect of hardware construction, it has redoubled construction efforts, completing the construction in the aspect of power supply, water supply and transport infrastructures in time, which has further improved the environmental quality; it has implemented the Blue Sky project, realizing an afforested area of 110,000 m² in the whole year. It has also improved the construction in the aspect of business, service and cultural facilities, enhancing the investment environment.

In the aspect of software construction, the Port Administration has further improved the environment of corporate operations, solving the bottlenecks in various links such as customs clearance, supervision and so on. The Customs has launched eight measures especially for the customs service area, greatly enhancing the customs clearance efficiency. In the aspect of management, it was certified in the ISO9000 international quality system in 2001, simplifying the examination and approval procedures, improving quality of service and enhancing working efficiency. At the same time, the informatization construction within the FTZ has been further strengthened, completing broadband construction and local electronic monitor and control project, perfecting the consultation functions for investors over the Internet, establishing a corporate statistics upload system, and consequently further enlarging the scope of e-customs.

(d) Xiamen Xiangyu Port FTZ

GDP of Xiamen Xiangyu Port FTZ is RMB 546 million, ranking the 12th in the 13 port FTZs, but its amount of import and export for foreign trade is higher reaching \$ 1.515 billion, second only to Shenzhen, Shanghai and Tianjin. The reason is as for the functions of the FTZ, it is decided to take the modern logistics industry as the port FTZ industry and form a kind of logistics industry with port operations as the dragon-head (or the leading role) and characterized by third party logistics. At present, a regional electronics and stone distribution center has become increasingly mature, among which the world's renowned enterprises represented by Pil Total Logistics Co., Ltd, Maersk Logistics and BAX Global have enhanced the development level of logistics in the FTZ. The value-added amount of the logistics industry in 2001 took up 43% of GDP within the FTZ, more than

80% of the amount of import and export for foreign trade. LCL (Less than Container Load) export was an important functional breakthrough in 2001, the specialized logistics enterprises realized \$ 70 million in the export of export through LCL service, greatly stimulating the export of products in small batch in the neighboring regions.

(e) Zhangjiagang Port FTZ

Zhangjiagang Port FTZ is the only freshwater port in China as well as the port FTZ outside the 14 coastal open cities and 4 special economic zones. Its main economic indexes are in the middle reaches of the port FTZs in the 13 regions, ranking the 6th in GDP and the amount of import and export for foreign trade, and the 3rd in the amount of foreign capital actually attracted.

Meanwhile accelerating the development of the processing industry, it has also made great efforts to the development of import and export trade and modern logistics industry. Now, it has a total of more than 2,000 trade companies with more than 100 types of import and export products, realizing \$1.006 billion in the amount of import and export trade in 2002, up 48% on a year-on-year basis. The modern warehouse industry in the FTZ has also developed well, there are 13 enterprises in warehousing business with a warehousing area of 60,000m².

It is very nice in investment environments. In the aspect of infrastructures, it has completed the construction road and water supply system in line with the principle of appropriate lead, afforesting and beautifying the environments, newly building and enlarging sewage processing plants, and office facilities, standard workshops, warehouses and living facilities have been well furnished. In the aspect of soft

environmental construction, it has endeavored to implement the First-Answer in Charge System (the first point of handling should take care of providing answers to the inquiries of clients) and the regulation of working day for project examination and approval, management services have gradually taken on the road of standardization and systematization.

(3) Japan

There is a free trade zone system in Okinawa. This FTZ serves not only as a bonded area but also a custom clearance can be obtained from customs office on site. Moreover, partial exemptions and/or tax the deductions from income in the case of a corporation tax division tax, the tax holidays on corporate business tax, real estate acquisition tax and fixed property tax are available.

In addition, there is a foreign access zone for the promotion of imports and foreign investment. By improving physical distribution networks, the aim is to attract import-related business near ports and airports throughout the country, rather than having a concentration of imports at major cities. Various incentives will be offered to prospective locaters such as low interest loans and reductions in real estate acquisition tax as well as tax deductions on initial capital expenditures.

Furthermore, “The special area for structural reform” system started in 2002 aims at advancing reform of industrial structure through deregulation according to the characteristics of each region.

① Free Trade Zone (FTZ) in Okinawa

The free trade zone in Okinawa established under the Okinawa Development Special Measures Law is the only one in Japan and it is here

where various bonded areas such as the designated bonded area, where in bond warehouse place, and in bond factory are found. Prospective locators in the free trade zone can take advantage of special tax incentives and a low interest loan from the Okinawa Development Finance Corporation.

Since a free trade zone has various functions, such as storage, processing, manufacturing, and exhibition, there are many merits of it being a bounded area, especially regarding freight transit.

- Basis statute

The Okinawa Development Special Measures Law

- Objectives

Promotion of company location and commercial development in Okinawa

- Establishment date

July 1, 1988

- Area

26,691 m²

- Location

Naha-city, Okinawa-Prefecture

- Administrator

Local government of Okinawa

〈Figure 3-1〉 Okinawa FTZ



② Foreign Access Zone (FAZ) of Japan

(a) Intent of FAZ

The government of Japan, operating under the “Law on Extraordinary Measures for the Promotion of Imports and Facilitation of Foreign Direct Investment”, enacted in 1992, has established a network of Foreign Access Zones (FAZ) around the country, particularly in regional markets, to increase imports and attract foreign investment. A total of 22 FAZs were operating as of April 2002. Each FAZ concentrates on import facilities and related businesses around an international airport and/or harbor, resulting in a dynamic regional center for foreign business. Each FAZ is organized by a third-sector company, which is set up with public and private funds to establish and strengthen facilities for distribution, processing, wholesale,

business support, exhibitions and conventions. These companies also conduct promotional activities, such as publicizing the benefits and incentives of FAZs and approaching individual companies to encourage them to operate in the zones. Each region generates its own FAZ plan to maximize respective local advantages.

(b) FAZ Improvement Scheme under the Import Promotion / Foreign Direct Investment Law

① Requirements for Foreign Access Zone Designation

- The area must include a seaport or airport.
- A considerable amount of transportation or distribution of imports occurs or is expected to occur in the area.
- Judging from the conditions of the harbor / airport facilities and imported cargo handling facilities, establishing a FAZ in the area would promote imports to a large degree.
- Construction of facilities related to import infrastructure improvement activities and the implementation of import distribution activities appears to be proceeding steadily.

② Planning by Prefectures or Cities

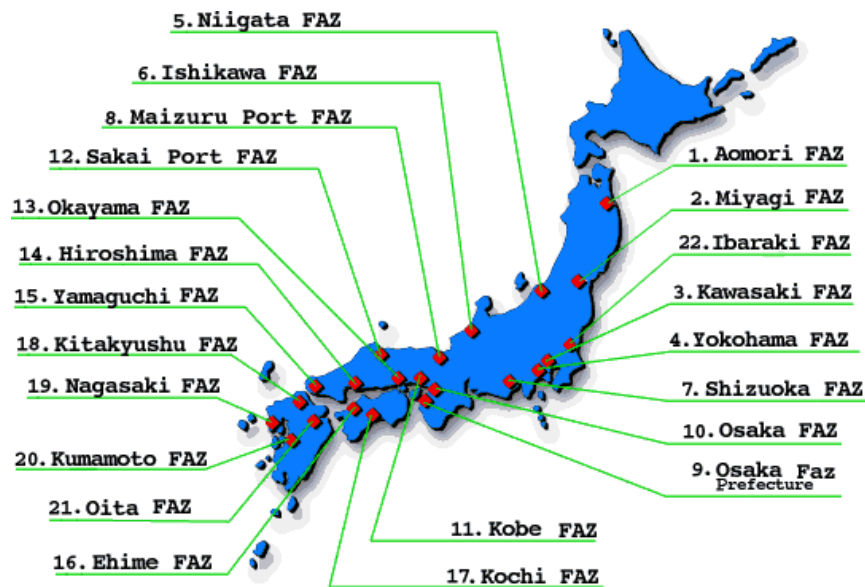
Prefectures or cities designated by cabinet order draw up the plans for the Foreign Access Zones and desired import promotion.

○ The Plans

- Designate the area for the Foreign Access Zone
- Explain the goals for the distribution of imports
- Explain the details of activities for import infrastructure improvement and import distribution

- Explain facilities needed for the promotion of international economic exchange in the zone
- If special districts are called for, the plans also
- Designate the areas for these districts.
- Explain distribution goals for imported goods handled in these districts.

〈Figure 3-2〉 Areas Approved for FAZ



(c) Merits of FAZ

④ Low-cost Distribution

A total of 22 Foreign Access Zones (FAZ) scattered throughout Japan offer air and sea ports close to regional markets, which helps traders to reduce transportation time and costs within Japan. In the case of a 40-foot container, for example, domestic overland transportation between Tokyo and Niigata costs about the same as overseas shipping from Europe to Tokyo.

⑥ Efficient Importing

Each FAZ offers a comprehensive range of facilities to efficiently handle imports at all stages, from customs clearance to product sorting, processing and distribution. In addition, FAZ-resident companies realize additional benefits by cooperating in joint importing, ordering and market development.

⑦ Business Support

Each FAZ is equipped with special facilities for import-related activities, including exhibitions, fairs, conventions, commercial negotiations and seminars, all of which help to expand opportunities for business development. Import-related information and proxy services are also available.

⑧ Additional Incentives

Host regions offer a variety of incentives, including preferential taxation, low-interest financing and more, to encourage foreign businesses to newly locate in their FAZs and resident firms to expand their imports.

(d) Incentive and Service

① Preferential Taxation

Taxes are a key area where local governments can offer businesses an incentive to invest in a FAZ. For example, an area within a FAZ can be officially designated as a special district for preferential taxation, allowing private companies including manufacturers, wholesalers, retailers and shippers to benefit (subject to certain conditions) from special tax measures, such as:

- Reduced real estate acquisition and property taxes

- Special depreciation on facilities
- Exemption from special landholding tax.

⑤ Loan Guaranty

A loan guaranty system established under the Industrial Structure Improvement Fund is available to import businesses operating in special districts within FAZs. The system provides businesses with loans for acquiring facilities and working capital.

⑥ Credit Insurance

Small and medium-size import enterprises operating in special districts within FAZs can qualify for credit insurance with preferential terms, including increased amounts of insurance and reduced premiums.

⑦ Low-Interest Financing

FAZ investors can apply for low-interest financing with relaxed lending requirements through the Japan Development Bank and Small Business Finance Corp.

The Japan Development Bank (JDB) provides low-interest financing for the acquisition of equipment or facilities by foreign companies setting up in Japan or Japanese businesses that are expanding their imports. The JDB also provides foreign companies with financing for expenses not directly related to asset acquisition, such as rent and insurance.

⑧ Bonded Services

Some FAZs offer full-service bonded areas where foreign cargo can be bonded for unloading, sorting, storage and distribution. Bonding procedures are simplified, which helps to reduce the time and cost of delivery. In

addition, payments of customs and duty charges, as well as Japan's domestic consumption (sales) tax, are postponed until the cargo leaves the bonded area.

⑥ Third-Sector Support

The facilities of each FAZ are run primarily by quasi-public (“third-sector”) corporations, which are established through joint investment by local public bodies and private-sector businesses to extend support to domestic and foreign companies operating within a FAZ. The following are examples, however, of possible types of support:

- Office Space

Furnished offices are provided for fixed periods and at reasonable rates to help public bodies and private companies from overseas to establish a foothold in Japan.

- Information

A wide variety of business information is available, both computerized and in print, and potential business partners can be introduced upon request.

- Fairs and Commercial Meetings

Each FAZ organizes fairs and other opportunities for businesses to meet with potential customers. Permanent exhibition spaces are also available for long-term displays.

- Miscellaneous

Third-sector corporations also introduce companies offering services in other fields, such as insurance, interpretation and translation, personnel recruitment, bonded operations and legal counsel.

(e) Yokohama FAZ – Case of Japanese FAZ

① Outline of Yokohama FAZ

Yokohama received authorization in March 1994 for a Foreign Access Zone (FAZ) encompassing the harbor and surrounding area. The core facilities at the Yokohama FAZ are the Yokohama Port Cargo Center (Y-CC) and Yokohama World Porters. The Yokohama Port Cargo Center, Japan's largest and most advanced logistics center, opened in August 1996 and caters to the storage, sorting, distribution processing and delivery requirements of business dealing with products imported to Japan. Yokohama World Porters, opened in September 1999, is an international commercial hub featuring wholesaling, retailing, exhibition capabilities and related support for clients. Complementing these facilities are Pacifico Yokohama, which can be used for international fairs and business meetings, and the Yokohama Air Cargo Terminal (YAT), just one of many components that will encourage the import of items to Japan.

② Yokohama Port Cargo Center (Y-CC)

Yokohama Port Cargo Center which is located in Daikoku Pier, is one of the nation's largest comprehensive logistics facilities with a total floor space of 320,000 m², and is equipped with various functions such as cargo sorting, storage, processing, and delivery. It is also designated as a comprehensive bonded zone.

This facility was opened in August 1996 as a new logistics hub aiming to upgrade port functions of the Port of Yokohama. It has gained a high reputation from users and other parties because of its favorable location in the Daikoku Pier and excellent efficiency provided by functions such as the ramp ways that enable 45 feet container trailers to drive directly into each level.

〈Table 3-6〉 Aspects of Y-CC

Location	22, Daikoku Pier, Tsurumi-ku, Yokohama
Total floor space	319,194 m ²
Facilities	storage, sorting, distribution processing, delivery and exhibition of imports
Opening date	August 1,1996
Main operator	Yokohama Port International Cargo Center Co., Ltd.No.22, Daikoku-futo, Tsurumi-kuYokohama City, Kanagawa 230-0054TEL:+81-45-510-2000 FAX:+81-45-510-2019E-mail: BCA07431@nifty.com

〈Figure 3-3〉 View of Y-CC



③ Yokohama World Porters

Yokohama world Porters was opened in 1999 as the first foreign access zone facility to promote import in the metropolitan area. It provides various service functions such as shop, restaurants, entertainment facilities, and a business support center. It aims to introduce fine imported goods as well as new activities, cultures and life styles to the citizens of Yokohama.

〈Table 3-7〉 Aspects of Yokohama World Porters

Location	2-2-1Shinko, Naka-ku, Yokohama
Total floor space	approx 100,000 m ²
Facilities	for wholesaling, retailing, exhibitions, import-business support, entertainment, etc.
Opening date	September 1999
Main operator	Yokohama Import Mart Inc.Yokohama World Porters,3F 2-2-1 Shinko, Naka-ku, Yokohama CityKanagawa 231-0001TEL:+81-45-222-2095 FAX:+81-45-222-2095E-mail: info@yim.co.jp

〈Figure 3-4〉 View of Yokohama World Porters



〈Figure 3-5〉 Peripheral Transportation Network



3) The Effect of the FTZ Development

(1) Korea

It is expected that the effect of the FTZ development in Busan and Gwangyang port hinterland will be 90,888 employment and ₩ 11.84 trillion of value added. Additionally, it is attainable to enjoy the effect of activation of the international commodity market, promotion of the transit and processing trade, and the effect of industrial accumulation by expediting the activity of value added and accelerating the international logistics center of N.E Asia.

〈Table 3-8〉 Creation Effect of Employment of port FTZ(2011 base)

(Unit: 1000 m², person, 1000TEU)

	Hinterland		Shipping		Port		Total Employment
	Area	Employment	TEU	Employment	TEU	Employment	
Gwangyang	3,028	36,036	1,473	368	1,473	658	37,062
Busan	4,395	52,308	2,179	545	2,179	973	53,826
Total	7,423	88,344	3,652	913	3,652	1,631	90,888

Source : MOMAF, The Integrated Plan of the Port Hinterland Development, 2002.

〈Table 3-9〉 The Creation Effect of Value Added of port FTZ(2011 base)

(Unit: 1000m², ₩100million, 1000TEU)

	Hinterland		Shipping		Port		Total
	Area	Value Added	TEU	Value Added	TEU	Value Added	
Gwangyang	3,028	40,985	1,473	5,692	1,473	1,547	48,224
Busan	4,395	59,492	2,179	8,420	2,179	2,288	70,200
Total	7,423	100,477	3,652	14,112	3,652	3,835	118,424

Source : MOMAF, The Integrated Plan of the Port Hinterland Development, 2002.

(2) China

In the course of the reform and opening up of our country, many economic development zones have been set up in coastal open cities, special economic zones and main inland cities one after another, categorized in state-level and provincial level. As of the end of 2001, there were 47 state-level development zones alone. Because there are good investment

environments and preferential policies in the different development zones of various regions that are different from other regions, so the economic development in such zones is far higher than the average amount. Since port FTZs are mostly located in coastal port cities with better investment environments and more preferential treatments, therefore their economic benefits are better than that of the economic development zones, making greater contributions to the regional or state economic development. Now let us take a look at the comparison between port FTZs in the 13 regions and 32 state-level economic development zones approved in the early phase, as shown in Table 3-8.

〈Table 3-10〉 Comparison between the state-level economic development zones and free trade economies(1)

Economic Zones Projects	32 state-level technological development zones (A)	Port FTZs of 13 regions (B)	B/A
Area (km ²)	421.79	42.99	10.2
GDP (RMB 100 million ¥)	221.3	458.5	20.7
Total industrial production value (RMB 100 million ¥)	6133	728.4	11.9
Taxation (RMB 100 million ¥)	366.2	118.0	32.2
The amount of export (100 million US dollars)	194.7	84.8	43.4
The amount of import (100 million US dollars)	179.0	129	71.9
The contractual value of foreign capital (100 million US dollars)	106.4	31.67	29.8
The amount of foreign capital actually utilized (100 million US dollars)	59.2	18.46	31.4

① The data indicated in the above table is the value in 2001.

