I. REFORM IN INLAND WATER TRANSPORT: CHINA'S EXPERIENCE

1. General Description of Inland Water Transport Development in China

China is a large country with a territory of 9.6 million square kilometers. In this country there are 5,800 rivers whose catchment area is above 100 square kilometers each. Of these rivers more than 1,500 have a catchment area of 1,000 square kilometers each. The water volume of outflowing rivers occupies 95% or more of the total, and the catchment area occupies 1/3 of the total. In the coastal area of East China and the area to the south of the Changjiang River there are many river networks and water is abundant. Water transportation is well developed on the Changjiang River, the Zhujiang River, the Heilongjiang River, the Grand Canal and the Huaihe River. The superior natural conditions provide good opportunities for the development of water transportation in China.

Before the founding of the People's Republic of China, inland water transport (IWT) facilities were very backward. Through more than 4 decades' efforts, the cause of IWT has progressed greatly. After the third Plenary Session of the Eleventh Central Committee of the Communist Party of China, the cause of IWT has entered a new stage.

On May 5, 1946, the People's Government of Songjiang Province (called Heilongjiang Province now) took over the Songjiang Navigation Bureau, and on May 17, the short-distance water transportation from Harbin to Tonghe began. That was the first navigation institution under the leadership of the Communist Party of China.

With the liberation of various port cities, the People's Government abrogated all the imperialists' privileges in China, took over the customs, controlled foreign trade, confiscated bureaucrat navigation business, took over Kuomintang Government's navigation administration, and requisitioned or bought over the enterprises run by foreigners. Local governments provided loans to support privately owned water transportation enterprises so that they could restore transportation as soon as possible. Thus a water transport system was formed in which the state-owned part played the main role while there were various kinds of economic elements.

In 1952, the national water transportation was restored; the volume of goods transported reached 51.41 million tons, and the volume of freight handled by the coastal ports and the main ports on the Changjiang River reached 23.11 million tons, increased by 1,022% and 154% respectively compared with the figure in 1949. Inland navigation mileage reached 95,000 km, increased by 29%.

^{*} Prepared by Professor Zhang Changkuan, Dean, College of Harbour, Waterway and Coastal Engineering, Hohai University, Nanjing, China

The period from 1953 to 1957 was the First Five-year Plan period. During this period, the focus of water transportation-related work was, through the socialist transformation of the ownership of the means of production, to raise the management level, tap the potentials of transportation and carry out a few major projects. The main task of the construction of water transportation was to develop IWT with the Changjiang River as the focus, increase material exchanges between Southeast China, Central China and coastal areas and develop marine transport on a proper scale.

The management system praticed at that time, practiced was centralized control, decentralized management, government administration integrated with enterprise management. Under the unified guidance of the state policies, the Ministry of Communications was in charge of administration, the business of navigation on the main streams of the Changjiang River, the Zhujiang River, and the Heilongjiang River, marine navigation, and production management of main enterprises and institutions, while local governments exercised supervision and guidance. Local governments were in charge of administration, the business of water transportation and production management of enterprises and institutions in their areas. Inter-provincial water transportation development planning and capital construction were coordinated by the Ministry of Communications. In cities or at ports, port management bureaus or offices were set up, taking charge of port administration, management and business; they were economic accounting units and were under local governments' supervision and guidance.

From 1958 to 1965, China's IWT went through a process of readjustment and development. The Ministry of Communications, as the leading body of IWT, established and amplified various regulations, at the same time, readjusted the internal structure of water transportation, took back large enterprises once put under lower administration levels and strengthened oceangoing transportation, IWT and water transport-related industries.

In 1962, the mileage of IWT in China reached more than 160,000 km, increased by 20,000 km compared with the figure for 1957. Good economic benefits were achieved in the construction of the navigation channels of the Changjiang River, the Zhujiang River, the Songhuajiang River, the Grand Canal, the Huaihe River, and the Xiangjiang River. The volume of goods transported on the North Jiangsu Section of the Grand Canal reached 20 million tons.

During the period of so-called Cultural Revolution from 1966 to 1976, China's water transportation suffered great losses. Management was paralyzed, basic facilities were not maintained, efficiency was very low, and many accidents occured.

After October 1976, China entered a new period of socialist construction. Like other aspects of the national economy, China's water transportation began to recover. After the Third Plenary Session of the Eleventh Central Committee of the Party, China's water transportation entered a new period of development.

2. Reform in IWT Management System

2.1 Reform in China's Economic System

Since the 1980's, developed countries have been readjusting industrial structures and reforming the regulating system and developing countries have been readjusting development strategies and

reforming the management system, while socialist countries have been deepening and widening the reform in the economic system. This historical trend of reform results from the new world-wide scientific and technical revolution and the development of productive forces, which began after World War II. The progress in science and technology is a powerful motive force of economic development. Every breakthrough in science and technology results in a big leap-forward of the productive force, causing the readjustment of the industrial structure and the reform in the management system. The economic reform in China started against the background of world-wide reform.

In the original economic system, the responsibilities of administration and management were not identified, and the government over-controlled enterprise. Thus, enterprises lacked vitality; commodity production, the law of value and the market regulation function were neglected; equalitarianism was practiced in economic distribution; the economic form and the business mode were unitary, seriously constraining the broad masses' initiative and hindering the development of the productive forces. Therefore, the basic tasks of the economic reform included the reform of the original economic system, and the establishment of a new socialist economic system with Chinese characteristics and full of vitality. The purpose of the reform was to promote the development of the productive forces. This reform is by nature a process of selfperfection of the socialist system. A process of development from the countryside to the cities, from production to circulation and distribution, and from the vitalization of enterprises to the reform of the management mode. Reform has been carried out in the form of ownership, the business mode, the identification of the functions of governmental management institution and the establishment of related institutions. The reform can be roughly divided into two stages. The first stage began from December, 1978, when the Third Plenary Session of the Eleventh Central Committee of the Party was held. At that stage, reform was mainly carried out in the countryside, while in cities experimental reform only was conducted. The second stage of reform started in October 1984, when the Third Plenary Session of the Twelfth Central Committee of the Party issued "The Resolution on the Reform in Economic System" and this is the stage of overall reform with emphasis placed on cities.

2.2 Steps of Reform in IWT Management System

The reform of water transportation was carried out under the overall frame of the reform in China's economic system. To begin with, the Central Government required that the department of communications should break with the original management system in which the responsibilities of administration and management were not well clarified, and that the responsible departments at various levels should perform macro-management and administration instead of direct management of enterprises and production affairs. The reform of the management system was therefore the first step of reform in water transportation.

