# CHINA

# BUILDING for JOINT VENTURES

Second Edition

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This book is intended to contribute to satisfying the need for information on the construction of projects for joint ventures in China. This is a complex subject and this book provides a broad treatment as an introduction to the process. Therefore, the information contained in this publication should not be relied on as professional advice and should not be regarded as a substitute for detailed advice in individual cases. No responsibility for any loss occasioned to any person acting or refraining from action as a result of material in this publication is accepted by the editors, authors or publishers. If advice concerning individual problems or other expert assistance is required, the service of a competent professional adviser should be sought.

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## CHAPTER ONE

### Introduction



During 1978-79 Deng Xiaoping became the paramount leader of the People's Republic of China (PRC) and launched China's economic reforms as a platform for modernisation. The last twenty years have seen dramatic changes as China moved from a centrally controlled communist state towards a socialist market economy. While progress in the first ten years was significant, the developments during the last ten years since the first edition of this book have been nothing short of phenomenal. Yet it should not be forgotten that China is one of the more ancient of human civilisations, with a recorded history of thousands of years. Politics and culture are welldeveloped and education continues to receive increased emphasis. Some parts of the technological base are highly sophisticated, as evidenced by the advanced satellite programme, but many are not and there are great economic disparities between regions.

The PRC is now irrevocably committed to continuing the economic reform of the last two decades. In his keynote speech at the World Bank/IMF meeting in Hong Kong in September 1997, Vice-Premier Zhu Rongji said the PRC's reforms were irreversible and that the country would maintain its present pattern of high economic growth and low inflation.

In instituting the transition from a planned to a 'market economy with Chinese characteristics', China is on course to producing probably the most remarkable economic transformation in recorded history and is being viewed as the world's next economic superpower. China has adopted a fundamentally different path in its process of transition to that of Russia and the eastern European countries. It has not rushed headlong to take on board western systems but has taken a gradual approach to decentralisation characterised by



China has a rich architectural tradition.

incremental, sequential and sometimes experimental reform procedures. Changes are taking place over a period of time against a background of stability and consistency.

The seriousness of China's intentions can be seen from its commitment to reform the state-owned enterprises. The restructuring will lead to redundancies of workers on a huge scale, estimated at between 15 and 20 million. Nevertheless China is resolved to restructure these enterprises, many of which are loss-making, by mergers and closures in order to enhance productivity and profitability. Redeployment of labour will be possible through the growth in the non-public sector which will be reinforced by further reforms to the banking, financial, foreign trade and other sectors of the economy.

This restructuring is a massive reversal of the policies of the previous regimes. The 'iron rice bowl' concept of guaranteed lifelong employment and cradle to grave welfare benefits was the keystone of the socialist state with its planned economy.

At the 15th National Congress of the Communist Party of China in September 1997, Jiang Zemin, President of the PRC, explained that the policy of restructuring the state-owned enterprises is not intended to prejudice the mainstay status of the public sector of the economy but to strengthen and develop the establishment of the socialist market economy. As Zhu Rongji said at the World Bank meeting, 'After years of reforms, we have formed a view about the reform and development of state-owned enterprises and have identified a number of appropriate measures. What is urgent now is to set up a new investment system in which the roles of the government and of enterprises are separated; to reform and improve the financial system to make it modern; and to establish and improve a social security system. We will further intensify our efforts in such reform and strive to lead most loss-making enterprises out of their present plight in three years.'

A cornerstone of China's policy of economic reform and modernisation is to continue to attract foreign investment, technology and expertise, through joint venture or other arrangements with foreign parties. As one of the greatest potential markets the world has known, China is in a good



position to achieve its aim. The number of contracts for direct foreign investment increased from just over 3000 in 1985 to nearly 25 000 in 1996. This has mainly been achieved through joint venture companies comprising a partner from China and one or more foreign partners although wholly foreign-owned enterprises are increasing.

Foreign investment enterprises in China need efficient buildings from which to conduct their operations, whether factories, offices, hotels, or power stations, and the infrastructure necessary to support them. In addition property developers, particularly from Hong Kong, are constructing residential and commercial complexes. While this book looks essentially at how a foreign party to a joint venture in China should go about the business of commissioning, designing and constructing these buildings, much of it also applies to wholly foreign-owned enterprises. The book also makes some reference to buildoperate-transfer infrastructure projects.