② 32 economic development zones are respectively Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Nantong, Lianyungang, Minhang of Shanghai, Hongqiao of Shanghai, Caohejing of Shanghai, Ningbo, Changchun, Hangzhou, Wuhan, Chongqing, Wuhu, Nansha of Guangzhou, Dayawan of Huizhou, Xiaoshan of Zhejiang, Beijing, Urumqi, Fuzhou, Guangzhou, Zhanjiang, Wenzhou, Kunshan of Jiangsu, Yingkou, Weihai, Rongqiao of Fuqing, Dongshan of Fujian, Harbin and Shenyang.

It can be seen from Table 3-8 above that in the demarcated regions, the area of port FTZs only accounts for 10.1% of the development zones, port FTZs are higher than the economic development zones in terms of main seven indexes above listed. The industrial production value of port FTZs is slightly higher. In addition, the other economic indexes are much higher, particularly in the aspect of import and export for foreign trade, their advantages are very outstanding, the total amount of import and export in port FTZs can take up 57% of the economic development zones, the former being one-tenth of the latter in terms of area. This is a result of higher customs clearance efficiency and more convenient trade within port FTZs. In the aspect of taxation and attraction of foreign investment, port FTZs are also more advantageous than the economic development zones. Therefore, we should further bring the advantages of port FTZs into play.

But the contribution of FTZ to local economy is just as being above-mentioned like that, it is a little better than the special economic zone in absorbing the foreign capitals and foreign trade in GDP. This depends on the policy more favorable, more effective management system and more

high efficiency of clearing customs than other special economic zones. But it also needs local government to make good use of the policy that the central authorities administrate and the latter is the key factor. The total GDP of former 7 areas accounts for 94.3%, but it is only 5.7% for the left 6 areas in Table 2. The total foreign-trade amounts of former 7 areas accounts for 94.9%, but it is only 5.1% for the left 6 areas. That is to say economy contribution is mainly depending on the policy and measure of local government to economy mainly. It will exceed the contribution of other special economic zones if it is to do well; otherwise the result is not obvious.

At present, FTZs in China have not obvious function. The main reason is that the transited volume of trade is low, including most large container port in China, such as Shanghai. The containers transit rate less than 4%. Except that China's port geographical position is unfavorable to attracting the transit goods, there are no transfer preferential policies in China.

There is not very good cooperation between FTZ and harbor made the function of restricting. A lot of area has taken the pleasure to strengthen the cooperation between harbor and FTZ which aims at the mutual promotion.

(3) Japan

① Impact of FAZ

Data obtained from 18 of the total 22 Foreign Access Zones scattered throughout Japan indicate that there are 12 areas where new business has accumulated. Furthermore, the growth of imports at these 12 FAZs exceeded that of non-FAZ areas. Thus, it can be said that FAZs are promoting imports.

(a) Tokyo Port³⁾

Port of Tokyo was ranked in the 17th place of the world container ports in 2003 at the standard of container throughputs by reaching 3,314,000 TEU in 2003 (increase of 22% compared to the 2,712,000 TEU in 2002).

The Tokyo Port Terminal Public Corporation has container terminals at Ooi, Aomi, Sinagawa and the redevelopment project of Tokyo Port's Ooi container terminal was completed in 2003. Ooi container terminal having 7 berths with a total of 2,354m including 3 berths with earthquake resistant quay wall was reborn as a mega terminal. This pier, equipped with 16 quay cranes, can accommodate large size container ships of 8,000 TEU.

〈Figure 3-6〉 Port and Its Backup Area of Tokyo



3) Lee, Sung Woo · Kim, Chan Ho · Chung, Hae Won, *A Study on Port Performance related to Port Backup Area in the ESCAP Region*, KMI, 2005. 12.

Maersk-Sealand opened Japan's largest container terminal at the Bay of Tokyo in 2002, clearing the waters to accommodate ships up to a massive 10,000 TEU level. Two berths equipped with 16-meter-deep quay cranes, which can handle more than two hundred cargoes per hour. Especially these 1,300 tons level quay cranes installed in the terminal have a height of 80 meters, an outreach of 63 meters, which span 22 container rows and 5 columns as shown in <Table 2-15>. In addition, these two berths, which can store more than 17,000 TEU of containers, boast nation's largest size.

The operation of Tokyo port takes the shape that the pier is owned by state, local government, and public organization. Meantime, the management/operation of the port is commissioned to the local government. Port authorities construct the port and provide cargo handling facilities while cargo handling is commissioned to private sector. The redemption of total cost spent for port construction is to be divided into the rent period. The rent period is 10 years, which can be extended automatically unless otherwise required.

<Table 3-11> Facilities of Tokyo Port

Terminal	Berth	Extension	Water Depth	Vessel Type(D.W.)	# of Berth	# of Crane	Yard(m ²)
Sinagawa terminal	C~H	574	10	15,000	3	4	71,284
Ooi terminal	1~7	2,354	15	50,000	7	16	945,750
Aomi terminal	0~1	520	12	35,000	2	4	361,610
	2	350	14	50,000	1	2	
	3~4	700	15	50,000	2	5	

(b) Yokohama Port

Logistics-related services in Yokohama Port have been initiated by Port & Harbor Bureau of Yokohama City, Yokohama Port Development Public Corporate, and Port of Yokohama Promotion Association and are actively supported through the administrative services including the inducement of firms and the financial incentives provided by local government and public corporation. Port of Yokohama has carried out the central role of global logistics as a drive engine to expand imports at the airports, ports, and the surrounding area by establishing Foreign Access Zone (FAZ) based on the “Law on Temporary Provision for Promoting Import and for Smoothing Domestic Investment Activities” as part of hub port in Asia as well as Japan.

Port of Yokohama may be largely classified into the 5 regions including Honmoku, Daikoku, Yamashita, Osanbashi, and Shinko piers and carries out port-related activities including distribution, storage, and processing by placing large port-related sites in the port backing-up area. In addition, Port of Yokohama strives to create user friendly waterfront to prevent the mutual collision by maintaining the distance from urban sites through these facilities. The 26.9% of imports cargo and the 28.1% of export cargo among the total container cargo volumes are passing through processing, packaging, assembling, and distribution in the port-related sites.

In case of Japan including port of Yokohama, as the city carries out some part of functions as a port supporting area, unlike Singapore, China, and Hong Kong, there is no clear distinction between port and port back-up area.

In response to the enlargement and the high-efficiency of container ships, work is underway on a deep-water container berth (4) at the southern tip of

Honmoku Pier (16M in depth and 350M in length). Integrated logistics hub is to be created in the back-up area where a super-large container ship is able to berth by constructing the largest inter-modal terminal. Terminal site, port-related sites (container-related site, storage facilities site, integrated logistics terminal site, business site and waterfront) green belt transportation site under the land use plan are to be developed in the area of 216.9ha. Reclamation period will be 20~30 years and the project will be completed in view of costs, construction costs, and consumer needs. Sales available after creation of land by the city.

In respect of port back-up areas, located at Daikoku Pier, Yokohama Port Cargo Center started operation in 1996 (Construction was started in 1992, completed in 1994). This facility is designated as one of 4 general bonded areas in Japan ((ATC-Osaka, Y-CC-Yokohama, Matsuyama FAZ, Kawasaki FAZ)/ ordinary FAZ 20 ? Total of 24 FAZ). It is possible to perform the multiple tasks of cargo distribution, processing, exhibition, and sales as an integrated process with the cargo still in bonded status.

Consolidated distribution facilities for the distribution, delivery, gathering, processing, and sales have been constructed to provide better services in seaborne/air cargo. Imported products are to be distributed directly to large-size marts after processing. Payment for cargo handled is to be made through seaborne computer system (custom clearance agent?custom office?bank).

City of Yokohama and Prefecture of Kanagawa, respectively, invests 50% of shares equally. Until now the center records red figures because of the payment for construction cost. A total of 60 billion yen was expended for the construction of the center(to be used for 50 years)/operating contract will be renewed by 10 years. Operating income records black figures

(profits are shared according to the shares). Personnels are dispatched from the city and the prefecture (more than 50% of the personnels are participating in the management).

YPCC comprised of the 8-story office building which has 63 offices and 5-story cargo building which has 55 warehouses and 35 firms are housed in the center as of 2000. The center has a handling capacity of 4.25 million tons of cargo per year (5% of the entire cargo handled in Yokohama). Cargo building has been classified into 55 sections and office building has been classified into 65 sections (1 section: 400m² ? 3 containers or 5 vehicles can be located) as shown in Table 3-12 and Figure 3-6.

〈Table 3-12〉 Current status of Yokohama Port Cargo Centre

Category	Cargo Terminal	Office Building
Total floor space(m ²)	305,449	12,700
Districts(number)	55	63
Space / Section	4,300m ² /section	70m ² /section
Facilities	Parking lot 400m ² /section 4 lane road within the building(width:16M)	Ground parking 260 vehicles

The center is designed for a 24-hour a day service under all weather conditions with two-ramp drive-up warehouse which allows trucks into the building to reduce logistics costs by shortening the transportation hour. The entry & exit of cargo can be passed freely even at the peak time with sufficient parking space and computer system. The center comes complete with various security system such as office environment control system, ITV, Traffic control, Various sensors for the optimum management of cargoes.

Main export & import items are food, electric appliances, farm products machinery, synthetic goods, building materials, furniture, cosmetics, and etc. As of the standard of 2002, volume of cargo handled in Y-CC may be classified into import of 33,061,000tons, export of 24,370,000 tons, domestic cargo of 22,986,000 tons and total cargoes of 80,418,000 tons.

〈Table 3-13〉 Volume of Cargo Handled

Category		Year of 2001	Year of 2002
Number of Import		43,345	33,061
Customs clearance		857	762
Customs clearance		1,482	1,697
total	Export & import volume	66,539	57,432
	Number of customs clearance	2,339	2,495
Domestic cargo volume handled		21,395	22,986
Bringing in statistics at Y-CC		87,934	80,418

4) The Prospect of Port Hinterland Development

(1) Korea

In Korea, there is a real needs of developing the port hinterland as a FTZ because of the shortages of port facilities and related integrated logistics center complex near the port. However, there are so many area to be developed as a logistics center near the port such as the hinterland of Busan New Port of 3,081,000 m² and Gwangyang Port of 3,636,000m² which is under development at present.

Besides another available area can be provided as a port FTZ in Busan New Port area of 6,876,000m², in Gwangyang Port area of 3,405,000m², in Incheon Port area of huge site.

〈Table 3-14〉 The Planned Possible Development Area of Port Hinterland

(Unit : m², million KRW)

Classify	Busan New Port	Gwangyang Port East Side
Area	3,081,000	1,944,000
Main Function	Logistics, Business, Office, Processing, Assembling, Residence etc	Logistics, Business, Office, Processing, Assembling, Residence etc
Budget	3,504	2,733
Date of Open(year)	2006, 2011	2007

Source : MOMAF, The Integrated Plan of the Port Hinterland Development, 2002.

① The Hinterland of Busan New Port

- Area : 3,081 thousand m²(logistics area 1,223,000 m²)
- Function : Integrated Logistics, Residence, Business, Office and Exhibition etc.
- Period : 2000 ~ 2013

- Development Plan

- In considering the port operation and the condition of port competitiveness, the hinterland should be provided early stage
- 826,000m² among 1,223,000m² open in 2006
- In securing the competitiveness, government should buy the logistics area of 1,223,000m² and rent it to at low price.

- ② The Hinterland of Gwangyang Port

- Area : East side; 1,818,000m², West side; 1,719,000m²
- Function: Integrated Logistics, Processing, Business, Office and Exhibition etc.
- Period : East side; '98 ~ 2011, West side; 2002 ~ 2016
- Development Plan
- 331,000m² of the container yard provide in 2004 and logistics area of 331,000m² complete in 2006.

- ③ The Hinterland of Incheon South Port

- Area : about 694,000 m²
- Period : 1999 ~ 2003
- Developer : KCTA

- ④ Other Regional Base Port Hinterland

- Regional Base Port : The trade port as a regional base port where container can be handled
- Pyungtack-Dangjin Port, Gunsan Port, Mokpo Port, Ulsan Port, Pohang Port, Donghae Port etc.
- Even if the regional base port apart from the Busan Port or Gwangyang Port do not locate at the main trunk line, they are need

to be developed in an early stage because of the industrial complex and the possibility of the container cargo volume.

- The demand of the hinterland development of regional base port.

〈Table 3-15〉 Hinterland development plan of Other Regional Base Port

Port	Hinterland Area	Planned Open Year	Remarks
	m ²		
Pyungtaek-Dangjin	1,863,510	2011	-
Mokpo Port	903,500	2011	-
Ulsan Port	1,012,000	2011	
Pohang Port	1,076,057	2011	-

The demand of the port hinterland will be rapidly increased in the Port of Busan, Port of Gwangyang, and Port of Incheon by 2011.

〈Table 3-16〉 The Forecasting of Supply and Demand of Hinterland

Port	Demand(2011)	Supply	Main project
	m ²	m ²	
Incheon	2,285,000	780,000	▪ Designated the Free Custom Zone(2003)
Gwangyang	3,310,000	1,940,000	▪ Designated port hinterland(2003. 2) ▪ Allowing ₩ 17.07billion ▪ Designated terminal and port related area as FTZ(2001)
Busan	5,371,000	2,813,000	▪ Designated port hinterland as a planned area(2003.2) ▪ Designated Busan North and Gmacheon as FTZ(2001)
others	3,034,000	-	▪ Nationwide 33 million m ²
Total	14,000,000	5,533,000	Total

(2) China

① The existing problems of port FTZs and their development orientation

Over the past ten years, although the economy of port FTZs has developed greatly, substantial achievements have been made. There are many existing problems, which are mainly as follows:

- i) The development of port FTZs is extremely unbalanced in various regions. Take Shanghai, Shenzhen and Tianjin with faster development in the first three places for example, GDP accounts for more than 70% of the overall port FTZs, the amount of import and export for foreign trade, and the amount of foreign capital actually utilized respectively 80% and 55%. The area of port FTZ in Zhuhai is still larger than that of Shenzhen, but its GDP and amount of import and export for foreign trade only account for some 2% of Shenzhen.
- ii) Some port FTZs have not developed fast, in addition to the difference in geographical factors, bad investment environments are still a determinant factor.
- iii) In some port FTZs, their advantages have not been brought into full play, port FTZs have just been used as processing zones for export, their convenient advantages have not been utilized to develop trade industry and international logistics industry.
- iv) The legislation of port FTZs has fallen behind. So far, China has not promulgated a nationwide law on port FTZs. Although the State Council approved and promulgated the Measures of Customs Supervision and Management of Port FTZs in 1997, the definition and location of port FTZs have not been clearly made, giving rise to the occurrence of many problems including concurrent administrations at one time, complicated supervision measure, poor logistics and so on.

In order to further spur the development of port FTZs, Qingdao Municipal Government and China Economic Daily jointly held the State Forum on the Development of Port FTZs on November 30, 2002, which focused on the discussion of the issue of how port FTZs could transit towards free trade zone. Experts suggested that among the port FTZs of the 13 regions, some will be transformed into processing zones for export or economic development zones while others will be transformed into free ports or free trade zones, which will be integrated with ports having potentials of becoming international terminals in space, implementing the policy of free port in the system.

② Development plan and expectation of the FTZ

In the future, the main problem is to solve the localization and transition of the FTZ.

A comparatively perfect regulation is badly needed for FTZ's development at present, which constitutes the function, preferential policy, management system, examination and approval procedures, management method, etc of the FTZ. For the moment, the central government is endeavoring to this kind of policy regulations.

Secondly, the plan is to perfect and make the transition of the present FTZs. Waigaoqiao FTZ, Shenzhen FTZ and Tianjin FTZ, etc. are in the perfection for themselves as well as other FTZs. The purpose is integrated to the world.

Some ports which have the ability to build container pivot harbor and FTZs have put forward to form free ports, such as Shanghai Yangshan port, Shenzhen FTZ, Xiamen, Qingdao, Tianjin. At the same time it is a request of building (such as Nantong) or transferring to (such as Fuzhou) the FTZs.

The central government is considering as a whole at present. According to a personage of the foreign economic research department of research center of the State Council, the scheme of building free ports at present is in Shanghai, Shenzhen, Qingdao and Tianjin. The ports of these four cities are the top four bigger container ports in 2003. There should be a large number of works for law, system and policy for construction or transferring, so it will cost much time to put them into reality.

Build free port or FTZ transfer to free port must make

Meanwhile specific FTZ which has no outstanding function will be incorporated into the export-oriented process zones or other special economic zones.

(3) Japan

① Future issues

As part of Japan's import promotion policy, the government has already a number of FAZs near strategic ports and airports. However, some FAZs have not attracted the expected number of investors due to the recent economic slump. Therefore, it must be understood that simply creating a new FAZ will not necessarily result in a large accumulation of private companies.

Accordingly, such factors must be carefully considered when setting up a new FAZ.

Chapter 4

Case study of Port Investments

1. United States Port Investments

1) Basic Concept and Historical Background of the U.S. Port Policy

U.S. ports are situated in 24 of the 50 states - along the coasts of the Pacific Ocean, the Atlantic Ocean, the Gulf, and the Great Lakes and also in Alaska and Hawaii. The total coastline length reaches about 160,000 km, including the Great Lakes, that is about five times that of Japan. U.S. does not have more than about 130 ports at 7.5 meters or deeper on the seas and at 5.5 meters or deeper on the Great Lakes. However, U.S. also has a long inland waterway network of about 46,000 km with countless inland ports on its banks.

