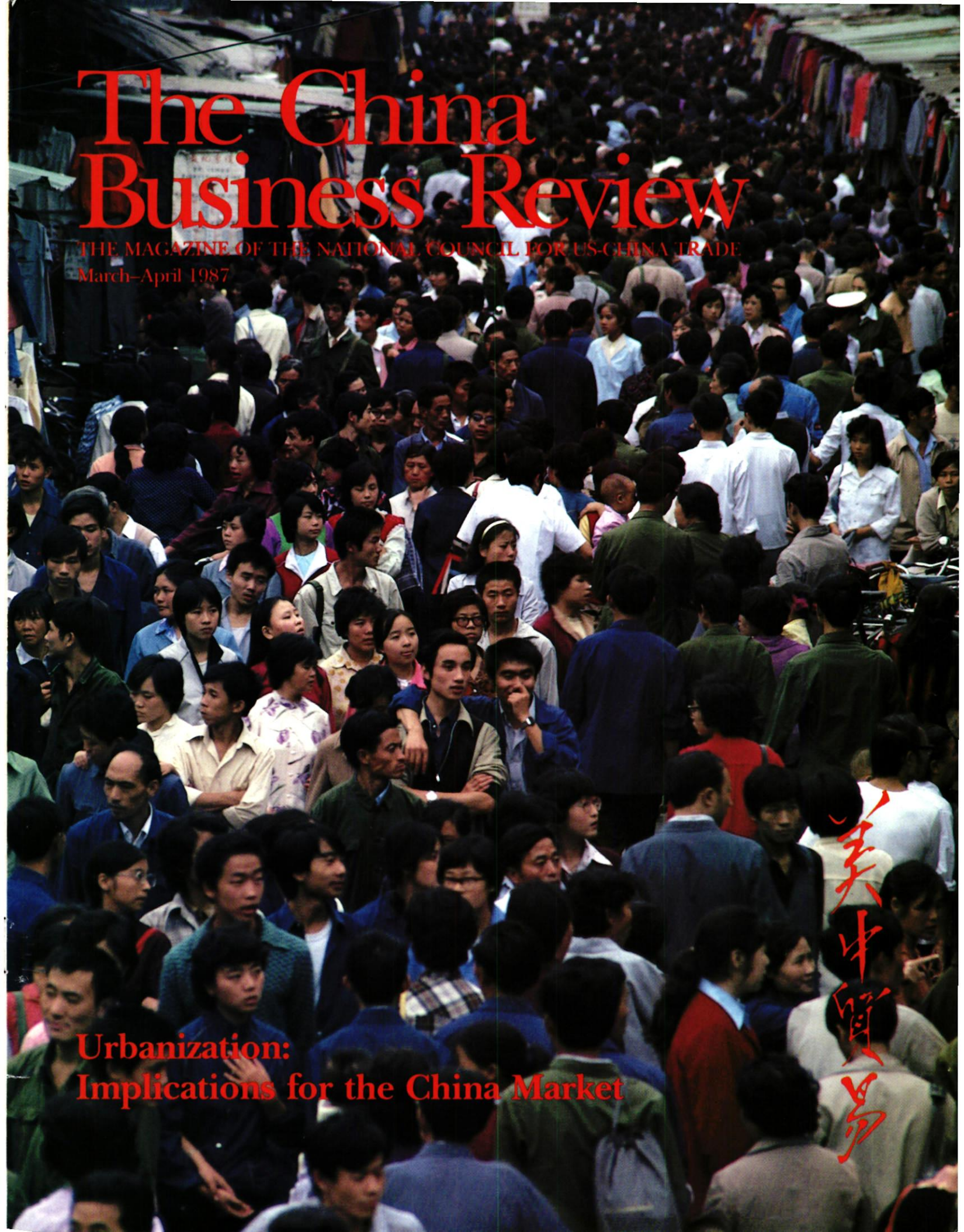

The China Business Review

THE MAGAZINE OF THE NATIONAL COUNCIL FOR US-CHINA TRADE
March–April 1987

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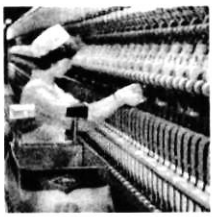
Cover: The rising tide of urbanization sets off ripple effects throughout the economy. *Photo of a free market in Chengdu by Cary Wolinsky.*

US-China Trade: The upward trend in total trade continues, but masks changes in the composition of exports and imports. **Page 28.** Congressional legislation may also affect bilateral trade. **Page 31.**

Enterprises: State, collective, individual, and foreign investment enterprises are governed by a growing body of legislation. **Page 35.**



摘要

POLITICAL CURRENTS

Hu Yaobang's resignation as general secretary of the Chinese Communist Party on January 16, 1987, has raised questions in China and abroad about a possible shift in the balance of "conservative" and "liberal" forces within Deng Xiaoping's coalition. The rift in the senior ranks of the Party apparently centers on the extent to which political reforms should be allowed to change the status of the Party and its guiding ideology. There does not, however, seem to be any serious questioning of the direction of economic reforms.

Hu Yaobang had been at the forefront of efforts to lessen Party interference in the affairs of government, the economy, and the arts. As the drive for political reform intensified in 1986, the media (largely controlled by Hu Yaobang and his proteges) unleashed a flood of articles portraying political reform as the top priority on the Party agenda.

But on September 28, in an early sign that Hu had gone too far, the Sixth Plenum of the Party's Central Committee issued a communique that downplayed the question of political reform. The communique instead stressed conservative concerns such as the need to uphold "socialist spiritual civilization" and "combat bourgeois liberalization."

Then, in mid-December, a wave of student demonstrations broke out around the country. The government at first appeared tolerant of the demonstrations, which took up the call for accelerating the pace of political reforms. But behind the scenes, Deng Xiaoping apparently shared the conservatives' unhappiness over Hu's failure to deal with the demonstrations firmly. Strong Party condemnation of the protestors, and those who incited them, began in early January—followed by Deng's decision to ask for Hu's resignation immediately, rather than at the 13th Party Congress scheduled for fall 1987. Although Hu was not Deng's designated successor, his sudden dismissal raises anew the question of whether the transfer of power to the new generation can be completed this year, as earlier reports had suggested.

As *The CBR* goes to press in February, the more liberal leaders appear to be successfully containing the conservative call for a campaign against 'bourgeois liberalization.' Acting General Secretary Zhao Ziyang and other leading officials identified with the liberal wing of the Party are hard at work to control the extent of the conservative backlash. Zhao has insisted on strict limits to the current drive against bourgeois liberalization—namely, that no campaign or movement is needed to oust the relatively few proponents of bourgeois liberalization; that neither rural Party cadres nor individuals outside the Party should be affected by the drive; and that liberalization tendencies should be combated through education rather than purges. Apart from Hu and the Party intellectuals already dismissed, action against other Party figures is to be taken only by central authorities; no others may be criticized by name without central approval.

Leading Party officials have also asserted that efforts to combat bourgeois liberalization will in no way affect the economic reforms as they relate to foreign firms doing business in China, although there are hints that efforts to reform Chinese enterprises may slow down temporarily. Work on detailed implementing regulations to buttress the October 1986 Provisions for the Encouragement of Foreign Investment appears to be proceeding on schedule—a sign that improving the investment climate and retaining the open door policy continue to have strong consensual support.

Member companies of the National Council for US–China Trade should watch for updated reports on the political situation in the *China Market Intelligence* newsletter.

—Martin Weil

ON CVDs AND NMEs

For several years a debate has raged over whether US countervailing duty (CVD) law should apply to China and other 'nonmarket economies' (NMEs). The CVD law allows the United States to counteract the effect on US imports of "bounties" or "grants" made to foreign industries by their governments.

The US government was first empowered to impose countervailing duties in the Tariff Act of 1897, when nonmarket economies were still just a glimmer in Karl Marx's eye. And although the Tariff Act has been amended several times since, Congress has never targeted nonmarket economies under this law.

The first attempt to extend the law to NMEs came in 1983, when the International Trade Administration (ITA) of the Department of Commerce was asked to rule on charges that unfairly subsidized steel wire rod from Czechoslovakia and Poland was being sold in the United States. In 1984 the ITA ruled that US CVD law could not be applied to nonmarket economies. The ITA reasoned that a subsidy represents government tampering with the normal market allocation of resources in an economy. But in an NME, where most resources are centrally allocated, it would be extremely difficult to determine how resources would be distributed were a market system in place—and thus impossible to accurately determine the extent, if any, of a government subsidy.

Several companies appealed the ITA's decision to the US Court of International Trade. The court overruled the ITA holding in 1985, on the grounds that the "purpose of the CVD law [was] to extract the subsidies contained in merchandise entering the commerce of the United States in order to protect domestic industry from their effect . . . and its effectiveness [was] intended to be complete and without exception."

The US government considered this ruling unenforceable against

NMEs and took the case to the Court of Appeals for the Federal Circuit. In September 1986 the appeals court supported the ITA's original ruling that CVD law was not meant to apply to NMEs. The court added that "Congress . . . has decided that the proper method for protecting the American market against selling by nonmarket economies at unreasonably low prices is through the antidumping law."

Now that the CVD issue appears to be settled for NMEs, Congress is expected to devise new means of determining antidumping violations by NMEs. Under current law, the ITA uses a "surrogate country" system in which the prices charged by an NME are compared with the price of similar goods produced by market-oriented countries. This law allows the United States to impose duties on foreign products being sold in the United States at prices lower than those at which comparable goods are sold on the exporter's domestic market. These sales must cause or threaten material injury to the competing US industry in order for antidumping duties to be considered.

Chinese exporters believe that the surrogate country system now being used is arbitrary and unjustly rules out the possibility that China may actually be lowest cost producer of the goods in question. This is no mere academic concern for China, which has faced 15 US dumping cases since 1980. Only two cases were determined in China's favor; one case, against China's exports of tapered roller bearings, is still pending.

The various trade bills now being examined in the 100th Congress propose a new system of benchmarks to do away with the surrogate country method for antidumping determinations involving nonmarket economies. But the struggle to reconcile trade between market and nonmarket economies will likely continue to raise complex issues for the United States and China in the years ahead. —Karen Green

RABBIT RUN

1986 was a bad year for Chinese rabbit fur. It began with a drop in the domestic price of rabbit fur from ¥140 per kilogram at the end of 1985 to ¥74 by late 1986, apparently due to oversupply, combined with poor quality and management in the rabbit fur industry. Rabbit farmers responded by hoarding fur and slaughtering their rabbits, hoping for the prices to rise.

China's exports slumped as a result, despite brisk world demand. In the first half of 1986 China exported only 1,208 tonnes of rabbit fur, down 40 percent from the same period in 1985, and even farther below 1984 levels. Meanwhile, other rabbit fur exporters, such as France and South Korea, stepped up production to fill in the gap.

China commanded 95 percent of the world rabbit fur trade, with earnings in excess of $100 million and exports of more than 7,000 tonnes during the peak years of 1983 and 1984, and has no intention of letting the rabbit out of the hat. Faced with economic losses, China's typical response has been to rein in the limited market forces in operation—and rabbit fur is no exception. For the time being at least, strict administrative measures are being taken to bring rabbit fur exports back into line.

The State has therefore stabilized the domestic purchasing price at ¥90/kg for top quality rabbit fur and banned foreign involvement in this sector. Previous contracts with foreign firms had enabled factories to bypass MOFERT's China Native Produce and Animal By-product Import and Export Corporation and sell directly to Hong Kong, undercutting State prices. But MOFERT has reasserted its monopoly on rabbit fur exports, while the Ministry of Commerce and the Ministry of Textiles have vowed to improve management of the rabbit fur industry. Several new regulations are designed to protect rabbit breeding and boost exports.