It was reported that: 'During the period of the "Eighth Five-Year Plan" from 1991–1995 a total number of 229,800 projects with foreign direct investment were approved, with a contractual foreign investment of US\$354.5 billion and an actually paidin foreign investment of US\$114.7 billion, representing an increase of 9.1 times, 13.46 times and 7.04 times respectively over the "Seventh Five-Year Plan" period.

Among the newly approved projects with foreign direct investment, the number of capital-intensive and technologyintensive projects and other classes of projects encouraged by the state for foreign investment was increased substantially and projects in basic industries and infrastructure became more attractive to foreign investors. An increasing number of multinationals made investments in China. The average contractual foreign investment for each project was up from US\$906,800 in 1990 to US\$2.45 million in 1995.

Under the "Ninth Five-Year Plan" for 1996–2000 and the Long-term Objective for 2010, the PRC has called for the opening up to the outside world to be further intensified; for China's total import and export volume for the year 2000 to reach US\$400 billion; for the scale of foreign direct investment to be further expanded and the level of foreign investment utilization improved; for the reform of the foreign trade regime to be further pursued and for China to more

 Communication Tower, Pudong, Shanghai.

(Photograph provided by Shunghai Lund Administration Bareau) actively participate in and safeguard the global multilateral trading system so as to create a favorable international environment for China. To support this programme large expenditure on construction will be required."

As a consequence, the PRC has called for capital construction worth about Rmb 8500 billion (US\$1000 billion). The main focus remains on infrastructure and technological upgrading of basic industries. The needs of many foreign investment enterprises are therefore for technologically advanced buildings and infrastructure and the investor will often require overseas designers and specialist contractors and suppliers to work in conjunction with local organisations on these projects. To enable themselves to operate effectively with the local industry, the foreign contributors will have to develop an understanding of the background to the construction industry in China and familiarise themselves with the local construction process.

This book aims to help foreign contributors to China's continuing economic development to gain a basic knowledge of these matters by presenting a broad picture of building in China, by addressing some questions and by attempting to provide some answers.

Some of the more obvious questions that need to be addressed include:

- What are the potentials?
- · What are the problems?
- · What are the key design issues?
- · What type of construction contract should be used?
- How is construction organised?
- · What is the legal framework?
- · What is special about construction prices?
- · How can construction costs be managed?

In focusing on how a foreign investor goes about constructing a building in China it must be stressed that nothing is 'typical'. The sheer size and huge population of China lead inevitably to a diversity of approach. The conditions which foreign parties will encounter can be indicated, but not specified; it is impossible to give absolute answers and statements. This book intends to give something of the texture of the country, the processes and the environment within which construction takes place.

It should also be pointed out that the book does not cover the development of projects in Hong Kong Special Administrative Region although China has adopted many of Hong Kong's practices, especially on joint venture projects financed by Hong Kong developers.

Inevitably, in a book written for a wide range of readers, including investors, consultants, financiers, manufacturers, contractors, suppliers and government departments, the detailed information needs of each may be lacking. Taxation, for instance, is omitted as it is subject to frequent change as are the extensive laws relating to the employment of local and expatriate personnel by foreign investment enterprises. What this book does provide is a framework and reference point from which future knowledge can be developed.



Construction is changing the face of China in support of modernisation.

# CHAPTER TWO

# China in Perspective



China is the second largest country in the world after Canada. It lies roughly within the same latitudes as the United States of America. Two-thirds of its terrain, mainly towards the west, consists of mountains, hills and plateaux. Less than one-sixth of the total land area is suitable for agriculture, although yields are high. There are extensive mineral deposits.

Geographic size leads to environmental diversity. In the north, extremes of climate and temperature are such that it is possible to build efficiently only at certain times of the year, and some areas are prone to earthquakes.

Typhoons on the subtropical south-east coastal belt can attain a wind speed of over 130 kilometres an hour, with torrential rains and flooding. *Figure 2.1* gives some of the facts and figures about this diverse country.