In the early stage of U.S. port development from the beginning until the end of the 19th century, ports were generally developed by private enterprises, such as trading firms, shipping companies, and railroad companies. Since one enterprise owned all facilities of a port those days, the evils of monopolization became apparent.

- Problems derived from port monopolization (High charges and low services)
- Over investments and overlapping and low uses of facilities
- Inadequate arrangement of private terminals
- Inadequate funds for port facilities investments

At the end of the 19th century, efficient transportation was expected for economic growth. Among the growing recognition of necessity for solving the above subjects with administrative participation, public port authorities were established at five ports.

Galveston wharves (Texas), 1854

The board of State Harbor Commissioners of the San Francisco Harbor, 1863

The New York Department of Docks, 1870

The Port of Portland Commission (Oregon), 1891

The Board of Commissions of the Port of New Orleans, 1896

Then private ports were changed to public ones for the advantages:

- Holding the coordination and integration function to eliminate chaotic competitions
 - Not setting monopolistic prices or providing discriminatory services but setting standard rates
 - Making the maximum use of coastlines and forming public capitals
- Deploying port facilities to meet or create cargo demand

The Port of San Francisco (1863), Port of Long Beach (1909), Port of Seattle (1911), Port of Boston (1911), and Port of New Jersey in New York(1921) were changed from private to public.

In the world, private ports and their operations are totally or partially being sold or entrusted to companies these days for privatization. Also because of the historical background, ports are basically managed by public entities in the U.S. and privatization of the narrow sense is advancing where ports are sold. However, privatization of the broad sense is not advancing where private contractors receive operation and management techniques with the relations of concession and other contracts.

The U.S. is a federation where each state has a stronger authority than the nation (federal government). Port establishment and management have also been not participated in directly by the nation but promoted voluntarily by state governments. As far as U.S. ports are concerned, there are different systems of the same number (24) as states having coastlines. For side assistance, so-called infrastructures (routes, anchorages, breakwaters, and navigation aid facilities) were established by the nation and have been maintained and managed by the U.S. Army Corps of Engineers and the U.S. Coast Guard.

〈Table 4-1〉 Data about U.S. and the world (as of 2001)

Item	U.S.	World
1) Land area (km ²)	9,630,000	135.6 million (U.S.: 8.0%)
2) Population	284.8 million	6,134 million (U.S.: 4.6%)
3) Gross domestic produce (GDP) (US dollar)	1,082.2 billion	(U.S.: 31.9%)
4) GDP per person (US dollar)	34,280	
5) Real economic growth rate (%)	1.2%	
6) Industrial produce index (1995 = 100)	122.7	
7) Unemployment rate (%)	4.8%	

Source : World Statistics 2003 (By Statistics Bureau of the Prime Minister's Office, Statistics Training Institute). Yanotsunetakenkai, World's State-of-country Picture Collection (Edition 14)

〈Table 4-2〉 Ports in the U.S.

Item	Description
1. Number of ports	About 130 (7.5 m or deeper (5.5 m or deeper for the Great Lakes) with piers)
2. Legal system	No national laws about ports. Depending on each state.
3. Port management form and participation by the nation	Port management body and state/city. Federal government responsible for establishing breakwaters and routes.

2) Method of Planning Port Facilities in the U.S.

U.S. ports are basically planned, constructed, managed, and operated by port management bodies according to the law of each state. However, the U.S. Army Corps of Engineers is in charge of establishing, maintaining, and managing breakwaters and routes. Breakwaters are installed at almost no harbors. The breakwater constructed at the Port of Long Beach, Los Angeles on the west coast in 1920s to 1930s may be the only large-scale one.

The main administrative organs of the federal government, related to port administration, are as follows:

- U.S. Department of Defense, Army Corps of Engineers
- U.S. Coast Guard
- U.S. Department of Transportation
- U.S. Department of Commerce

In addition to the above, various administrative organs of the federal government are involved in port administration, making port administration complicated. If only the planning, establishment, management, and operation

of port facilities are considered, however, the federal government is basically not concerned except that the U.S. Army Corps of Engineers opens and maintains routes outside pier head lines and the U.S. Coast Guard is responsible for marine security. For unemployment relief, the U.S. Economic Development Administration is giving grants to public businesses of great employment power, including port businesses and the U.S. Department of Commerce, Maritime Administration is performing technical development about ports.

According to a law, a port authority is established by a state, county, or city and its board voluntarily manages and operates the actual port. In many cases, a state, county, or city only selects board members, approves a budget at the beginning of the year, and exercises the veto. Board members are usually selected by a state governor or city mayor and appointed after agreement by an assembly but may be selected by resident voting as in Washington. Greatly depending on the state or city, the state governor or city mayor may or may not have a veto.

3) Actual Conditions of the Maintenance System for Port Facilities in the U.S.

① Idea of sharing port construction expenses between entities

The U.S. system of establishing, managing, and operating port facilities is of the landlord type where private ports have changed to public ones and a scheme of self-supporting accounting. Expenses on port facilities are roughly shared as follows.

〈Table 4-3〉 Sharing of expenses on port facilities in the U.S.

Port Facilities	Expenses	U.S.		
		Federal Government	Port Management Body	Private Body
Routes and anchorages	Construction	●		
	Maintenance and repairs	●		
Routes and anchorages in port area	Construction	●	●	
	Maintenance and repairs	●	●	
Anchorage (around piers) in port area	Construction		●	*1●
	Maintenance and repairs		●	*1●
Breakwaters	Construction	●	●	
	Maintenance and repairs		●	
Piers	Construction		●	*1●
	Maintenance and repairs		●	*1●
Port roads	Construction		●	*1●
	Maintenance and repairs		●	*1●
Roads	Construction			
	Maintenance and repairs			

*1 In the United States, some ports are jointly constructed with the private sector.

Regarding port construction expenses in the U.S., the federal government develops and manages routes, anchorages, and breakwaters. These days, however, breakwaters are not constructed almost at all.

Since a port management body manages port facilities mainly within a port area, anchorages, piers, and port roads are constructed at the expense of the port management body. A port management body raises funds for construction works from port usage fees, loans, and debts. Basically, a port management body uses their own funds. Then the body leases the port facilities to private enterprise for long terms to collect funds. In other words, the port management body can be compared to a landlord.

At some ports, construction works are shared with advancing private enterprises by agreement.

- ② Idea of sharing port maintenance and management expenses between entities (Improvement and maintenance)

In the U.S., the nation does not subsidize a port management body for maintaining and managing port facilities. For a business acknowledged as an unemployment relief, the federal government gives a grant.

In the U.S., the federal government is basically responsible for developing, maintaining, and managing routes. To maintain routes already in service, the federal government (U.S. Army Corps of Engineers) performs dredging at their own expense. Ports on the Columbia River (34 ports scattered along the river, including the Port of Portland), Mississippi River (Port of New Orleans and other), and other rivers require frequent dredging.

The revenue and expenditure budgets of U.S. Army Corps of Engineers in fiscal 2004 are as listed below. The budgets are mainly assigned to the following eight activities:

- Dredging project for deepening the Port of New Jersey in New York (U.S. \$115 million)
- Olmsted Locks and dam project in Illinois and Kentucky (U.S. \$73 million)
- Large marshland restoration project in Florida (U.S. \$145 million)
- Improvement of routes at the upstream of Mississippi River (U.S. \$35 million)
- Anti-flood measures in urban area (Sims Bayou in Houston) (U.S. \$12 million)
- West Bank and Vicinity Project in Oregon (U.S. \$35 million)
- Environmental measures on Columbia River (U.S. \$98 million)
- Environmental measures on Missouri River (U.S. \$22 million)

〈Table 4-4〉 Revenue and expenditure budgets of the U.S. Army Corps of Engineers in fiscal 2004

(Unit: US million dollars)

Revenue	Amount	Expenditure	Amount	Remarks
General budget	2,947	Management and dredging for maintenance	1,939	
Port maintenance trust fund	812	Dredging	1,350	
Coastal transport trust fund	256	Anti-flood measures on Mississippi River	280	
Special use charge	34	General expenses	144	
Hydraulic power use charge	145	Improvement of existing facilities	140	
		General survey	100	
		Anti-flood measures and coastal emergency measures	70	
Total	4,194		4,194	

Source: Website (<http://www.hq.usace.army.mil/cepa/pubs/mar03/story1.htm>)

Maintenance and management expenses by a port management body are not only from port revenues but also from other business incomes.

For example, the budget of fiscal 2002 for the Port of Tacoma amounted to 63,610,000 dollars from mooring charges, freight train/truck loading and unloading charges, and lease charges for piers, cranes, and other facilities. Meanwhile, the general expenses were 20,140,000 dollars, the repair expenses were 8,810,000 dollars, and the management expenses were 8,290,000 dollars.

Also in the U.S., port management bodies do not run the port transportation business for themselves but lease piers and other port facilities to private enterprises for long terms. The maintenance and management expenses then are shared according to the lease contract. As Reference 4-2-1 (Lease contract for container terminal at Port of Tacoma: The port management body is responsible for the foundation while the private operator is responsible for facilities on the foundation) shows, several patterns are created according to the volume of cargo to determine the amount of payment from the operator to the port management body.

4) Systems for Establishing, Managing, and Operating Port Facilities in the U.S.

① Port system

In the U.S., port management bodies established by states and other are responsible for ports. Here, we should note that not all ports in the U.S. are financially independent. As detailed in 6-2, routes and breakwaters are supported by the nation (U.S. Army Corps of Engineers) however, almost

no breakwaters these days) and also by the port management body issuing general obligation bonds.

As described later, “general obligation bonds” are taxes collected from local residents. The bonds are basically to collect funds necessary for the facilities but are taxes imposed on local residents in terms of sources.

Although there are too many forms of management to confirm, the landlord type (the port management body is responsible for the foundation while the private operator is responsible for facilities on the foundation) seems basically popular. In Japan, the tool port type (facilities on the foundation are established, maintained, and managed by the public sector but operated by the private sector) is popular.

- ② Establishment system (fund source and redemption method, national contribution, grant, and beneficial rates, and other)

In the U.S., a port management body is basically a state or city and completely independent of the federal government. As a rule, therefore, no grants are accepted from the federal government.

Therefore, port management bodies mainly raise funds as follows:

- (a) Port revenues

- Issue of general obligation bonds

- To raise funds for constructing port facilities and procuring equipment, the port authority issues bonds under the name and responsibility of the public body where it belongs. Then the public body repays the principals and pays the interests from the general revenues and the allotted money of special taxes.

- Issue of revenue bonds

Like general obligation bonds, the port management body may issue revenue bonds to raise funds for constructing port facilities and procuring equipment if the said port facilities can be leased or operated to produce incomes enough for repaying the principals and paying the interests. The port management body guarantees the reimbursement of bonds by cash and the payment of interests. Because of high risks for investors, the interest rates are usually higher than those of general obligation bonds.

(b) Loans

(c) Grants (State, city, etc.)

(d) Other

- Taxation revenue by the port management body
- Taxation revenue by the founder of the port management body

Port revenues are usage and rental fees from port facilities and useage fees and service charges from various related facilities. These revenues vary with the port but are not enough for keeping the port. Tax revenues from the city or state are also used.

By viewing the configuration of port funds historically, we see that the general obligation bonds reimbursed by tax revenues of the local government are decreasing and the port revenues are increasing. This may be because the port structure is changing as explained below.

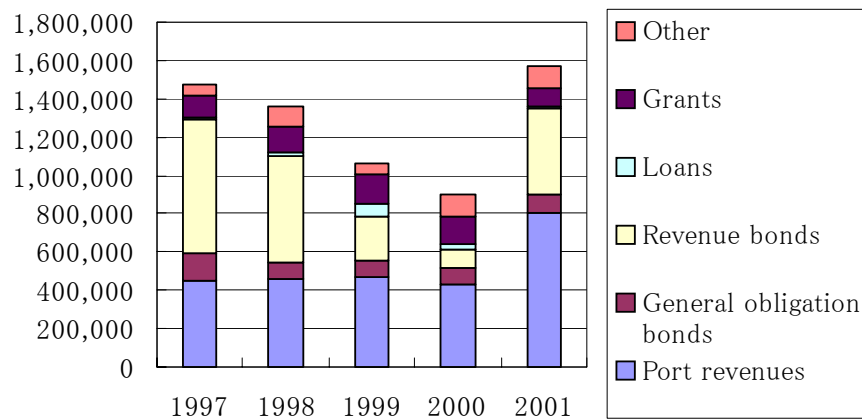
〈Table 4-5〉 Methods of raising funds for establishing ports in the U.S.

Port fund		1973 to 1978	1979 to 1989	1990 to 1996	Remarks
No.	Fund	%	%	%	
1	Port revenues	26.7 %	47.7 %	39.6 %	
2	General obligation bonds	30.6 %	14.8 %	10.5 %	
3	Revenue bonds	29.1 %	27.0 %	28.7 %	
4	Other (All)	13.6 %	10.5 %	21.2 %	
	Total	100.0 %	100.0 %	100.0 %	
	Total fund	876,326	3,992,897	5,900,764	Unit: US\$1000

Source: A Report to Congress on the Status of the Public Ports of the United States 1996-1997

〈Table 4-6〉 Recent funds raised for establishing ports in the U.S.

1997	1998	1999	2000	2001
449,862	457,565	472,978	431,265	802,331
147,643	89,825	82,879	82,040	96,478
696,090	554,486	228,187	97,946	449,088
6,203	15,435	70,207	34,477	12,401
120,376	140,506	149,665	143,579	94,453
58,012	97,175	62,245	108,609	119,005
1,478,186	1,354,992	1,066,161	897,916	1,573,756
1997	1998	1999	2000	2001
30.4%	33.8%	44.4%	48.0%	51.0%
10.0%	6.6%	7.8%	9.1%	6.1%
47.1%	40.9%	21.4%	10.9%	28.5%
0.4%	1.1%	6.6%	3.8%	0.8%
8.1%	10.4%	14.0%	16.0%	6.0%
3.9%	7.2%	5.8%	12.1%	7.6%
100.0%	100.0%	100.0%	100.0%	100.0%

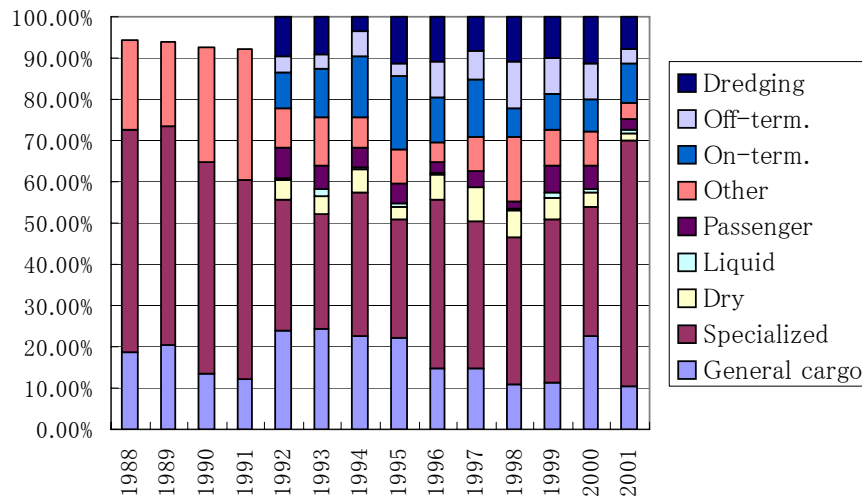


As <Table 4-6> shows, investments on cargo-handling facilities for specialized general cargo (Container ships and RO/RO ships) account for a great percentage of expenses and the percentage in 2001 was about 60%. According to the data of 1966 to 1972, the amounts of investment for general cargo and specialized cargo were 295 million and 369 million dollars, respectively, and their ratio was 1:1.25. The investment ratio was 1:1.37 in 2000 and 1:5.78 in 2001, indicating growing investments on facilities handling containers and other. Dredging by the national treasury has a share of about 8 to 10%.

Revenues from container-handling port facilities are generally greater than ones from other facilities. This may be why revenues by port operations have increased and ones by general obligation bonds have decreased these days as shown in <Table 4-5>.

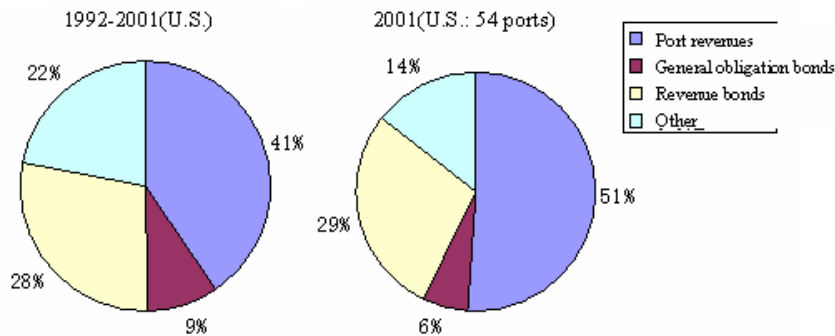
〈Table 4-7〉 Investments on cargo handling facilities by cargo types

Year	General cargo		Bulk		Passenger	Other	Infrastructure		Dredging	Total ('000)
	General cargo	Specialized	Dry	Liquid			On-term	Off-term		
1988	18.80%	54.00%				21.70%				\$499,963
1989	20.40%	53.20%				20.20%				\$606,234
1990	13.60%	51.40%				27.60%				\$653,174
1991	12.10%	48.30%				31.90%				\$679,744
1992	23.90%	31.80%	4.80%	0.20%	7.50%	9.50%	9.00%	3.80%	9.50%	\$671,768
1993	24.50%	27.60%	4.50%	1.70%	5.60%	11.90%	11.60%	3.60%	9.00%	\$653,663
1994	22.80%	34.80%	5.60%	0.30%	4.70%	7.30%	15.10%	6.00%	3.40%	\$686,620
1995	22.20%	28.80%	3.00%	0.90%	4.70%	8.20%	18.00%	3.10%	11.10%	\$1,203,455
1996	14.70%	41.00%	5.90%	0.50%	2.70%	4.80%	10.70%	8.80%	10.90%	\$1,301,152
1997	14.80%	35.50%	8.30%	0.10%	3.80%	8.50%	14.00%	6.70%	8.30%	\$1,542,454
1998	10.90%	35.80%	6.40%	0.20%	1.90%	15.70%	7.10%	11.20%	10.80%	\$1,414,397
1999	11.50%	39.20%	5.20%	1.40%	6.40%	9.00%	8.80%	8.60%	9.90%	\$1,115,680
2000	22.80%	31.20%	3.50%	0.80%	5.70%	8.20%	8.00%	8.70%	11.10%	\$1,057,653
2001	10.30%	59.50%	1.90%	0.70%	2.90%	4.00%	9.30%	3.40%	8.00%	\$1,740,134
10-year Ave. 1992-2001	17.80%	36.50%	4.90%	0.70%	4.60%	8.70%	11.20%	6.40%	9.20%	



Source: United States Port Development Expenditure Report, March 2003, U.S. Department of Transportation, Maritime Administration, Office of Ports and Domestic Shipping

〈Figure 4-1〉 Revenue structure of ports in the U.S.



