

THE OPEN PORT SYSTEM IN NORTHEAST CHINA

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ABSTRACT: In China with the implement of the strategy of overall opening up to the outside world, northeast China has basically formed an open pattern with simultaneous development of border opening and coast opening. As a national window to open up to the outside world, an open port system in northeast region has formed. These ports can be classified from different angles, such as management level, transport mode, location. From management level, they can be classified into the state first-class ports and the second-class ports. According to transport mode, they can be divided into railway port, highway port, water transport port, air transport port and special mode port, and based on location, they can be divided into border port, coast port and inland port. The paper introduces in detail the foreign trade connection of 4 most representative state first-class border ports: Hunchun, Suifenhe, Heihe and Manzhouli. The open ports of northeast coast region mean mainly coast water transport ports in Liaodong Peninsula. The foreign trade connection of coast open ports: Dandong, Jinzhou, Yingkou and Dalian is expounded. And the paper also analyses the transport connection of ports of northeast region with their hinterlands.

KEY WORDS: port system, Northeast China, border trade, port classification, foreign trade

I. THE BASIC PATTERN TO OPEN UP TO THE OUTSIDE WORLD IN NORTHEAST CHINA

In China with the implement of the strategy of overall opening up to the outside world, Northeast China has basically formed an open pattern with simultaneous development of border opening and coast opening. Although the coast opening is smaller in degree, the border opening takes an important position in China. Border opening and coast opening have different directions, presenting the following aspects. First, as for the opening aim, border opening aims to utilize frontier superiority on the basis of equality and mutual benefit, to form complementation in economic structure, industrial structure and production elements structure with contiguous countries, to develop international economic cooperation, to gain the comparative benefit of in-

ternational division and exchange, and to promote the development of northeast border region. The aim of coast area opening in northeast region is to utilize the superiority of its resources, labour force and market to form economic complementation with developed countries, and to absorb funds and introduce qualified personnel, advanced technology and management experience. Second, from the outside market condition, northeast region has a large amount of light and textile industrial products that contiguous countries are in great demand, especially Russia; northeast coast region possesses advantageous conditions which Asia-Pacific developed countries and newly industrialized countries need, whereas these countries are transferring fund-intensive and labour-intensive industries, so receiving funds output and industrial transference are the main way to introduce funds and technology to coast region. Third, in the light of trade form, northeast border region mainly carries out border trade with contiguous countries, and barter trade has a large proportion, among exported goods, about 80% is daily consumer goods, the imported goods are mainly raw materials which China is short. The trade of the coast region is cash trade, exporting mainly primary products and initial processing goods to developed countries and regions, mainly importing capital with high value and technique-intensive products. Fourth, as to coast opening and border opening, there is a great difference in policy limit and preferential margins such as customs, credit funds, management authority, investment direction, financial system, etc. (Bai, 1994).

II. THE CLASSIFICATION AND FUNCTION OF OPEN PORT SYSTEM

As a national window to open up to the outside world, northeast region has formed an open port system, these ports can be classified from different angles such as management level, transport mode, location (Guo, 1994). From management level, they can be classified into state first-class ports and the second-class ports, that is, the ports which are proved by the State Council, including ones managed by the central government and some managed by governments of province, city and autonomous region. According to transport mode, they can be divided into railway port, highway port, water transport port, air transport port, special mode port, based on location, they can be divided into border port, coast port and inland port (Table 1). The functions of open ports are varied, mainly foreign trade function including cash trade, barter trade, transit trade, technological trade and service trade; foreign transport function, management function, and service function.

III. FOREIGN TRADE CONNECTION OF OPEN PORTS IN NORTHEAST CHINA

As the pattern of border opening and coast opening in northeast region has been basically formed, and the border open port system and coast open port system has been set up correspondingly, their foreign trade orientations are different, with their own features.

Table 1 Classification of first-class open ports in northeast China

Province or region	Water transport port		Air transport port		Land transport port		Contiguous countries	Land border line(km)
	Allow foreign ship entry	Special mode	International airport	Special airport	Railway	Highway		
Liaoning	Dalian							
	Yingkou		Shenyang					
	Dandong		Dalian		Dandong		DPRK	210
	Jinzhou							
Jilin						Linjiang		
	Da'an			Changchun	Tumen	Kaishantun	DPRK	1206
					Ji'an	Sanhe	Russia	232.7
						Nanping Hunchun		
Hei-longjiang		Tongjiang						
	Harbin	Heihe						
	Fujin	Mohe, Huma						
	Jiamusi	Xunke, Fuyuan	Harbin	Jiamusi	Suifenhe	Dongning	Russia	3040
	Huachuan	Hulin, Sunwu Luobei, Jiayin Raohe		Qiqihar		Mishan		
Inner Mongolia		Heishantou		Hailar	Manzhouli	Ariha	Russia	1010
		Shiwei				Shate	Mongolia	about 700

1. Foreign Trade Connection of Border Open Ports

Northeast region borders on the Democratic People's Republic of Korea (DPRK), Russia and Mongolia, so three trade forms have been formed correspondingly, particularly Sino-Russia border trade is very important. Along Sino-Russia borderline of 4282.7 km, there are 21 state first-class ports, the most representative ports are Hunchun, Suifenhe, Heihe and Manzhouli.