China is the most populous country in the world (*Figure 2.2*), but population density varies enormously, from about 2 persons per square kilometre in Tibet to over 2000 per square kilometre in Shanghai — see *Figure 2.4*. The rate of population growth has declined under the impact of state control.

Comparison of *Figure 2.3* and *Figure 2.4* indicates that population is concentrated in the provinces on or near the eastern seaboard. *Figure 2.3* indicates quite clearly the gravitation of major urban areas towards the eastern seaboard and around the major river systems. *Figure 2.2* indicates a relative increase in the urban population.



The most populous country in the world.

While China remains a primarily agricultural country, the urban population is staggering by western standards. It is also growing under the impact of recent policies which have encouraged a concentration of investment, management and technical advancement in the cities.

#### Since the establishment of the Open Door Policy

While the economic system of the PRC is generally viewed as a communist centrally planned system, the changes since the establishment of the open door policy in 1978 make it nearly unrecognisable as such. These developments are reflected in China's constitution which says that the State practises a 'socialist market economy' based on the principle of 'socialism with Chinese characteristics'. The changes of the last twenty years, instituted by Deng Xiaoping and continued today by Jiang Zemin, have seen the introduction of reforms that have created a mixed economy which, although still dominated by the state sector, provides incentives for private initiatives to prosper.

The establishment in the 70s and 80s of the Special Economic Zones (SEZs) and the Economic and Technological Development Zones (ETDZs), with the main purpose of attracting foreign investment to the PRC, has been very successful. It has provided a driving force behind many of the subsequent reforms of the indigenous industries as well as fulfilling its main purpose of attracting foreign investment and technology transfer.

The influence of the Communist Party of China on the dayto-day running of enterprises has been considerably moderated. Nevertheless Jiang Zemin again stressed, at the 15th Communist Party congress in September 1997, the need to separate the functions of government from those of enterprises. Delegation of decision making to management units which were able to retain profits has been accompanied by a relaxation of the centrally planned system of resource allocation and the development of a system which allows the market to allocate resources. These reforms were first applied to the agricultural sector but soon spread to the construction industry, where competitive tendering was introduced in some places as early as 1984, and other industrial sectors and, while not yet dominant, they are well established and spreading.

### The Political Background





∆ < Contrasting faces of China

#### Policy conflicts and changes

State planning and incentive-based competition are not natural partners. Their juxtaposition gives rise to inevitable conflicts and unfortunate side-effects: evidenced, for example, by the tendency for the economy to overheat and by charges made by the more conservative elements that change has undermined the socialist development of the PRC. Great pressure is being felt by state enterprises many of which are unprofitable and in need of fundamental restructuring. It is recognised that this will lead to high levels of unemployment unless careful planning provides alternative employment. This is more likely to be possible in the coastal region in places such as Shanghai, than in the central regions where many of the unprofitable state enterprises are located. Mergers with profitable companies and privatisation will be encouraged and bankruptcies allowed to happen as the reforms deepen. Compared with the 'leap forward strategy' which proceeded the reforms of the last twenty years. the current strategy of non-radical reform has seen a remarkable level of sustained and rapid development.

It is often said that China's economic reforms have progressed without a corresponding reform in the political system. This is essentially the case; the authority of China's constitutional bodies have been subject to the political authority of the Chinese Communist Party. However it is claimed\* that 'over the past decade. China's government has made a swing away from the personal politics that characterised Chinese governance for two millennia and is moving towards a system of "emerging constitutionalism". This is not to say that China has become a fully constitutional state; nor is it to imply that its constitutionalism has developed equally throughout all levels and branches of government. But, at least in some important respects, constitutional responsibilities are being increasingly administered by the appropriate constitutional organ in China." What is being witnessed in the PRC today is a political and economic experiment of massive dimensions.

