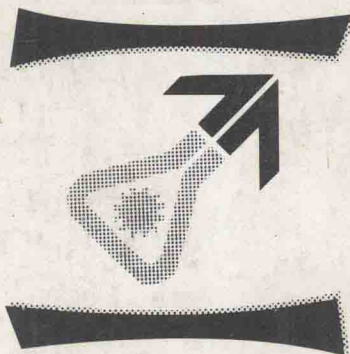


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Preface

ACHEMASIA '89 represents through the exhibitions of more than 360 firms a large international potential for the development, construction and delivery of investment goods for the chemical industry and chemical engineering technology.

Investments in chemical engineering technology depend upon which middle and long range developments can be expected in various areas of the chemical industry. For their own plans and decisions it is, therefore, of utmost importance for the manufacturers of laboratory equipment and instruments, apparatus, machines and chemical plants to be aware of the development in the chemical industry and — generally — in the process industries.

The Techno-/Economic Lectures, held as part of the Congress Programme of the ACHEMASIA '89, give an overview of the present status of important areas of the chemical industry in the People's Republic of China as well as future expansion plans, as far as they can be predicted. The lectures are intended principally for the representatives of exhibitors and also for all experts in the area of capital investment of the chemical industry. For this first ACHEMASIA the lectures are held exclusively by speakers from central institutions and concerns of the People's Republic of China. If the development of ACHEMASIA is positive already at the next event experts from other countries of the area will be requested to speak.

The sponsors of ACHEMASIA '89 — CIESC and DECHEMA — thank the lecturers for having prepared and delivered their manuscripts punctually, so that it is possible to give each participant in this session of the lecture programme as well as all exhibitors a preprint of the talks. We sincerely hope that these lectures will give a picture of the plans and developments of the chemical industry in the People's Republic of China and that they will be an aid to all exhibitors in their planning.

On behalf of the organizers CIESC and DECHEMA:

Professor Dr. D. Behrens

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Foreign Investment in China

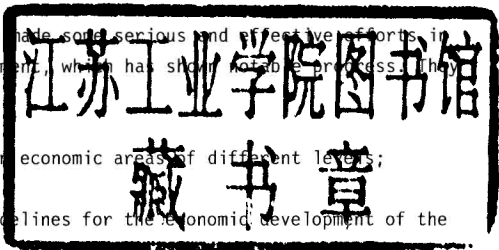
Yang Guanqi, Vice President, Senior Engineer China International Trust and Investment Corporation (Holdings)

Ten years have passed since China started to implement the policies of opening to the outside world and reform. As some adjustments have recently been made on the Chinese economy, some people, both at home and abroad, have raised some doubts about the open and reform policies. Although such doubts are not without causes, China's open and reform policies will absolutely not be changed, for it represents the inevitable historical trend as well as the will of the Chinese people.

China's Open and Reform Policies Have Already Achieved Tremendous Successes

In the past 10 years, China has made some serious and effective efforts in improving the investment environment, which has shown noticeable success. They can be summarized as follows:

1. Having established large open economic areas of different levels;
2. Having set the strategic guidelines for the economic development of the coastal regions;
3. Having set the priorities for foreign investment, the focus being the export-oriented and technologically advanced enterprises;
4. Having formulated a series of favourable policies of encouragement for foreign investment in China, and continuously improved the legal system concerning foreign economic activities;
5. Having established, in some cities, institutions under unified leadership for better coordination of the work concerning foreign investment, resulting in the marked improvement of work efficiency;
6. Having devoted vigorous efforts to the construction of various kinds of infrastructure to improve foreign investment environment.



The improvement in the investment environment has indeed attracted more and more foreign investment to China. By the end of 1988, the number of Sino-foreign equity and contractual joint ventures and wholly foreign owned enterprises approved by Chinese Government reached 15,900, of which, 8,530 were equity joint ventures, 6,770 were contractual joint ventures and 594 were wholly foreign owned enterprises. The total contracted foreign investment was more than USD 25 billion, of which USD 9 billion has already been absorbed. In 1988 alone, more than 5,890 enterprises with foreign investment were approved by the Chinese Government, and the total contracted foreign investment was more than USD 5.2 billion, of which, USD 2.4 billion were actually invested. In 1988 the number of approved enterprises went up by 164 % over 1987, the total contracted foreign investment increased 42.4 % and the foreign investment already made 12.8 %.