Hunchun port opened on 11 October 1991, it is the only state first-class port to Russia in Jilin Province. The volume of goods transported in 1992 reached 104 000 tons, trade value US \$ 0.13 billion. By the end of 1994, the value of import and export had been 869.4 million yuan (RMB), increased by 15.9% than 1993, among which the export 434.58 million yuan, the import 434.42 million yuan. Hunchun port exports about 80 varieties such as corn, fodder, daily goods, clothes, beer, sugar and so on to Russia, and imports chemical fertilizer, automobiles, steel and lumber, etc.

As a railway port to Russia, Suifenhe undertakes an important national trade task. The volume of goods transported in the 1950s once reached 1.8 million tons. The value of goods transported during 1988 to 1991 was 0.53 billion SF (CHF). In 1992, the volume of goods transported was 1.05 million tons. The imported goods were mainly raw materials and automobiles. Since spring of 1995, the imported machine tools number has increased. At present bor-

der trade is the main economic backbone of Suifenhe.

Heihe district is the earliest one to carry out border trade. It began in the 1880s. After the reform and opening up to the outside world, Heihe is the earliest restoring trade district in China. Now Heihe port is the most important port which mainly carry out border trade between China and Russia. From September 1987 to March 1992, the total import and export barter value reached 517.9 million SF. From the beginning of 1993 to 6 November 1993 when the Heilong River entered floating ice period, Heihe port freight volume was 375 700 tons. From January to August 1994, it exported goods of 170 000 tons, the total import and export value was US\$ 78.25 million. The border trade in the second half year of 1993 began to slide(Yu, 1994). In 1994 this port mainly imported steel and automobile, exported light and textile products. In the early 1995, the border trade began to go up again steadily, the import and export goods structure changed greatly. For example from January to February 1995, the exported waste iron and steel made up 47.5%, soybean 38.8%, galvanized iron 5.6%, oxhide 2.8%, polyethylene 1.9%, for only one month (13 January to 13 February 1995) the total imported soybean reached 4099 tons, but the same period in 1994, that was zero. In January to February 1995, the exported vegetable and fruit were 1157 tons (fruit 943 tons, vegetable 214 tons), made up 40% of the total export volume, but the same period in 1994, the export vegetable was zero. In 1995, the total export value of light and textile products was 456 yuan, decreased by 7% than the same period in 1994.

Manzhouli port, the largest railway port in China, is the most important land passway for Chinese with European trade. In the 1950s, the volume of goods transported through this port could reach 3.5 million tons per year. At present, this port opened a highway passway, a medium-sized airport has been constructing. After the airport is completed, Manzhouli will be the largest port composed of 3 passways between China and Russia. Since 1988 border trade of this port has developed continuously, by the end of 1990, barter freight value was 0.13 billion SF, that of 1991 was 0.1498 billion SF, January to June 1992 freight value 93.459 million SF. The imported waste Aluminium over 1260 tons, waste copper more than 2250 tons. Since April 1995, the imported waste aluminium and copper have increased. In April 1995, the imported waste aluminium was over 1260 tons, waste copper more than 2250 tons.

With the development of goods trade of border port, transit service develops fastly, especially, transnational border tourism plays an important role in vigorously developing economy of northeast frontier region.

2. Foreign Trade Contact of Coast Open Port

The open ports of northeast coast region are mainly coast water transport ports in Liaodong Peninsula.

Dandong port lies in southeastern part of Liaodong Peninsula, the Yalu River is the border river with DPRK, the borderline is 210 km, railway, highway, and river connecting with

DPRK, so it is the important hub connecting Korea Peninsula and Eurasia. At present, Dandong port has basically formed a modern stereo transport network composed of railway, highway, shipping and air transport. Since 1988, the gross value of import and export of border trade increased progressively 13.2% each year. In 1992, the gross value of import and export of Dandong border trade was US\$ 50 million, among which that to DPRK was US\$ 45.05 million, corresponding to the sum of 16 years that year before. On the other hand, Dandong gives play to foreign trade connection of water transport.