#### Government administration

The centrally planned nature of the PRC is reflected in its

 Dowdle, M. (1996), 'Realising Constitutional Potential', China Business Review, November/December. administrative structure. China is governed under a constitution formally adopted in 1982. The highest ranking organ in the hierarchy of state power is the National People's Congress (NPC) with the State Council as the executive organisation. Both of these are effectively under the control of the Communist Party of China. The State Council administers the country through a series of commissions, ministries, special agencies, offices and administrative units at national level, as shown in *Figure 2.5*.

The Ninth National People's Congress in March 1998 was presented with a revision of the ministry-level bodies under the State Council. *Figure 2.5* represents the new arrangement which involved the abolition of fifteen ministry-level bodies, many of which were 'industry' ministries, and the creation of four new bodies by amalgamation. Some of the abolished 'industry' ministries are expected to be changed into the equivalent of holding companies. This move towards 'privatisation' includes 'industry' ministries such as Electronics, Chemical, Machine-building and Electric Power. The administrative functions of these ministries will be transferred to the State Development Planning Commission and the State Economic and Trade Commission. Earlier re-organisation has seen some ministries already replaced by holding companies, e.g., Aviation, Non-Ferrous Metals.

Of particular significance is the change in the name of the State Planning Commission, which is the central planning arm of government, to the State Development Planning Commission which projects a more forward-looking image. The Commission will be headed by the prime minister.

It is expected that further changes will be made in implementing the policy of separating government from industry and reducing bureaucracy.

Under the central government structure are several levels of local government as illustrated in *Figure 2.6*. These consist of four municipalities, twenty-two provinces and five autonomous regions: the geographic extent of these first order administrative units is illustrated on the map in *Figure 2.3* and their relative size given in *Figure 2.4*. Chongqing is the most recent city to become a municipality, having been designated in 1997. Beijing, Tianjin and Shanghai are the other three municipalities.

	1978	1984	1986	1988	1990	1992	1994	1996
Gross Domestic Product (Rmb bn)	362.4	717.1	1020.2	1492.8	1854.8	2663.8	4675,9	6859,4
Index	100.0	170.0	210.0	260.7	281.7	351.4	449.3	544.2
Exports (USS bn)	9.8	26.1	30.9	47.5	62,1	84.9	121,0	151.1
Imports (USS bn)	10.9	27.4	42.9	55.3	53.3	80.5	115.7	133.8
Retail Price Index	100.0	117.7	135.8	172.7	207.7	225.2	310.2	377.8
Exchange Rate (Rmb per US\$)	-	2.32	3.21	3.71	4.77	5.57	8.62	8.31

Figure 2.7 Macro-economic indicators

Source: China Statistical Yearbook, 1997

The national structure in *Figure 2.5* is repeated at each of the lower levels of the administrative hierarchy shown in *Figure 2.6*. This structure maintains central administrative and political control and creates a government bureaucracy which, in common with all bureaucracies, is not conducive to taking initiatives. However, this situation is acknowledged by the government and progressive restructuring is taking place.

The Maero Economy

#### Growth

China's phenomenal economic growth has not been achieved without serious overheating of the economy from time to time leading to unacceptable rates of inflation. But recent years have seen inflation and GDP limited to healthier levels. With a favourable trade balance, it is anticipated that the economy will remain stable which will encourage further foreign investment. *Figure 2.7* summarises the main economic indicators.

The Asian financial crisis of 1997/98 will affect exports but to compensate in the short term the government intends to increase domestic spending, particularly on infrastructure. The governor of the People's Bank of China believes that a positive balance of payments will be achieved in 1998, that the value of the Rmb will be maintained and that exchange reserves will rise slowly.

The Ninth Five-Year Plan (1996–2000) was endorsed by the National People's Congress in early 1996. In addition to a commitment to deepen economic reforms, the main points and aims of the Ninth Five-Year Plan are to:

- · keep annual GDP growth to 8%
- · hold inflation below the rate of economic growth;
- · accelerate the reform of state-owned enterprises;
- concentrate resources on infrastructural projects in agriculture, water conservancy, energy, transportation and telecommunications; and
- redress the widening gap in the material wealth of the coastal areas and major cities compared with the relatively undeveloped regions in the central and western parts of the country.

From this platform China intends to further modernise its economy into the 21st century with the objective of achieving the status of a medium-level advanced nation by 2050. As part of this process China aims to double its gross national product between the years 2000 and 2010.