Meanwhile, efforts to raise quality are proceeding on several fronts. China's fashion fur industry received a boost late in 1986 at Beijing's first international fur fashion show, staged by Scandinavia's SAGA furs. And Sichuan Province, one of China's main rabbit breeding areas, plans to build three new mills specializing in rabbit fur production, while another Sichuan rabbit mill has imported two 300 tonne-capacity production lines from Italy. China plans to be ready for anticipated growth in both domestic and export markets for rabbit fur in the years ahead. And what better time for China to improve the industry than this, the year of the rabbit? —MCR

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Fiber Optics

Chinese fascination and American frustration

Carolyn Dowling

Last summer the Coordinating Committee for Multilateral Export Controls (COCOM), which coordinates the positions of the United States and its allies toward communist country sales, approved a groundbreaking British application to sell optical fiber cable and equipment to China. GEC's contract to supply four-fiber single-mode cable, optical transceivers, and associated digital multiplex equipment, exceeds previous COCOM approval levels for both speed and capacity. The US government, apparently yielding to a special British government request, chose not to object in COCOM, although the sale departs from a US policy advocating that China be limited to purchasing intracity, not intercity, fiber optic systems.

For US telecommunications firms, which have received only a very small share of China's rapidly growing fiber optics market, the British sale was an unhappy reminder of their own problems exporting to China. Ironically, an American firm could not have obtained a US export license to ship the same equipment to China. Moreover, the US government has not changed its basic fiber optics policy despite the precedent set by the GEC sale and will still object to similar US commercial sales on national security grounds. Thus the recent US decision in COCOM reflected diplomatic concerns rather than a new approach to US fiber optics exports to China.

The incident illustrates why China's current fascination with fiber optics is translating into American frustration, rather than sales. Despite strong Chinese interest in American fiber optics technology, technological advantages alone do not ensure a foothold in the Chinese telecommunications market. If US firms are prevented from getting the export licenses necessary to fulfill the terms of their contract, China will look to other countries to meet its equipment needs. Both American and Chinese industry representatives argue that by restricting exports of telecommunications equipment and technology clearly intended for legitimate commercial purposes, the US government is undermining the competitiveness of American firms in China.

Because China's telecommunications development and procurement is not fully coordinated, opportunities for direct fiber optics sales go well beyond the public telephone network controlled by MPT.

China discovers fiber optics

Little more than lip service was given to improving the telecommunications network in China until recently. But realizing that better telecommunications are required to meet economic development goals and create an environment attractive to foreign investors, China's planners gave top priority to the telecommunications sector (together with energy and transportation) in the early 1980s. Telecommunications will continue to be a major recipient of investment funds in 1987 and throughout the Seventh Five-Year Plan (1986–90).

The Ministry of Posts and Telecommunications (MPT) plans to spend close to $4 billion over the next four years to upgrade the telecommunications network. The primary focus is on improving the telecommunications system within and between large industrial cities and foreign investment zones. To do this, MPT must shift from analog to digital switching and from the use of cumbersome coaxial cable to more advanced transmission technologies.

While some new microwave transmission systems are being installed, China's telecommunications planners are currently focusing on fiber optics technology—the transmission of light and images through a flexible bundle of glass fibers. Digital optical fiber transmission systems, system components, and fiber manufacturing equipment are at the top of MPT's Seventh FYP purchasing list.

MPT's preference is understandable, given fiber optics' comparatively small size, light weight, proven reliability, and freedom from electromagnetic interference—not to mention relatively low and decreasing costs. The large transmission volume of fiber optics—one strand of fiber can carry up to 10,000 simultaneous calls—results in an upgradable system that can grow with China's needs. And because modernization

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of telecommunications is just beginning, China has not already invested heavily in a different system, which might prevent the move toward fiber optics technology from making economic sense.

Domestic capabilities and limitations

China began to conduct research into fiber optics as early as 1964. Research institutes under MPT and the Ministry of Electronics Industry (MEI) initially concentrated on developing laser technology in the mid-1960s, and then moved into optical fiber communications research in the early 1970s. Over 30 institutes and a dozen universities, centered in Beijing, Shanghai, Wuhan, and Nanjing, are involved in this research.

Shanghai holds several experimental "firsts." Joint research on single-mode fiber fabrication by Shanghai's University of Science and Technology, Transmission Line Research Institute, and Quartz Glass Works led to installation of China's first 30-km, 140 Mbit/second single-mode trial transmission system in early 1986, using terminal equipment produced by the Beijing Institute of Posts and Telecommunications. Shanghai has also been a leader in laser technology, and the State Science and Technology Commission recently announced the successful testing of longwave semiconductor lasers—one of the country's major scientific research projects during the Sixth FYP (1980–85).

MPT boasts that China already has 50 fiber optics links, most of them domestically designed and manufactured, relatively short-span, intracity multimode links, ranging up to 24 km in length. Some of these were initially experimental links (such as the 3.3 km cable installed between two telephone bureaus in Beijing in late 1979, and a 1.8 km cable in Shanghai) that have since been integrated into their respective telephone networks.

Pilot optical fiber and equipment production is already underway in Wuhan, Shanghai, Tianjin, Beijing, and Guilin. Important recent domestic achievements include:

- a 13.3 km, 120-circuit optical fiber cable, built by the Wuhan Posts and Telecommunications Research Institute in late 1984.
- a 24.6 km, 480-circuit cable added to the Wuhan telephone network in late 1983 by the Wuhan Posts and Telecommunications Institute. The system uses long-wave lasers, eliminating the need for repeaters to amplify the signal.
- a 12 km, 120-circuit optical fiber line installed in Beijing by MEI and the Ministry of Railroads.
- a 7 km, 480-circuit cable installed by MEI and the Tianjin Posts and Telecommunications Bureau in 1984 for Tianjin's telephone network.
- a 6 km, 480-channel line that went into operation early this year in Chongqing.
- a 15 km optical fiber link between a substation and the control center of the remote Longyangxia hydroelectric power station on the upper reaches of the Yellow River in Qinghai.

Foreign sales on the rise

Despite China's long-range goal of developing a fully indigenous optical fiber manufacturing capability, the transition from pilot production to cost-effective, commercial production will take many years. Optical fiber manufacturing equipment and experience is limited, and economies of scale will not be realized for some time.

Since 1985, MPT, MEI, and the provincial posts and telecommunications administrations have therefore begun to turn increasingly to foreign suppliers of optical fiber cable, transmission systems and components, and related technology to satisfy their present demand (*see* table). Because China's telecommunications development and procurement is not fully coordinated, even at the central level, opportunities for direct fiber optics sales go well beyond the public telephone network controlled by MPT. A number of other ministries, such as the Ministry of Railroads, the Ministry of Water Resources and Electric Power, the Ministry of Petroleum Industry, Ministry of Coal, and Ministry of Communications, are developing private networks with specialized uses.

The Ministry of Railroads, for instance, is building a major 670 km optical fiber link alongside the new coal transport railway line from Datong in Shanxi Province through Beijing to the port of Qinhuangdao. Following Nippon Telephone and Telegraph's agreement to provide consulting services on the design, construction, and maintenance of the line, six project-related contracts for optical fiber cable and transmission equipment were awarded to foreign companies, including Japan's Furakawa Electric Company, Standard Elektric Lorenz (SEL) of West Germany and Nokia of Finland. Similarly, Italy's Telettra Pirelli signed an agreement with the Ministry of Railroads last May to help build a fiber

Photo courtesy of China Features

Technicians at Beijing Glass Research Institute examine the quality of fiber optics produced with a fiber optical color TV transferring system.

CHINA'S OPTICAL FIBER AGREEMENTS

Contracting parties	Contract details
Belgium	
Bell Telephone Manufacturing/ China National Technical Import Corporation	July 1985 agreement for BTM to sell a system using optical fibers to be used in Beijing. Contract worth 12 billion Belgian francs ($288.4 million).
Finland	
Nokia/Ministry of Railroads	Signed contract in 1986 to sell optical fiber transmission equipment for the Datong-Beijing-Qinhuangdao link along coal transport line.
France	
C.I.T.-Alcatel/Beijing Telecommunications Administration	Contract signed in January 1985 for sale of 14 E10B communication centers with a total capacity of 100,000 lines. Sale to include all transmission equipment and 180 km of multimodal fibers.
Italy	
Telettra SpA and Pirelli SpA/Ministry of Railroads	Agreement signed in May 1986 to help build a fiber optic network in southern Fujian Province, extending 517 km along Yingtan-Xiamen Electric Railway. Pirelli will also supply Guangdong and Liaoning provinces with fiber optics cables for underwater placement.
Italtel, SpA/NA	Technology transfer agreement under discussion to set up factory for PCM multiplex equipment, including sale of 34 Mb/s interoffice fiber links.
Japan	
Furukawa Electric Co./Xi'an Electric Cableworks Company (MMBI)	$6 million joint venture contract signed August 1986 to set up Xianfu Optical Fiber and Cable Co. to produce 20,000 km high quality optical fiber. Plant construction to begin July 1987.
Furakawa Electric Co./Ministry of Railroads	Signed contract in 1986 for sale of optical fiber for Datong-Beijing-Qinhuangdao link along coal transport line.
Nippon Electric Co. (Japan)/Ministry of Posts and Telecommunications	China signed a purchase agreement in October 1986 to buy equipment for a 2,400 km optical fiber communications link extending from Nanjing to Chongqing via Wuhan. Target date of completion is 1990.
Nippon Telephone and Telegraph (Japan)/Ministry of Railroads	NTT to provide overall consulting services on design, construction, and maintenance of 670-km optical fiber communication network along railway now under construction, to transport coal from Datong to Qinhuangdao via Beijing. Network scheduled for 1988–90 completion.
Wako Koeki Co. Ltd./Ministry of Posts and Telecommunications, Tianjin and Shanghai	Awarded four contracts in December 1986 to supply optical fiber cable, materials for connecting telecommunications line, spare parts, tools, and fittings.
Macau	
Macau Telecommunications Co. (CTM)/Guangdong Province Posts and Telecommunications Administration	Signed $1.5 million agreement in March 1986 for a 15 km optical fiber cable between Macau and Zhuhai. Initial capacity to be 300 lines; final capacity to be 8,000 lines.
Netherlands	
N.V. Philips/Ministry of Posts and Telecommunications	Approximately $50 million joint venture contract under discussion for manufacture of optical fibers, cables, and transmission equipment. Venture based in Wuhan, with some production in Houma (Shanxi Province) and Shanghai.

optics link along the Yingtan–Xiamen railway in southern Fujian Province.

With strains on the telecommunications system likely to continue unabated for the rest of the century, opportunities for foreign sales of fiber optics transmission systems—both intracity and intercity—are numerous, and show no signs of letting up soon.

Technology transfer strategy

MPT's present plan is to combine fiber optics purchases with technology transfer arrangements, in keeping with China's long-term policy to develop its own complete fiber optics manufacturing capability. The strategy is to install model long-distance fiber optics links using foreign equipment, while simultaneously contracting for the transfer of technology for some of that equipment.

MPT's first major network project relying on this strategy—a 2,400 km optical fiber network extending from Nanjing to Chongqing via Wuhan—is under way and scheduled for completion by 1990. While MPT hopes factories in Wuhan and Guilin will supply most of the fiber for the project, equipment for the system will be imported from the Dutch N.V. Philips Company and Japan's Nippon Electric Company. In negotiations related to the project, N.V. Philips appears close to concluding a major $40 million joint venture contract producting optical fiber and transmission systems at a plant in Houma (Shanxi Province) and one in Shanghai.

China's other major fiber optics technology transfer deal involves Japan's Furakawa Electric Company. Furakawa signed a contract last August to set up the joint venture Xianfu Optical Fiber and Cable Company with a Ministry of Machine Building Industry factory in Xi'an. The factory eventually plans to produce 20,000 kms of fiber annually.

Dilemmas for US firms

Although potential Chinese buyers continue to express a strong interest in American fiber optics technology, few US firms have translated this interest into sales. Overall, Japanese and European firms have been much more successful in the Chinese telecommunications market.