Dandong water transport port includes Langtou port and Dadong port. Langtou port is located at the mouth of the Yalu River, there are three berths, the annual handling capacity is 1.25 million tons. The total value of import and export of foreign trade of Dandong port in 1991 was US\$ 166.3 million. The handling capacity totaled 4.054 million tons for Dandong railway, highway and water transport ports, increased by 2.9% than 1991, among which, that of water transport port 1.229 million tons. The purchasing value of wholesale and retail of Dandong foreign trade in 1993 was 0.84 billion yuan, the gross sales value 0.83 billion yuan. At present, there are export goods of 19 categories, 287 types, sell to more than 80 countries and regions.

Jinzhou port, a water transport port located in the Liaodong Gulf, is the northernmost seaport in China. The purchasing value of foreign trade goods in 1991 reached 0.7 billion yuan, corresponding to 1.4 times that the total of 30 years before 1978. The export goods sell to 90 countries and regions, there are more than 70 types of export goods with one million yuan or so. It mainly exports petrochemical products, textile, livestock products, marine products, fruit, grain and oil. Jinzhou port will build two 3000-ton-class berths of sundry goods and one 50000-ton-class oil berth, the handling capacity is 5 million tons (Ye, 1996). The purchasing value of wholesale and retail of foreign trade in 1993 was 0.37 billion yuan, the gross sales value 0.36 billion yuan.

Yingkou harbor, a water transport port is located at the mouth of the Liaohe River in the western Liaodong Peninsula. It is the earliest trade port of Liaoning Province, began to open in 1864. This port includes Yingkou port and Bayuquan port. Yingkou port has six 5000-ton-class berths, the annual handling capacity more than 1.3 million tons. Bayuquan port has nine 10000-ton-class berths. The designed handling capacity is 7.4 million tons. The handling capacity completed in 1991 was 3.82 million tons, foreign export goods volume was 3.133 million tons. In 1991 the total value of the imports was US\$ 153 million, that of the exports US\$ 226 million. In 1993 the gross foreign trade goods purchasing value was 551.7 million yuan, the gross sales 5180 million yuan. At present Yingkou harbor develop trade transportation with about 100 harbors from more than 40 countries and regions. By the end of this century, Yingkou port will have 25 berths, the handling capacity can reach 4 million tons. Bayuquan port will have 30 different types of berths, the handling capacity will reach 3.5 million tons, becoming the important seaport in northeast region.

Dalian is an important harbor city, the Yellow Sea is on its east, the Bohai Sea is on its

west, Shandong Peninsula to its south, the vast hinterland of northeast on its north, and it is adjacent to Korea Peninsula, Japan Isles, and the Far East of Russia, so it is in the forward position of opening up to the outside world in Liaodong Peninsula. Dalian occupies an important place in the pattern of opening up to the outside world in northeast region, particularly, it has close trade connection with countries and regions in Northeast Asia. In recent years, Dalian is enlarging its opening extent gradually, developing opening fields, and takes Dayaowan international intermediate port as its back, takes the free trade area as the base, develops economic technological developing district into free harbor district, carries out business of export processing, international trade, international shipment and international finance. Now Dalian has become the dragon head of opening up to the outside world in Liaodong Peninsula and northeast region, and the bridge of economic connection of Northeast China with Northeast Asia.

Water transport port of Dalian harbor is the largest foreign trade port in northeast region, and also in China, 9 harbor districts including East district, West district and Dayaowan formed Dalian harbor group. The handling capacity in 1991 was 54.72 million tons, the foreign trade import and export goods volume 38.304 million tons, ranking the first place in China's seaports. The import and export trade value in 1991 was US\$ 9.54 billion, making up 7% of the total foreign trade value of China, ranking the third in China. In 1992, the handling capacity of goods was 59.09 million tons, increased by 40% than 1985. The gross value of import and export commodity reached US\$ 10.0 billion. Dalian has established trade relation with over 150 countries and regions. In 1993, the gross purchasing value of wholesale and retail value was 13.39 billion yuan, the gross sale value of wholesale and retail commodity was 23.43 billion yuan. Dalian is now the largest foreign trade goods transit center, and oil and grain transit center in China, can be engaged in transit and reshipping business of crude oil, finished oil, minerals, coal, timber, grain, container complete sets of equipment and varieties of sundry goods. By the year 2010 Dalian will be developed into an international deep-water transit harbor with annual handling capacity over 100 million tons, an international container transport hub port, and a regional free harbor (Pan, 1993).

IV. TRANSPORT CONNECTION OF PORTS IN NORTHEAST REGION WITH THEIR HINTERLANDS

The actual value of ports depends on the relation to their hinterlands. The relation degree is related to geographical distance, transport mode and capacity. The strongest port systems in northeast region are distributed in the southern coast and border stations of the international railways. Harbin, Changchun and Shenyang, as inland cities, occupy particularly important position in port systems of northeast region owing to their important economic position, strong transport capacity, and having air(water) transport ports.