The World Bank sees China as one of the five developing economies which will drive world growth over the next quarter of a century. Their report states that although these countries' share of world trade is barely one quarter that of the European Union today, it could be 50% larger than the European Union's by 2020. Of the five, China is seen to be the fastest growing (*Figure 2.8*).

	Annual average growth Real GDP*		Share of world Real GDP*		
Country or group	1992-1995	1992-2020	1992	2020	
World	2.4	2.9	100.0	100.0	* Constant 1992 US
High-income economies	2.2	2.5	84.2	70.9	dollars using market
OECD	2.0	2.4	81.5	66.7	exchange rates.
Newly industrialised economies**	7.4	4.9	2.3	3.8	** Republic of Karea. Singapore and Tatward
Hong Kong (China)	7.8	4.0	0.3	0.4	(China).
Developing countries	3.1	5.4	15.7	29.1	Because of data
Big 5	3.3	5.8	7.8	16.1	limitations economies
China	12.5	7.0	1.4	3.9	in transition are modelled as a group.
India	5.5	5.8	1.0	2.1	momenta as a group.
Brazil	4.8	4.6	1.7	2.5	— Malaysia, Philippines
Indonesia	7.6	6.9	0.6	1.5	and Thailand
Economies in transition	-5.4	5.5	3.2	6.0	Source: Global Trade
ASEAN3	7.7	7.1	0.8	2.4	Analysis Project; World
Rest of South Asia	4.0	5.2	0.3	0.6	Bank data and staff estimates
Rest of Latin America and the Caribbean	2.2	4.2	2.1	2.9	Contraction of the second s
Middle East and North Africa	2.1	4.2	2.3	3.1	

Figure 2.8 Shares in world GDP. 1992 and 2020

Source: The World Bank



China is still an agricultural economy. (Photograph provided by NCNA Ltd.)

The World Bank has also stated that the 'Greater China Economic Area' which includes Hong Kong and Taiwan will, by 2002, have become the fourth power of the global economy, surpassing the United States, Japan and Germany (*Figure 2.9*) but, of course, its per capita GDP will be very much smaller than these countries.

	Estimated total economic production capacity (US\$ trillion)
Greater China	
Economic Area*	9800
United States	9700
Japan	4900
Germany	3100

\* China, Taiwan and Hong Kong

Figure 2.9 Estimated total economic production capacity in the year 2002 Source: The World Bank

#### Structure

China can still be considered to be a predominantly agricultural economy when compared with developed economies. In 1996, 20% of China's GDP was generated by agriculture (*Figure 2.10*) compared with about 2% for USA, Japan and UK. However, this represents a substantial decrease over recent years, in the early 1980s it was

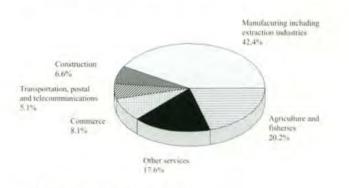


Figure 2.10 China's GDP by sector, 1996 Source: China Statistical Yearbook, 1997 running at over 40%. China's industrial base, while in serious need of continuing reform, accounted for about 42% of GDP. In 1996 the state-owned enterprises contributed 28% of the country's industrial output compared with 78% in 1978 but they still dominate the production of basic commodities and energy. They have found it difficult to adapt to the changing economic environment, and continue to be subsidised. A 1996 government report found that 49% were unprofitable and that interest payment on their debt averaged 74% of their operating revenues.

Industrial growth has been mainly in light industry in villages, townships and at county level. This growth has been encouraged by the fact that local governments have been allowed to become entrepreneurial and start factories to make profits to benefit the communities. These enterprising local governments are located mostly in the coastal region which includes the various economic zones.

#### Economic zones

The PRC has designated a series of economic zones as listed in *Figure 2.11*. Soon after the establishment of the open door policy the four now famous Special Economic Zones (SEZs) of Shenzhen, Zhuhai, Shantou and Xiamen were established in order to attract foreign investment. To enable them to achieve this, they were allowed to offer tax and other incentives. The location of the zones, three adjacent to Hong Kong, Macau and South East Asia and the fourth adjacent to Taiwan was carefully thought out. In 1988 Hainan Island (now a province) was designated as the fifth SEZ. The success of the zones is illustrated by them being responsible for 4.6% of China's industrial output with only 1.3% of the population.