In 1998, the U.S. Department of Transportation submitted a report about U.S. public ports to the Congress. According to this report⁴⁾ U.S. Department of Transportation, Maritime Administration, Office of Ports and Domestic Shipping (Oct. 1998), A report to congress on the status of the public ports of the united states 1996-1997, the U.S. Department of Transportation could obtain data about 52 ports and the revenue was positive about 77% (40 ports) of them and negative about 23% (12 ports). The report attributed small profits in the port industry to the fact that there are two ideas about services and facilities at public ports. One is a very prevailing idea that public ports develop local economy and create local employment. The other is that even public ports should be profit-making enterprises. Compatibility of these two ideas is usually attempted but hardly achieved. However, the recent rapid growth of the international container market seems to be turning the financial situations better for ports where great quantities of international container cargo can be handled.

4) U.S. Department of Transportation, Maritime Administration, Office of Ports and Domestic Shipping (Oct. 1998), *A report to congress on the status of the public ports of the united states 1996-1997*.

③ Port establishing entities

In the U.S., port authorities established by states or cities are basically in charge of establishing, maintaining, and managing port authorities.

The federal government is basically supposed to be in charge of establishing, maintaining, and managing routes. When creating or deepening routes, the federal government pays part of the expenditure as a subsidy for the port authority who is the beneficiary. The payment ratio varies with the case but is usually about 60 to 65% by the federal government and about 35 to 30% by the port authority.⁵⁾

④ Privatization and introduction of private capitals

In the United States, public services are being privatized and even private prisons have appeared. Concerning port management, however, public ports are not being privatized because of the history where private ports were changed to public ones.

Port policies differ greatly between states. While port development taxes are collected as objective taxes in some states, cities collect part of port

5) Based on the Water Resource Development Act (WRDA '86) (established in 1986 and revised every two years), the U.S. Army Corps of Engineers is supposed to do dredging on behalf of the nation. A burden charge for port maintenance and management (Harbor Maintenance Fee: HMF) is imposed on cargo to be delivered into or out of a U.S. port and saved as a trust fund for port maintenance and management. According to WRDA '86, the payment ratios are as follows:

- Constructing a new route deeper than 45 feet (about 13.7 m): 60% by the port management body and 40% by the nation
- Constructing a new route up to 45 feet deep: 35% by the port management body and 65% by the nation
- Maintaining a route deeper than 45 feet: 50% by the port management body and 50% by the nation
- Maintaining a route up to 45 feet deep: 0% by the port management body and 100% by the nation
- This is still causing various discussions in the U.S. and its transition needs to be watched. (See the website of the American Association of Port Authorities. www.aapa-ports.org)

revenues as burden charges for public services in some states.

From the beginning until the end of the 19th century, ports were developed and operated by private capitals in the United States with almost no assistance by the private sector. Private ports were established and operated mainly by railroad companies. Since one company owned a whole port, the evils of monopoly became remarkable. Under these circumstances, usage fees were raised to the upper limit acceptable to the market. In some areas, excessive competition caused overinvestment and facility duplication. In other areas, the shortage of port facilities due to inadequate funds began to block the cargo flow.

At the end of the 19th century, therefore, public bodies began to buy up private facilities and issue bonds for large-scale port development under growing recognition that stable and adequate port services are necessary for economic growth.

When the 20th century began, legislations by state and cities clarified the organizations, authorities, and port administration areas of port management bodies and port authorities began to appear. Now more than 400 major ports are managed and operated as public ports.

About the Port of Boston and the Port of Los Angeles, privatization was studied, including the sale of port facilities to the private sector. However, the sale to the private sector was suspended because the federal government those days had a policy "Selling facilities established by funds of the federal government will lead to federal losses." Then the federal policy was changed to "The federal government will abandon the right to claim when infrastructures established by funds of the federal government are sold to the private sector." (Bush Administration) In the U.S., however, privatization is not advanced enough to sell a whole port to the private sector. U.S. ports

are being privatized in various ways, such as entrusting administrations to private companies.

- ⑤ About linkage with related organizations in terms of facilities and system

Among about 40 some harbor-related organs of the federal government in the U.S., only the U.S. Maritime Administration, U.S. Army Corps of Engineers, and U.S. Coast Guard are directly or indirectly responsible for port operation and development. In addition, even these three organs with the basic responsibilities of the federal government for port development have only limited authorities.

In the U.S., a state basically plays a great role in determining a form about a port but a matter across states requires a federal approval. Therefore, a state is authorized to manage the land area of a port but may permit management to a county, city, or office union.

Meanwhile, seas and rivers are under federal administration where the U.S. Army Corps of Engineers is in charge of establishing, maintaining, and managing routes and the U.S. Coast Guard is in charge of beacons.

According to a law, a port authority is established by a state, county, or city and its board voluntarily manages and operates the actual port. In many cases, a state, county, or city only selects board members, approves a budget at the beginning of the year, and exercises the veto.

Board members are usually selected by a state governor or city mayor and appointed after agreement by an assembly but may be selected by resident voting as in Washington. Greatly depending on the state or city, the state governor or city mayor may or may not have a veto.

The authorities of a port authority are defined in a state or city charter.

In Washington and Oregon, a port authority is permitted to impose a port tax. The port tax is imposed at a fixed rate to the assets of each resident in the port administration area. Since the port administration area overlaps the ranges of one or more counties, this tax is collected together with the property tax by the county. At the Port of Seattle, the tax rate is 28 to 29 cents per 1,000 dollars. The port tax is collected mainly in the Gulf area and on the northern coast of the Pacific Ocean.

In many areas, states or cities give grants to ports. On the southern coast of the Pacific Ocean, however, ports return subsidies to cities.

In addition, the single-window system is being promoted aggressively to simplify the procedures of ship arrival and departure.

〈Table 4-8〉 Summary about port maintenance and operation in the U.S.

Item		
1. Port policy	1. Port policy ▪Planning entities and related organs	<ul style="list-style-type: none"> ▪As a rule, the state or city government who established the port management body makes a plan. ▪The federal government establishes, maintains, and manages access routes to ports and also breakwaters. However, not many breakwaters are now installed. ▪Although the system depends on the state, the port management bodies are basically of the landlord type.
	▪Planning item, planning process, and resident participation	<ul style="list-style-type: none"> ▪Although the system depends on the system, infrastructures (water areas, piers, pier lots, roads, and railroads), terminals, industrial areas are basically planned and constructed to utilize the port space (land and water) in command. ▪Growing public opinions about environmental problems are being dealt with and local partnership is being promoted.
2. Establishment of facilities	▪Establishment entities and sharing of construction	<ul style="list-style-type: none"> ▪The nation (U.S. Army Corps of Engineers) is in charge of breakwaters and access routes outside pier head lines (however, not many breakwaters are installed now). The port management body is in charge of anchorages, piers,

	e x p e n s e s between entities	and land accesses inside pier head lines. Private operators establish facilities on the foundation. There is no direct burden on the beneficiary.
3. Management and operation of port facilities	▪ O p e r a t i o n entities	▪Piers and back grounds prepared by the port management body and leased to private operators. Like the establishment entities, private operators establish facilities on the foundation.
	▪Sharing of maintenance and management e x p e n s e s between entities	▪The establishment entity pays the expenses. ▪The expenses sharing rate is 100% by the nation for a port access route up to 45 feet deep but 50% each by the port management body and the nation for a port deeper. However, the expenses are paid from the funds that are raised by imposing taxes on outgoing and incoming cargo. ▪The port management body owns and leases piers and back grounds to private operators. ▪Private operators pay maintenance and management expenses necessary for their own facilities.
4. Privatization	▪Purpose and method	▪Since the port history was initiated by private ports, a government basically manages an entire port to avoid the evils of private monopoly. ▪For efficient operation, however, private operators operate terminals. About container terminals, privatization of narrow sense is in progress, such as long-term leasing and concession.
5. Research for promoting the Establishment of Free Trade Zone	▪Research for promoting the Establishment of Free Trade Zone	▪Research for promoting the Establishment of Free Trade Zone
6. Port services		▪Cargo is handled 24 hours a day (three-shift system) ▪The gates are open 24 hours a day. ▪The ports are substantially open 365 days a year.

5) Analysis of port and harbor investment in the United States of America

Looking at the budgets of port authorities, the amount requested for port and harbor security has increased since the September 11 terrorist attacks, reaching the point that it accounted for \$156 million (up \$57 million from the previous year) of all budget requests for 2006, which totaled \$295 million. On the other hand, looking at port and harbor investment, while private-sector port and harbor investment is increasing due to BOT conditions and other factors, the government's budget has been showing a declining trend, standing at \$139 billion in 2006 (down \$66 million compared to the previous year). The reason security-related budgets are growing in this way lies in expanded subsidies to the Department of Defense to sufficiently ensure support for marine transport during times of war and national states of emergency (47 ships, \$2.1 million per ship in 2005 → 60 ships, \$26 million per ship in 2006).

Port and harbor investment tends to come from the private sector, with the government mainly providing human support for economic zones that integrate ports and their surrounding areas as well as investment for access roads and other infrastructure.

2. Netherlands Port Investments

1) Port Investment Policy of Netherlands

(1) Port Management & Operation of Netherlands

There are two types of port in Netherlands, Municipal and Public, depending on the operational type. The typical municipal port in Netherlands is Port of Rotterdam. The city council participates all of management jobs in Port of Rotterdam and plan the future port development project. However, city council does not involve in birth operations because city council rents the each birth to private sector. Therefore, city council acts like a controller of market mechanism.

Besides the municipal ports in Netherlands, public ports in Netherlands are managing by Havensharp, which is organized by a joint project between central government, local government of Zeeland, Flushing city and Borsele city. The typical public port in Netherlands is Flushing Port. Flushing Port is managing by Flushing Ports Authority (FPA), which is managing by Havensharp. FPA administrates port management, maintenance and repair, port infrastructure and commercial facilities.

〈Table 4-9〉 Port Management Type of Netherlands

Type	Detailed Description	Characteristic	Port
Municipal Port	1. Controlled by the city council 2. Managing all of port development project and office work	1. Renting all of the births of Port to private sector 2. Role of market machinism	Rotterdam
Public Port	1. Controlled by State, City and County together 2. Havensharp is managing the Port Authority. 3. Administering and managing the port	1. Managing by Havensharp	Flushing Port

(2) Main Body of Port Development and Investment Method

In case of the municipal port, city council establishes overall port development and investment plans and management & operation policies. Therefore, city council plans new construction and reconstruction of port infrastructures, such as fairways, breakwaters, ports, revetment, wharves, and so on. In addition to the role of each city council, National Port Council controls all of port development projects of each port council. However, private sector, as a tenant of births, has a right to construct container handling equipments, superstructure of the port and owns the facilities.

In case of public port, the port development plan is established through adjustment of central government about inter-port investment plan. Central government supports 33% of total budget (named in subsidy) on fairway and breakwater out of the certain port development project

(3) Budgeting Method

In a principle, there is no financial support from the central government on municipal ports; therefore, municipal ports use their own capital or loans for port development projects.

When if there is a deficit on financial status on the port, all city involved in management of the port has to payoff the deficit by the ratio of investment.

2) A case of Rotterdam port

(1) Status of Rotterdam port

Port of Rotterdam covers an area of 40 km, from the center of the city to the North Sea. The port and industrial area cover 10,500 hectares (26,000

acres). Around 30,000 seagoing vessels and 130,000 inland vessels arrive in the port every year

In 2004, Port of Rotterdam handled 352 million tons, which was 7% increased more compared to 2003. Container throughput rose by 16% from 7.1 million TEU in 2003, to 8.2 million TEU.

〈Table 4-10〉 Status of Container Terminal

	Terminal	Status
Waalhaven	Hanno & Uniport	Area : 600,000 m ²
		Capacity: 800,000TEU
		Quay Length: 2,400m
Eemhaven	ECT Home	Area: 82ha
		Capacity: 1,000,000TEU
		Quay Length: 1,600m
	Rotterdam Shortsea Terminal	Area: 442ha
		Capacity: 900,000TEU
		Quay Length: 1,850m
Maasvlakte	ECT Delta Muti-User	Area: 360ha
	ECT Delta Sea-Land	Capacity: 6,300,000TEU
	ECT Delta Dedicated-East/West	Quay Length: 5,200m

Port Authority of Rotterdam spurs on new terminal development to secure discriminated competitiveness advantages compared competitive ports, such as Hamburg, Le havre, and Antwerp for increasing Asia bound throughput in the future. It also develops Euro Max terminal and Maasvlakte II that have sufficient facilities for the calling of ULCC (Ultra Large Container Carrier) more than 10,000 TEU size.

Also, in order to attract feeder liners and to be a hub port in Europe, Port Authority of Rotterdam is preparing the inland connections including rail systems, which is possible to connect to the inland of Dutch.

(2) Main Body of Port Development and Management of Port of Rotterdam

Port of Rotterdam is a typical municipal port and it is managed by the city of Rotterdam. The port authority is one of the departments of the city of Rotterdam, and the official name of the department is the “Rotterdam Municipal Port Management.”- The chairman of the department is controlled by the Port Council for all his/her duties excluding routine works

(3) Procedure of Port Development Plan

Commercial department of the port authority is the main body of port development planning. The steps of port plan are consisted with 10 phases as the followings:

Phase 1: Market Research

Phase 2: Inner Discussion

Phase 3: Analyzing of Problems

Phase 4: Actual Inspection about Building Lot

Phase 5: Architectural Design and Estimate of Total investment

Phase 6: Report the Possibility of Rent

Phase 7: Acceptance by Port Council

Phase 8: Prepare the Standard of Architectural Design and Requirements

Phase 9: Detailed Architectural Design

Phase 10: Open Tender and Build Infrastructure

(4) Port Investment Method

In a principle, City of Rotterdam invests on infrastructure of the port and a tenant invests on superstructure of the port.

(5) Budgeting Method

In a principle, there is no financial support from the central government on municipal ports; therefore, municipal ports use their own capital or loans on port development projects. However, in a case of construction of inland waterways by Port Authority, central government supports one over three of the total budget. The other hand, in a case of construction of inland waterways by central government, city must payoff the deficit of the total budget when the deficit has been occurred.

(6) Port Development Plan

Port of Rotterdam has planned to construct a container terminal, named Euromax terminal, with the maximum handling capacity of 250,000 TEU. Also, Port of Rotterdam has planned Maasvlakte II project in order to strength itself as the number one container port in Europe and to be a bridge or network port between nations of EU and the third nations

3. Hong Kong Port Investments

1) Port Development of Hong Kong

(1) Overview

Hong Kong lies in Asia centre and fortification of Zhujiang River Delta in the south China that grows prosperity. The geographical position is superior. Since a century and a half, Hong Kong is always the door having trade relations in the district and is the bridge which connects trade between east and west too. Having the advantage of the natural protective barrier according to deep water and square-built port, Hong Kong is developing into the busiest container terminal in the world and international shipping centre from quiet fishing village. For many years, the port and shipping industry of Hong Kong are famous for speciality with high efficiency. Therefore, it gains the good reputation of all-capacity harbor and all-capacity shipping centre. Hong Kong has about 870 kilometers of coastline in all with deep water expanse port. The seaport area is up to 5000 hectares, which can berth 150 wheels of ten thousand tons at the same time. Hong Kong stands side by side the world in three major good harbors with San Francisco of U.S.A. and Rio de Janeiro of Brazil.

The port of Hong Kong has more than 160 years` history, in which it becomes the container terminal over 30 years. The port has been Hong Kong`s important factor of prosperity and economic development all the time. Hong Kong is also one of the main pivot harbors on the global supply chain. There are about 80 international shipping companies, which provide about 400 scheduled container shipping that come and go to more than 500 destinations in the world every week now. The shipping service

range spreads all over the hinterland large seaports. It also offers extensive inland shipping service at the same time, covering all kinds of big and small inland ports in Zhujiang River Delta.