On September 1, 1982, the Ministry of Communications established the Management Bureau of IWT. Transportation on the Changjiang River was taken as the focus of reform in institution. Reform in this aspect was performed in two steps. The first step was to separate the responsibilities for navigation and port authorities. On January 1, 1984, the former Administration of Changjiang Shipping was dismissed, and the Administration of Changjiang Navigational Affairs and the Changjiang Shipping Corporation were set up, the former being an agency of the Ministry of Communications in charge of 14 ports on the Changjiang River, and

latter being the first-class enterprise, under which there are 5 branches, in charge of the state planned passenger and freight transport. The second step was to separate the administration and management responsibilities of the Administration of Changjiang Navigational Affairs: The management of ports was transferred to local governments while the Administration of Changjiang Navigational Affairs was in charge of administration. See Figure 1.

On July 1, 1983, with the approval of the State Council, the Heilongjiang River Administration of Navigational Affairs was transferred from the Province to the Ministry of Communications. Investment was increased, planning and construction were strengthened, and ships were renewed. On July 1, 1986, the Zhujiang River System Administration of Navigational Affairs was established, taking charge of the administration on navigation on the Zhujiang River (the Pearl River), which had been done by Guangdong and Guangxi local governments.

In November 1987, the Grand Canal Administration of North Jiangsu was set up, taking charge of the management of the Xuzhou-Yangzhou section of the Grand Canal.

Thus, a central-to-local management system of inland water navigation and transportation was formed, and the construction and management of inland water navigation and transportation were strengthened, as shown in Figure 2.

After the establishment of the management system, various IWT management departments began to shift the focus of work to trade management and macro control. The Administration of Changiang Navigational Affairs exercised administrative authority and began to take a series of measures to deepen the reform with focus on the institutional reform of the ports on the river and the clear-cut identification of the responsibilities for port and navigation authorities. On the basis of separation of port management and navigation management and identification of the responsibilities for port and navigation authorities, the State Council approved in August 1987 "Request for Reform in Management System of Ports on the Changjiang River". It was decided that all the ports on the main stream of the Changjiang River, except Zhangjiagang Port in Jiangsu Province, be transferred to a lower level, and the principles of transfer and support policies were formulated. After full consultation among the Ministry of Communications, the Administration of Changjiang Navigational Affairs and related provinces and cities, the preparation work of transfer was finished at the end of 1987, and the transfer was completed in 1988. After the transfer of the ports, the Administration of Changjiang Navigational Affairs, as an agency of the Ministry of Communications, took charge of administration of waterways and navigation and trade management, and at the same time, provided supervision, planning, coordination and services.

With the establishment of the Changjiang Shipping Corporation, whose organizational structure is shown in Figure 3, the autonomy of the Chongqing, Wuhan, Wuhu, Nanjiang and Shanghai Shipping Companies was enlarged, and they became independent accounting units. In planning, capital construction, management of fixed assets, etc., the Ministry of Communications also transferred some power to the Changjiang Shipping Corporation. The five regional companies also transferred power to the lower various levels, practiced various kinds of "responsibility systems", and good results were achieved. The Zhujiang River System Administration of Navigational Affairs, on behalf of the Ministry of Communications, exercised trade management