It should also be noted that in 1988 the number of wholly foreign owned enterprises was up by a large margin, the newly approved number being 410, eight times as many as that in 1987. Moreover, according to the statistics of the Chinese Customs House, the total export volume brought by Sino-foreign equity and contractual joint ventures and wholly foreign owned enterprises in China was USD 2.416 billion in 1988, an increase of more than 70 % over 1987. According to the statistics, among the various types of enterprises with the foreign investment which are in operation, 85 % register good records in operation and returns, which shows that the enterprises with foreign investment are playing a dynamic role in China's economic development.

Now I would take up some questions in which the potential foreign investors are interested.

China is the largest developing country in the world. It is very much in need of utilizing foreign investment. However, it is restrained by its limited capability in repayment and earning foreign currencies. So we hope foreign investors will concentrate on projects that can help technical progress and raise China's export capability. Both export-oriented and technologically-advanced enterprises are granted the preferential treatment of tax reduction or exemption. For instance, after the expiration of the period for the reduction or exemption of income tax, an export-oriented enterprise may enjoy further reduction of corporate income tax by 50 % of the prevalent rate, if its export of the year amounts to 70 % or more of its total output value.

And foreign investors in the above-mentioned two types of enterprises may enjoy an exemption of income tax on the portion of its profits it remit outside of China. Furthermore, they are exempted from paying to the government any subsidies for Chinese employees except for labor insurance and welfare and housing funds, and they also enjoy preferential treatment in land use fees, utilities, transportation and communications.

In the meantime, the Chinese government encourages foreign investors to establish enterprises going in for import substitution, manufacturing products that China has to rely on import. In terms of specific economic sectors, the priorities are currently given to energy, transportation, communications, agriculture and some important raw and semi-finished materials. China also welcomes foreign cooperation in machine-building, electronics, electrical equipment, textiles and other light industries and processing of agricultural products for export. Special priorities are given to 160 types of products under 30 categories, including agriculture, forestry, animal husbandry, fishery, metals, minerals, chemicals, articles for daily use, electronics and telecommunications. Whether big, medium-sized or small, projects under the above categories are all welcome.

In addition, among the different types of projects with foreign investment, the Chinese government is in special favour of wholly foreign owned projects, because they do not involve the raising of domestic funds and therefore are easier to get government approvals.

Some Points of Attention for Foreign Investment in China

1. Primary consideration should be given to the coastal areas in the selection of location.

In putting forward the strategic guidelines on the economic development of the coastal areas, China plans to make the coastal areas play a pioneering role in opening themselves to the outside world and to enable the Chinese economy to expand and prosper from eastern to western China step by step.

Over the last decade, China has opened 4 special economic zones, 14 coastal cities, several coastal economic areas and the largest special economic zone Hainan Province, which constitute an open coastal frontline covering 320,000 square kilometers and having a population of 160,000,000. With over 80 % foreign invested enterprises located there, these areas are blessed with more convenient transportation and communications conditions, better economic and cultural background and longer tradition and experience in entering into contacts with the outside world.

Besides, preferential treatment is now granted to Sino-foreign joint ventures there. For example, instead of the normal 33 % rate for Sino-foreign joint ventures in general, the corporate income tax rate is reduced to 15 % in the special economic zones and the economic and technology development zones of the open coastal cities and 24 % in the open economic areas. In addition, any newly-established ventures whose term exceeds ten years enjoy an exemption of income tax for the first two profit-making years and a 50 % reduction for the next three years.

These areas are thus able to provide better investment environment and easier for foreign investors to obtain good economic returns. Newcomers are especially advised to make their initial investment there and proceed to expand their business to other areas after experience is obtained.

2. Identifying suitable cooperative partners

The credit standing of a potential Chinese partner can usually be obtained through big Chinese companies, banks and consulting firms - detailed descriptions of the business scopes of those Chinese organizations can be found in China Investment Guide, which is edited by CITIC. For identifying suitable partners, it is very important to get into direct contacts with them, so as to pass first-hand judgement on their credibility and accessibility.