In 2004, the container throughput of Hong Kong port reached 21.93 million TEU, which ranked the first container throughput in the world for 12 years in succession. All the Hong Kong container terminals are located in Kwai Chung, which contain 9 berths in all. There are 5 operators in charge of all the terminals for management and operation, namely Modern Limited (MTL), Hong Kong(HIT), COSCO-HIT, CSX(CSX) and Asia(ATL). The container terminals total to take up an area of 285-hectare, a shore with deep water of 6592-meter and 24 dock berths. Among them, No. 9 container terminal lies in the southeast of the Tsing Yi Island. The depth of water of the terminal front is up to 15.5 meters, taking up an area of 68-hectare, a shore with deep water of 1940-meter, 6 container berths and costing 10 billion Hong Kong dollars. The newly-increased handling capacity of No. 9 will reach 2.6 million TEU. Meanwhile, Hong Kong Special Administrative Region Government (HKSARG) is doping out the container throughput in the future on the basis of requirement and authorizing the port development plan of the following 10 years. The government has already carried out feasibility research on the site selection of berth No. 10 and 11.

At present, there are probably more than 80 international liner ships offering 400 exceeding scheduled container shipping service for Hong Kong port every week, which joined Hong Kong port to more than 500 ports in all parts of the world.

(2) Port Management

Hong Kong doesn't set up special Port Authority. All the daily port management affairs are in the charge of Marine Department of HKSARG. In the eighties, a piece of long-term port development tactics was needed in conformity with gradually glorious trade in Hong Kong. And the future huge projects of port also needed scrupulous coordination. Under the background, Hong Kong Port Development Council (PDC) was established formally on April 1990, with the responsibility of providing suggestion on all relevant port plan and development matters to the government. PDC should assess the need of port development according to the demand for the port of social economic development, port ability of tacking with cargoes, port productivity and competition situation of inside and outside aspect. PDC should also propose planning tactics of new port facilities and coordination of the government and private participating in making the port development suggestion. PDC was renamed Hong Kong Port and Shipping Authority (PSA) on June 1 1998. The new function is offering suggestions of port development to the government, promoting the development of Hong Kong shipping industry and promoting Hong Kong becoming the international shipping centre, etc. In May 2000, the new function of PSA increased is in charge of consolidating and popularizing Hong Kong as the world-level transportation and logistics center.

With the constant development of Hong Kong port, port industry's full-time organization--- PDC was established in June of 2003 in HKSARG in order to constantly strengthen the competitiveness and appeal of the port, which replaces the function of PSA. Through this reorganization, PDC can concentrate on discussing the planning matters of the port, promote Hong Kong as the world-level port.

2) Port Investment Policy of Hong Kong

(1) Background of Port Investment Policy

HKSARG always adheres to the free trade policy, actively supporting liberalization of international trade and objecting trade protectionism. The trade policies adopted are the policies seeking a set of free and open multilateral trade systems. HKSARG advocates and pursues free trade policies and makes the investment system with open freedom. It treats to outside investors equally without discriminations. The fund can flow freely. The rule clauses are high in transparency. The tax rates are low and clear and tax levied on income only to the source of Hong Kong or the income produced in Hong Kong. It is famous for the free trade and market policy allowing fund flowing freely. It is belonged to one of the best opening and export-oriented economic system in the world. Investment and foreign currency are unrestricted in Hong Kong. It has been elected as the freest economic system in the world by the traditional fund center of U.S.A. for 9 years in succession and as the global freest economy district by Cato Institute of U.S.A. and Feeshaer Academy of Canada for 30 years in succession.

Under the circumstances of free and opening economic policy adopted by HKSARG, the government has also adopted certain preferential policy in tax revenue. For example, the income tax rate is 17.5%. Companies can carry forward to the bad for many times. The value added tax, consumption tax, capital value added tax, dividend, withholding tax and so on are all not expropriated.

(2) Port Investment Policy

Because of the system and historical reasons, all the Hong Kong container terminals are built and managed by individuals. The unrestrained economic policy adopted by the government has become reason and guarantee of prosperity and stability all the time in Hong Kong. But the government is also playing an important role. The 4 main functions of the government in port development are as follows:

- ① Examining the present port developing trend regularly, predicting container throughput in the future and releasing the concrete content of report as the policy guidance to the public;
- ② Predicting port capacity in future, contrasting to the credible container throughput prediction making above and determining whether to expand new terminal or not;
- ③ If the result is confirmative, the new terminal project will begin about 5 years ahead of time. The government should be responsible for examining and approving land, calling for bid, commencing the auxiliary facility construction, such as railway, bridge and the wind pool, etc. The port investment and management for the future of the terminal are all finished independently by the private company won the bid. The government no longer intervenes;
- ④ In charge of carrying on other complementary work. Such as international propaganda and popularization, correlative investigation and researching, foundation and modification of safety criterion,

communicating and negotiating with the central government for policy's support, etc.

(3) Effect of Port Investment Policy.

As the investment environment is favorable, the government is with high efficiency and honesty, transparency policy, sound legal system, investors' rights and interests are well guaranteed. Besides these, the port investment policy above-mentioned makes Hong Kong as the unshakable international shipping centre. The port investment policy has made enormous achievements.

① Plural Investment Subject

Under the circumstances that the government adopts positive port investment policy and attracts folk capital extensively, the pluralism appears in the port investment subject. So far as the container terminals, there are 5 management subjects in No. 1 to 9. With No. 10 container terminal promoted into agenda, it is believed that the subjects will be more in the future. The investment and construction of the subjects in No. 1 to 8 container terminals are listed in the following table.

〈Table 4-11〉 The Investment and Construction of the subjects in No.1 to 8 Container terminals

	MTL	CSX	HIT	COSCO-HIT	TOTAL
Berths	5	1	10	2	18
Total areas (hectare)	79	17	92	30	217
Gantry Crane	101	12	161	41	248
Stack Capacity (TEU)	55,865	10,872	80,000	24,000	170,737

② High-efficient Operation and Service

Because the port are managed by private companies, the companies are been investing a huge sum of money to improve their own software and hardware facilities on the basis of business competition. Thus the port investment and construction are constantly stimulated and service efficiency is promoted gradually. Every port company pays attention to the port planning and management via abundant authorization and promotion of self-competitiveness. The companies are devoted to organizing research and development of systematic operation. These have improved the convenience and efficiency of whole operation in the port and made cargoes entering and leaving port fluently.

③ Collectivizing Enterprise Development

All the Hong Kong port facilities are invested and operated by individuals. Especially reflected in the container terminals, more and more free and open investment policies were adopted. While attracting the famous port investment groups in the world, local port investment groups are also cultivated because of high-profit level in container terminals. Port companies grow up constantly following the forming of international transshipment center of Hong Kong and turn into the groups. The companies have strengthened their own competitiveness. Hutchison Whampoa Limited (HWL), one of the famous world-level port companies has formed in Hong Kong.

(4) Hutchison Whampoa Limited

The development of HWL began from Hong Kong Whampoa Dock Company established on 1969. The earliest management state is general. Its

rapid development moved ahead with rapid containerized transport simultaneously. At present, the business of HWL spreads 19 countries all over the world with 219 berths at 39 ports. There are five among the seven busiest ports of the world are managed by HWL. There are more than 28 famous companies under command. One of them is HIT in Hong Kong. HWL operates No. 4, 6 and 7 container terminals independently and No. 8 container terminal with COSCO and No. 9 container terminal individually with MTL and ATL.

By 2001, the main container-terminal investment projects of HWL beyond Hong Kong are as follows:

China Mainland : Shanghai Container Terminals, Yantian International Container Terminals, Xiamen International Container Terminals, Shantou International Container Terminals, Zhuhai International Container Terminals (Gaolan), AJiangmen International Container Terminals, etc.;

- England : Port of Felixstowe, Thames port;
- Holland : Rotterdam Europe Container Delta Terminal;
- Panama : Panama Ports Company (Balboa);
- Indonesia : Jakarta Container Port;
- Thailand : Thai Laemchabang Terminal.

Among them, HWL controls interest of 35% in the port operation of Rotterdam Europe Container Delta Terminal and is one of the 2 big shareholders. In 2004, the loading and unloading amount of port containers from all parts of the world will reach 47.8 million TEU owned by HWL.

3) The Characteristics and Reasons in Port Investment of Hong Kong

(1) Characteristics in Port Investment of Hong Kong

Accorded to the general survey of the port investment policy of Hong Kong and investment status, especially accorded to large-scale port investment companies formed under the policy mode, the characteristics in port investment of Hong Kong are as follows:

① Container Terminal is the first-selection

Trough the present situation, container terminal is the first-selection for the transnational groups in the world because the operation of it is profitable. Except investing in the local terminals, HWL also invested mainly in the container terminals around the world and terminals for other goods are few. All of these are belong to container loading and unloading income to be getting high and container resource having bigger expanded space, which can benefit the increase of relevant business incomes.

② Investment Policy Brings the Plural Investment Subjects

In the process of port development of Hong Kong, the government has been in the relaxed state to port investment all the time, which made choiceness capital of different forms pour into the port constantly. The investment policy brings the plural investment subjects. According to the container terminals, there are five investment subjects at present. Except for the local port investment groups (such as HIT and MTL), there are joint-venture port investment groups (such as COSCO-HIT).

③ Port Investment is with High Efficiency

Analyzing from the business performance of the port investment subjects of Hong Kong, it can be found diversified investment ways have well promoted the development of port. Hong Kong port gained great developments while the growing up of containerized transport. The port investor obtains abundant profit. These cause high efficiency of port investment. The investment mode of Hong Kong port has well promoted the investment efficiency.

(2) Reasons for Characteristics in Port Investment of Hong Kong

① Create Good Investment Circumstances

Ever since the announcement for free port of Hong Kong in 1841, the government has made a large amount of work in protection of private investment, actualization of favorable tax and perfection of legal regulation etc. It took certain measures to guarantee the development of economy and trade. It also created good investment and management circumstances for enterprises and individuals in the course of economy and social development. The forming of the port investment mode in Hong Kong depends on a great extent to the government directs against economic development. Especially, a series of policies that come on and implement in the port development respects create good circumstances for enterprise investment.

② Implement the Policy of Free Port

The policy of free port helps to attract world transshipment cargoes. This increased port incomes by a large margin in loading and unloading cargoes

and is favorable to the repayment of port investment. Meanwhile, it is the key factor for the high-efficient and high-quality service that attracting the transshipment cargoes. Thus the time saved of sailing can substitute the cost lost in the port.

The transshipment containers in Hong Kong port account for about 80% of the port throughput and the local containers only accounts for 20%. Among the 80% transshipment, 60% comes from China's Mainland and 20% comes from other countries. So Hong Kong port incomes in loading and unloading mainly come from transshipment containers. The transshipment containers are the main resource for the port investors obtaining fund reciprocate. They bring better repayment to port investors and then promote the port investment.

③ Exert the Positional Advantage

Though free port policy can attract more resource of transshipment cargoes, the positional advantage is important except for the supporting policies in the success of port operation. The positional advantages of Singapore and Hong Kong port are very obvious in Asia. In addition, the positional advantages of Kaohsiung and Busan port are better. While the positional advantages of Japan and China's Mainland ports are not very large. The function of positional advantage is great in choosing port investment project in term of considering attracting transshipment containers. Hong Kong emerges development rapidly in short decades and becomes the first largest container port in the world. These are closely related with the government who gave full play to conditional advantages.

④ Develop Port Deep Processing

A large number of transshipment containers offer the material base for port investors developing and expanding port-relevant services. These provide the port investors condition to expand business scope and increase incomes, which raises the efficiency of investment. For example, the investors can utilize port deep processing on the transshipment cargoes and offer value-added cargoes.

According to Hong Kong statistics, the transshipment container cargo of 16.25 hundred Hong Kong dollars for a value can be promoted to 47.5 hundred Hong Kong dollars through processing value briefly. It can be promoted to 185 hundred Hong Kong dollars by deep processing, which is above 10 times than processing briefly. The logistics and distribution industries can be promoted after absorbing a large number of transshipment cargoes at port. The development of these industries can improve the income beyond port business. A large number of main-business incomes and relevant-industries incomes enable port investors obtain more generous income, which promotes the port investment again conversely.

Chapter 5

Case study of Port FTZ

1. United States Free Trade Zone

1) Outline of the Area

(1) Summary of U.S. FTZ

Foreign-trade zones are secure areas under supervision of U.S. Customs and Border Protection (CBP) that are considered outside the customs territory of the United States for the purposes of duty payment. Located in or near customs ports of entry, they are the U.S. version of what are known internationally as free trade zones. Authority for establishing these facilities is granted by the Foreign-Trade Zones Board under the Foreign-Trade Zones Act of 1934, as amended (19 U.S.C. 81a-81u), and the Board's regulations (15 C.F.R. Part 400). The Executive Secretariat of the Board is located within the Import Administration of the U.S. Department of Commerce, Washington, D.C. 20230.

Foreign and domestic merchandise may, subject to FTZ Board and CBP regulations, be moved into zones for operations not otherwise prohibited by law involving storage, exhibition, assembly, manufacturing, and processing. All zone activity is subject to public interest review, and all manufacturing

and processing activity requires a case-by-case review. Under zone procedures, the usual formal customs entry procedure and payment of duties are not required on the foreign merchandise unless and until it enters customs territory for domestic consumption, in which case the importer normally has a choice of paying duties either on the original foreign materials or the finished product. Domestic goods moved into a zone for export are considered exported upon entering the zone for purposes of excise tax rebates and drawback. FTZ sites and activities remain within the jurisdiction of federal, state and local governments and agencies.

Zones are sponsored by qualified public or public-type corporations, which may themselves operate the facilities or contract for their operations with public or private firms. The operations are conducted on a public utility basis, with published rates. A typical general-purpose zone provides leasable storage/distribution space to users in general warehouse-type buildings with access to all modes of transportation. Most zone projects include an industrial park site with lots on which zone users can construct their own facilities. Subzones are usually private plant sites authorized by the Board through zone grantees for operations that cannot be accommodated within an existing general-purpose zone.

The regulations of the Foreign-Trade Zones Board are published in the Code of Federal Regulations at Title 15, Part 400 (15 C.F.R. Part 400), and the regulations of U.S. Customs and Border Protection concerning zones at Title 19, Part 146 (19 C.F.R. Part 146).

(2) The present condition of U.S. FTZ in the 2003 fiscal year

During the 2003 fiscal year, the Foreign-Trade Zones (FTZ) Board issued 51 formal orders. The decisions included approvals for a new general-purpose zone and 18 new subzones. Authority was also granted for the expansion of facilities or manufacturing scope at 26 existing general-purpose zones and subzones. Additional actions involved the granting of authority for several new manufacturing operations within existing zones and other revisions to zone plans.

There were 155 FTZ projects fully active during the year, with subzones in operation in more than 100 of them. The number of facilities using subzone status increased to 246, with 21 new ones initiating the use of FTZ procedures and 12 discontinuing.

The combined value of shipments into general-purpose zones and subzones totaled \$ 247 billion, compared with \$ 204 billion the previous year (Table below and <Appendix D>). General-purpose sites received \$ 36 billion in merchandise. Total shipments received at subzone sites amounted to \$ 211 billion. Some 85 percent of zone activity took place at subzone facilities, which is consistent with the pattern of the past 15 years.

<Table 5-1> Value of Shipments into Foreign-Trade Zones, FY 2002 and FY 2003

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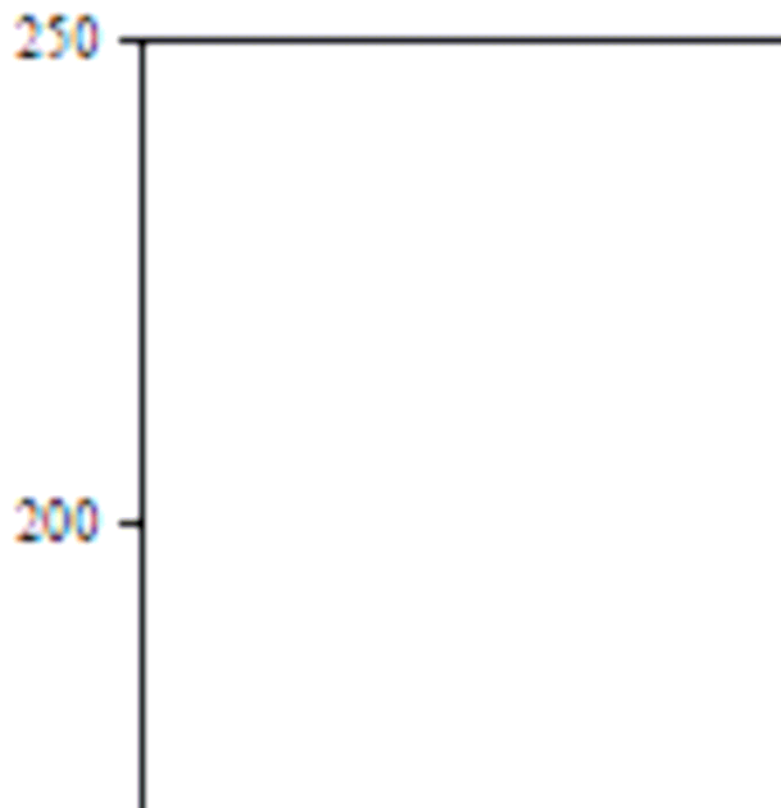
Exports (shipments to foreign countries) from facilities operating under FTZ procedures amounted to some \$19 billion (<Figure 5-2>). The export figures do not include certain indirect exports involving FTZ merchandise that undergoes further processing in the United States at non-FTZ sites prior to export.

Approximately 330,000 persons were employed at the 2,767 firms that operated under FTZ procedures during the year. The main foreign-origin products received at zones are listed in <Appendix E>.

Industries that continued to account for most zone manufacturing activity included the oil refining, automotive, pharmaceutical, and electronic product sectors. An estimated 66 percent of the shipments received at zones involved domestic status merchandise. The level of domestic status inputs used by FTZ operations indicates that FTZ activity tends to involve domestic operations that combine foreign inputs with significant domestic inputs.