The appreciation of the yen in 1986 and China's concern over its bi-

lateral trade deficit contributed to a reduction in telecommunications sales from Japan, long dominant in China's telecommunications market. By June of last year, Japan's share of China's telecommunications imports had dropped from 77 percent to 58 percent. American industry's share increased from 2 to 5 percent, but this improvement paled in comparison to European gains. West Germany, in particular, increased its share of China's telecommunications imports from 1 to 7 percent.

American firms are at a double disadvantage in China's telecommunications market. China has adopted the European, or CEPT, hierarchy of bit rate standards for telecommunications transmission equipment, which makes equipment from Japan and Western Europe easier to integrate into the Chinese system. Moreover, European and Japanese governments are more ready to offer concessional financing for major sales.

The scarcity of US telecommunications equipment in China hit home to US executives and government representatives during the November 1986 US National Telecommunications Information Administration (NTIA) China telecommunications study team trip, which investigated China's short- and long-term needs for equipment and services and the potential for US industry participation. Members of the NTIA delegation admitted that they saw next to no American fiber optics or other telecommunications equipment in use during their visits to a number of telecommunications sites in four different Chinese cities.

While the availability of European and Japanese concessionary financing and the difference between North American and European technical standards are contributing factors, American and Chinese industry representatives largely blame stringent US export controls for American industry's poor competitive position. Ironically, the NTIA-MPT government telecommunications cooperation protocol that paved the way for the study delegation was signed in May 1986 *only after* mention of fiber optics was excluded from the protocol agreement at the insistence of the US Department of Defense.

US export controls and fiber optics

Many in the United States argue

N.V. Philips/Ministry of Posts and Telecommunications	Signed agreement in October 1986 to sell equipment for a 2,400 km single-mode optical fiber communications link extending from Nanjing to Chongqing via Wuhan. Target date for completon is 1990.
ATP (AT&T (US)) and N.V. Philips joint venture)/Ministry of Posts and Telecommunications	Agreement to install fiber optic transmission link in Beijing, using cable supplied by NKF Kable B.V.
Sweden	
L.M. Ericsson Telefon/China National Technical Import Corp.	$3.5 million sales contract signed in March 1985 to install one radio base station with a 450 megahertz radio, an AXE 10 digital exchange, and 4 remote switching units linked via single mode fiber optic cable with 140 Mb/s transmission.
United Kingdom (incl. Hong Kong)	
BICC Ltd./NA	Since June 1985 BICC has sold single-mode and multimode optical fiber and accessories to facilities in Guilin, Guangzhou, Wuhan, Beijing, and Shenzhen.
Cable and Wireless (HK), Ltd./ Guangdong Posts and Telecommunications Administration	A $6 million project begun in August 1986 to install a 140 mb/s optical fiber communications system between Hong Kong and Guangzhou. Target date for completion is November 1987.
Cable and Wireless (HK), Ltd./ Guangdong Posts and Telecommunications Administration	Agreement to provide modern telephone facilities in the cities of Dongguan, Foshan, and Zhongshan, including direct-dial service to Hong Kong, using optical fiber and transverse screen cables.
General Electric Company (GEC) Plc/Shenda Telephone Company	GEC sold a 26 km, 140 MB/s single-mode optical fiber communications system in 1986.
STC Telecommunications, London/Guangdong Post and Telecommunications Administration	A $1.3 million order to supply optical transmission systems using 8 and 34 Mb/s transmission systems plus associated multiplex equipment.
Standard Gas Controls (SGC)/ Beijing Glass Research Institute	Sold fiber optics equipment in 1986. SGC Ltd, also sold lay down equipment to manufacture glass preforms in production facilities in Wuhan, Tianjin, and Shanghai in 1985.
Plessey Telecommunications Ltd., subs. of The Plessey Co. Plc (UK)/ Hunan Posts & Telecommunications Administration	In August 1986 Plessey agreed to supply two optical fiber telecommunications transmission systems to link Changsha and Xiangtan in Hunan Province.
United States	
American Telegraph and Telephone (AT&T)/Zhuhai City Telecommunications Company, Guangdong PTT	Signed contract to supply 25 km optical fiber cable link to upgrade Zhuhai–Hong Kong–Macau lines.
ATP (AT&T (US) and N.V. Philips joint venture)/MPT	See Netherlands listing.
CCC ELK Fiber Optic Telecommunications, Inc./Changsha Computer Co. (division of Hunan Electronic Industrial Corporation)	Signed a 15-year joint venture agreement in March 1985 to manufacture single-moded fibers, cables, and photoelectric devices. ELK sold fiber optic cable and electronics to begin installing transmission systems. Currently arranging financing for JV; not yet under construction.
West Germany	
Standard Electrik Lorenz (SEL)/ Ministry of Railroads	Signed contract to sell fiber optics transmissions equipment for Datong-Beijing-Qinhuangdao link along coal transport line.
Standard Electric Lorenz (SEL)/ Shanghai Posts and Telecommunications Administration	Signed contract in 1986 to supply 18-20 km fiber optics link in Shanghai.

List includes contracts signed and agreements under discussion. Due to the number of ongoing negotiations and sales at press time, some agreements may have been inadvertently omitted.
Compiled by Lee A. Merkle.

that, because of China's legitimate commercial needs and the availability of equipment and technology from suppliers in other countries, American firms should be allowed to make certain fiber optics sales that are currently discouraged or forbidden by the US government.

Fiber optics sales, like sales of other sensitive technologies, are governed by the US Commodity Control List (CCL). In November 1983, when China was moved into Country Group V (for friendly, nonallied countries) for the purposes of export administration, the US government created a "green zone" of Commodity Control List items that, within certain technical specifications, were likely to be approved for export to China. In December 1985, COCOM adopted and expanded the US green zone guidelines for use by all COCOM member nations—adding optical fiber manufacturing equipment (1353A), transmission equipment (1519A), lasers (1522A), and glass preforms (1767A) to the list.

Unfortunately, the progress made in December 1985 still falls short of US industry needs, with green zone guidelines for more readily approvable fiber optics sales still set far below the level of equipment that the Chinese want to buy and can obtain from other countries.

Despite industry recommendations, CCL specifications for cable and optical fibers, components, and accessories (1526A) was not updated during the 1985 round of limited liberalization, even though the current 3 decibel/km attenuation threshold is technologically out of date. The 1985 new guidelines still discourage exports of transmission equipment for intercity links, although China is beginning to develop its own equipment, and isolated sales of this equipment have been made by other countries and approved by COCOM.

American telecommunication firms face the additional problem that unilateral controls imposed by the US government are generally even stricter than COCOM guidelines. After US green zone guidelines were adopted by COCOM and made applicable to all COCOM countries last year, US firms have found it harder than before to get US government approval for sales that fall into the "yellow" (or above-green) negotiable zone. Meanwhile, American firms can only envy their competitors in Western Europe and Japan whose governments actively support yellow zone license applications in COCOM. While foreign companies generally see their export license applications clear the domestic approval process and move along quickly to Paris for COCOM consideration, American firms can't even get their licenses approved in Washington.

One solution tested by larger American firms is to source China exports, and the corresponding export license application, from subsidiaries in other COCOM countries. But this is an inadequate long-term solution to the problem of US approval.

US telecommunications firms can only envy firms in Western Europe and Japan whose governments actively support yellow zone license applications in COCOM on their behalf. While foreign companies generally see their export licenses clear the domestic approval process and move along quickly to Paris for COCOM consideration, American firms often can't even get them approved in Washington.

American company representatives argue that the US government should treat the limited number of approved yellow zone cases as precedents and allow subsequent sales of similar technology. Under the present system, the government treats information on precedent-setting sales as proprietary company information, so government employees involved in licensing are prohibited by section 12C of the Export Administration Act from releasing information on the status of license applications of other companies. But US firms do not need direct access to such information; they are merely seeking to benefit from precedents set when applications similar to theirs have already been approved.

Agencies in the export control process

Industry experts generally agree that the US departments of Commerce and State take a more liberal position on the issue of export controls than the Department of Defense. Moreover, the relative weight of DOD's opinion has increased in recent years, giving DOD a strong position among the agencies involved in export licensing.

The Department of Defense remains intent on preventing China from developing advanced fiber optic telecommunications capabilities for national security reasons—fear that development of such a system will significantly enhance China's military strength. Export license classification 1519A, for instance, draws a distinction between intracity fiber optics links (permissible technology for US firms to sell) and intercity links (not permissible), based on the reasoning that China could rely on these long-distance links to develop a more advanced military communications system. Similarly, although multimode fiber exports don't face great opposition, single mode fiber, which can carry more information, appears to trigger this same national security concern at DOD. Although it is not stated government policy, the relative freedom from electromagnetic interference of fiber optics lines, especially above the 140 Mbit/second bit rate, is apparently another national security issue—China's development of this technology could impede US capabilities to "overhear" words spoken across Chinese telephone lines.

However, the tide of opinion on the export controls issue may be changing. New staff at the National Security Council may be more receptive to liberalizing export restrictions, while the recent release of a highly publicized and prestigious National Academy of Sciences study claims that the benefit of export controls to national security "is feasible only in a shrinking number of cases in which the United States is the only country possessing the technology."

As a result, officials at the Department of Commerce appear to view 1987 as a year for progress on the export controls front. As one DOC

official summed up the situation, "We started way behind. Now we're gaining strength . . . but don't overestimate. Whereas before we were looking at DOD's ankles, we're now eye-to-eye with its knees."

Systems vs. component sales

The potential for diverting fiber optics equipment and technology from commercial to military use is the underlying concern behind many export restrictions. But US firms hope that the recent Reagan Administration decision not to oppose the GEC sale to China signals acceptance of the fact that direct sales of whole transmission systems, installed and supervised by a foreign company, are unlikely to be diverted to military uses and thus stand a better chance of receiving export licenses in the future.

With sales of entire systems, some argue, COCOM countries at least know where the equipment is going to be installed, and the foreign vendor can be required to keep an eye on it as a condition of sale. The recipient of the British system sold by GEC, for example, is the Shenda Telephone Company, a joint venture between Cable & Wireless (HK) and the Guangdong Posts and Telecommunications Bureau that is expected to keep close control over the new system.

Sales of components, on the other hand, are less likely to be approved because their final destination and use are more difficult to monitor. Ironically, the recently approved GEC sale included components manufactured by an American company that has repeatedly been denied US export licenses to ship the very same components to China. "We can sell our components to other COCOM countries, and they can sell them to China, but we can't sell them to China," laments an industry representative.

China moving faster than US policy

Despite US government policy to limit China to acquisition and development of short distance, intracity fiber optic networks, China is forging ahead with long distance intercity links. In mid-1986 MPT Vice Minister Zhu Gaofeng announced China's intention to begin building long-distance, high capacity optical fiber networks across the country, beginning in this five-year plan period, and to import whatever equipment is needed to do so, and according to MPT officials, other ambitious plans are in the works.

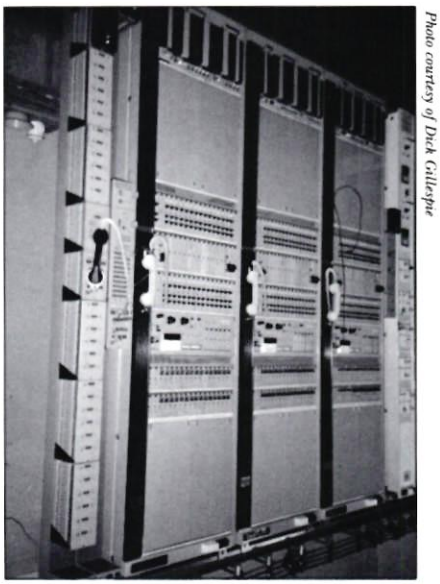
Judging by the level of China's fiber optics research, the number of fiber optics links already installed in China, and increasing foreign sales and technology transfer agreements, MPT's present reliance on advanced fiber optics telecommunications technology for both intracity and intercity networks is likely to proceed—with or without changes in US export control policy. Although fiber optics technology does have certain potential military applications, China has legitimate commercial reasons for acquiring fiber optics technology—the need to develop cost-effective production of fiber optics systems to meet its long-term goal of upgrading telecommunications transmission capabilities within and between large industrial cities.