Figure 1 Reforem of Changjiang Shipping Management

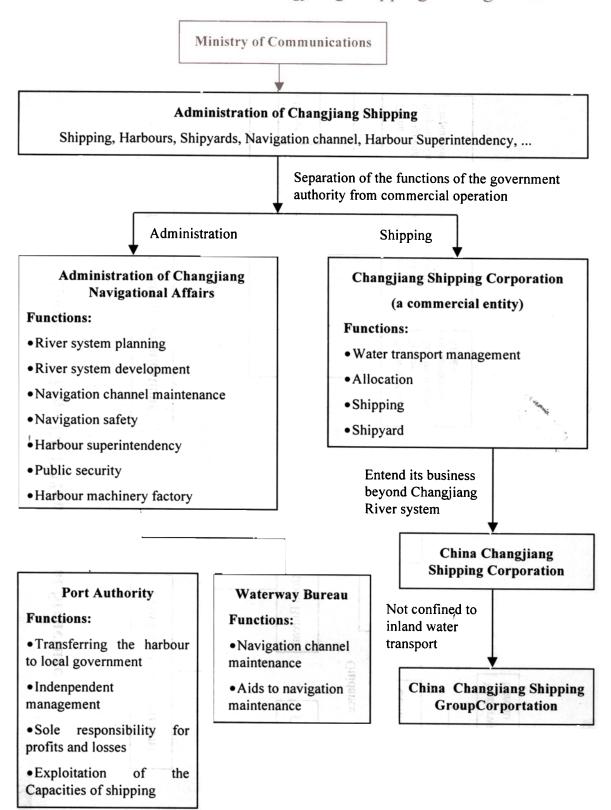


Figure 2 China IWT Management Structure

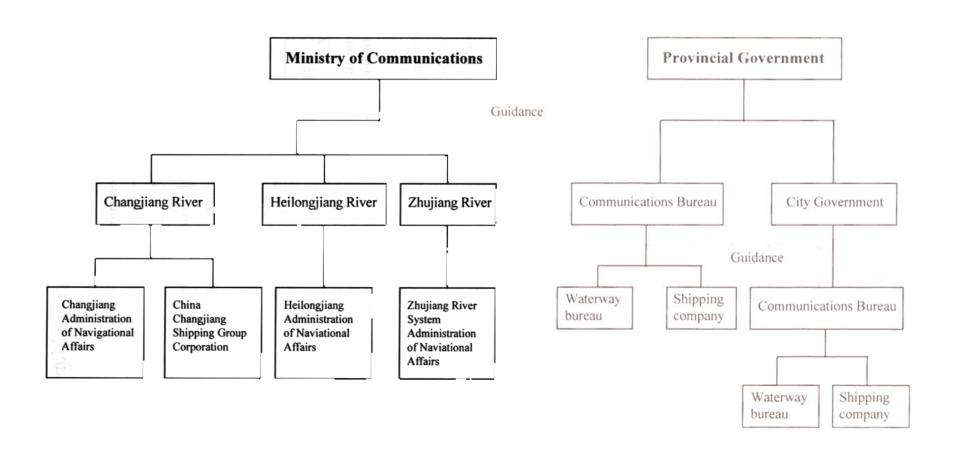
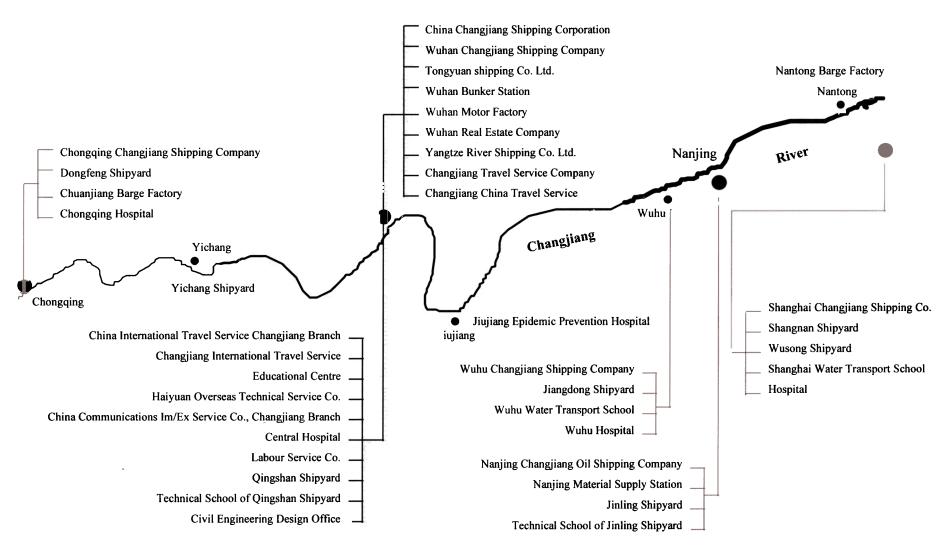


Figure 3 Structure of China Changjiang Shipping Group Corporation



of navigation and transportation over the four provinces in the Zhujiang River system, helped them to solve the problems existing in water transportation management, and strengthened safety management. The number of accidents from water transport in Guangdong and Guangxi was largely reduced.

In order to suit the change of the functions of government navigation and transportation departments and to strengthen trade management, except for Jiangsu Province, all the provinces where there is water transportation have set up management organizations at the provincial level, and the internal structure of the navigation and transportation departments at various levels has been readjusted.

2.3 Experiences in Reform of IWT Management System

The reform in IWT has followed the guiding principle of "consolidation, digestion, complementation and improvement". At the same time, various measures have been explored.

1. Strengthening the formulation of regulations for IWT management

The formulation of regulations is a guarantee for success in the reform of IWT management system. In the process of reform, close attention has been paid to the formulation of related regulations. Take the year of 1986 for example. In 1986, the State Council issued "Regulations for Safety Management of Inland Water Traffic of the People's Republic of China". Through the approval of the State Council, the Ministry of Communications issued "Detailed Rules and Regulations for Implementation of Contracts for Water Transportation of Freight". The Ministry of Communications also issued "Regulations for Strengthening Safety Management of IWT Enterprises", "Regulations for Renewal and Renovation of Ships of Local Shipping Enterprises", etc., and formulated and submitted to the State Council "Regulation for Management of Water Transportation" and "Regulations for Navigation Channels". The IWT Bureau of the Ministry of Communications drafted a "Provincial Plan on Legislation for the Seventh Five-year Plan Period". Various provincial governments formulated and issued related regulations and management methods.

2. Formulating policies according to practical conditions and actively supporting IWT

The Cultural Revolution caused serious setbacks to water transportation. Before reform, the scale of China's water transportation was small, techniques and equipment were backward, and the management level was low. Support in policy was needed for the development of IWT. At the beginning of reform, i.e., in 1986, the State Planning Commission and Planning Office of Shanghai Economic Zone made an overall investigation on the situation of IWT in the provinces along the Changjiang River and put forward some suggestions. Navigation management departments at various levels also made many investigations on the problems existing in navigation and transportation enterprises. On this basis, the State Planning Commission issued on April 4, 1986 "A Circular on Some Preferential Methods Exercised in Reform of IWT in Various Provinces". The circular introduced preferential policies on taxation remission, freight rate readjustment, supply of diesel oil, loans, etc. which were implemented in the provinces of Jiangsu, Zhejiang, Jiangxi, Sichuan, Anhui, Fujian, Guangdong, Guangxi, and Hubei. After the circular was issued, many other provinces took new measures to support water transportation.

The Ministry of Finance and the Ministry of Communications remitted taxation for all the ports on the Changiang River except Nanjiang Port, Jiujiang Port, Wuxue Port and Wuhan Port.

In September 1986, the State Planning Commission, the Ministry of Communications, the Ministry of Finance, and the People's Bank jointly issued "A Circular on Several Issues Concerning Vitalization of the Economy of Collective Water Transportation Enterprises", requiring that governments at various levels should strengthen the leadership over collective water transportation enterprises and provide necessary supports in respect of taxation, fuel and other material supply, freight rate, loan, etc. On December 31, 1986, the State Council issued "A Circular on Taking Measures to Develop IWT". This circular played a very important role in the development of IWT.

3. Continuously summing up experiences and strengthening macroscopic guidance in the reform of water transportation system

The process of reform is a process of trials. There are successful experiences and lessons to be learned as well. Continuously summing up experiences and drawing lessons is one of the keys to the success of reform of water transportation system. Through practice, some important problems which we should pay close attention to were recognized.

- (1) The economic structure of IWT is complicated. The point-line relation is close, the development of water transportation in various river systems and various regions is not balanced and the technical and economic development in one and the same river basin is not balanced. Therefore, reform should be carried out on the basis of the practical situation of various water systems and regions. In the reform of IWT the following principles should be followed.
 - Reform should be favourable for the development of the productive forces of water transportation, for the smooth operation of transportation, and for the promotion of safe, excellent and civilized services.

Reform should be favourable for the vitalization of enterprises, enabling the enterprises to become relatively independent economic entities.

Reform should be favorable for the connection between water transportation enterprises and the development of the socialist water transportation market.

Reform should be favorable for the mobilization of the production enthusiasm of various departments.

Reform should be favorable for the strengthening of trade management and the improvement of macro control, enabling IWT to meet the demand of socioeconomic development.

Reform should be favorable for the simplification of administration and the raise of work efficiency.