The Board received and filed 75 formal applications during the fiscal year. These proposals requested authority for five new general-purpose zones and 31 subzones, as well as authorization for expansion, reorganization, new manufacturing, and other changes at existing zone projects (<Appendix F>). In addition, over 75 cases were processed under the Board's less formal administrative procedures (<Appendix G>). The latter cases involved routine, non-controversial changes to zone projects, such as boundary modifications and scope decisions.

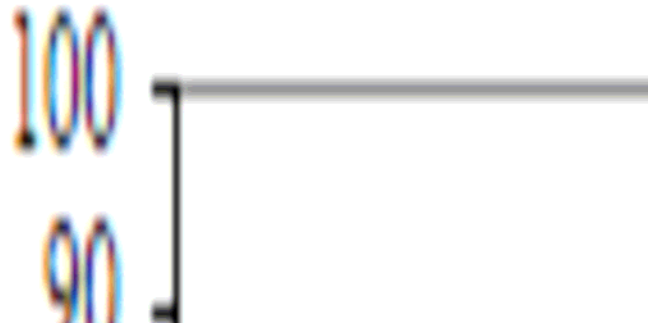
〈Figure 5-1〉 Foreign-Trade Zones: Merchandise Received
(General-Purpose Zones and Subzones) 1982-2003



〈Figure 5-2〉 Foreign-Trade Zones: Exports
(General-Purpose Zones and Subzones)(1982-2003)



〈Figure 5-3〉 Foreign-Trade Zones: Domestic Status* Merchandise Ratio
(As Percent of Total Merchandise Received) (1982-2003)



2) Function

(1) A foreign-trade zone in USA

A foreign-trade zone is a designated site licensed by the Foreign-Trade Zones (FTZ) Board at which special customs procedures may be used. These procedures allow domestic activity involving foreign items to take

place prior to formal customs entry. Duty-free treatment is accorded items that are re-exported and duty payment is deferred on items sold in the U.S. market, thus offsetting customs advantages available to overseas producers who compete with producers located in the United States. Subzones are special-purpose zones, usually at manufacturing plants. A site which has been granted zone status may not be used for zone activity until the site has been separately approved for FTZ activation by local U.S. Customs and Border Protection (CBP) officials, and the zone activity remains under the supervision of CBP. FTZ sites and facilities remain within the jurisdiction of local, state or federal governments or agencies.

(2) Types of FTZ

General-purpose zones are usually located at ports or industrial parks. They must be opened to multiple zone users. Although manufacturing is permitted within general-purpose zones, the most common activity use is for warehouse and distribution activity.

Subzones are special-purpose zones, usually at manufacturing plants. A subzone of a general-purpose zone can be approved if the company is unable to relocate existing facilities into a general-purpose zone site. Subzones are approved for use by one company for a specific activity. Applications for subzone status must demonstrate a significant public benefit for approval.

(3) Benefits to a zone user

- Duty Exemption. No duties on or quota charges on re-exports.
- Duty Deferral. Customs duties and federal excise tax deferred on imports.

- Inverted Tariff. In situations where zone manufacturing results in a finished product that has a lower duty rate than the rates on foreign inputs (inverted tariff), the finished products may be entered at the duty rate that applies to its condition as it leaves the zone -- subject to public interest considerations.
- Logistical Benefits. Companies using FTZ procedures may have access to streamlined customs procedures (e.g. “weekly entry” or “direct delivery”).
- Other Benefits. Foreign goods and domestic goods held for export are exempt from state/local inventory taxes. FTZ status may also make a site eligible for state/local benefits which are unrelated to the FTZ Act.

(4) Public benefits

- Help facilitate and expedite international trade.
- Provide special customs procedures as a public service to help firms conduct international trade related operations in competition with foreign plants.
- Encourage and facilitate exports.
- Help attract offshore activity and encourage retention of domestic activity.
- Assist state/local economic development efforts.
- Help create employment opportunities.

(5) CBP (U.S. Customs and Border Protection)

CBP (U.S. Customs and Border Protection) handles the day-to-day monitoring of zone activity. Merchandise is brought into a zone (admitted) on CBP form 214 and is removed from the zone through CBP entry or

transportation under bond procedures. CBP is consulted on every application for a zone or zone activity. Merchandise in a zone is under customs control and merchandise and zone records are subject to spot check and other verifications at any time.

After a zone or subzone has been approved by the FTZ Board, the zone operator must activate with CBP.

(6) Are Zones Outside the US?

No. While merchandise within a zone is considered outside the customs territory of the U.S., this is for formal entry procedures only. Foreign merchandise in a zone is within the territory and jurisdiction of the U.S. and is considered imported.

(7) What Activity is Permitted in Zones?

- Merchandise in a zone may be assembled, exhibited, cleaned, manipulated, manufactured, mixed, processed, relabeled, repackaged, repaired, salvaged, sampled, stored, tested, displayed and destroyed.
- Manufacturing, processing and any activity that results in a change of the tariff classification must be specifically approved by the FTZ Board.
- Retail trade is prohibited in zones.

(8) What Kind of Merchandise Can be Placed in a Zone?

- Any merchandise that is not prohibited from being imported into the territory of the U.S. may be brought into a zone.
- Merchandise that is conditionally admissible may be brought into a zone and re-exported or brought into compliance with U.S. laws so that it may be imported for consumption.

(9) Where can a Zone be Located?

Zone sites must be within or adjacent to a U.S. Customs and Border Protection (CBP) port of entry.

The adjacency requirement can be satisfied if one of the following factors is met:

- ① The zone or subzone site is within the limits of a Customs port of entry.
- ② The zone or subzone site is within 60 statute miles of the outer limits of a CBP port of entry.
- ③ The zone or subzone site is within 90 minutes' driving time from the outer limits of a CBP port of entry as verified by the CBP Service Port Director.
- ④ For subzones only: if a subzone site does not meet the adjacency requirement, it may alternatively qualify to be considered adjacent if they work with the CBP Port Director to ensure that proper oversight measures are in place.

(10) How many zones exist now?

There are about 250 general-purpose zones and over 450 subzones approved.

(11) Where are zones currently located?

There are zones in all 50 states and Puerto Rico.

(12) What are the primary products/industries using zones?

The largest industry currently using zone procedures is the petroleum refining industry. Significant zone manufacturing also occurs in the automotive, electronic, and pharmaceutical product areas.

3) Role of the Players in Port FTZ

(1) Government

○ Foreign-Trade Zones Board

The Foreign-Trade Zones Board is comprised of the Secretary of Commerce and the Secretary of the Treasury. The Board is chaired by the Secretary of Commerce. The Commissioner of U.S. Customs and Border Protection also plays a key role, as it did prior to its recent move from Treasury to the Department of Homeland Security, providing a position during the FTZ Board voting process with respect to customs security, control, and resource matters. The Board has delegated action authority on most matters to a Committee of Alternates, which is composed of the Assistant Secretary of Commerce for Import Administration and the Deputy Assistant Secretary of the Treasury for Tax, Trade, and Tariff Policy.

(2) Private Sector, Foreign Investor

○ How do I know if a zone is right for my community/company?

- General-Purpose Zone: The first thing that should be done is to assess the level of international trade in the area and if there is a need for zone services for local companies. The application process is lengthy (app. 10-12 months) and if the zone is approved there are security and operating requirements that may be cost prohibitive if there is not a strong need for zone services.

If there is a local company that needs access to zone procedures for their facility, they can still access the program through a subzone.

- Subzone: A company interested in a subzone should also perform a cost-benefit analysis. The application process for a subzone can also

be lengthy (10-12 months) and there are costs associated with operating a subzone. Although it will vary by company and industry, existing subzones have indicated that the estimated duty savings must be at least \$100,000 per year for the subzone to be worth the company's efforts.

- What can I apply for – what type of authority is available?
 - General-Purpose Zone: Generally for warehouse and distribution activities, usually located at industrial parks, seaports or airports. General-purpose zone sites must be open to multiple users.
 - Subzones: For one company, approved for a specific activity, usually manufacturing.
 - Manufacturing: Application can also be made for manufacturing within a general-purpose zone if your company is located within an existing zone or is able to re-locate.
 - Expansions: Application can either be made to expand the boundaries of a zone or subzone or to expand the scope of approved manufacturing authority.
 - Temporary/Interim Manufacturing Authority (T/IM): If you are located within an existing zone and meet the eligibility criteria, you can apply for T/IM authority for a period of up to two years. A decision on T/IM cases is usually made within 75 days, and application for permanent authority can be made during the two-year period.
- Who can apply?
 - Applications for new general-purpose zones are made by a public or public-type corporation (this could include port authorities, cities,

counties, economic development organizations or others). If the zone is approved, this organization is referred to as the “grantee”.

- The grantee then may apply for expansions to the zone, manufacturing or subzone authority on behalf of interested companies.

- What is the application process?

- A. Draft. We recommend that you submit a draft of an application first. The FTZ staff will review the draft and let you know if any information is missing. This can speed up the filing and processing of the application later.
- B. Filing. When an application is filed by the FTZ staff, it is assigned a “docket number” and notice is published in the Federal Register for public comment on the proposal. The public comment period usually lasts 60 days (30 days for temporary/interim manufacturing cases).
- C. Review. During this period the application is being reviewed by an analyst on the FTZ staff, the CBP Port Director and by industry experts (for subzone and manufacturing applications).
- D. Interagency Clearance. Once the analyst completes their review and recommendation, the application is sent to CBP headquarters and the Department of the Treasury for review. If there is concurrence with the recommendation, the application will be returned to the Department of Commerce for final review by the Board member or designee who has the authority to sign the Board Order. The Board Order is then published in the Federal Register.

- Is there a fee to apply?

Certain applications do have fees. Applications combining requests for more than one type of approval are subject to the fee for each category:

A. Additional general-purpose zones within a port of entry: \$3,200

B. Special-purpose subzones:

a. Non-manufacturing/processing or less than 3 products: \$4,000

b. Manufacturing/processing 3 or more products: \$6,500

C. Expansions: \$1,600

- What happens after a zone is approved?

- Once a zone or subzone is approved by the FTZ Board, the operator must apply for activation with U.S. Customs and Border Protection (CBP) before merchandise can be admitted under zone procedures.
- Each zone is required to report annually to the FTZ Board on the activity that has occurred within the zone and its subzones for the fiscal year. The FTZ Board uses these reports to monitor zone activity and to report on zone activity with an Annual Report to Congress.

4) The Requisites Essential to Implementation of FTZ

(1) Laws and Regulations

Foreign-trade zones operate under the Foreign Trade Zones Act and two sets of regulations.

(2) Foreign Trade Zones Board

The Board is responsible for the establishment, maintenance, and administration of foreign trade zones.

(3) Clarification of Grantee, Operator, and User Duties and Responsibilities

The Foreign-Trade Zones Board does not own or operate any zones. Rather, it provides grants of authority to applicants to establish, operate, and maintain zones.

Grantees A grantee is a public or private corporation, as defined in section 400.2, Title 15, Code of Federal Regulations, to which the privilege of establishing, operating, or maintaining a foreign trade zone project has been given.

Operators An operator is a corporation, partnership, or person that operates a zone or subzone under the terms of an agreement with the zone grantee.

Zone Users A zone user is a corporation, partnership, or person that uses a zone under agreement with the zone grantee or operator for storage, handling, processing, or manufacturing of merchandise in zone status, whether foreign or domestic.

(4) Supervision of Foreign Trade Zones, Grantee and Operator Responsibilities, and Customs Fees

All regulations concerning protection of the revenue are approved by the Secretary of the Treasury. The Commissioner of Customs, through authority delegated from the Secretary of the Treasury, assigns the necessary Customs Officers to protect the revenue and to provide for the entry of foreign merchandise into Customs territory.

5) The Effect of the FTZ Development

(1) Impact of FAZ

Data obtained from 18 of the total 22 Foreign Access Zones scattered throughout Japan indicate that there are 12 areas where new business has accumulated. Furthermore, the growth of imports at these 12 FAZs exceeded that of non-FAZ areas. Thus, it can be said that FAZs are promoting imports.

6) The Prospect of Port Hinterland Development

(1) Future issues

As part of Japan's import promotion policy, the government has already a number of FAZs near strategic ports and airports. However, some FAZs have not attracted the expected number of investors due to the recent economic slump. Therefore, it must be understood that simply creating a new FAZ will not necessarily result in a large accumulation of private companies.

Accordingly, such factors must be carefully considered when setting up a new FAZ.

2. Netherlands Free Trade Zone

1) Logistics Strategy in Netherlands

Netherlands advocated the vision of 'Country of Logistics' in 1980 therefore, Netherlands has tried to create various economic values through Port of Rotterdam and Schiphol International Airport. Netherlands also expected to become a logistics hub center in Europe. As a result of efforts, port of Rotterdam handled 8,280,000 TEU in 2004 keeping world 7th port. Moreover, Netherlands has introduced a lot of distribution centers to U.S, Europe, and Asia companies to use the advantage of geopolitical location in Europe with well-developed transportation infrastructure.

However, Netherlands pursues for open economy therefore, Netherlands does not assign particular distripark as FTZ. Whole Netherlands is designated as FTZ. As a result of that, 57% of U.S distribution centers in Europe and 56% of Asia are located in Netherlands.

The reasons why Netherlands can take the role of a center of logistics in Europe are as followings

- Large consumption market, adjoining Europe market
- Logistics center near to hub port, Rotterdam
- Perfect transportation infrastructure in air, railroad, waterway, and coastal service.
- Sufficient capacity of port for the large sized vessels
- Related environment and infrastructure for business activities
- Establishment of information systems such as EDI

2) Characteristics in development of Netherlands distripark

(1) Characteristics in Development of Distripark

Netherlands has some of effective characteristics for developing distriparks. First, geopolitically, Netherlands is located at the gateway of Europe entrance adjoining Europe market therefore, all of transportation system has been connected. Second, Netherlands has well-developed trading systems such as the flexible Custom Act under the good relationship between central government and local government. The third effective characteristic of Netherlands is cultural and social aspect. 73% of populations can speak more than 1 language, and 44% of them can speak more than 2 languages (especially English). Also, Netherlands has political, economical and social stability therefore, Netherlands can maintain high productivity, low wages, and the low rate of price increase for the long time.

(2) The Characteristics of Rotterdam Distripark

Distriparks in Rotterdam are mostly located near container terminals where most of transport and facilitating companies are gathering. Distriparks provide value-added logistics services such as container stuffing and stripping, container storage and repair, warehousing, repacking, assembly, testing, labeling, sorting, invoicing, customs clearance and distribution to European destinations with good transport connections.

(3) Companies in Distriparks

Distriparks in Rotterdam have been consisted with manufacturing and trading companies, global logistic service providers, facilitating companies, forwarders and shipping companies.

3) Development System of Distriparks

(1) Development Body

It is usual that the consortium of government and private sectors develop the distripark. There are instances that a local government pursues the development, whereas a central government seldom participates in it. Central government supports actively the development through the financial aids, tax benefits, and the advertisements. In addition, to attract the lease in large scale, the central government reduces the rate, or it adopts the price policy based on the number of the employee to maximize the job creation.

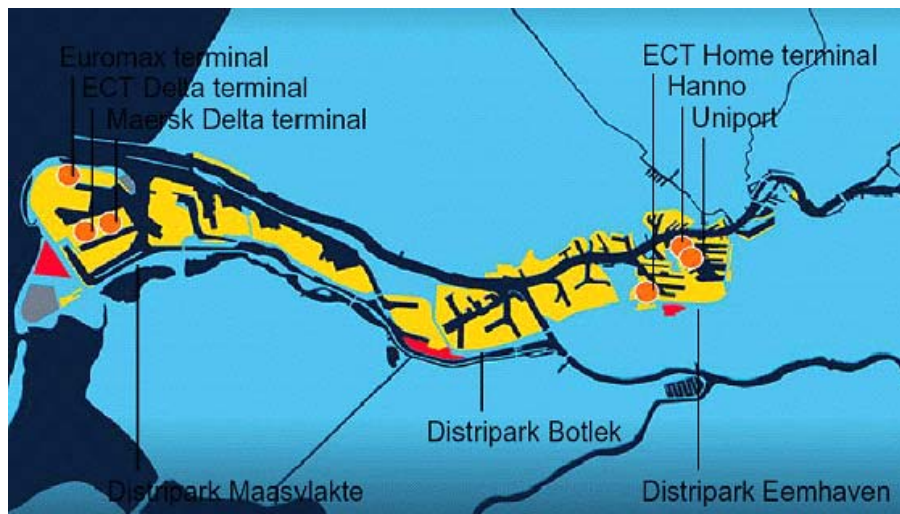
(2) System of Fund-Raising and Financial Supports

Although it is different from project to project, a private investment takes 60~80%, central government covers 10~30%, and local governments take 1~10% of the fund-raising generally. The supports from the central government are mostly focused on the lands, infrastructures, and the transportation systems.

4) Status of Distriparks

The main distriparks in Rotterdam are Botlek Distripark, Eemhaven Distripark, Maasvlakte I. The Distriparks provide space for warehousing and forwarding facilities used for the storage and onward transport of cargo and for the stuffing & stripping of containers. Goods can be made customer specific and country specific. This value added activities consist of repacking, labeling, weighing, assembling, quality control, just-in-time distribution and customs clearance.

〈Figure 5-4〉 Locations of distriparks in Rotterdam Port Area



(1) Characteristics Distripark Maasvlakte

The most recent distripark is Maasvlakte distripark, established in 1997. This distripark is designed for companies who wish to centralize their distribution activities in order to gain a stronger grip on their European distribution activities. Maasvlakte distripark is located close to the Delta container terminals, in a southwesterly direction and has a special connection with this terminal by a dedicated internal track.