With only 6.26 million telephones currently in operation, less than one-half of 1 percent of China's population has a private telephone. China's telecommunications system is a long way from meeting the needs of the country's economic development. If China is the "friendly, nonallied" country the United States government claims it is, American industry believes that it should be allowed to assert its competitiveness and support China's move toward development of a modern telecommunications system. 完

Photo courtesy of Wayne Kay

Chinese technician conducts quality control tests on an optical fiber waveguide in Wuhan.

Photo courtesy of Dick Gillespie



Optical fiber waveguide terminal 480-channel equipment bay in Wuhan.

A Tale of New Cities

Rapid urbanization is changing the contours of the China market

Kim Woodard and Judith Banister

Down through the millennia, Chinese society has been overwhelmingly agrarian. Indeed, as late as 1953, when the PRC conducted its first census, 87 percent of the population lived in the countryside. Although rapid industrialization gave impetus to urban growth after 1953, China's 1982 census could still report that 79 percent of its citizens lived in rural areas.

The modern world still clings to the image of China as essentially rural, its typical citizen the village peasant so valued by Chairman Mao Zedong. But since 1982, economic and social reforms have dramatically transformed the Chinese landscape. The inhabitants of China's cities and towns have increased from 21 percent of the population in 1982 to 37 percent by 1986. Cities and towns are being established and revived all over China, their economic functions no longer stifled by rigid Maoist regulations against labor mobility, market activity, and self-employment. By the turn of the century, China's population is likely to be more urban than rural, with profound implications for the lives of its people and their economic relations with the outside world.

Explosive growth in the urban population between 1982 and 1985 has been mirrored by rapid expansion in the urban economy. This economic growth pattern is likely to continue for the balance of the century. Since foreign trade and investment are heavily concentrated in China's cities, the expansion of markets for imported producer goods, construction equipment, production technology, and foreign capital are directly driven by the heated pace of urbanization. Commercial transportation and communication links among the cities are also expanding, facilitating market access to inland cities and to the small and mid-sized cities that are experiencing the highest rates of population growth.

Recognizing this growing diffusion of China's urban markets, the most aggressive foreign companies are already looking beyond special economic zones, coastal cities, and the major metropolises (i.e., Beijing, Shanghai, Tianjin, and Guangzhou) for new trade and investment opportunities. Preliminary data indicate that foreign investors are beginning to turn inland instead of concentrating investment only in large coastal cities. About one-fourth of total foreign investment utilized in the first three quarters of 1986 went to inland cities and provinces, a substantial increase over inland investment in the 1979–85 period. This is encouraging evidence that rapid urbanization and foreign access to China's inland urban markets may already be proceeding hand-in-hand.

THE URBAN PHENOMENON

Waves of migration

Until the current urban population explosion accelerated in the early 1980s, China's most rapid period of urbanization occurred during the first decade after the founding of the PRC (*see* graph). Workers moved to the cities in large numbers to fill jobs in newly established heavy industries, and fled the countryside where a collectivization of agriculture was followed by the famine of the Great Leap Forward. Much of this movement was to China's larger cities, as opposed to the current trend to smaller cities.

Alarmed by swelling city populations, officials blocked further urbanization for two decades with policies designed to keep people in the villages, including location-specific population registration, urban food rationing, restrictions on movement, and police harassment of those who tried to move to the cities. In addition, tens of millions of people born and raised in the cities, most of them just graduated from middle school, were sent "up to the mountains and down to the villages," especially during and after the Cultural Revolution.

But the 1976 death of Mao Zedong and the arrest of the "Gang of Four" transformed the situation. In the late 1970s, most of those who had been sent out of the cities returned home, swelling the urban population, and many new recruits refused to leave.

Unemployment in the cities quickly became a pressing problem. Beginning in 1979, the Chinese government responded with eased restrictions on urban employment that included loosening the labor bureau's monopoly over job allocation, allowing limited self-employment, and encouraging the creation of jobs in labor-intensive light industries, consumer services, transport, construction, and repair services. In recent years the escalating waves of migration from rural to urban areas have been accommodated by successive relaxations of migration and employment regulations.

Modernization and urban growth

Economic reforms are the driving force behind urbanization in the

For detailed data sources and technical definitions, see Judith Banister, Urban-Rural Population Projections for China *(Washington, DC: US Bureau of the Census, Center for International Research, March 1986) CIR Paper Number 15.*

1980s. In rural areas, a system of land contracts between individual households and village authorities has replaced the former commune system, giving households more direct incentives to improve farming efficiency. But as a result, rural unemployment and underemployment, formerly masked by the commune structure, have suddenly become more visible; an estimated 30 percent or 40 percent of the rural work force is now considered "surplus," that is, not needed in agriculture.

To employ the surplus rural labor force, the State is now encouraging workers to "leave the land but not the village" by taking up sideline occupations, rural handicrafts, trading, and other activities. But rural areas can productively absorb only part of this large surplus, and the rest of the workers must "leave the land and the village" to find work.

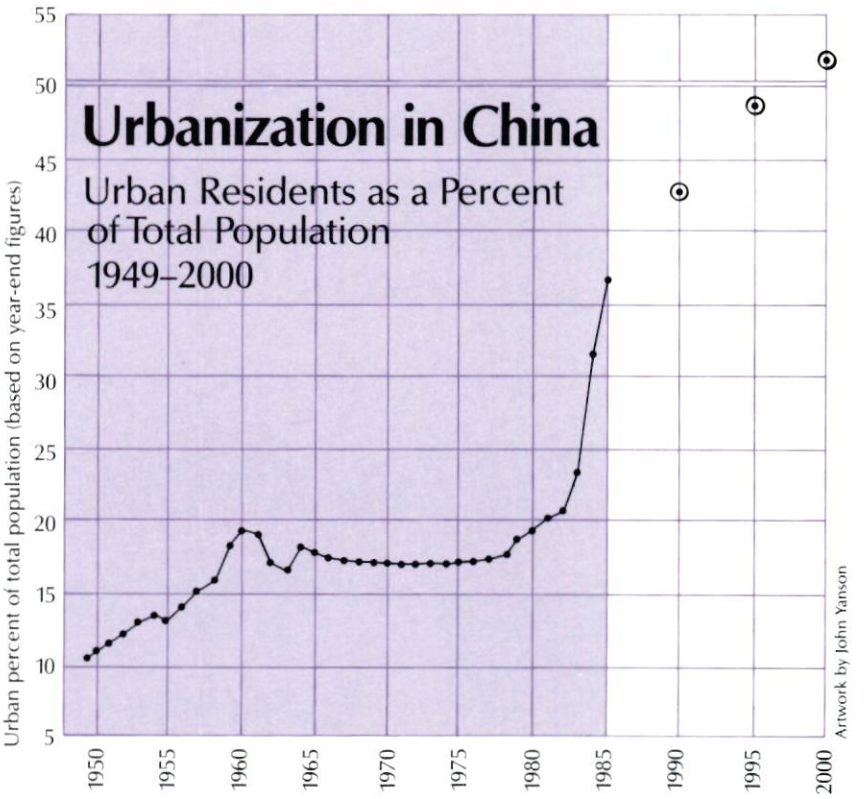
Economic reforms also fuel urbanization by giving towns and cities a new economic lease on life. Formerly dying towns are becoming thriving market centers serving the surrounding countryside. Now that farmers are producing beyond subsistence and are allowed to sell their surplus, buyers and sellers are on the move between the countryside and the lively city and town markets. The government has relinquished its monopoly on retailing, so villagers are also moving to towns and cities to set up shops.

Policy limits growth of largest cities

Increases in China's urban population were once viewed as a disastrous breakdown of economic and social order. But as China's economic transformation has unfolded since 1978, the post-Mao leaders have gradually changed their attitudes toward urbanization. In stark contrast to their former perception is the new official attitude embodied in the Seventh Five-Year Plan (1986–90), which notes that, "As the productive forces grow, and particularly with the flourishing of the rural economy, increased urbanization and the emergence of new cities are inevitable." This dramatic turnaround was encouraged by many of China's newly trained economists and demographers who have argued that urbanization is an essential part of economic development and nothing to be afraid of.

This does not mean that the Chinese government has abandoned all attempts to regulate migration from rural to urban areas. The policy since the end of 1980 has been "to control the size of large cities, to reasonably develop medium-sized cities, and to actively develop small cities." In this context, "develop" means to allow migration from rural areas consistent with the economic progress or potential of the city. Migrants are encouraged to settle in towns or small cities not far from their village of origin, rather than converge on a few large cities, as happens in most developing countries. Those who wish to make a permanent move to a city or town must apply for and receive permission to do so; more and more people are now getting such permission if they do not request a move to the country's largest cities.

Between 1982 and 1985, the number of cities with 2 million or more permanent residents remained constant at 13, while the total number of permanent residents in these cities increased by only 6 percent, or less than 2 percent per year. But in the same period, the number of cities with populations of 1–2 million increased from 25 to 44, and their population grew by 74 percent. Even more dramatic, the number of cities in the 500,000 to 1 million range grew from 47 to 85, with an 81 percent increase in population. The number of even smaller cities is growing more modestly, but the number of incorporated towns has multiplied threefold, with population there soaring 157 percent. These statistics indicate that the Chinese government is succeeding in preventing massive permanent migration to the largest cities, while diverting urban growth to cities with fewer than 2 million inhabitants and to urban towns.



SOURCE: China State Statistical Bureau; projections for 1990, 1995 and 2000 are a medium projection done by the China Branch Center for International Research, US Bureau of the Census

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The floating population

Not only are many people being allowed to move permanently to cities and towns, but many more are now allowed to travel temporarily to urban places to sell their rural products, buy in the markets, provide services, work in construction teams to build city infrastructure and housing, or perform contract labor for industries. This floating or 'flowing' population (*liudong renkou*) has been mushrooming in the last few years. In some towns, the floating population is several times the size of the recognized permanent resident population. The floating population now constitutes a significant and escalating portion of the de facto population of many large cities. For example, Beijing, with a permanent resident urban population of 6 million, had a floating population of 500,000 at the end of 1984 that increased to 700,000 in early 1985. Shanghai, whose urban population is 7 million, had a floating population of 590,000 in August 1984 that grew to 1.6 million by early 1986.

The urban floating population is now linking rural areas with urban areas and urban areas with one another in ways that were stymied for two decades before the economic reforms. The floating population swells the actual population of urban areas from the smallest *zhen* to the largest city. Some of the urban floating population are "temporary" residents who have lived in the urban area for more than a year. In the mid-year 1982 census, this long-term temporary population was about 2 percent of the number of recognized permanent residents. By now this component of the "floating" population is much larger. These migrants are urban residents in fact, if not in name.

Urban population structure

China's urban residents have had low fertility rates since the mid-1960s, and the government's one-child-per-couple program is extremely effective in cities. As individuals migrate from rural to urban areas, their childbearing potential soon comes under the close scrutiny and control of urban family planning authorities. Therefore, it is likely that urban fertility in China will remain very low by world standards. The proportion of children is declining quickly in urban areas. The 1982 census showed that 27 percent of the urban population was under age 15, compared to 35 percent of the rural total.

Urban children are comparatively well provided for and well educated. Indeed, as urban couples are limited to one child, they are concentrating their attention and resources more and more on that child. This implies an expanding market for higher quality clothing, toys, educational materials, and leisure activities directed toward urban children.