- (2) Administration and management should be separated, administration simplified, and power transferred to the low level. The administrative departments at various levels must transfer the business power to the enterprises, and their function of direct management must be changed to indirect management. In this process, active and liable steps should be taken to ensure that administration and management are separated, the administration system and management system are smoothed, power is transferred, and macro control is exercised.
- (3) The strengthening of trade management is one of the important contents of reform in IWT system. In the aspect of trade management, the following tasks should be carried out: planning and distribution of water transportation construction, study of policies, formulation of regulations, supervision, management of water transportation market, collection and exchange of information, coordination, etc.
- (4) The target of reform in IWT system is to establish a multi-channel and open-type socialist water transportation management system which dovetails with China's IWT situation and has a rational basic structure, coordinated operation system, flexible regulation function and complete management organizations.
- (5) For the administrative organization of IWT an organizational system should be formed step by step, which is under the unified leadership, exercises management at different levels, and combines trade management with regional management. The top-bottom structure is divided into three levels: The top level is IWT departments under the Ministry of Communications and the water system navigation management organizations, the middle level is provincial navigation management organizations, and the bottom level is county navigation management organizations. The horizontal structure consists of transportation management, navigation administration, channel management, and port management. Depending on the practical situation, transportation management, navigation administration, and channel management can be unified.

3. Formulating Flexible Policies to Vitalize Water Transportation

The second aspect of reform in China's IWT is the formulation of flexible policies for the vitalization of water transportation. Under the unified planning of the state, the Ministry of Communications gradually enlarges enterprises' autonomy of business, enabling enterprises to become relatively independent economic entities. At the same time, preferential policies are adopted to encourage and support local, collective and individual water transportation, thus, the state-owned, collective and individual transportation enterprises together come into being. For instance, by the end of 1985, more than 800 shipping companies had been set up in the Changjiang River system. The volume of freight transport was increased by 10 million tons annually in this river system. From 1981 to 1985, the turnaround of freight transport was increased by 50%, the increase of the self-employed labour being the fastest. In 1985, self-employed labour possessed 240,000 ships, and the total tonnage was 3,200,000, accounting for 50% of the total number of the state-owned and collective ships. In order to reduce freight transfer through transport were established on the Changjiang River, and the volume of freight transport was increased greatly. On the Human-Shanghai through line the volume of freight transport reached 1 million tons in 1985, 11.5 times the figure for 1980. The average distance

of inland water freight transport was 256 km for 1985, 39.9% longer than that for 1980. Besides, facing the more and more serious competition, the water transportation enterprises tried actively to improve management, implement various kinds responsibility systems, and improve their service quality. Meanwhile, they developed diversified economy, opened up new sources of freight, and strengthened links with other enterprises, thereby enhancing the vitality of the enterprises.

3.1 Actively Supporting Self-employed Water Transportation Labour

With the development of the commodity economy in the countryside, self-employed water transportation labour came into being. According to statistics, by the end of 1986, self-employed water transportation labour owned 240,000 ships with a total tonnage of 3.28 million. The number of ships was 2.7 times the number of collective-owned ships, and the total tonnage was 80% of the tonnage of collective-owned ships, and 43% of the total of local inland river ships.

Because of the rapid development of self-employed IWT labour, a new situation has appeared in IWT.

- 1. House construction, the development of township enterprises, and trade of agricultural products and by-products provide abundant sources of freight for water transportation. These goods are characterized by small quantities but large numbers of batches and they must be transported in time. The former mode of large batch transport can not satisfy the requirement of the countryside. Self-employed water transportation labour ships are usually small, they can sail on small tributaries, their operation is flexible, and their service is excellent. They are, therefore, very popular in the countryside.
- 2. Changes have taken place in the structure of transportation forces. A multi-level, multi-form, and multi-channel transportation structure has formed with state-owned, collective owned and individual owned ships participating in. The mechanism of competition is introduced. Consequently, professional water transportation enterprises must improve their management and service.
- 3. Water transportation forces in the countryside have been enhanced. In Zhejiang province, farmer- owned ships have a total tonnage of 960,000, and the number of such ships is almost equal to that of professional transportation enterprises. In Jiangsu Province, of the total water transportation force of 3 million tons, self-employed water transportation labour force accounted for 1 million tons. The development of rural self-employed water transportation labour has mitigated the long-existing difficulty in transportation. In Jiangsu Province, rural water transportation force has undertaken 80% of the volume of intra-town freight transport and 33% of the volume of inter-town freight transport.

The development of self-employed water transportation labour has been supported by the Departments of Communications at various levels. In July 1984, the Ministry of Communications issued "A Circular on Supporting Self-employed Water Transportation Labour". The circular requires that the Departments of Communications at various level encourage individual farmers to run water transportation, provide them with market information and technical consultation, train technical personnel, and help them select good ships, improve management and raise

economic benefits. In addition it required that all ports, wharves, and loading and unloading, repairing, lock, winching and communication facilities be opened to self-employed water transportation labour, that self-employed water transportation labour be allowed to find sources of freight and set up prices by themselves for short-distance transportation, and that township enterprises and farmers be supported in collecting funds for the construction of ports and wharves and regulation of small rivers and tributaries. The circular also encourages self-employed water transportation labour to cooperate with water and land transportation enterprises in various forms, and to combine transportation with production and marketing. Various transportation service companies or joint transportation companies organizing sources of freight, conducting accounting and going through formalities for them are also encouraged.

The local Departments of Communications have taken effective measures to create favorable conditions for the healthy development of self-employed water transportation labour.

- (1) Helping self-employed labour. The port and water transportation enterprises of Anhui Province allocate some source of freight to self-employed labour, thus solving their problem of freight shortage. In Shanghai, a township transportation service company has been established, taking charge of transport planning, freight organizing, material allocating, etc.
- (2) Training technical personnel for self-employed labour. Transportation management departments have adopted various forms to train pilots for them. The Water Transportation Management Office of Chongqing City trained 1,119 people for them in 1986.
- (3) Strengthening safety control. The Water Transportation Management Office of Chongqing City issued "Provisional Regulations of Chongqing City on Safety Control of Individuals' Ships, Co-operated Ships, Agricultural and Sideline Ships, Ferry Ships and Fishing Vessels" and "Provisional Regulations of Chongqing City on the Inspection of Small Ships".
- (4) Setting up management organizations. Rural Water Transportation Offices have been set up at the county level in Hunan Province, dealing with self-employed labour letters and visits, delivering information, and strengthening transportation management.
- (5) Organizing self-employed labour. First, individuals are organized. For example, the self-employed water transportation labour in Nan'an, Hunan Province, have been organized into a Joint Transportation Company. Second, individuals are allied with state-owned and collective-owned enterprises. For instance, in Leqing County of Zhejiang Province, 9 allied water transportation bodies have been formed. Third, individuals' transportation societies have been organized. In Zhejiang and Hubei Provinces, the individuals' transportation societies make investigations in the development of self-employed transportation labour, study the trend of development, help the departments of communications and industry and trade in planning, coordination, service, guidance and supervision, and pass suggestions and requirement to related government departments.