Maasvlakte distripark covers about 123ha. The actual area which can be used is about 86ha and the basic unit is takes about 144,000m² (300×480m). The supporting facilities (bank, restaurants, shopping district, office, customhouse, and container repairing shops) is constructed at the logistics center or related area. Companies located in Distripark Maasvlakte are: Hankook tires, DHL, Reebok, Nippon Express, ProLogis, Eurofrigo B.V. and Kloosterboer.

Distripark Maasvlakte supports well-developed transport connections between trains, trucks, coastal shipping and inland shipping. Especially, Europaweg(N-15) Road is expanded from Maasvlakte to Rozenburg and Fly-Over2 is applied for the fast connection between the logistics center and the terminal which lowers traffic accidents and heighten the efficiency. The railroad for port's cargo connects RSC and Kijfho through Havenspoorlijn; all theline is electronically operated and double tracked. Also, Inland water transport service can be used at Wartelhaven.

The lease can be classified into the lone lease and short lease. There are 3 options among 15, 20, 25 years and the renewal is permitted for one time only. The rate (without tax) is 14.50 Gilder/m² in 1998. The condition of the lease is different by the scale or various options, and the detailed conditions are settled from the each negotiation (can be an incentives).

Total budget for the expansion of the Delta terminal and the development of Maasvlakte distripark was about 3.7Billion Gilder (1.88Billion\$). For the total budget, Central government pays 20% of it, private company 68.8%, and the port operation institute pays 1.4%. The subsidy from Central government has spent for the infrastructure such as the landfill, road, railroad, environment and the energy, whereas the private capital has been used for the port superstructure such as handling equipment.

〈Figure 5-5〉 Maasvlakte distripark and ECT terminal



(2) Characteristics Distripark Botlek

Distripark Botlek has been established in 1991. The total area is 920,000 m². Distripark Botlek has been specialized for chemical industry such as oil refinery, oil products and so on while Botlek is providing general activities of distriparks. Distripark is accessed to the A-15 driveway from the customs house.

(3) Characteristics Distripark Eemhaven

Distripark Eemhaven has been established 1989. The total area is 350,000 m². Main product groups are electronics and food industries (62% of total tenants). Distripark Eemhaven supports all kinds of transportation systems such as A-15 driveway, Rail Transportation Service, Short Sea Center (Rotterdam coastal transportation terminal, Bell & DEKA) coastal service which directly connects to terminal (Hanno terminal, Uniport, ECT, timber terminal) and neighbor cities in Europe.

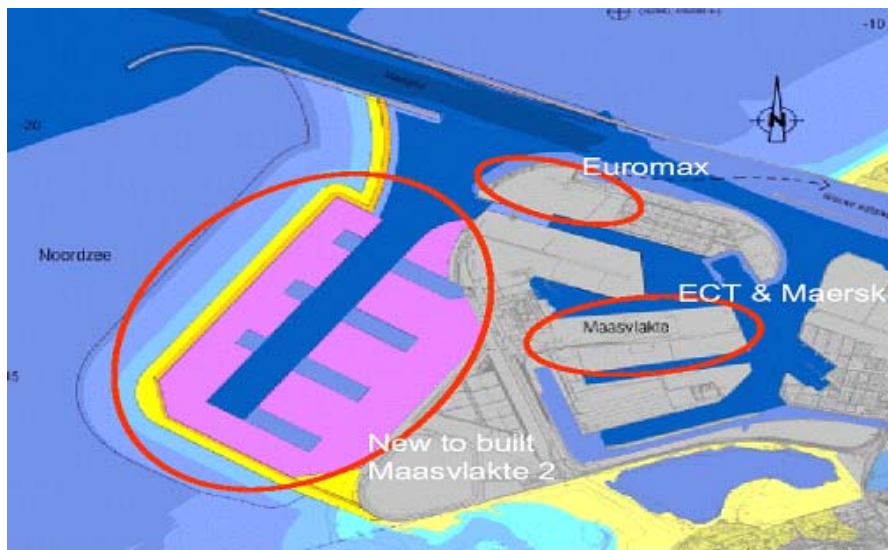
〈Figure 5-6〉 Network of Hinterland transportation



(4) Expansion (Maasvlakte II)

Dutch Assembly has approved Maasvlakte II (1,000ha) development project connecting with the existing Rotterdam port. The project consisted with five steps and the first step has been started in 2006. The project will be finished up in 2012. Maasvlakte II will be mainly used for the transshipment (62% of total area), storage (21%), and distribution of the container cargo and chemical industry (17%). This design is more than 1 billion euro less expensive. The costs of the 'Doorsteekvariant' are estimated at € 2.3 billion. Rotterdam has asked the Dutch government to contribute in this investment.

〈Figure 5-7〉 Maasvlakte Area



3. Hong Kong Free Trade Zone

1) Brief of Hong Kong

With the whole area of 1068 square kilometers, Hong Kong is consisted of three parts in Hong Kong Island, Kowloon and New Territory. It is an international metropolitan with the incorporation of international finance, trade, transportation, travel and information nowadays, upon which all the world focus eyes. As for the convenient factors of business circumstances, complete legal systems, free trade policies, capital and information circulations, fair and open competitions, finance networks and telecom capital construction networks, Hong Kong becomes one of the areas which have the strongest competition during decades after World War II. In 2004, the GDP of Hong Kong is up to 1282 billion Hong Kong dollars and the total volume of trade is up to 413.02 thousand million Hong Kong dollars. It is the tenth leading trade entities in the world. The port container throughput is up to 21.93 million TEU, which ranks the first in the world. The total market value of the stock market is up to 6.6292 thousand billion Hong Kong dollars, which ranks the ninth in the world. The foreign exchange reserves are up to 123.6 billion U.S. dollars, which ranks the third in the world.

The rapid development of Hong Kong economy is due to the economic mode by itself. The main characteristic of Hong Kong market economy is the policy of free port. It is also the most important institutional factor which promotes Hong Kong's prosperity and to become the international business metropolitan.

2) Forming and Policy Characteristic of the Free Port of Hong Kong

(1) Forming of the Free Port of Hong Kong

The development experience of the free port of Hong Kong consists of two stages. One is the free port stage of transiting trade. The other is the free port stage of comprehensive economic.

First, Free Port Stage of Transiting Trade.

The free port stage of transiting trade can be divided into two periods. In 1841-1897, it is the period for over half a century from the Opium War to Britain renting New Territory by force to China, which is the forming of the transiting port. In 1897-1941, it is the development period of the transiting port. In 1941-1945, it is the temporary discontinuity period of port because Japan captured Hong Kong. The implementation of the policy of free port continually makes funds, cargoes, technologies and talents all over the world land Hong Kong. The economic income of transiting trade and that from this plays more and more important role in the whole economy. The development of transiting trade has promoted the prosperity of all projects undertaking in Hong Kong.

Second, Free Port Stage of Comprehensive Economic.

In the decades after World War II, the enormous changes have taken place to international economic and political situation. A lot of countries implement Keynes' doctrine and trade protectionism in succession from the angle of national economic benefits. Many traditional free ports disappeared one after another, while the free port of Hong Kong opened day by day and the degree of opening freely is improved constantly. With the expansion of

connotation and function of the free port, it is progressively developing into a comprehensive economic free port.

Especially entering the sixties of the 20th century, it is the peak period of the first thriftilly development for the world economy after the World War II. The international trade is expanded sharply. Meanwhile, the new round of revolution in science and technology accelerated the adjustments of the industrial structures in developed countries. The labor-intensive industries shifted to the developing countries and areas. The capital and technology-intensive industries concentrated on the developed countries. The dividing-works of international economy deepened further. Catching this opportunity, Hong Kong connected the development of industry with foreign export together tightly. It adopted the mode of export-leading and produced products according to the demand of international markets, which made the position of its free port consolidated and developed. After the seventies, Hong Kong industries made enormous achievements. Hong Kong carried out self-adjustments actively according to the change of international economy. This spurred the economic structure making the transition of development with pluralism and internationalization, which enriched the content of the free port policy further.

(2) Policy Characteristics of the Free Port of Hong Kong.

The characteristic of the free port policy system of Hong Kong are mainly as follows:

First, Free Trade.

Hong Kong always adheres to the free trade policy, actively supporting

liberalization of international trade and objecting trade protectionism. All the cargoes except for contraband, explosives and strategic materials, etc can be brought into and out of Hong Kong freely. All the cargoes except for cigarette, wine, methyl alcohol and crude oil, etc are exempted from tariffs. The free trade enabled Hong Kong to fully utilize international economic resources and the interstice of the international market at that time. It participated in the international dividing-works, developed local economy and thus become the international shopping center, trade centre and tour center.

Second, Foreign Exchange.

Hong Kong successively cancelled the regulations for foreign exchange and gold in 1973 and 1974. Thus it allowed the free exchange for foreign currency and totally opened foreign exchange and gold market. As for the system of foreign exchange rate, Hong Kong dollar tied to pound and U.S. dollar sterling and floating at the beginning of 1970`s. But it implemented free and floated foreign exchange rate in 1972 and permitted local currency contact and float with U.S. dollar in 1983. No matter which kind of system for foreign exchange rate is implemented, local and foreign currency can be brought in and out freely. It has promoted the development of finance greatly for the free flow and is praised as "Switzerland of Asia".

Third, Free Enterprise Management.

Except that the subways, ports, airports, postal services and industrial material companies are managed directly by the authorities, the others can be managed freely by individuals in Hong Kong. The totally free incorporated business is the foundation of the enterprise system of Hong Kong. No matter the local companies or the foreign corporations are all

registered according to the company law in Hong Kong. They shall start business for free competition and will be selected for the superior and eliminated for the inferior.

Fourth, Free Market Adjustment.

The forming of price and assemblies of resource are all adjusted by the market of “invisible hand” in Hong Kong. And the ultra-economy means are seldom used. It can be turned into realities through assembling all kinds of resources needed in Hong Kong through the world markets and disposing resources to the departments with supreme-desire products in markets and with the highest efficiency. The fact of the Hong Kong economic liftoff proves that the economy system of assembling resources by market has met the development rule of Hong Kong economy. The result is that the extremely poor area in natural resources turned into the international finance, commercial and industrial centers with abundant capitals, products, talents and information.

3) Function of the Government

Hong Kong Special Administrative Region Government (HKSARG) is devoted to doing the two large things. One is to set up the primary conditions and guarantee the normal operation of the market. The other is to carry out macro adjustments and direct intervenes to the drawbacks of the market.

(1) Guarantee the Normal Operation of the Market

As for this thing, HKSARG has done the following works:

First, HKSARG has been keeping the position of free port, adhering to

the system of free enterprise policies and a series of free economic policies, building the environment of free trade, navigation, investment, management, exchange, competition and capitals passing in and out freely. These are the foundation for the market mechanism running smoothly.

Second, HKSARG has paid attention to economic legislations and offered legal guarantee for normal operation of the market. In the written law of Hong Kong, the economic laws account for 45%. They constitute the rules for the perfect free competition on the market, which provide the guarantee for realizing the real free and fair competitions and ensuring the orderly operation of the market.

Third, HKSARG has offered “hardware” and “software” needed for the normal operation of the market. The hardware includes building quays, airports, roads, traffic facilities, etc and the software includes spreading educations, training laborers and offering consultation services, etc.

(2) Carry out Macro Adjustments and Direct Intervenes

As for this thing, the macro adjustments and direct interventions for economics made by HKSARG can be divided into three kinds of situations.

First, no intervention implemented.

HKSARG carries out the policies without controlling for visible and invisible trade, shipping, travel, foreign exchange, entry-exit of residents, etc. In these respects, the government permits individual organizations to manage one's own business without interventions and subsidies.

Second, total intervention implemented.

The total intervention policies are based on mainly to the strict controlling for some extremely sensitive and important economic activities, which ensure the orderly operation for the unitary economy in Hong Kong. This is

the basic prerequisite for implementing no intervention policies at all. At present, the direct intervention policies of Hong Kong are mainly concentrated on the land primary market, key financial activities and trade fields. In addition, the government also implements direct intervention to the forming of prices for the commodities that severely influenced the national economy and the people's livelihood.

Third, combination of the above.

For instance, HKSARG carries out the interventions on prices and service qualities through contracts to the public utility companies that the individuals managed. The government implements no-interest, low-interest loan or general-assistance to the service facilities of fishing and agriculture organizations, the residential housing organizations and some semi-official organizations.

4) Effect analysis of the Hong Kong free port policy

In decades after World War II, free port policy made Hong Kong form the developed and international commodity market, capital market, realty market, labor market, information market and service market, etc. They were run according to the market competition laws, which became the foundations of Hong Kong prosperity and development.

(1) Foreign Trade

The foreign trade of Hong Kong has been occupying the important status all the time in its economy and the value is much higher than the GDP. In 2004, Hong Kong realized 41.302 hundred million Hong Kong dollars of the total trade volume and ranked the eighth in the world. The export of

Hong Kong mainly concentrates on the consumer goods of light-industry and more than 80% is transiting trade. The free port policy of Hong Kong attracts greatly cargo producers and business operators from all over the world. All kinds of cargoes from ten thousand countries pour into Hong Kong market continually and form the pattern of fierce contending and free competition. In addition, free port policy connects the course of functions exerting in the supplying and demanding mechanism, price mechanism, competition mechanism of the commodity market with the international market together. These make Hong Kong overcome the narrow and small limitation of local market and become one of the several staple distributing centers in the world and international trade center.

(2) Port Development

The free port policy make Hong Kong develop into the acknowledged international shipping centre and container pivot port during the time of over half a century after World War II.

At present, there are already more than 500 ports of more than 100 countries and regions in the world setting up shipping relations with Hong Kong, which made Hong Kong the place of the pivot. The sea-transportation network leading to the five continents and four oceans is formed by more than 20 main sea routes. Meanwhile, Hong Kong port has many midway stops for a lot of international airlines. There are about more than 80 international shipping companies managing in Hong Kong.

Hong Kong has built up 9 container terminals with 24 berths from the beginning of container terminal in 1970, which can berth the third and fourth generational full-container ships at the same time. The container throughput of Hong Kong exceeds Kobe of Japan in 1980 and become the

third largest container port in the world. The container throughput of Hong Kong exceeds New York in 1985 and become the second largest container port in the world. The container throughput of Hong Kong exceeds Rotterdam in 1987 and become the first largest container port in the world. In 2004, the container throughput of Hong Kong is up to 21.93 million TEU. It is estimated that the total container throughput will be up to more than 24 million and more than 36 million TEU respectively in the year 2005 and 2015.

Chapter 6

Suggestion on Policies of Promoting Port Investment and FTZ

1. Promotion of Port Investment and FTZ in Japan

Almost all ports and airports in Japan that can be counted on to effectively promote importing have been approved as FAZ regions, but these include regions where it is difficult to effectively promote importing by concentrating businesses, and it must be stated that even if FAZ facilities are newly provided in the future, in Japan where trade dependency is lower than it is in other countries, it will be impossible to count on this resulting in the adequate concentration of businesses.

The analysis of port investment shows that in the United States, port and harbor security related budgets have grown since the 9/11 terrorist attacks of 2001, and that 52.9% of the approximate budget amount requested in 2006 is security related. Results for port facility investment on the other hand show that while private sector port investment through BOT and other concessions, etc. is rising, government budgets are tending to shrink. Port investment tends to be centered on the private sector while government investment is centered on support for non-physical measures in the

integrated economic zones formed by ports and their hinterlands and on physical measures such as access roads. Although it is impossible to discuss this comprehensively considering the different stages of development of distribution systems in each country, Japan is enacting social capital provision priority plans and promoting efficient port investment in order to provide high quality social capital more effectively in order to form a distribution system that will support economic and industrial activities and the lives of the people of Japan.

As stated above, the stage of development and the trade dependency of the economics of each country differ so that it is difficult to prepare model cases as an FTZ manual. And it is also difficult to discover a common strategy for port investment and FTZ in each country.

It is also necessary to study methods of distributing information required for future mutual investment.

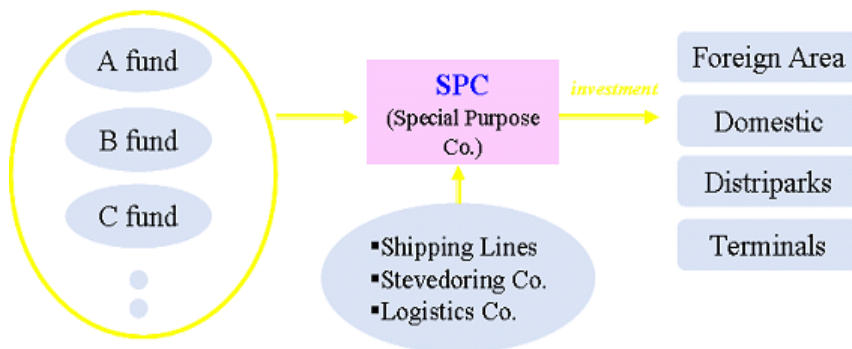
2. Promotion of Port Investment and FTZ in Korea

Government policies in port investment had been planned and conducted by either the central and local governments. But after the 1990's, in order to cover the shortage of the government budgets on port investment, private investors including foreigners and port authorities have been leading the investments.

Furthermore, port development policies has been changed from focusing on new port development to remodeling of the existing ports within constructing waterfront area and harmonizing with city development plans.