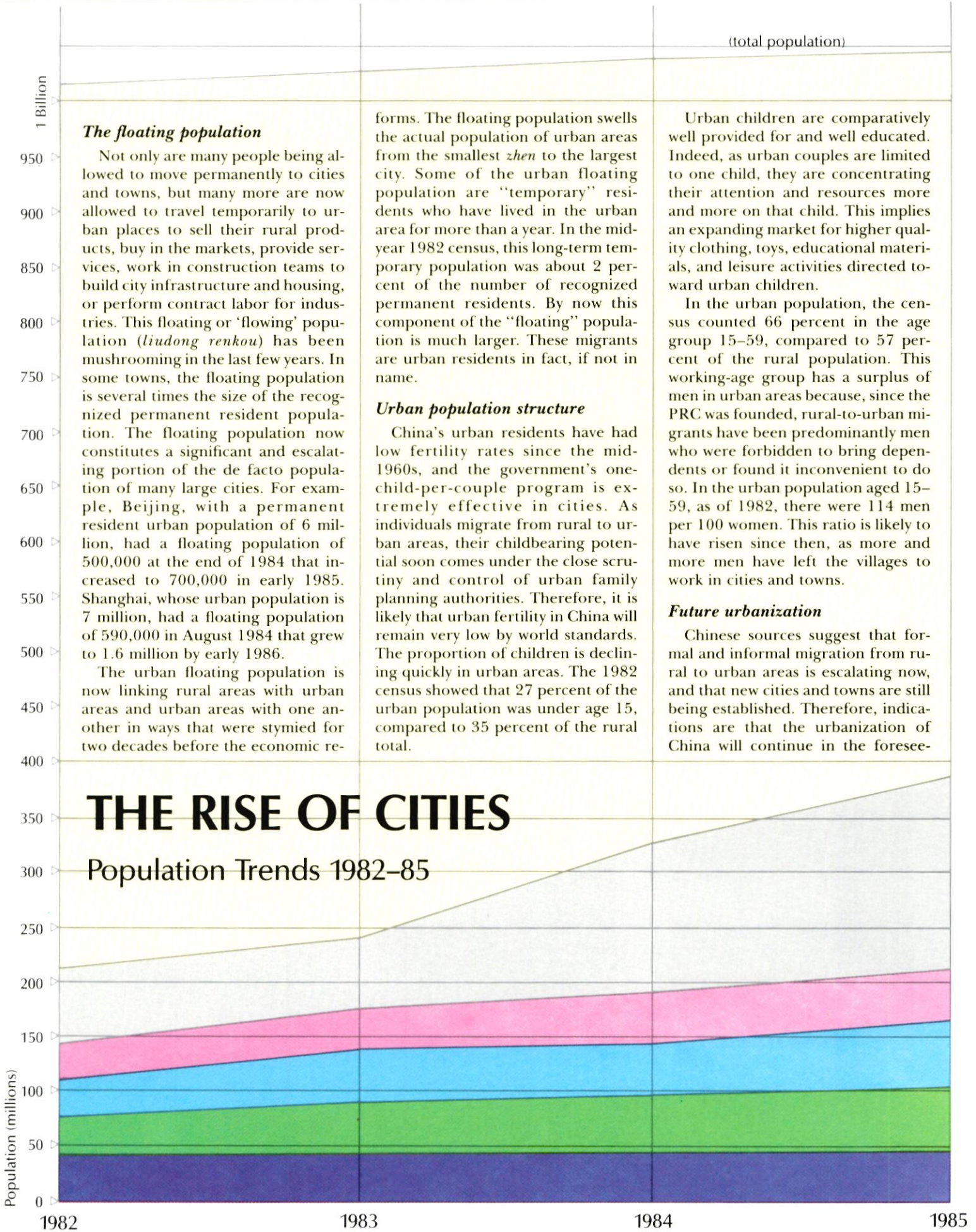
In the urban population, the census counted 66 percent in the age group 15–59, compared to 57 percent of the rural population. This working-age group has a surplus of men in urban areas because, since the PRC was founded, rural-to-urban migrants have been predominantly men who were forbidden to bring dependents or found it inconvenient to do so. In the urban population aged 15–59, as of 1982, there were 114 men per 100 women. This ratio is likely to have risen since then, as more and more men have left the villages to work in cities and towns.

Future urbanization

Chinese sources suggest that formal and informal migration from rural to urban areas is escalating now, and that new cities and towns are still being established. Therefore, indications are that the urbanization of China will continue in the foresee-

THE RISE OF CITIES

Population Trends 1982–85



SOURCE: US Bureau of the Census; China State Statistical Bureau, 1986 Statistical Yearbook

able future. A variety of alternative projections have been created with a range of assumptions about the speed of urbanization. Even cautious assumptions about how fast this process will occur conclude that the population will increase from 37 percent urban at the end of 1985 to almost half urban by the turn of the century. More plausible assumptions project a population over half urban by then.

China's rural population is projected to decline by about 1 percent per year, the net result of 1 percent natural population growth and 2 percent loss to the urban sector. In urban areas, the modest natural population growth combined with in-migrants, urban boundary expansion, and reclassification brings about a 2–4 percent annual increase in the urban population total.

THE ECONOMIC IMPACT

Implications for the urban economy

Industry, the largest single contributor to the urban economy, is growing very rapidly in most urban areas. During the Sixth Five-Year Plan (1981–85) the gross output value of city-based industries grew by 14.3 percent per year, keeping pace with the 12.6 percent increase in city population. This pattern is likely to continue under the Seventh FYP, but at somewhat lower growth rates, perhaps 4–5 percent per year for city population and 7–8 percent per year for city industries (*see* Table 2).

Collective and locally controlled industrial enterprises are expanding output at more than double the growth rate for State-owned enterprises. Private handicraft industries are experiencing explosive growth, but still contribute less than 1 percent of total industrial output value in the cities.

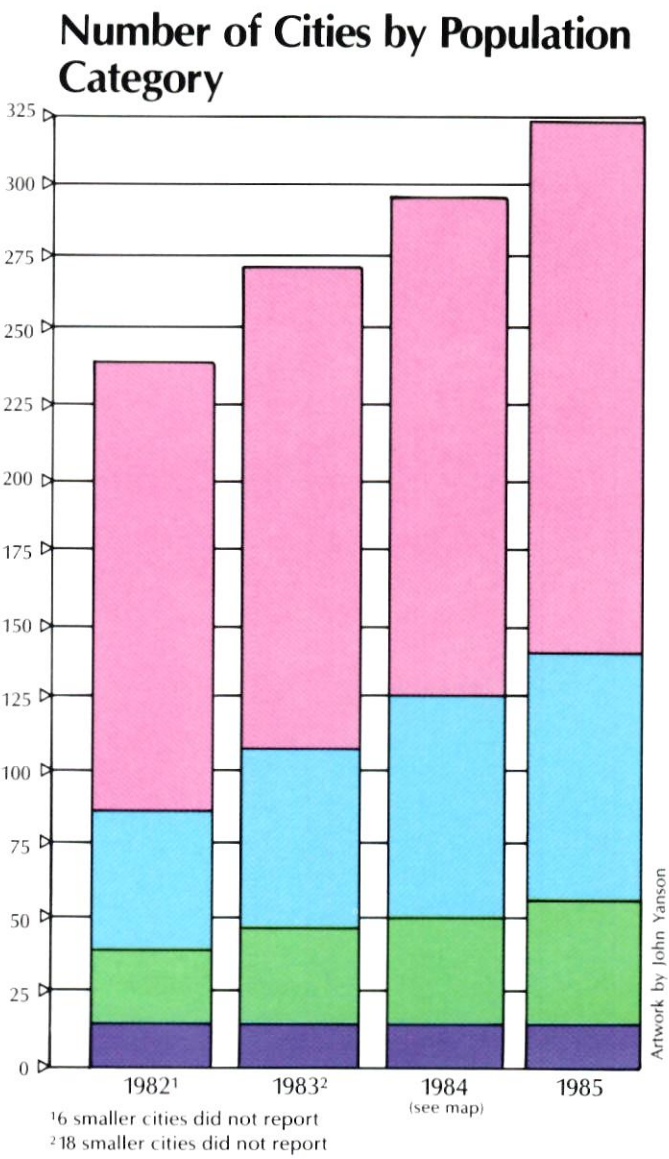
Expansion of city economies requires continued industrial growth. Rapid urbanization is therefore good news for companies selling machinery, producer goods, and manufacturing technology. China's imports of machinery and equipment quadrupled in two years—from $4 billion in 1983 to $16 billion in 1985—and now account for about 40 percent of the country's total imports. While China's current trade imbalance and foreign exchange shortage are slowing down new machinery orders, this is likely to be a transitory problem given the market pressures generated by the growing urban economy.

Challenges for smaller cities

Despite the vitality of industrial expansion, there are deep disparities between large and small cities in the intensity of industrial development, the allocation of new capital investment, and the development of basic infrastructure. Towns and small cities are receiving the brunt of rural migration. Yet on a per capita basis, small city residents only have access to one-fourth as much electricity, less than half as many doctors, and one-eighth as much public transportation as their counterparts from the largest cities. New migrants to small cities and towns usually start out at the low end of the urban economic ladder and suffer most from the effects of these disparities—even though they

Population Average Annual Rate of Growth	Population Key City population figures include urban residents with permanent resident status only.		Number of Cities Average Annual Rate of Growth
–6.4%		Rural	NA
31.5%		Town*	NA
10.7%		Cities under 500,000	5.6%
19.7%		Cities 500,000–1 million	19.8%
18.4%		Cities 1 million–2 million	18.8%
1.9%		Cities 2+ million	0%
1.0%		National Population	

*China's military population (4.24 million in 1982) is included in the town population figures.



may be comparatively better off than they were in their former villages.

While officially encouraging migration to small cities and towns, the State has done little to redress the disparities between large and small cities. In 1984 fully 42 percent of all reported investment in city capital construction was channeled to the large cities (over 1 million population), which have 28 percent of total city population, while less than 16 percent went to the small cities (*see* Table 1). The Seventh FYP calls for continued concentration of capital investment and infrastructure development in the large cities, while seeking to stabilize population there by denying registration and permanent resident status to new migrants. The large-city orientation of urban development policy helps explain the rapid increase of the floating population in China's largest cities.

Employing the new urbanites

Even though industrial output is keeping up with the growth of city population, employment opportunities in cities of all sizes are not expanding as rapidly as the rising tide of city population. Because most factories are trying to contain or reduce their employment rolls in their drive for greater efficiency, positions for workers just entering the labor force must come mainly from the establishment of new enterprises. Private employment is rising fast, but not fast enough to be of much help. Only 3 percent of city staff and workers are employed by private enterprises.

During the Seventh FYP, therefore, China faces the daunting task of finding employment for its new urban residents. According to Jeffrey R. Taylor of the US Census Bureau, China's total urban work force stood at 208 million at mid-year 1985. Between 1985 and 1990, the number of jobs needed in urban areas will increase by 60-85 million, depending on the rate of rural-to-urban migration and reclassification of cities and towns.

One official response to the employment crisis in the cities has been to develop the so-called "tertiary" industries, which consist of the commercial and service sectors. Retail, catering, and service trades constituted 12 percent of the total nonagricultural city work force at the end of 1985. Employment in commercial and service enterprises nearly doubled between 1982 and 1985 and will double again by 1990. The rapid expansion of the commercial and service sectors is also revealed in statistics for the number of "urban trade markets," which jumped from 3,600 in 1982 to 8,000 in 1985 (*see* Table 2). These new markets, which often operate in the evenings, provide outlets for food, clothing, and household items produced by private cottage industries.