It is also advisable for those who have no experience of doing business in China to approach Chinese embassies or consulates in their countries, or Chinese banks or commercial and trading companies based there, which may either provide them with the relevant information or forward the requests to other relevant Chinese departments. To open up more channels for foreign investors to identify proper Chinese partners, various exhibitions, seminars and fairs on investment opportunities and other forms of economic cooperation are frequently sponsored by the relevant Chinese governmental departments, as well as some companies, enterprises and academic institutions. And press release conferences on investment are also given now and then by governmental departments in different provinces, autonomous regions and municipalities. Besides, the Chinese news media, such as China Daily and People's Daily (overseas edition) also publish regular news, reports and information on business opportunities in different parts of China. All these will serve to assist you in your search for the right potential partner.

China International Economic Consultants, Inc., or better known as CIEC, a direct subsidiary of CITIC, is also serving as a medium in this respect. Some foreign businessmen expressed the hope to find a competent agent or consultant in China to assist them in their communication with the Chinese partners as well as the relevant Chinese authorities, as they themselves do not know much about the country. In this case, I would recommend you to approach CIEC which is experienced and will be glad to serve you in this respect. In cooperation with UNIDO, CITIC Information Centre is going to set up its data bank relating to investment projects and opportunities in China, which will be connected to UNIDO's data bank and made available to friends all over the world. Meanwhile, the Centre will also help Chinese enterprises to identify potential foreign partners through the data bank of UNIDO or other sources.

3. Major Forms of Economic Cooperation

1) Equity Joint Ventures

Sino-foreign equity joint venture is one of the major forms of direct foreign investment in China. An equity joint venture set up and registered in China enjoys the status of a legal person subject to the rule and protection of the Chinese law. It is a limited liability company. Of the registered capital of an equity joint venture, the share of the foreign partner in general should be less than 25 %.

2) Contractual Joint Venture

A contractual joint venture refers to the kind of joint venture in which the liabilities, rights and obligations of the two parties are laid down in the contract after consulting. This kind of venture is simpler, more flexible and easier to reach agreement. Enterprises or projects in such a form are also protected and ruled by the Chinese law. For a contractual joint venture, normally the foreign partner provides the capital, equipment and technology while the Chinese partner provides the right to the use of land, premises, workforces and services; the two parties share interests and risks in accordance with the proportions laid down in the contract.

3) Compensation Trade

In this case, Chinese enterprises purchase technology and equipment from the foreign investors on credit, and pay off the principal and interest of the sum by installment or on deferred terms with the products thus manufactured.

4) Financial Leasing

At present, the Chinese leasing companies primarily go in for financial leasing of equipments although a few take up operational leasing of equipments such as building machinery.

Other forms of leasing include financial leasing integrated with equity investment, compensation trade or processing with supplied materials from the overseas sources.

5) Processing and Assembling with Materials and Parts From Foreign Suppliers

Processing and assembling with materials, designs or parts supplied by the foreign party is a form of cooperation whereby Chinese enterprises process and assemble with all or a part of the raw materials, auxiliary materials, components and spare parts or semi-finished products or samples supplied by the foreign party according to its quality, specification and style requirements. This form of cooperation is adopted mainly in the coastal areas.

6) Technology Import

Licensing is the main form of technology import. Technology transfer fees can be paid by the Chinese side on a lump sum basis or by installment. The patented technology contained in the technology import contract is protected by the Chinese Patent Law.

7) Wholly Foreign-owned Enterprises

Wholly foreign-owned enterprises are those established in China for foreign enterprises, economic entities or individuals exclusively with their own capital and exercising independent accounting. Having been registered in China, they enjoy the status of a legal person in China coming under the protection and rule of the Chinese law. Especially encouraged by the Chinese government, the number of the wholly foreign-owned enterprises is now quickly on the increase.

4. Balance of Foreign Exchange and Supply of Raw Materials

China is not an export-orientated country. It wants to purchase foreign goods with high quality and at reasonable prices, but the main problem is how to get the hard currency needed. Therefore, in order to import more, China will have to export more. By helping with the export of Chinese commodities, the foreign party actually helps China buy more foreign products. Therefore, the problem of balancing foreign currency in foreign invested enterprises is fundamentally a problem of how many Chinese products (including those manufactured by enterprises with foreign investment) can be exported.