In 1984 the government decided to designate 14 coastal cities (and at that time Hainan Island) as open cities with special privileges. Shanghai, Tianjin and Guangzhou are the three major metropolises among these coastal cities. Within most of the cities Economic and Technological Development Zones (ETDZs) were established. They are smaller than the SEZs but have much the same incentives. Shanghai established three ETZDs. ETDZs were then allowed to be established elsewhere and by the end of 1996, 52 state level and over 400 provincial level ETDZs had been established.

Special	Economic Zones
Shanto	u.
Shenzh	en
Xiamer	i l
Zhuhai	
Hainan	
The Fo	ourteen Coastal Cities
Beihai	
Dalian	
Fuzhou	
Guangz	thou
Lianyu	ngang
Nanton	g
Ningbo	8
Qingda	0
Qinhua	ngdao
Shangh	ai
Fianjin	
Wenzho	ou.
Yantai	
Zhanjia	ng
Open 1	Economic Zones
Souther	n Fujian Delta
	River Delta
	tiver Delta
Shando	ng Peninsula
	ng Peninsula
Bohai I	Rim

Figure 2.11 Major areas designated for foreign investment The next stage was the creation of Open Economic Zones in three major deltas, the Yangtze, Pearl River and Southern Fujian. These were followed by the opening up of Liaodong Peninsula, Shandong Peninsula and the Bohai Rim area which cover over 320 000 square kilometres, comprising over 290 cities with a population of over 200 million.

A further major initiative occurred in 1990 with the designation of the Pudong area of Shanghai for special investment incentives. The Pudong covers an area of about 350 square kilometres east of the Huangpu River and will double the size of the present city centre of Shanghai. Subsequently a number of High-Tech Zones and Bonded Zones (or Free Trade Areas) have been added which although smaller and designated for specific purposes nevertheless add further to the facilities available for foreign investors.

The tax concessions and other investment incentives vary considerably between the types of zone as does the definition of the types of companies which can locate in the various zones and take advantage of these privileges. These aspects require careful investigation by the investor.

In the longer term China aims to apply equal treatment to all enterprises — both foreign and domestic — by phasing out concessions and shifting the emphasis to liberalisation of the overall economic environment.

#### Regional differences

The concentration of economic development along the eastern seaboard has led to significant in-balances between regions. Essentially the country is seen as three areas: the east, the centre (including the north-eastern provinces) and the west (the nine most remote provinces). The wealth gap between the east and the other regions is substantial, having been fuelled by the east having one-third of the country's population but receiving four-fifths of the country's foreign investment.

For example, Shanghai's per capita GDP is six times greater than that of the central provinces of Sichuan and Shaanxi and ten times greater than the southwestern province of Quizhou. As a result China has a huge migrant worker population said to be as high as 90 million people moving to the urban areas of the east where the better paid work is.

China's strong motivation to see the economic reforms
increasingly percolate from the east to the west has resulted
in the government recently establishing economic zones along
the Russian border and designating towns bordering the former
Soviet Union as 'commercial ports' for cross-border trade.
There are now 20 inland cities with the facility to offer
incentives to foreign investors.

#### Trade

Historically, China had a relatively low dependence on international trade. This has changed in recent times as the value of foreign trade has increased dramatically from about US\$21 billion in 1978 to about US\$290 billion in 1996. Today China is the 11th largest trading nation in the world.

Industrial development is dominated by the desire to produce goods for export, or as import substitutes. The emphasis on heavy industry that characterised the early years has now been switched to light, technology intensive industries. There is a growing recognition of the need for quality control, and it is to be expected that the next few years will see China continuing to make great advances in the range, sophistication and quality of the goods that it produces and the services that it offers.

Japan, Hong Kong and the rest of Asia, and to a slightly lesser extent, the United States and Europe are China's main trading partners (*Figure 2.12*). Hong Kong remains the main destination for China's exports and an important re-export



Xiamen SEZ container port.