UNDERSTANDING URBAN STATISTICS

Assessing the meaning of statistics on the size and growth of China's urban population presents problems for demographers. Some of China's urban growth is merely a function of China's recently loosened criteria for what constitutes a city or town. Most of the growth of China's urban population in 1984, for example, was caused by a shift in the rules for establishing urban towns. In that one year, the number of towns in China qualifying as urban more than doubled from under 3,000 to 7,280, and the urban town population doubled too. Even so, the rapid establishment of new cities and towns in China is not a meaningless phenomenon. It is a recognition not only of the urban qualities formerly possessed by these places, but more important of the recent development of their industries and retail trade.

The economic boom in the newer and older urban places is being spurred on by the permanent and the circular flow of people from rural areas. The rapid rise in the 'floating' population of the cities (*see* page 14) is not reflected in the urban population statistics. By excluding them the official urban population figures tend to underestimate the true urban total.

This is at least partially offset by another error in the urban figures that tends to overestimate the urban population. City and town boundaries in China have been drawn with too little regard for whether they include the whole built-up urban area and exclude nonurbanized areas as they should. Some Chinese cities and towns include large tracts of essentially rural land within the urban boundary.

The problem is indicated by the large "agricultural" population included within the boundaries of city districts and urban towns. But caution is required using PRC data on the "nonagricultural" and "agricultural" populations of urban places, because these terms often do not mean what they say. "Nonagricultural" usually means qualifying for the right to purchase State-subsidized grain, and especially since 1984 many migrants to cities and towns have moved there to engage in nonagricultural work but do not qualify for this benefit and are therefore termed part of the "agricultural" population.

Throughout this article, in dealing with urban data, we distinguish "city" from "urban." There is no minimum population size boundary for officially recognized cities, but almost all have over 50,000 residents. In 1984 there were 295 incorporated cities in China, and this number climbed to 324 in 1985. Data on economic and market conditions in the cities are relatively plentiful.

"Urban" is a broader term, and includes both the cities and incorporated towns (*zhen*). By the end of 1984, there were 7,280 urban towns, and the Seventh FYP projects an increase to 10,000 by 1990. The towns currently hold about 45 percent of total urban population. Aggregate economic data on the towns is still rare and has not been reported here. We assume that the same economic and market trends prevalent in small cities are also reflected in the towns. —KW and JB

URBAN INFRASTRUCTURE: NEW OPPORTUNITIES

China's urban planners are beginning to recognize the deficiencies of current programs to develop city infrastructure. One article in the Chinese press pointed out that the average ratio of investment in housing construction to investment in other infrastructure development is 20:1 in China but about 2:1 in other developed countries. The Seventh FYP places greater emphasis not only on urban housing construction, but on the infrastructure required to support new housing—roads, water supply, sewers and garbage disposal, district heating systems, electric power supply, and phone systems. But the focus of new infrastructure investment remains on the large cities and, at least for the next five years, may have little to offer small cities and towns where the greatest population growth is taking place.

The housing market

Since housing is the most basic of

urban infrastructure requirements, migration to China's cities and towns is first and foremost stimulating a boom in the housing industry. As many as 10 million urban families in China are currently living in temporary nonresidential quarters, such as hallways, attics, or storage space. Approximately 1 million of these families are classified as homeless.

Data vary on per capita living space, but all estimates point to extreme crowding among families that do have apartments. Per capita living space in the cities averages about 2.7 square meters (28 square feet). Since crowding is more severe in the cities than in the towns, the average urban living space may be in the range of 3–4 square meters (32–42 square feet) per capita.

Long aware of the urban housing problem, the State is investing heavily in residential construction. State-financed capital construction of urban housing during the Sixth FYP added 648 million square meters, or nearly half of the total residential floor space built since 1949. Under the Seventh FYP, 13 million apartments totaling 650 million square meters will be built through State-controlled investment.

The rate of investment in new city housing is growing at 13–15 percent per year. However, residential floor space in use has been expanding at only 8–9 percent per year, not enough to handle the growth of the city population. Furthermore, the State loses vast amounts of investment capital in the construction of subsidized housing that is rented at only 8 fen (2 cents) per square meter per month; the average family of five spends only 3 percent of its income on housing rental. As a result, revenues from rents in State-owned apartment blocks actually cover less than half the cost of upkeep and never recover the original capital cost.

As one solution to the housing crunch, the government is now encouraging private home ownership. Beginning in 1978 and accelerating after 1982, the State has officially encouraged the private sale of apartments and even private financing of housing construction. As of June 1986, 80 cities permitted the sale of housing on the private market. Leading the way is Shanghai, which sold 2,900 apartments to individuals in 1985 and about 6,000 units in 1986 —still only about 3 percent of all new units built in Shanghai in 1986. But officials have made it clear that limits will be placed on privatized real estate ownership. Land will continue to be publicly held; only the apartment structure itself will be considered private property.

Housing construction opportunities

Foreign companies have begun to participate in China's urban housing boom, although their involvement is still limited to the construction of high-cost housing units for expatriate personnel and luxury hotels for foreigners. A number of US and Japanese firms are building prefabricated detached houses in joint ventures with Chinese partners. For example, Misawa Homes is building

TABLE 1
DISTRIBUTION OF RESOURCES BY CITY SIZE: 1984

	City Size*					
	Over 2 million	1–2 million	500,000–1 million	200,000–500,000	Under 200,000	All 295 cities
% of total city population	**17.8%**	**9.8%**	**16.9%**	**25.1%**	**30.4%**	**100%**
PRODUCTION (million 1980 RMB)						
Gross agricultural output	4,914	2,935	5,861	11,587	16,437	41,734
% of all cities	**11.8%**	**7.0%**	**14.0%**	**27.8%**	**39.4%**	
Gross industrial output	159,595	66,917	96,641	105,022	56,594	484,769
% of all cities	**32.9%**	**13.8%**	**19.9%**	**21.7%**	**11.7%**	
CAPITAL CONSTRUCTION INVESTMENT[1] (million 1980 RMB)						
New investment by State	12,094	4,914	8,924	9,305	7,163	42,399
Renovation by State	6,082	3,017	3,775	3,985	2,474	19,333
Investment by collectives	822	394	684	924	491	3,315
Total investment	18,997	8,325	13,383	14,214	10,129	65,048
% of all cities	**29.2%**	**12.8%**	**20.6%**	**21.9%**	**15.6%**	
INFRASTRUCTURE						
Electric power consumption[2] (kwh per person per year)	193	155	132	77	45	105
Number of buses (per million population)	493	368	241	138	64	219
Kilometers of sewer pipes	8,048	4,803	5,942	6,355	4,137	29,285
PUBLIC SERVICES (per thousand population)						
Medical doctors	4.9	4.6	4.1	3.0	2.2	3.5
Teachers	10.2	13.5	12.9	10.1	9.5	10.7
Library Books	1,633	1,655	1,055	641	350	899

*classified by number of permanent nonagricultural residents
[1]Includes investment of over ¥50,000 by State-owned units and over ¥20,000 by collectives
[2]Residential and commercial uses only
SOURCE: State Statistical Bureau *China Urban Statistics 1985*