The rapid development of self-employed water transportation labour has brought new problems to market management. Some labour do not keep records of transport, do not have receipts and do not have fixed lines. In some regions, water transportation has been developed in a blind way, so that transportation capacity has exceeded the volume of freight to be transported. Some pilots

do not have licenses, and overloading frequently takes place. Some abandoned vessels are put into operation. Consequently, serious accidents often take place. In 1986, 1,939 accidents occurred, 465 vessels sank, and 954 people were killed, the total economic loss reaching 9.55 million Yuan.

3.2 Extending Autonomy of Enterprises and Enhancing Their Vitality

On the basis of reform practice, the autonomy of water transportation enterprises is gradually extended. The instructed transport plan is reduced and the guiding plan is adopted instead. In the case of material supply, instructed allocation is combined with guiding allocation and market Some IWT enterprises have been separated from the integrated government regulation. administration and management system and have made the first step towards becoming independent entities. They have been continuously improving the economic responsibility system. Water transportation enterprises in Jiangsu Province have summed up the experience in internal accounting and popularized the economic responsibility system. In some local water transportation enterprises, the system of fixed cost of wages is practiced and the ship crew's responsibility-related wage system has been attempted. The director's or manager's responsibility system is under trial. In the ownership structure and operation mechanism of IWT enterprises, changes have taken place favourable for vitalizing water transportation. Thus the shortage of water transportation forces is mitigated. Because the original limit of navigation zone is rescinded, inter-region and inter-trade joint transport is carried out, and through transport is also organized. New networks of land-and-water coordinated transport have formed, and economic benefits have been achieved.

3.3 Actively Developing Economic Alliances in IWT

With the deepening of the reform in the economic system and the rapid development of the commodity economy, the demand for transportation has increased. In this new situation, IWT departments have broken the rigid boundaries of different regions, different departments and different trades, gone in for various forms of economic alliance, and achieved significant economic and social benefits. In IWT economic alliances take the following forms.

1. Alliance of different transportation means

In 1985, initiated by the Departments of Communications of Wuhan, Nanjiang, and Chongqing, the Changjiang Coordinated Transport General Company was set up with 17 cities as members. That company takes a loose form of alliance. It performs main stream-tributary coordinated transport, river-and-sea coordinated transport, water-and-railway coordinated transport, water-and-highway coordinated transport, port-to-port (on the Changjiang River) coordinated container transport, and coordinated exported goods transport, the annual volume of freight transported reaching 9.54 million tons.

2. Alliance of different trades

The Wuhan Huitong Industry Company Ltd., whose main business is water transportation, does compensatory trade with Yidu County, Hubei Province in funds, raw material, labour, etc. The

company invested 4.6 million Yuan to help the county with the construction of a white-cement plant. Every year, the company can obtain 25,000 tons cement as compensation until the investment is recovered. Besides, Huitong Company attracts investments from the material departments of the counties in West Hubei, finds markets for the local abundant resources and gives them priority of transportation. In this way, the company can support the economic development of the mountainous areas, and at the same time it has opened up new sources of freight for itself.

3. Alliance of different business types

The Department of Communications of Yichang Prefecture, Hunan Province, and Shanghai IWT Service Company organized the Yichang-Shanghai Transport-and Marketing Coordinated Service Company. Thereafter, the combined transport and marketing organizations began to be popular among IWT enterprises, and to develop in the direction of combined production, transport and marketing. At the same time, water transportation-related services began to be provided. Ganzhou Shipping Company organized a Transport and Trade Company, which provided various services for the freight owners, such as purchase of goods, checking and acceptance of goods, storage, transport, going through formalities, etc., and was called a "Convenience Company". Yancheng Shipping Company and Huaiyin Shipping Company have established links with placers and brickyards in Xinyi and Yancheng and with the users in Shanghai, thereby combining transport with production, supply and marketing. Many shipping companies combine sand mining with sand transport and sand marketing. Neijiang Shipping Company of Sichuan Province has built 18 sand mining ships and 9 stone picking vessels and it can supply 1 million tons of sand and stone each year.

4. Cooperation between enterprises

In the past few years, water transportation enterprises of the 9 cities under the jurisdiction of the government of Jiangsu Province have been conducting information exchanges and have been providing each other with technical consultation, transfer of techniques and training of technical personnel. Through cooperation all the enterprises have been developing. In order to regularize such cooperation, the 9 cities passed "Provisional Regulations on Strengthening Cooperation and Enhancing Vitality in Enterprises".

5. Alliance of different economic elements

Wenzhou City of Zhejiang Province is located on a water network. With the development of the rural commodity economy, the volume of passenger traffic increased greatly and the State and collective owned transport means could not satisfy the demand. As a result, individual ships without licenses rushed into the transport market, and accidents took place frequently. The Water Transportation Management Office of Leqing County organized the State, collective and individual owned means of transport into a Coordinated Transport Body and fixed the schedule for them. Thus, the demand of passengers was satisfied and safety guaranteed.

6. Coordinated passenger transport and extended service

The Passenger Transport Station of the Wuhan Port and the Changjiang Sipping Group

Corporation coordinates with the tourist companies or shipping companies in Sichuan, Jiangxi, Anhui, Hunan, etc. in tourism, providing services in board and loading, transport and tourism. The annual volume of passenger transport reaches 500,000 people. The Fuling Shipping Company of Sichuan Province has established links with Chongqing Railway Station and some bus transport companies, selling train tickets and bus tickets for them, and Chongqing Railway Station and the bus transport companies sell boat tickets for it. The Dongzhi Shipping Company of Anhui Province has such facilities as ferry boats, buses, hotel, restaurant, and department store, thereby providing various services. The passengers enjoy the conveniences it provides.