	Expor USS millio	Imports USS million		
Total	14 8770	%	132 078	%
Hong Kong	35 983	24	8591	7
Japan	28 462	19	29 005	22
Rest of Asia	27 555	19	40 453	31
Germany	5672	4	8038	6
Rest of Europe*	15 645	П	15 971	12
Latin America	3147	2	2967	2
Canada	1533	1	2681	2
USA	24 711	17	16 118	12
Oceania	1902	1	3022	2
Russia	1665	I	3799	3
Other	2495	1	1433	1

\* Europe excluding Germany and Russia

Source: China Statistical Yearbook, 1997

Figure 2.12 China's trading partners. 1995

centre for Chinese goods to other markets. Asia, including Japan, is the dominant source of China's imports. The majority of imports from Hong Kong are raw materials for Hong Kong businesses set up in Guangdong, Hong Kong's adjacent province, which are estimated to employ well over 3 million people. These raw materials have, of course, originated elsewhere. Now that Hong Kong is part of China, the statistics can be said to disguise the actual destination of China's exports and the source of its imports. Manufactured goods dominate both exports and imports being US\$127 billion and US\$108 billion respectively in 1995. The import of raw materials substantially exceeded their export to the extent of US\$10 billion to US\$4 billion, with the import and export of primary goods being about equal at over US\$20 billion each. The export of manufactured goods, machinery and transport equipment has increased from 50% of exports in 1980 to more than 85% in 1996.

China's trade regime is gradually being liberalised as barriers to international trade are being removed under pressure from other countries as a condition of China joining the World Trade Organisation. Import tariffs have been reduced in recent years with further reductions planned.



China's need for energy is increasing > rapidly.

China is in the process of liberalising its currency exchange control regime, but while great progress has been made its currency is not yet freely convertible (see Chapter Four).

Constraints on economic growth exist, particularly with respect to shortages of infrastructure and energy. While China is rich in energy resources, high levels of investment are required to exploit them, not only for their extraction but particularly for the construction of the necessary associated infrastructure. To assist in overcoming these problems, amendments to China's laws are being considered which will allow transfer of extraction rights to foreign companies.

Coal is China's main energy source, accounting for 75% of total consumption with oil at 17%, hydroelectric power at 6% and natural gas at 2%.

Power generation has been growing at more than 8% per annum but has not, by a large margin, kept pace with demand. The aim is now to add 15 000 megawatts capacity a year for each of the next five years. The fact that the total installed capacity of Switzerland is 15 000 megawatts puts this objective into perspective.

Coal-fired thermal power stations are the primary source of power in China but increases in hydroelectric supply is led by the massive Three Gorges Dam project with a planned capacity of 15 million kilowatts. Four more nuclear plants are proposed to be built before 2000.

China is now a net oil and oil products importer. Although China has proven reserves of 17 billion tonnes of crude oil they are located in difficult terrain. China is also thought to have rich deposits offshore and exploration of this potential source has commenced through joint ventures with foreign oil companies.

In addition to the massive infrastructure required to provide China's energy needs, huge developments of road, rail, air systems and telecommunications are also needed. The Ninth Five-Year Plan (1996–2000) highlighted these needs and recognises that foreign investment in build-operate-transfer schemes will be necessary to achieve its objectives.

#### Energy

Intrastructure





From bicycles to cars — roads are needed.



China is still in need of a modern road network as many roads are narrow, poorly surfaced and clogged with trucks, cars, cyclists, animal-driven carts and pedestrians. Progress has been made with expressways. By the end of 1995, there were over 2000 kilometres compared with none in 1978. The Ninth Five-Year Plan proposed that a further 6500 kilometres of expressways, 3500 kilometres of highways and 10 000 kilometres of roads are to be constructed between 1996–2000 during which time the volumes of freight and passengers are forecast to expand by nearly double.