CHINA'S CITIES: 1984

● 1 **Beijing**
5,754,600
¥8.116 billion

● 2 **Tianjin**
5,312,210
¥4.761 billion

HEBEI

• 3 **Shijiazhuang**
1,127,800
¥1.228 billion

• 4 **Handan**
954,300
¥757.8 million

• 5 **Xingtai**
342,900
¥288.6 million

• 6 **Baoding**
522,800
¥472.5 million

• 7 **Zhangjiakou**
607,900
¥537.9 million

• 8 **Chengde**
325,800
¥235.7 million

• 9 **Tangshan**
1,366,100
¥945.5 million

• 10 **Qinhuangdao**
425,300
¥327.6 million

• 11 **Cangzhou**
287,000
¥241.7 million

• 12 **Langfang**
509,500
¥199.1 million

• 13 **Hengshui**
279,900
¥174.1 million

• 14 **Potou**
453,200
¥139.8 million

SHANXI

• 15 **Taiyuan**
1,838,100
¥1.323 billion

• 16 **Datong**
981,000
¥639.2 million

• 17 **Yangquan**
474,100
¥302.5 million

• 18 **Changzhi**
451,400
¥310.3 million

• 19 **Yuci**
415,400
¥184.5 million

• 20 **Linfen**
521,300
¥228.9 million

• 21 **Houma**
156,700
¥73.58 million

• 22 **Yuncheng**
428,200
¥223.7 million

• 23 **Jincheng**
606,700
¥184.8 million

• 24 **Xinzhou**
395,100
¥151.8 million

NEI MONGOL

• 25 **Hohhot**
778,000
¥521.1 million

• 26 **Baotou**
1,063,600
¥728.6 million

• 27 **Wuhai**
257,500
¥122,9 million

• 28 **Jining**
158,400
¥141.7 million

• 29 **Erenhot**
6,800
¥6.4 million

• 30 **Chifeng**
865,300
¥376.8 million

• 31 **Tongliao**
247,300
¥204.5 million

• 32 **Hailar**
173,100
¥180.5 million

• 33 **Manzhouli**
111,800
¥80.1 million

• 34 **Ulanhot**
185,500
¥145.2 million

• 35 **Yakeshi**
387,200
¥210.2 million

• 36 **Dongsheng**
117,100
¥63.19 million

• 37 **Zalantun**
389,400
¥118.1 million

• 38 **Xilinhot**
100,200
¥71.50 million

• 39 **Linhe**
359,800
¥152.4 million

LIAONING

● 40 **Shenyang**
4,134,800
¥3.644 billion

• 41 **Dalian**
1,587,800
¥1.628 billion

• 42 **Anshan**
1,258,600
¥1.025 billion

• 43 **Fushun**
1,220,000
¥929.9 million

• 44 **Benxi**
810,500
¥591.2 million

• 45 **Jinzhou**
748,700
¥621.3 million

• 46 **Dandong**
560,500
¥493.5 million

• 47 **Fuxin**
653,200
¥391.8 million

• 48 **Yingkou**
465,400
¥416.2 million

• 49 **Liaoyang**
565,300
¥455.8 million

• 50 **Chaoyang**
308,300
¥221.9 million

• 51 **Tieling**
441,700
¥247.9 million

JILIN

• 52 **Changchun**
1,809,200
¥1.726 billion

• 53 **Jilin**
1,114,100
¥916.1 million

• 54 **Yanji**
206,900
¥192.1 million

• 55 **Tumen**
98,500
¥65.04 million

• 56 **Tonghua**
363,400
¥223.2 million

• 57 **Hunjiang**
684,900
¥343.7 million

• 58 **Siping**
353,300
¥318.8 million

• 59 **Baicheng**
278,000
¥219.9 million

• 60 **Liaoyuan**
375,600
¥241.5 million

HEILONGJIANG

● 61 **Harbin**
2,592,100
¥2.611 billion

• 62 **Hegang**
577,400
¥316.4 million

• 63 **Shuangyashan**
420,800
¥219.7 million

• 64 **Jixi**
798,900
¥473.2 million

• 65 **Daqing**
802,100
¥446.7 million

• 66 **Qiqihar**
1,246,000
¥865.0 million

• 67 **Yichun**
814,300
¥385.2 million

• 68 **Jiamusi**
546,500
¥469.5 million

• 69 **Qitaihe**
292,900
¥151.3 million

• 70 **Mudanjiang**
603,300
¥527.1 million

• 71 **Suifenhe**
20,900
¥12.97 million

• 72 **Heihe**
133,500
¥89.34 million

• 73 **Suihua**
728,700
¥255.0 million

• 74 **Bei'an**
441,500
¥203.0 million

● 75 **Shanghai**
6,881,300
¥9.585 billion

JIANGSU

● 76 **Nanjing**
2,207,500
¥2.061 billion

• 77 **Xuzhou**
806,400
¥774.6 million

• 78 **Lianyungang**
446,100
¥378.6 million

• 79 **Nantong**
402,700
¥349.9 million

• 80 **Suzhou**
695,500
¥717.6 million

• 81 **Wuxi**
825,100
¥980.7 million

• 82 **Changzhou**
512,600
¥537.5 million

• 83 **Huaiyin**
373,600
¥259.6 million

• 84 **Yangzhou**
382,200
¥330.6 million

• 85 **Taizhou**
161,300
¥174.8 million

• 86 **Zhenjiang**
397,300
¥335.6 million

• 87 **Changshu**
996,100
¥652.4 million

• 88 **Yancheng**
1,236,900
¥483.9 million

ZHEJIANG

• 89 **Hangzhou**
1,222,900
¥1.453 billion

• 90 **Ningbo**
615,600
¥515.5 million

• 91 **Wenzhou**
519,100
¥498.7 million

• 92 **Huzhou**
960,100
¥491.8 million

• 93 **Jiaxing**
681,200
¥407.5 million

• 94 **Shaoxing**
244,100
¥240.3 million

• 95 **Jinhua**
796,100
¥322.5 million

• 96 **Quzhou**
699,000
¥234.5 million

• 97 **Jiaojiang**
158,000
¥122.3 million

ANHUI

• 98 **Hefei**
853,100
¥657.0 million

• 99 **Huaibei**
463,700
¥239.9 million

• 100 **Bengbu**
597,100
¥417.4 million

• 101 **Huainan**
1,063,000
¥471.6 million

• 102 **Ma'anshan**
358,500
¥231.3 million

• 103 **Wuhu**
491,700
¥405.2 million

• 104 **Tongling**
204,100
¥108.2 million

• 105 **Tunxi**
103,200
¥68.67 million

• 106 **Anqing**
428,200
¥246.7 million

• 107 **Fuyang**
186,000
¥181.1 million

• 108 **Lu'an**
156,000
¥130.7 million

• 109 **Suzhou**
208,000
¥119.3 million

• 110 **Chuzhou**
360,600
¥156.7 million

• 111 **Chaohu**
736,700
¥207.8 million

• 112 **Huangshan**
146,900
¥36.1 million

FUJIAN

• 113 **Fuzhou**
1,164,800
¥900.9 million

• 114 **Xiamen**
532,600
¥551.3 million

• 115 **Nanping**
415,200
¥186.0 million

• 116 **Quanzhou**
426,900
¥234.2 million

• 117 **Zhangzhou**
304,500
¥223.9 million

• 118 **Sanming**
210,600
¥162.4 million

• 119 **Longyan**
368,500
¥159.7 million

• 120 **Putian**
270,200
¥110.9 million

• 121 **Shaowu**
260,900
¥115.5 million

• 122 **Yong'an**
262,500
¥132.4 million

JIANXI

• 123 **Nanchang**
1,088,800
¥931.3 million

• 124 **Jingdezhen**
559,300
¥239.5 million

• 125 **Pingxiang**
1,270,400
¥333.0 million

• 126 **Jiujiang**
378,100
¥267.4 million

• 127 **Shangrao**
140,600
¥119.6 million

• 128 **Fuzhou**
169,900
¥95.90 million

• 129 **Ji'an**
180,300
¥137.5 million

• 130 **Ganzhou**
338,700
¥183.3 million

• 131 **Yichun**
166,200
¥110.0 million

• 132 **Yingtan**
111,800
¥58.25 million

• 133 **Xinyu**
596,200
¥167.2 million

• 134 **Jinggangshan**
48,900
¥13.70 million

SHANDONG

• 135 **Jinan**
1,394,600
¥1.415 billion

• 136 **Qingdao**
1,229,500
¥1.309 billion

● 137 **Zibo**
2,280,050
¥1.033 billion

• 138 **Zaozhuang**
1,570,300
¥498.2 million

• 139 **Dezhou**
269,500
¥264.0 million

• 140 **Weifang**
1,033,200
¥535.5 million

• 141 **Yantai**
699,400
¥539.6 million

• 142 **Jining**
757,500
¥311.5 million

• 143 **Weihai**
216,400
¥139.7 million

• 144 **Tai'an**
1,309,900
¥431.5 million

• 145 **Xintai**
1,143,200
¥248.2 million

• 146 **Binzhou**
172,900
¥107.1 million

• 147 **Dongying**
512,000
¥152.4 million

• 148 **Liaocheng**
714,000
¥306.5 million

• 149 **Linqing**
594,800
¥221.0 million

• 150 **Linyi**
1,351,000
¥408.7 million

• 151 **Heze**
994,200
¥267.6 million

• 152 **Laiwu**
1,035,800
¥259.4 million

HENAN

• 153 **Zhenzhou**
1,551,600
¥1.104 billion

• 154 **Kaifeng**
619,200
¥507.1 million

• 155 **Pingdingshan**
803,900
¥387.4 million

• 156 **Luoyang**
1,023,900
¥730.4 million

• 157 **Xinxiang**
526,700
¥457.3 million

• 158 **Jiaozuo**
495,000
¥273.3 million

• 159 **Anyang**
534,000
¥385.1 million

• 160 **Hebi**
319,100
¥151.3 million

• 161 **Shangqin**
192,900
¥207.0 million

• 162 **Xuchang**
236,800
¥246.8 million

• 163 **Luo He**
154,700
¥138.6 million

• 164 **Xinyang**
226,600
¥162.6 million

• 165 **Nanyang**
282,300
¥250.7 million

• 166 **Sanmenxia**
146,200
¥83.64 million

• 167 **Zhoukou**
214,000
¥156.4 million

• 168 **Zhumadian**
144,900
¥178.7 million

• 169 **Yima**
77,400
¥33.75 million

• 170 **Puyang**
1,059,500
¥267.6 million

HUBEI

● 171 **Wuhan**
3,337,500
¥3.048 billion

• 172 **Huangshi**
435,200
¥346.1 million

• 173 **Shiyan**
315,000
¥189.5 million

• 174 **Shashi**
246,800
¥247.9 million

• 175 **Yichang**
389,500
¥290.2 million

• 176 **Xiangfan**
407,400
¥363.8 million

• 177 **Ezhou**
929,900
¥232.7 million

• 178 **Jingmen**
1,011,500
¥379.7 million

• 179 **Laohekou**
403,900
¥129.6 million

• 180 **Suizhou**
1,278,900
¥359.2 million

• 181 **Enshi**
673,400
¥125.3 million

• 182 **Xiaogan**
1,191,200
¥269.9 million

• 183 **Xianning**
390,600
¥137.9 million

• 184 **Danjiangkou**
409,400
¥123.2 million

HUNAN

• 185 **Changsha**
1,123,900
¥1.960 billion

• 186 **Zhuzhou**
487,800
¥360.0 million

• 187 **Yueyang**
398,100
¥256.5 million

• 188 **Xiangtan**
501,700
¥346.1 million

• 189 **Chenzhou**
186,700
¥163.0 million

• 190 **Hengyang**
551,300
¥443.9 million

• 191 **Shaoyang**
416,200
¥211.4 million

• 192 **Lengshuijiang**
265,100
¥101.8 million

• 193 **Changde**
213,600
¥194.2 million

• 194 **Yiyang**
359,300
¥169.8 million

• 195 **Hongjiang**
67,600
¥43.29 million

• 196 **Huaihua**
418,600
¥125.9 million

• 197 **Jinshi**
88,200
¥76.92 million

• 198 **Loudi**
246,000
¥90.76 million

• 199 **Yongzhou**
511,500
¥102.2 million

• 200 **Jishou**
189,000
¥70.26 million

• 201 **Lengshuitan**
355,300
¥70.25 million

• 202 **Zixing**
321,900
¥105.6 million

GUANGDONG

● 203 **Guangzhou**
3,221,600
¥4.642 billion

• 204 **Haikou**
278,600
¥355.9 million

• 205 **Shantou**
746,400
¥611.6 million

• 206 **Zhanjiang**
899,500
¥539.9 million

• 207 **Maoming**
424,600
¥191.3 million

• 208 **Foshan**
299,800
¥453.4 million

• 209 **Jiangmen**
224,800
¥318.4 million

• 210 **Shaoguan**
343,600
¥279.6 million

• 211 **Huizhou**
174,400
¥158.6 million

• 212 **Zhaoqing**
180,100
¥204.8 million

• 213 **Meixian**
731,600
¥239.4 million

• 214 **Chaozhou**
1,202,800
¥362.4 million

• 215 **Shenzhen**
191,400
¥1.820 billion

• 216 **Zhuhai**
144,400
¥645.7 million

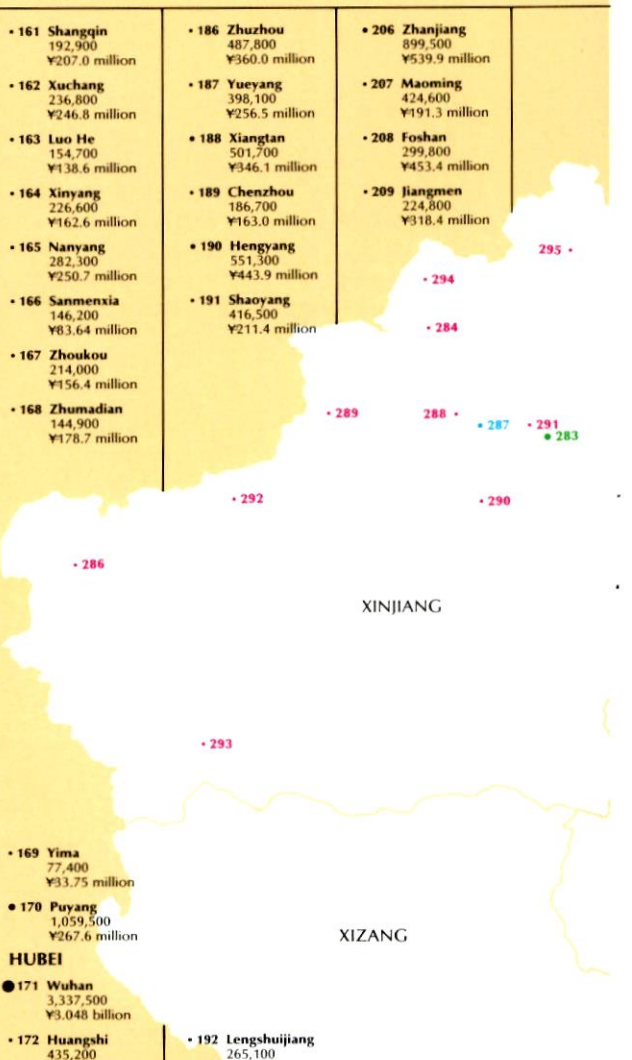
• 217 **Zhongshan**
1,047,200
¥693.0 million