4. Actively Practicing Management Responsibility Contract System at Two Levels

4.1 Practice of Management Responsibility Contract System -- An Important Way to Deepen Reform of Enterprises and to Enhance Their Vitality

The first step of reform included reform in the management system, the transfer of power to the lower level, reduction of taxation, and the improvement of external environment of management. These measures played a great role in the improvement of enterprise management and the vitalization of enterprises. However, two questions remained unanswered: How to perfect the internal management mechanism of enterprises? And how to tap their potential? The Central Committee of the Party pointed out: "In reform, stress must be placed on the perfection of the management mechanism of enterprises. On the basis of separation of proprietary rights and management rights, the management responsibility contract system should be seriously practiced so that enterprises can become relatively independent and self-managed economic entities responsible for their own benefits and losses". On the instructions of the Central Committee of the Party, the Ministry of Communications drew up a plan for the strengthening of reform and vitalization of transportation enterprises, and required that the management responsibility contract system be practiced at two levels. The practice of the management responsibility contract system is an important way to strengthen reform and vitalize enterprises. This mode of management is simple and practicable and it has a large motivating function. In the present situation where the market mechanism is not perfect, the price system is not reasonable enough, and the new and old system co-exist, this mode of management can suit different enterprises. The separation of proprietary rights and management rights can help improve the internal management mechanism of enterprises and promote the combination of rights, responsibilities and interests. Socialist material interests can be better embodied, the initiation of enterprises and workers can be ensured, the enterprises can be vitalized, and sustainable development of enterprises can be achieved. Of course, new problems and new contradictions may arise. However, the most important advantage of such a system is that it can tap the potential of the enterprises and increase economic benefits.

4.2 Actively Practicing Management Responsibility Contract System at Two Levels

The contract at the first level is the contract between the enterprise and the related government department defining the relationship between the state and the enterprise in rights, responsibilities and interests. The contract at this level takes the following forms.

- 1. Meagre-profit contract. This kind of contract is for loss-incurring enterprises. According to the specific situation, the base is determined. In general, the profit exceeding the base is given to the enterprise.
- 2. Profit base contract. The enterprise must turn the base profit over to the higher authorities, and a proportion of the profit above the base is given to the enterprise.
- 3. Increasing profit contract. On the basis of profit base, the enterprise turns over profits to the financial department according to a rate of increase, and the remaining part is given to the enterprise.
- **4. Lease**. The concept of lease is different from that of contract, but it suits medium and small-sized state-owned enterprises and collective enterprises. Compared with the contract system, the lease has a higher degree of separation of the proprietary rights and the management rights.
- 5. Stock system. The stock system can be tried by collective transportation enterprises.

Besides, there are other forms of contracts, for instance, the manager's term objective contract, the contract which relates the output value with the wages, etc. All these forms of contracts embody the same requirements, i.e., the base profit should be fulfilled, the profit which must be turned over to the higher authorities should be guaranteed, the more profits an enterprise makes, the more it should be allowed to keep, the losses should be made up by the enterprise itself, and the enterprise should accumulate funds for its self-development.

The purpose of the contract at the second level is to perfect the internal management mechanism of the enterprises and to improve the relation between the enterprise and its workers and staff members. The contract at this level can take different forms, but the following basic links must be grasped.

The contract should be able to combine the output, economic income, profit, safety, product quality, consumption, condition of equipment, increased value of fixed assets and loan-repaying ability of the enterprise with the economic income of its workers and staff members.

On the basis of the division of accounting units and the practice of management at different levels, the contract should involve all the units at all the levels. Transportation enterprises are characterized by high mobility, scattered units, strong independence, and many management elements and levels. Responsibilities should be clarified for various levels of management, and contracts should be drawn at various levels to ensure that every unit, every level of management, every vessel and every worker bears the responsibility defined in the contract. An objective contract should be drawn between the company and its branches, between the branch and its fleets, between the fleets and its working teams, between the team and its vessels, and between the vessel and its workers. In order to ensure complete benefits of the enterprise, various offices should also sign contracts according to their functions.

Single vessel contract or lease. The vessel is the direct means of achieving economic benefits. The practice of single vessel contract or lease can directly reward the workers initiative fully and can further define the relationship between the enterprise and its workers. After the contract or lease is signed, the workers status remains unchanged, their relationship with the enterprise remains unchanged, and the proprietary rights of the enterprise over the means of production remain unchanged. Profit which should be turned over to the higher level of management is fixed, and profit exceeding the fixed base is distributed according to the contract or lease.

In the practice of the contract system at two levels, the following principles should be followed.

1. The enterprise must turn over to the State the base profit and various taxes and fulfil the tasks of transportation assigned by the State. The State-owned large and medium-sized enterprises of transportation are the backbone of transportation, the main force in fighting disasters, and the leading force in regulating the transportation market. These enterprises should play a leading role in self-management and self-development, and they should ensure the State's interest.

In order to ensure input capacity, the enterprise should first draw sufficient depreciation funds and heavy repair funds. Secondly, a major part of the funds from the increased profit and from tax reduction should be used to develop production and improve techniques.

As a prerequisite for developing production and raising productivity and economic benefits, the enterprise should gradually raise its workers' wages, bonus and welfare.

- 2. Whatever form of contract is adopted, the contract should define the relationship between the State, the enterprise and the individuals in terms of responsibility, rights and interests to ensure that benefits and risks are combined and that the responsibilities are combined with rights and interests.
- 3. In determination of the profit base, the potential of the enterprise should be considered. The profit base should be determined after thorough investigation, careful calculation and analysis of original data and in the light of the average level of production of the same trade in the same period.
- 4. The management should be strengthened and various regulations should be formulated or completed. The upgrading plan should be made according to the standards set for the upgrading of enterprises in order that the management mechanism of enterprises can be improved, the quality of enterprises can be raised, and a new level of safety management, quality control, consumption reduction and economic benefits can be reached.
- 5. The contract system should be practiced together with the increase of production and economy. On the one hand, the contract system facilitates the tapping of the internal potential of the enterprise and economy, on the other hand, the increase of production and economy facilitates the practice of the contract system.