Also in port development funds, there are various methods of fund raisings, such as BOT, BTO, BTL and so on. The main reason of using the methods is utilizing the private sector's creation and efficiency in design, construction and securing of the investment funds. Especially, SPC (Special Purpose Corporation) is established in order to improve the efficiencies and effects of the practical uses of the funds in developing ports and hinterlands in the domestic and foreign markets.

〈Figure 6-1〉 Method of fund raising by SPC



Moreover, within increasing the roles of the private sectors in port development, central government's roles in port operation has been decreasing and transferring to the private sectors and port authorities. Especially, a lot of private companies have currently participating in port operations.

The main purposes of developing port FTZ are revitalization of international trading, increasing the value added in logistics and attraction of foreign investors. Especially in providing the value added logistics services, port FTZ should add production functions, such as repackaging, customizing, and reassembling.

In order to develop efficient and effective port FTZ, it should be developed together with ports and port hinterlands and should be included in the nation's port development master plan with planning transportation facilities, IT infrastructures and industry complexes.

Beside the hardware development of port FTZ, central government should offer software supports through financial aids, tax cuts (including cooperative and custom tax), effective marketing strategies, efficient custom procedures. Furthermore, central government should understand the importance of stability systems on employment and exchange rate to the foreign investors; therefore, the government should try to set up new policies on employment and exchange rate within port FTZ area.

3. Promotion of Port Investment and FTZ in China

1) Suggestion on Policies of Promoting Port Investment and Fund-raising

Ports are the important basic and strategic resources of the State, taking a very important position in economic and trade, national defense, social and cultural exchange and other aspects. Port investment and construction require a large amount of funds with a long period of investment returns. The Central Government, local governments and port enterprises cannot independently undertake construction and maintenance expenses of all port facilities, therefore, to define well the responsible scope of government at various levels and port enterprises in port investment and construction, and

build a rational port investment system is of important significance to guarantee fund source of port construction and fair and orderly market competition.

In order to better promote the development of port investment and fund-raising, it is recommended to take the following measures in the future:

(1) Enact relevant investment policies according to different investment main-bodies so as to guarantee necessary fund source of port construction and maintenance.

Waterway traffic investment projects can be divided into three categories of public welfare projects, basic business project and regular business project according to their difference in functional and economic benefits as well as investment and fund-raising functions of governments and enterprises in project construction.

Category One is the public welfare project, which mainly includes freshwater channels, public channels for making a port and other channel facilities under the basic waterway traffic condition, public non-business break-water, bank protection, dock basins, anchorage, pontoons, navigation marks, roads in the vicinity of ports, port water supply and drainage, ecological protection and other port facilities, water surface safety supervision, communications, rescue, salvage, public security and fire-fighting, education, scientific research and information and other facilities of the waterway traffic support system. Function of the public welfare project are to are to create the absolutely necessary condition for waterway traffic, whose investment aims at obtaining social benefits other than direct economic benefits, with a tremendous amount of investment but being unable to obtain direct investment returns.

Category Two is the basic business project, which mainly includes basic projects related with operations of port enterprises, such as wharf, docking barges, trestles, port roads (railways), passenger terminal stations and other facilities. Its functions are to provide operations basis for ports and ships, investment and fund-raising activities are partially embodied into social benefits, and partially into direct economic benefits with a relatively large investment scale having a certain monopoly nature and being able to achieve a certain investment return.

Category Three is the regular business project, which mainly includes regular operations facility projects related with operations of port enterprises, such as loading and downloading machinery, equipment, vehicles, ships, warehouses, stockyards, over-barge platforms and other facilities or equipment related with operations of shipping enterprises. Its functions are to perform water transportation activities for social production, investment and fund-raising activities are mainly represented as direct economic benefits, partially embodied into social benefits with a relatively small investment scale, having semi-competition nature and relatively higher investment returns.

As for the public welfare investment project under Category One, the investment mainbody is governments, investment funds are the financial appropriation from the State and the financial fund-raising of the State. The investment mainbody of the nationwide waterway traffic support, the backbone channel featuring “two cross directions, one vertical direction and two networks” and main pivot ports related with the public welfare project is the Central Government; the investment mainbody of other public welfare project is local governments. As for the basic business project for waterway

traffic under Category Two, diversified investment main-bodies are implemented, which can be “assorted investments” by the Central Government, local governments, enterprises and individuals, adopting multiple fund-raising modes, among which inter-regional business basic projects for waterway traffic should be mainly invested by local governments. As for the regular business project for waterway traffic under mainly raised on their own, and governments will give some loans support through policy measures.

(2) Continue to perform the issuance of bonds, lease, joint venture, cooperation and other fund-raising modes.

Wharf construction can be performed through multiple fund-raising and joint venture modes, for example the issuance of bonds, stock, lease, joint venture, cooperation, the use of social funds and so on. In the condition of gradual reduction in government investments, we should take hold of the market and make full use of social funds in investing in port construction.

(3) Attract much more privately-run capitals to take part in the construction and operations of ports.

Non-public infrastructures and operating facilities of ports are used by operators, which are constructed, maintained and managed on their own. In the condition of market economy, with the diversification of mainbody of port investment and operations activities, the construction of such portion of facilities has further developed towards market competition. Privately operating ports have become a trend in the development of ports, such trend can broadly attract social funds, satisfying the requirements for further

expansion of construction scale of port infrastructures and quickly enhancing the service proficiency of ports. In addition, portents prizes should establish modern enterprise regulations so as to foster much more logistics enterprises and encourage multiple to join port construction by shares, consequently achieving the objective of fund-raising. Improve industrial layout, actively encourage cargo owners to build factories along seas and rivers and construct cargo owner wharfs.

(4) Encourage new fund-raising modes to add investment weight for fund-raising in port construction.

The promulgation of the Law on Ports has not only provided legal protection for investment, construction and operations of ports by domestic and foreign economic organizations and individuals by law but also brought about opportunities for port enterprises to introduce diversified fund-raising modes. We should actively explore new fund-raising modes on the basis of the previous fund-raising modes so as to speed up the construction of port facilities and satisfy the requirements of the national economic development.

(5) Actively explore BOT and other fund-raising modes that are appropriate to the construction of port infrastructures.

Actively explore specific implementation methods of BOT, TOT, PPP, ABS and other fund-raising modes, fully adopt various kinds of fund-raising modes, study their applicable range and take hold of their advantages for our benefits.

(6) Explore new modes in port operations and implement the “landlord port” mode on a trial basis.

The landlord port mode is a kind of fund-raising modes using the land coast line of the State and other public resources to construct infrastructures of ports. The internationally popular “landlord port” mode is a good solution to enable fund sources. The landlord port mode has a certain advantages over other fund-raising modes as follows:

- ① its fund-raising cost is low with smaller risk and higher efficiency;
- ② enhanced port operations effectiveness;
- ③ governments will not lose their control rights of port;
- ④ independent operations rights of fund-raising enterprises will be affected.

Relying on governments cannot solve tremendous fund expenses necessary for operating infrastructures of ports while on the one hand the landlord port mode can solve the issue of insufficient construction fund of ports, on the other it will be more beneficial to enhancing management and competitiveness of ports so as to achieve the win-win objective. This kind of fund-raising mode is the most stable investment and fund-raising channel in the condition of not requiring financial investment from governments.

(7) The State should work out a certain preferential policies for port enterprises in their investment in construction projects of infrastructures.

In order to create a good soft environment for port fund-raising, governments should study much more policies in which preferential treatment can be implemented, bringing the activeness of enterprises in investing in the construction of port infrastructures, and the State should study and set down a series of preferential policies, encouraging and supporting port enterprises to take part in market operations and raise funds

in the society. It should study and provide low and discount interest loans, and enhance fund-raising capabilities of stocks to circulate in the stock market, creditor's rights for stock rights, the equipment investment of enterprises for income tax credit and other modes. As for the management, use and operations of newly acquired lands in the construction and renovation by ports, it should allow them to adopt the land displacement of the old port areas and other modes through consultation with local governments so as to solve the issue of fund investment. Implement the rules of practicing regulations of capital in cash in fixed assets investment projects, set up an investment risk constraint mechanism: as for operating fixed assets investment projects of ports, continue to practice regulations of capital in cash.

2) Suggestion on the Construction of Free Trade Zone

Free trade zone ("FTZ") is the area where the Chinese economy is most widely opened to the outside world. Due to its short history since its establishment and lack of experience and other reasons, there exist many areas that need improvement in China's FTZ in such aspects as management system, laws and regulations, preferential policies and so on. Therefore, the following suggestions are proposed:

(1) Improve management system

Laws, regulations and policies related with FTZ management should be set down by the Central Government in a unified manner. Relevant functional departments implementing FTZ policies under the Central

Government will work out corresponding rules and policies, and in accordance with related laws and regulations, specifically implementing various policies coordinated by departments in charge through their implementing institutions residing at FTZ sent by such functional departments, exercising supervision and providing service. As the residing institutions of city governments, FTZ (free trade port area) management commissions will implement and execute various policies set down by relevant functional departments under the Central Government, assisting them in exercising supervision service, coordinating the residing industrial and commerce, taxation, public security, ecological protection and other institutions in their management and service.

Respective responsible ranges should be clearly defined between local governments and departments in charge under the Central Government, departments in charge under the Central Government and relevant departments, relevant departments and local implementing institutions, local governments and various implementing institutions so as to keep close ties and information exchange fulfilling the objective of concerted management.

(2) Implement the “integrated free trade zone and port” management mode, making preparation for FTZ to transform towards free port.

City Governments where FTZ is situated exercise unified management of FTZ and port area, practicing integrated free trade zone and port management. Some wharfs and operations area operated by economic entities can be incorporated into FTZ, or companies under such FTZ can jointly operate under a share scheme, continuing to practice unified management of port affairs. When necessary, it may consider arranging management of FTZ and port. City governments plan and construct FTZ

and port, and isolation facilities between some connecting international container wharfs and FTZ in a unified manner, facilitating supervision and operations. In free trade policies, implement partial coverage of free trade port area policies, namely incorporating some international containers, container disassembly and assembly transshipment, warehousing, cargo concentration and distribution, cargo agency, tally, customs declaration and other logistics activities in a free port area, bringing complementary advantages into play.

(3) Speed up legislation works and work out perfect and unified law and regulation documents as fast as possible.

Define well FTZ management system, management departments, nature, position, functions, objectives and preferential FTZ policies, review and approval procedures, implementing methods and so on. Guarantee a healthy and orderly development of FTZ with perfect laws and regulations. The legislation works should define clearly the subject of legislation; establish a forward-looking law system, enabling advantageous FTZ to develop smoothly towards free trade port area.

(4) Take enhancing custom clearance efficiency and simplifying custom clearance formalities as a focus in further reforms.

- ① Connect FTZ and port area, implement a unified FTZ and port supervision, and avoid repeated formalities of custom clearance for the second time.
- ② Customs make targeted sample checks according to cargo variety, place of origin and other features.

- ③ In the case that simple processing and transportation operations of enterprises located in such area lead to a change in form, quantity and tax designation number and other features of cargo, FTZ customs can double-check filed records selectively in their supervision, only making advanced review and approval for those cargoes that are forbidden by the State to import and to enter such area according to the regulations of the State General Administration of Customs or required for approval.

(5) Adjust and set down competitive taxation policies

By the competitive taxation policies, they mean implementing tax exemption or lower tax rates in such aspects as custom duties, circulating tax and income tax so as to create an advantageous condition in terms of cost for enterprises in such area. A successful free trade port area generally executes custom duties exemption policy, namely, when foreign cargoes enter such area, such cargoes are exempted from custom duties, when such cargoes are sold in such area, circulating tax will be exempted, only when such cargoes enter the domestic market for sales operations from such area, then custom duties and circulating tax will be imposed on. Income tax, land lease and so on in such area are also rather lower.

(6) Improve financial and foreign management policy.

The objective of policy adjustments should be as follows: payments under current account should be completely open, in order to facilitate operations of enterprises, strengthen trace and supervision both in the course often event and after the event in the connection of payment links with focus given to the trace and monitor of enterprises that are abnormal in exchange

collection and payment activities; in the mode of foreign exchange supervision, foreign exchange administration should focus on the supervision of commercial banks, supervising foreign exchange activities of enterprises meanwhile commercial banks deal with settlement and selling of exchange for enterprises.

(7) Implement more open enterprise and industrial access regulations

As for the establishment of logistics enterprises in FTZ (free trade port area), encouraging polocoos should be implemented in terms of review and approval so as to simplify review and approval formalities; as for the issue of foreign capital into related logistics industries, it may not be restricted by the opening timetable under “China’s entry into WTO” commitments, allowing foreign capital to enter ahead of schedule. As for those enterprises that are willing to enter free trade port areas for operations, there do not exist discriminatory or differentiated policy treatments in such aspect as the quantity of capital in cash, place of origin, and stock rights percentage and so on, and sufficient competition opportunities should be given to various kinds of enterprises.

Chapter 7

Conclusion

Centering around China, the Northeast Asia region's container throughputs is continuously increasing. Therefore, there is a high competition on constructing and developing new ports among the Northeast Asia nations to get a competitive position. Under this industrial circumstance, Korea is driving the important changes in port investment policies including port development plan by concerning container throughputs and port operations by using efficient and effective information technologies.

Although investments in port development among the Northeast Asia countries are continued for a while depending on increasing of container throughputs, the high competitive industrial circumstances should be diminished and the ways of cooperation, such as port alliances and cross investment among the nations, should be devised.

In order to better promote the development of port investment and FTZ, it is recommended to take the following

First, diversity in the investment fund

There is a limitation on the investment for the large-scale project as port and distriparks by only government supports; therefore, various bodies such as government, commission, private and foreign companies should participate in the project

Second, expansion of diversity of logistic infrastructure

Not only the basic transportation infrastructure but also sufficient inland network systems by air, inland waterways, roads, and rails to cover all the area of Europe has to be fully equipped

Third, administrative service and supporting system

Simplify the administrative procedure and support convenience service systems for the companies moved in port and distriparks

Fourth, preparation for the future demand

Continuous expansion against rival harbor and rival country

Fifth, incentives attracting the foreign investment

Tax reduction and low rate policy for the foreign company

Sixth, Implement the “integrated free trade zone and port” management mode, making preparation for FTZ to transform towards free port.

Moreover, in order to revitalize of the FTZ, central government should be also collaborated with stake holders, such as PA, CIQ, and client throughout showing continuous supports and concerning in order to attract investors. And, central government should prepare marketing strategies for the future and should format logistics communities for making a good relationship with existing and future investors.

At last, the harmonization or collaboration in logistics industry throughout the Korea, China and Japan should be made to avoid wrong or over investment on the port facility and FTZ. One of the collaboration methods in logistics industry among the three nations’ will be the establishing of joint logistics centers at each nation’s port FTZ and formation of port alliances throughout cross investment. Furthermore, the three nations’ government should find out systematic ways in order to cooperate each other.

Reference

- Loree, D., Guisinger, D., “Policy and Non-Policy Determinants of US Foreign Direct Investment”, *Journal of International Business Studies* 26, 1995.
- Notteboom, T., and Rodrigue, J. P., “Port Regionalization: towards a New Phase on Port Development”, *Maritime of policy and management*, Vol. 32, 2005.
- Oum, T. H., Park, J. H., “Multinational Firm’s Location Preference for Regional Distribution Centers : Focus on the Northeast Asian Region”, *Transportation Research Part E Article in Press*, 2003.
- Peng, L., Vellenga, D., “The government's Roles in Promoting Logistics Services in China”, *Logistics and Transportation Review* 29, 1993.
- Wei, S.J, “Attraction Foreign Direct Investment : Has China Researched Its Potential?”, *China Economic Review* 6, 1995.
- Bureau of Transportation Statistics, <http://www.bts.gov>
- China Development Zones, <http://www.cadz.cn/cn/kfq/hidz.asp>
- Containerisation International Yearbook, each year.
- Dalian FTZ, <http://www.dlftz.gov.cn>
- Drewry Shipping Consultants Ltd., *Post-panamax containership: The next generation*, 2001
- Drewry, *Annual Review of Global Container Terminal Operators 2005*, 2005. 9
- Economic Development Board of Singapore, <http://www.edb.gov.sg>

Hong Kong Port and Maritime Board, [Http://www.mardep.gov.hk](http://www.mardep.gov.hk)

Hutchison Port Holdings, <http://www.hph.com.hk>

IAPH & Spanish State Ports Agency, *Guide for Developing Logistic Activity Zones in Ports*, V.A.IMPRESSORES, S.A., 2003.

KMI, *A Study on Port Performance related to Port Back-up Area in the ESCAP Region*.

MOMAF, *The Integrated Plan of the Port Hinterland Development*, 2002

Port of Rotterdam, <http://www.portofrotterdam.com>

PSA, <http://www.psa.com.sg>

Qingdao Free Trade Zone, <http://www.qdftz.gov.cn>

Shenzhen Administrative Bureau of Free Trade Zone, <http://www.szftz.gov.cn>

Statistics Training Institute, *World Statistics 2003*, 2004.

Tianjin Port Free Trade Zone, <http://www.tjftz.gov.cn>

Ports and Harbour Bureau in MLIT, Japan, <http://www.mlit.go.jp>

UNCTAD, *Review of maritime transport*, 2001.

_____, Promoting links, *World Investment Report 2001*, Genova, United Nations, 2001.

UNESCAP, *Commercial Development of Regional Ports as Logistics*, New York, United Nations, 2002.

_____, *Asia-Pacific Trade and Investment Review*, 2005.

_____, *Free Trade Zone and Port Hinterland Development*, 2005.

US Army, <http://www.hq.usace.army.mil>

U.S. Department of Transportation, *A Report to Congress on the Status of the Public Ports of the United States 1996-1997*, 1998. 10.

Promotion of Port Investments and Model of FTZ in Northeast Asia

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