China makes heavy use of rail for both freight and passengers, running 20 000 freight and 2000 passenger trains daily. Nevertheless the system is estimated to fall 40% short of demand. The five-year plan envisages an expansion of doubletracking and electrification, and an additional 8000 kilometres of track by 2000. Investment of Rmb330 billion is scheduled. Direct links between Beijing and Hong Kong and Shanghai and Hong Kong began in 1997. A high speed line between Beijing and Shanghai is planned.

China's inland waterways, which have a combined length of over 110 000 kilometres, have always been an important part of its transport system and will be modernised and extended. Port and harbour development is also needed to keep up with China's modernisation. China has more than 2000 ports and substantial foreign investment is needed to upgrade them to meet current and future demands.

Expansion of air travel has been dramatic with passenger traffic rising by over 140% between 1990–94. Deregulation has seen 40 airlines operating nearly 800 routes in China with 720 civilian aircraft. As a result, China's airports are heavily overstretched. It is planned to invest US\$3.5 billion in airport development by 2000. Foreign investment will be required to help finance these developments and there are also moves to allow foreign investment and management into the operation of airport facilities.

Recent years have seen great improvements in telecommunications but there remains a vast difference in facilities between regions. The major cities have facilities as good as anywhere in the world whereas there are few telephones in the smaller more remote cities and rural areas. There are about 41 million telephone subscribers at present and it is expected that this number will increase to over 100 million before the year 2000. This increase is equivalent to adding the entire UK telecommunication infrastructure every two years. The difficulty of securing a private telephone has seen the number of mobile telephone subscribers increase rapidly even though these phones are ten times more expensive than ordinary telephones. There were over 3.6 million mobile telephones in 1996 compared to about 1.6 million in 1995.



The Temple of Heaven, Beijing.

		1985	1990	1995
1.	Total number of tourists received (million)	17.67	27,46	46.39
	Foreigners	1.37	1.75	5.89
	Overseas Chinese	0.08	0.09	0.12
	Chinese from Hong Kong Macau and Taiwan	16.38	25.62	40.38
-	Total income of foreign exchange from tourism (USS million)	1250	2218	8733

Figure 2.13 Development of tourism

Source: China Statistical Yearbook, 1997

Water supply, sanitation and waste treatment are also areas of infrastructure in urgent need of development. However, these systems, while essential, are not very attractive to private and foreign investment.

Totavism

The Results of the Reforms So Far The open door policy and the drive to attract foreign exchange led to a rapid development in tourism — see *Figure 2.13*. The increase from 1.8 million tourists in 1978 to 46.4 million in 1995 represents a staggering growth. The bulk of visitors are Chinese from Hong Kong and Taiwan with Japan and the United States the largest of the other groups. The PRC has moved in an extremely short space of time from little provision for tourists when it first opened its doors to the world, to a fully developed tourist industry with a range of hotels including many of a fully international standard.

Many of the large prestigious hotels were built in the early years of modernisation by foreign investment joint ventures involving a PRC party and a foreign investor. China is now far more interested in directing joint ventures towards infrastructure and manufacturing.

According to the Hong Kong and Shanghai Bank,\* while reform of the national economy, especially at the structural and institutional levels, is far from complete, significant progress has been made.

\* 'China', Business Profile Series, HKSB Corp. Ltd., 12th edition, Summer 1997. China now demonstrates many features of a mixed economy including:

- a more diversified ownership structure and a partial market system;
- greater labour mobility and a developing labour market (especially in the non-state sector);
- a formal central bank and the gradual commercialisation of state banks;
- greater autonomy for enterprises and establishment of shareholding companies;
- a significant reduction in the control of production and the official setting of prices;
- · a unified and market-based foreign exchange trading system;
- · a unified exchange rate for the renminbi;
- · developing markets for securities;
- a set of regulations and laws governing the inflow of foreign capital; and
- gradual decentralisation of the foreign trade system and reduction of trade barriers.

In addition, the country has seen a profound change in individual attitudes and behaviour, which has implications for both social and economic development. Its enterprises have adapted to the idea of making profits and its people to the opportunity of generating personal wealth. The reforms have also resulted in substantial growth in the roles played by foreign trade and investment in the national economy, as well as increasing China's integration into the world community.

Traditional design within the Forbidden City, Beijing.



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