4.3. Strengthening the Leadership to Ensure Healthy Development of Management Responsibility Contract System

- 1. The management responsibility contract system is a new mode of management developed on the basis of previous reform. Theoretical knowledge and practical experience are not sufficient. To guide the reform, leaders at various levels should pay attention to study and investigation, collect first-hand information, find out problems and solve them in time, and sum up experiences to perfect the system continuously.
- 2. The Department of Communications at various level should fulfil their functions and take the practice of the management responsibility contract system as an important task in the administration of the trade of communications and transportation. They should not directly interfere with the production and management of enterprises, but should exercise the guiding function over them. In the practice of the management responsibility contract system, the Departments of Communications should firmly carry out the instructions of the Central Committee of the Party and the State Council. At the same time, they should coordinate with other government departments at the same level in the aspects of pricing, taxation, loans, allocation of vessels, fuel supply, management of transportation market, etc., creating favourable conditions for the operation of the enterprises.
- 3. The management responsibility contract system should be practiced in an active as well as stable way. The situation of transportation enterprises is very complicated. The enterprises are very different in the scale of production, the technical level, the management level, and the quality of workers. Transportation enterprises also vary from region to region. Thus, the profit base and the requirements should be determined in a practical and realistic way. Readjustment is necessary if significant changes take place in the economic policy of the State.

5. Deepening Reform and Enlarging Opening to Speed up Development of IWT

5.1 Deepening Reform and Enlarging Opening

From 1990 to 1992, China's IWT went through a process of consolidation, the deepening of reform, and stable development. In order to carry out Deng Xiaoping's instruction and the directives of the Central Committee of the Party and the State Council, and speed up the reform in communications, the Ministry of Communications put forward "Some Suggestions on Deepening Reform, Enlarging Opening and Speeding Up the Development of Communications" in July, 1992. These communications include IWT. The following are proposed in "The Suggestions".

(1) The basic facilities of transportation should be strengthened so that the pace of national economic development can be speeded up. In IWT, 9,000 km of navigation channels above the third class should be completed on the Changjiang River, the Zhujiang River, the Huaihe River, the Heilongjiang River and the Grand Canal so that IWT networks can take shape.

(2) The reform should be speeded up and the productive forces of transportation be further developed. The operation mechanism of a socialist transportation market should be established or completed.

The planned volume of freight to be transported by shipping enterprises should be divided into two parts: the planned part and the part to be regulated by the market. The planned part should be brought into the monthly plan of the enterprise and a contract should be drawn between the freight owner and the carrier.

The freight and the loading and unloading charges for the State-fixed price materials, the loading and unloading charges of the imported and exported materials, the port dues, and domestic passenger transport charges should be fixed by the State or local government.

The freight and the loading and unloading charges for the materials whose prices are regulated by the State, the loading and unloading charges for the materials whose transport is regulated by the market, and the charges for the seasonal passenger transport and tourist transport should be floated according to the regulations issued by the State or local government.

The freight of the materials whose transport is regulated by the market should be regulated by the market.

In the light of international practice and in accordance with the reciprocal principle, foreign shipping companies should be allowed to open up mono-capital on joint-venture shipping enterprises.

According to the demand of China's transportation market and under the prerequisite of facilitating the introduction of development funds, advanced techniques and equipment, and scientific management, joint-venture water transportation enterprises to be engaged in China's IWT should be developed on a proper scale.

Under unified planning, domestic freight owners and water transportation enterprises should be allowed to build and run their own wharves or rent wharves of port authorities, and to invest in the digging of their own navigation channels; they should be encouraged to build public wharves and auxiliary facilities jointly. Local governments should be encouraged to build their own wharves and land-locked provinces and cities should be encouraged to build and run wharves in coastal areas and on rivers.

Under unified planning and on a reciprocal basis, foreign capital should be introduced. Joint-venture enterprises should be allowed to carry out loading and unloading, freight storing, dismantling and installation, packing and domestic freight and passenger water transport.

Foreign traders should be allowed to build special wharves and special navigation channels.

5.2. Changing Management Mechanism of Communications Enterprises

Based on the "Regulations for the Change of Management Mechanism of Industries and Enterprises of the Ownership by the Whole People", the Ministry of Communications issued in

January, 1993 "Methods of Implementation of Changing Management Mechanism of Communications State-owned Enterprises". Communications enterprises include all IWT enterprises. The "Methods" vests the enterprises with the following rights:

The **right** to manage the enterprise. The communications enterprise has the right to occupy, use and manage the properties entrusted to it by the State.

The **right** to make decisions on production and management. Under the guidance of the macro plan of the state and according to the demand of the market, the communications enterprise can make its own decisions on production and management within the authorised scope of business. The activities of production and marketing of industrial enterprises of communications can be marketed out.

The **right** to price products and labour. The State-guiding pricing system is used for planned freight transport and port services: port charges and loading and unloading charges are fixed by the State, and the charges for the freight transport are regulated by the market. Market price is exercised for the passenger transport at pilot ports.

The **right** to sell products. Shipping companies are carriers of passengers and freight; they have the right to sell passenger tickets, to invite freight owners, to plan shipping and to settle accounts. Port enterprises are the managers of port business; they have the right over loading, unloading, storing, and other port services. The business relationship between the port authorities and the transportation enterprise can be defined by signing an economic contract.

The right to purchase materials.

The **right** to conduct import and export.

The **right** to make decisions on investment.

The **right** to control the funds left to it by the higher authorities.

The right to manage the properties.

The **right** to ally itself with or annex other enterprises.

The **right** to employ labour.

The right to manage its workers and staff.

The right to distribute wages and funds.

The **right** to set up its internal organizations.

At the same time, the "Methods" defines the responsibility of the enterprise, i.e., it must be responsible for its profits and losses. The communications enterprise, entrusted with the management of properties by the state, must bear its civil responsibility independently. The manager of the enterprise is directly responsible for the profits and the losses of the enterprises, and the workers and staff also bear the contract-stated responsibilities for the profits and losses.