Since 1983, the Chinese government has taken measures to encourage and help foreign invested enterprises export their products so as to enable them to balance the foreign exchange on their own. Further measures of balancing foreign exchange have been taken by the State Council through the promulgation of the Regulations on Joint Ventures' Balance Between Foreign Exchange Revenue and Expenditure promulgated on January 15, 1986. They can be generalized as follows: a). swapping of foreign currencies and Renminbi between different economic entities, b). import substitution, c). package compensation trade, d). swapping for or balancing of foreign exchange under the same "umbrella" or holding company, e). reinvestment in China with Renminbi, etc. Meanwhile, a number of foreign exchange swapping centres have been set up, which are placed under the direction of local foreign exchange control departments. By the end of 1988, swapping centres had been established in 39 provinces, municipalities, autonomous regions and special economic zones, so a foreign currency swapping market has by and large taken shape in China. The total turnover across the country reached 6.264 billion U.S. Dollars in 1988, accounting for one third of the total sum of foreign exchange retained by different enterprises and 18 % of the country's foreign exchange earmarked for import in the corresponding period. In 1988, a total value of 662 million U.S. Dollars was swapped for RMB, and 220 million U.S. Dollars worth RMB was swapped for foreign currencies, with the former obviously exceeding the later. As a matter of fact, these measures have helped to solve the problem of hard currency shortage for a considerable number of foreign invested enterprises and eased the situation of hard currency imbalance to a great extent.

In order to coordinate the supply of raw materials for the foreign invested enterprises, a number of material companies specially at their service have been established. Imported equipment and raw materials contributed by foreign investors as a part of investment in a joint venture as well as raw materials, components, kits, parts and packing materials imported for the production of exports are exempt from custom duties and consolidated industrial and commercial tax.

5. Management Power of a Joint Venture

The Chinese law stipulates that a joint venture practises the system of board of directors, which is the highest organ of authority of a joint venture and decides upon all of its major problems. According to a recent survey of the operation and management of foreign invested enterprises, generally speaking, the performance of wholly foreign-owned enterprises is better than that of joint ventures while the performance of joint ventures managed by one party is better than those jointly managed, and that of solely foreign managed ventures is better than solely Chinese managed ones. Why is it that the foreign managed enterprises can work better? The reasons is that these enterprises are operated in a way more in keeping with the laws of the commodity economy and international competition and better freed from the inhibitions of the old management system as well as interference from the connection network.

Citic (Holdings) Is Willing to Cooperate with Foreign Firms in Investment Activities

China International Trust and Investment Corp. (Holdings) was founded in 1979. As a product of China's economic reform and as a major window on the outside world and with the main purpose of promoting Sino-foreign cooperation, CITIC has, over the last decade, traversed the course of pioneering and creativeness. CITIC has primarily devoted itself to investment on projects of new production technology according to the domestic demand and market situation. The priority goes to such weak links as energy, transportation, raw materials and other basic industries and also to export-oriented and technologically advanced enterprises. Besides, CITIC, also operates business in finance, trade and services. Up to October 1988, CITIC had under it 21 subsidiaries, 90 Sino-foreign joint ventures, 149 domestic ventures, and 13 wholly CITIC-owned enterprises, constituting a conglomerate of manufacturing, technology, finance mainly banking, trade (both domestic and foreign) and services (consultancy, real estate and travel service). CITIC's registered capital reaches RBM 3 billion yuan and it's assets RBM 20 billion yuan.

CITIC is heading in the direction of being an international, diversified and specialized corporation. CITIC's investment ranges from coal mining, electricity, transportation, construction, minerals metallurgy, building materials, light industry, textiles, chemical industry, machinery and electrical equipment, food, auto industry to fishery and animal husbandry, travel service and new technology, with focus placed on chemicals, non-ferrous metals textiles, machinery & electrical equipment. To this end, some large scale projects and a production based have been set up.