The paper classifies northeast ports into 3 function categories: local, regional, international based on their distance from provincial economic central cities (Harbin, Changchun,

Shenyang and Dalian), transport mode, transport capacity, and the position of the ports in international transport network. From Table 2, it can be seen that the ports being engaged domi-

Table 2 Communication transport connection of northeast region ports with their hinterlands

Port	Distance from provincial economic central city(km)	Transport mode	Transport capacity(1993) ^①					Port function category
			Railway ($\times 10^4$ t/a)	Highway ^③ (truck/day)	Air($\times 10^4$ persons/a)	Shipping ($\times 10^4$ t/a)	Inland river ($\times 10^4$ t/a)	
Manzhouli	935	R,H	750	2000	-	-	-	IT
Hailar	719	R,A	1200	2000	-	-	-	L
Heishantou	850	H	-	300	-	-	-	L
Shiwei	about 1000	H	-	300	-	-	-	L
Arihashate	about 920	H	-	200	-	-	-	L
Shenyang	0	A,R,H	29756.4 ^②	>20000	120	-	-	L
Dalian	0	A,S,R,H	4704.2 ^②	>15000	102	5959	-	IT
Yingkou	164 or 200	R,H,S	389 ^②	5000	-	683	-	L
Dandong	277	R,H,S	686.7 ^②	2000	-	100	-	IT
Jinzhou	242	R,H,S	19253.9 ^②	2000	-	120	-	RE
Changchun	0	R,H,A	12660.8 ^②	>10000	44.2	-	-	L
Tumen	530	R,H	949.3 ^②	2000	-	-	-	IT
Ji'an	523	R,H	225.6 ^②	500	-	-	-	L
Da'an	245	R,H,I	3635 ^②	500	-	-	45 ^⑤	L
Linjiang	534	H	-	500	-	-	-	L
Kaishantun	about 540	R,H	149.9	500	-	-	-	L
Sanhe	about 540	H	-	500	-	-	-	L
Nanping	about 600	H	-	200	-	-	-	L
Hunchun	668(Changlingzi)	H	-	5000	-	-	-	L
Harbin	0	A,R,H,I	16445.8	>15000	100	-	223	L
Jiamusi	715	R,H,A,I	3432.3	5000	0.56 ^④	-	119	L
Qiqihar	288	R,H,A	>3000	5000	2.2 ^④	-	-	L
Suifenhe	569	R,H	210	2000	-	-	-	IT
Fujin	894	R,I,H	120	2000	-	-	50 ^⑤	L
Tongjiang	971	H	-	500	-	-	45 ^⑤	L
Heihe	560	R,H,A	116	500	no data	-	-	L
Tahe	1036(Yixiken)	H	-	200	-	-	-	L
Huma	881(Jinshan)	H	-	500	-	-	-	L
Xunke	608	H	-	500	-	-	-	L
Fuyuan	1152	H	-	500	-	-	-	L
Hulin	1668 or 813(Hutou)	H	-	500	-	-	-	L
Sunwu	536(Sijitun)	H	-	500	-	-	-	L
Luobei	913	H	-	1855	-	-	-	L
Jiayin	717	H	-	500	-	-	-	L
Raohe	1089	H	-	500	-	-	-	L
Dongning	614(Sanchakou)	H	-	500	-	-	-	L
Mishan	683(Dangbizhen)	H	-	500	-	-	-	L

Note: ① Transport capacity of provincial economic central cities is the sum of all directions, that of the rest ports means upgoing direction ② Data of 1990 ③ Calculating based on highway category; substandard highway is 200, 4th category 500, the 3rd category 2000, 2nd category 5000 ④ Data of 1992 ⑤ capacity

R: railway A: air H: highway I: inland river S: shipping IT: International transit
L: Local RE: regional

nantly in border trade have smaller effect range, their effecting hinterlands generally do not exceed one county(city). The ports taking railway as transport mode have comparative strong port function, but the present international railway transport pattern is dominated by Harbin – Manzhouli railway and Harbin – Suifenhe railway. The position of Manzhouli and Suifenhe is still greatly superior to the rest ports.

According to the planning data available, Hunchun port(Changlingzi) and Mishan(Dangbizhen) have been planned and began to construct into railway port. Tumen River area has the prospect of large-scale international joint development. Manzhouli airport has been constructing. Changchun international airport has been constructed. The objective of Jinzhou harbor construction is annual handling capacity of 30 million tons, that of Dandong port is 5 million tons. These projects will have some influence on the development of the open port pattern of whole northeast region, but the basic hinterland relation will not be changed, and the function of the open port system in northeast region will be developed.

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