5.3. Practicing Joint-Stock System in an Active and Orderly Way

In 1992, an experiment was carried out concerning the joint-stock system in communications enterprises. On July 20, 1993, the first joint-stock water transportation company on the Changjiang River was established, i.e., Nanjing Water Transport Company Limited. It was the

first joint-stock company combining petroleum production, transport, and marketing. On August 28, 1993, the Inaugural Meeting and the First Stockholder Meeting was held in Nanjing. On September 18, the company completed all the formalities of registration in Nanjing Administration Bureau of Industry and Commerce. The registered capital stock was 224.465 million Yuan, of which the state capital stock was 107.091 million Yuan, and the legal person stock was 117.374 millionYuan. The capital stock was divided into 224.465 shares, 1.00 Yuan each share. The aims of the company are to base itself on the Changijang transportation market and extend its business to sea transportation, to take water transportation as its main business and develop diversified economy, to develop petroleum products transport and trade and provide freight owners with safe, high-quality and timely services, to raise economic benefits, to safeguard all the shareholders' reputation and interests, to make contributions to the society and the country, to make the company a comprehensive foreign market-oriented one which combines petrochemical production, transport and marketing and to try its best to develop itself into one of the internationally advanced shipping enterprises. Its guiding principles are combining transportation with trade, promoting transport with trade, providing high-quality services and serving the whole society. The main modes of business are transportation, marketing, technical consultation and services. The scope of main business covers the storage and transport of petroleum and petrochemical products and other freight, operation as ship agent, technical services, and repair and dismantling of ships; the secondary business is the marketing of means of industrial production, petroleum and petrochemicals, chemical products, coal, general merchandise, hardware, electrical equipment and building materials.

5.4. Organising Enterprise Groups to Enlarge Scope of Business

China's IWT enterprises have been developing in the tide of reform. At the same time, the differences between them in ownership, trade, region and level constrain their development. With the deepening of the reform, China's IWT enterprises have begun making alliances so as to bring their comprehensive superiority into full play and enlarge the scope of business. The China Changjiang Shipping Group Corporation is one example.

The China Changjiang Shipping Group Corporation was founded on March 6, 1993. Its scope of business covers the through passenger and freight transport on the main stream and tributaries of the Changjiang River and sea, oceangoing passenger and freight transport, container transport, overseas tourism, petroleum and petrochemical transport and trade, building and repair of vessels, production, import and export of ship accessories, etc..

The China Changjiang Shipping Group Corporation considers the Changjiang Shipping Corporation as its core enterprise. Its enterprises and branches are distributed over 6 provinces, 1 city and 3 special economic zones in China, the U.S.A., Australia, and Hong Kong. It possesses 5 billion Yuan assets, 2,548 vessels of various types, 121,000 passenger seats, and a total freight tonnage of 3,130,000 tons. The total power of the main engines is 70,700 KW, and the annual capacity of freight transport is 80 million tons, and that of passenger transport is 35 million people. The Changjiang Overseas Tourism Company has 14 luxury pleasure-boats and attached hotels, wharves, etc., and its economic benefits rank the second in the travel agencies of China. The river and oceangoing transportation team has a transportation capacity of 400,000 tons and the navigation line stretches to Indonesia, Korea, Japan, etc. The annual ship-building capacity reaches 300,000 tons, and 5,000 tonnage ship's can be built. In 1993, the value of ship-

building projects entrusted reached 460 million Yuan, occupying 78% of the total value of industrial output. The container transport and the transport and trade of petroleum and chemicals have developed rapidly.

The founding of The China Changjiang Shipping Group Corporation has has overcome barriers of ownership and trade and promoted the optimum combination of the various elements of the productive forces of shipping on the Changjiang River and a change in the management mechanism of the Changjiang Shipping Corporation. The China Changjiang Shipping Group Corporation is developing towards a transnational group.

In 1993, the China Changjiang Shipping Group Corporation brought its superiority into full play with overall development of passenger transport, freight transport, water transportation industry, and tourism. The volume of passenger transport reached 25.52 million passengers, and the rotation volume of passenger transport was 7.07 billion person-kilometers; the volume and rotation volume of freight transport were 71.90 million tons and 46.18 billion ton-kilometers respectively; the number of tourists received was 65,000 person-times, and 22 million US dollars was earned; the gross value of industrial output was 580 million Yuan. This group made a great contribution to the development of the Changjiang Basin economy and the national economy.

5.5 Introducing Private Capital to Develop China IWT

Another aspect of reform in China's IWT is the involvement of private capital. In order to practice the socialist market economic system, China must establish a modernized enterprise system and an open market system. Funds must be collected from various channels so that the serious shortage of funds for the construction of basic facilities can be solved.

1. Introducing foreign capital for the construction, maintenance and operation of ports and waterways

In introducing foreign capital for the construction of ports and waterways, loans from the World Bank, the Asian Development Bank, the Overseas Joint Foundation and foreign governments are used, and foreign traders are encouraged to invest in the construction and operation of ports and waterways. For the latter, the State Council issued in 1985 "Provisional Regulations of the People's Republic of China on Preferential Treatment of Joint Investment of China and Foreign Countries in Construction of Ports and Waterways". Later, the Ministry of Communications formulated some policies. The Regulations and Policies include the following contents.

Joint investment is encouraged in the construction and operation of public wharves. Joint-venture enterprises are allowed to conduct such businesses as loading and unloading, freight storage, dismantling and installation, packing, and domestic transportation.

The time limit of operation for the joint-venture enterprise can exceed 30 years. The specific time limit for a joint-venture enterprise is defined by the parties involved, but it cannot exceed 50 years according to related laws. If a longer period is needed, an application must be made and submitted to the State Council for approval.

Joint-venture enterprises managing loading and unloading can fix the rate of charge themselves and report to the Ministry of Communications or the local department of communications and the pricing department for the record.

Besides their main business, joint-venture enterprises are allowed to be engaged in other portrelated projects whose period of construction is short, which need a comparatively small investment, and whose profit is high.

Joint-venture enterprises are allowed to rent wharves and to run loading and unloading.

Foreign traders are allowed to construct freight owners' wharves and special waterways with their own capital.

When foreign traders develop and manage large stretches of land, they are allowed to construct and manage special ports and wharves.

2. Domestic enterprises are allowed to construct wharves and excavate special waterways

Domestic freight owners and shipping enterprises are allowed to construct and manage special wharves, to rent wharves for the shipping of their own freight, and to invest in the excavation of special waterways. Special wharf owners are allowed to open their surplus berths to other vessels and run loading and unloading.

Enterprises are encouraged to construct and then to share wharves and attached facilities with port authorities.

3. Absorbing private capital through selling stocks

The National People's Congress has adopted "The company law" and is formulating "The stock law". Stock exchanges have been set up in Shanghai and Shenzheng. Enterprises which comply with all stipulated conditions can be transformed to Limited-Liability company.

Port and waterway enterprises can absorb other enterprises' funds through selling stocks. Those that comply with stipulated conditions can be transformed to Limited-Liability companies and collect funds from the society by selling stocks through stock exchanges.