CITIC has accumulated some experience in Sino-foreign economic cooperation and thus enjoys reputation in the international financial and industrial circles. That's why many foreign businessmen come to CITIC for business talks and cooperations. CITIC has subsidiaries in such coastal cities as in Tianjin, Shenzhen, Shanghai and Ningbo as well as a large machinery production base. CITIC Tianjin Industrial Zone is estimated to be completed in 1990, where buildings covering 300,000 square meters are under construction and 50-60 enterprises are to be set up. Aside from good infrastructure, low land use fee and low land tax rates, simplified management system and high work efficiency there are something which win the praise of foreign investors. For instance, a Sino-Japanese joint venture for stainless steel flexible tube went into production ten months after the signing of the contract, and the investment of the project was several times less than in Japan about which both parties were very happy. Moreover, CIEC and C&C Law office and CIEC Certified Public Accountant Office are ready to provide such services as identifying cooperative partners, market survey, investigation on credit standing, feasibility study and appraisal of such studies, legal consultancy and auditing, or acting as agent, for foreign investors, especially those who come to China for the first time on business or for investment. CITIC representative offices in New York, Tokyo, Frankfurt and Paris and CITIC Hong Kong (Holdings) will also be pleased to give assistance. CITIC warmly welcomes you.

The Current Situation and Outlook of Chemical Machinery Manufacturing Industry in China

Liou De Hong, Chief Engineer, CNCEC

With the development of chemical industry, China's chemical machinery manufacturing industry took nearly 40 years journey for expanding its scope from simple maintenance service to fabrication by itself and now, become a specialized manufacturing industry with fair advanced technical level and great productive capacity, main part of which are manufacture of chemical equipment, glass-lined equipment and rubber machinery.

Now, there are more than 200 enterprises of chemical machinery manufacturing industry in China, including 40 large and medium enterprises, with over 120,000 workers and employees, over 7,840 engineers and technicians. It is estimated 1,832,080,000 yuan of the fixed assests, 1,894,700,000 yuan of annual total output value and 300,000 tons of the annual multiple productive capacity in these enterprises. Four science and technology research institutes specialized for chemical machinery and equipment are existing, and a great number of mechanical design-research sections are run by the factories themselves. In addition, more than thirty general research institutes of chemical industry have set up research departments for chemical machinery and equipment. Besides these, four centres of the quality supervision and inspection including the fields of chemical machinery, non-metal corrosion proof equipment, rubber machinery and explosionproof electric instrument were set up under the jurisdiction of the Ministry of Chemical Industry.

The main products of China's chemical machinery manufacturing industry are listed as following:

- Chemical equipment (high, medium and low pressure vessel, heat exchanger, reactor, column, autoclave and special chemical furnace);
- Specialized chemical compressor, particular kind of pump, valve, chemical storage equipment (rail tank car, tank truck, spherical tank, steel cylinder, etc.);
- Non-metal corrosion proof equipment (glas-lined, rubber-lined, graphite, ceramics and plastic equipment, etc.);

- Rubber machinery (tyre, conveyer belt, rubber overshoes and emulsion machinery);
- Chemical unit equipment, post-treatment equipment and special chemical instrument etc.

In a word, China's chemical machinery manufacturing industry serves for and is developed with the development of China's chemical industry.

China's chemical machinery manufacturing industry has put TQC (Total Quality Control) on all its enterprises and established complete quality guarantee system in whole process including the design of product, control of raw material, technology and technological apparatus, inspection of product and after sale services. The license system has been practised in the design and fabrication of the product. Machinery Works of Nanjing Chemical Industrial Corporation and Jinzhou Heavy Machinery Works have gained the stamp U1, U2 ASME license for fabrication. Some other factories are carrying on the work for ASME license. When the quality inspecting and testing to the key equipment with large-size, the examination notarized by special inspecting and testing centres as a third part has been carried out. The quality of products are always under the supervision of our country, and they must receive a non-periodic spot check.

China's chemical machinery manufacturing industry devotes itself to research and develop widest possible use of advanced technology. In addition it has always been very keen on developing technique and economical exchange and importing advanced and suitable technique apparatus regarding to design and fabrication of products.

At present, a number of products, as following, have come up and approximated to advanced world standard:

- The key equipment of ammonia synthesis plant with 300,000 tons per year yield: High temperature-resistant alloy furnace-tube, waste heat boiler, various high pressure equipment, heat exchanger, turbine-driven-compressor set, large-sized cooling tower and industrial pump, etc.;