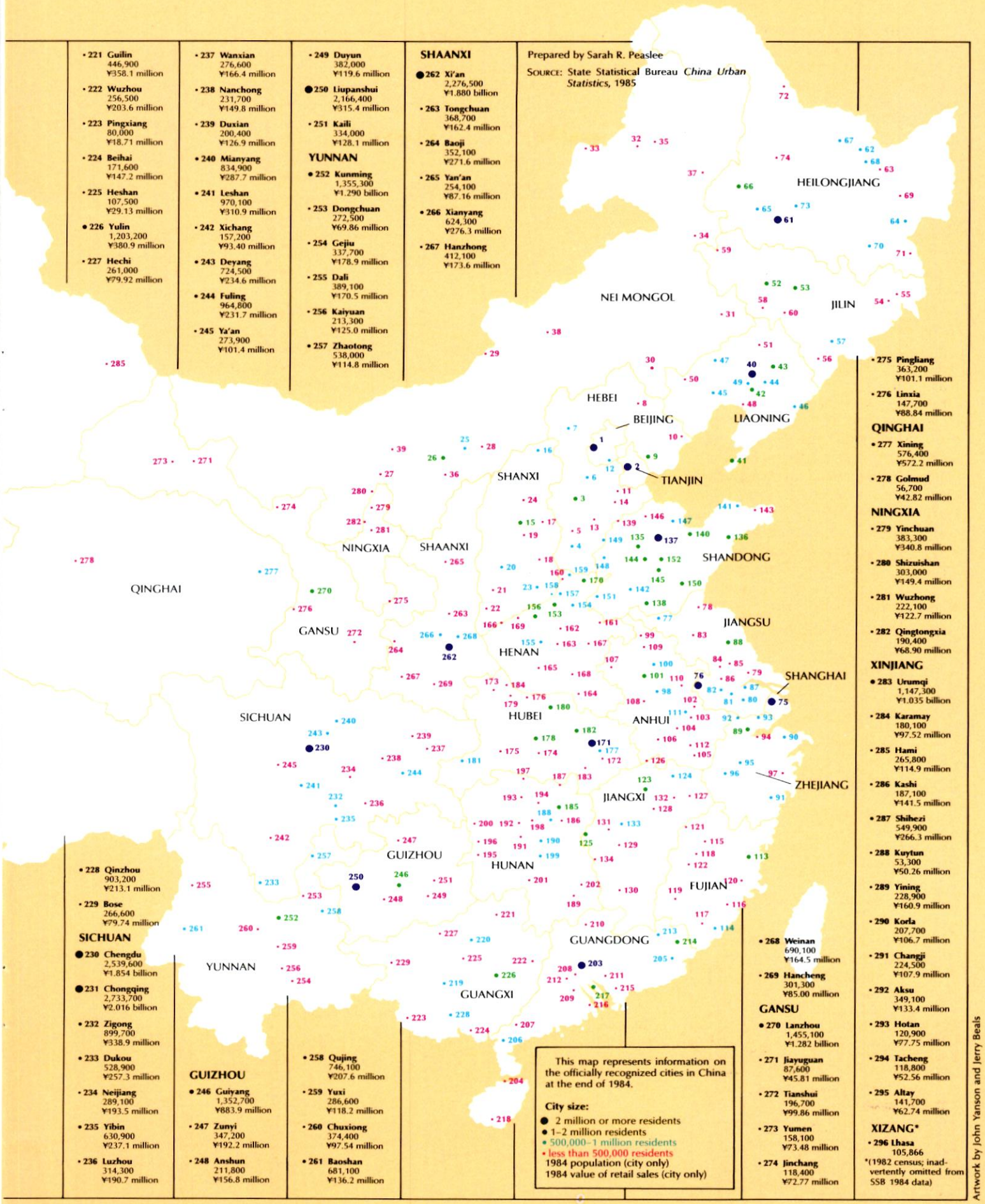
• 218 **Sanya**
313,500
¥109.6 million

GUANGXI

• 219 **Nanning**
902,900
¥659.1 million

• 220 **Liuzhou**
617,900
¥488.0 million




Prepared by Sarah R. Peaslee
SOURCE: State Statistical Bureau *China Urban Statistics*, 1985
• 221 Guilin 446,900 ¥358.1 million
• 222 Wuzhou 256,500 ¥203.6 million
• 223 Pingxiang 80,000 ¥18.71 million
• 224 Beihai 171,600 ¥147.2 million
• 225 Heshan 107,500 ¥29.13 million
• 226 Yulin 1,203,200 ¥380.9 million
• 227 Hechi 261,000 ¥79.92 million
• 237 Wanxian 276,600 ¥166.4 million
• 238 Nanchong 231,700 ¥149.8 million
• 239 Duxian 200,400 ¥126.9 million
• 240 Mianyang 834,900 ¥287.7 million
• 241 Leshan 970,100 ¥310.9 million
• 242 Xichang 157,200 ¥93.40 million
• 243 Deyang 724,500 ¥234.6 million
• 244 Fuling 964,800 ¥231.7 million
• 245 Ya'an 273,900 ¥101.4 million
• 249 Duyun 382,000 ¥119.6 million
• 250 Liupanshui 2,166,400 ¥315.4 million
• 251 Kaili 334,000 ¥128.1 million
YUNNAN
• 252 Kunming 1,355,300 ¥1.290 billion
• 253 Dongchuan 272,500 ¥69.86 million
• 254 Gejiu 337,700 ¥178.9 million
• 255 Dali 389,100 ¥170.5 million
• 256 Kaiyuan 213,300 ¥125.0 million
• 257 Zhaotong 538,000 ¥114.8 million
SHAANXI
• 262 Xi'an 2,276,500 ¥1.880 billion
• 263 Tongchuan 368,700 ¥162.4 million
• 264 Baoji 352,100 ¥271.6 million
• 265 Yan'an 254,100 ¥87.16 million
• 266 Xianyang 624,300 ¥276.3 million
• 267 Hanzhong 412,100 ¥173.6 million
HEILONGJIANG
NEI MONGOL
JILIN
HEBEI
BEIJING
TIANJIN
LIAONING
SHANXI
NINGXIA
SHAANXI
QINGHAI
GANSU
HENAN
SHANDONG
JIANGSU
SHANGHAI
SICHUAN
HUBEI
ANHUI
ZHEJIANG
JIANGXI
GUIZHOU
HUNAN
FUJIAN
GUANGDONG
YUNNAN
GUANGXI
• 275 Pingliang 363,200 ¥101.1 million
• 276 Linxia 147,700 ¥88.84 million
QINGHAI
• 277 Xining 576,400 ¥572.2 million
• 278 Golmud 56,700 ¥42.82 million
NINGXIA
• 279 Yinchuan 383,300 ¥340.8 million
• 280 Shizuishan 303,000 ¥149.4 million
• 281 Wuzhong 222,100 ¥122.7 million
• 282 Qingtongxia 190,400 ¥68.90 million
XINJIANG
• 283 Urumqi 1,147,300 ¥1.035 billion
• 284 Karamay 180,100 ¥97.52 million
• 285 Hami 265,800 ¥114.9 million
• 286 Kashi 187,100 ¥141.5 million
• 287 Shihezi 549,900 ¥266.3 million
• 288 Kuytun 53,300 ¥50.26 million
• 289 Yining 228,900 ¥160.9 million
• 290 Korla 207,700 ¥106.7 million
• 291 Changji 224,500 ¥107.9 million
• 292 Aksu 349,100 ¥133.4 million
• 293 Hotan 120,900 ¥77.75 million
• 294 Tacheng 118,800 ¥52.56 million
• 295 Altay 141,700 ¥62.74 million
XIZANG*
• 296 Lhasa 105,866
*(1982 census; inadvertently omitted from SSB 1984 data)
• 228 Qinzhou 903,200 ¥213.1 million
• 229 Bose 266,600 ¥79.74 million
SICHUAN
• 230 Chengdu 2,539,600 ¥1.854 billion
• 231 Chongqing 2,733,700 ¥2.016 billion
• 232 Zigong 899,700 ¥338.9 million
• 233 Dukou 528,900 ¥257.3 million
• 234 Neijiang 289,100 ¥193.5 million
• 235 Yibin 630,900 ¥237.1 million
• 236 Luzhou 314,300 ¥190.7 million
GUIZHOU
• 246 Guiyang 1,352,700 ¥883.9 million
• 247 Zunyi 347,200 ¥192.2 million
• 248 Anshun 211,800 ¥156.8 million
• 258 Qujing 746,100 ¥207.6 million
• 259 Yuxi 286,600 ¥118.2 million
• 260 Chuxiong 374,400 ¥97.54 million
• 261 Baoshan 681,100 ¥136.2 million
• 268 Weinan 690,100 ¥164.5 million
• 269 Hancheng 301,300 ¥85.00 million
GANSU
• 270 Lanzhou 1,455,100 ¥1.282 billion
• 271 Jiayuguan 87,600 ¥45.81 million
• 272 Tianshui 196,700 ¥99.86 million
• 273 Yumen 158,100 ¥73.48 million
• 274 Jinchang 118,400 ¥72.77 million
This map represents information on the officially recognized cities in China at the end of 1984.
City size:
● 2 million or more residents
● 1–2 million residents
• 500,000–1 million residents
• less than 500,000 residents
1984 population (city only)
1984 value of retail sales (city only)
Artwork by John Yanson and Jerry Beals

136 houses in partnership with the Beijing Guang Ming Industry Company, while a competitor, Daiwa House, is building 300 prefabricated houses in Shanghai. But like the posh joint venture hotels, these houses are for foreigners only, and the market is therefore extremely limited.

But there are many opportunities to participate indirectly in the urban housing boom, which is generating demand for foreign building materials, construction equipment, and construction technology. The biggest long-term market may be in manufacturing technology for household appliances, utilities, and fixtures made under license in China. By 1985 China's total imports of household refrigerators reached $170 million, while the value of licensed refrigerator production was several times this figure. Several European and Japanese companies are transferring electric light bulb and fixture manufacturing technology to Chinese factories. The urban housing market is vast and still growing, but market access will depend on strategies that combine investment and technology transfer with direct sales.

Other infrastructure plans

Electric power equipment: The most capital-intensive infrastructure development plan currently under way is the expansion of electric power supplies. China's cities consumed 207 billion kilowatt-hours in 1984, a figure that is targeted to grow 6–7 percent annually to more than 300 billion kwh by 1990. Industrial consumption of electric power accounts for 80 percent of total city consumption, while residential and commercial power consumption is less than 20 percent. And since about 20–30 percent of total industrial capacity is idled at any given time by power shortages, further expansion of industrial power consumption is needed.

The increase in China's urban population during the decade of the 1980s alone will be greater than the entire population of the United States.

Yet with increasing city populations and rising ownership of electrical appliances, residential and commercial power demand may even outpace industrial demand. Over the next 10–15 years, demand pressures in the cities will spur heavy investments in the electric power industry. Topping the list of priorities will be modern technology for manufacturing switchgear, city power distribution and control systems, and metering systems.

Pipeline systems: Pipeline, pumping, and filtration equipment and technology, so badly needed in Chinese cities, present another major market for foreign companies. City waterworks with a total capacity of 17 million kiloliters per day will be installed under the Seventh FYP. At least 23 large sewage treatment facilities with an aggregate capacity of 5 million kiloliters will be built. The central government has budgeted

TABLE 2
GROWTH OF CITY INDUSTRY AND COMMERCE

	1982	1984	1985	avg annual growth rate 1982–85	1990 (projected)	avg annual growth rate 1985–90
Number of cities	245	295	324	**9.3%**	400	**4.2%**
City population (millions)	145.2	191.4	211.9	**12.6%**	265	**4.5%**
GROSS INDUSTRIAL OUTPUT OF CITIES (Billion 1980 RMB)						
State-owned enterprises	313.3	390.2	451.0	**12.1%**	615	**6.2%**
Collective enterprises	60.0	80.8	115.2	**21.8%**	200.0	**11.0%**
Other enterprises	3.4	7.0	10.1	**36.5%**	20.0	**13.7%**
Private handicraft industries	0.2	0.5	1.7	**80.9%**	5.0	**21.6%**
Total	376.8	478.5	578.0	**14.3%**	840.0	**7.5%**
NUMBER OF STAFF AND WORKERS (millions)						
State-owned units	44.0	49.2	51.5	**5.2%**	65.0	**4.6%**
Collective units	15.4	17.9	18.8	**6.7%**	30.0	**9.3%**
Privately employed	0.5	1.4	2.0	**45.4%**	5.0	**18.1%**
(% of staff and workers)	0.9%	2.1%	2.8%		5.0%	
Total staff and workers in cities	59.9	68.5	72.3	**6.3%**	100.0	**6.5%**
COMMERCIAL ACTIVITY IN CITIES						
Retail sales of consumer goods (billion current RMB)	71.2	103.4	138.5	**22.2%**	250.0	**11.8%**
Number of urban trade markets	3591	6144	8013	**26.8%**	15000	**12.5%**
Commercial employees[1] (millions)	5.0	7.4	9.4	**21.1%**	20.0	**15.0%**
(as % of city work force)	7.7%	9.7%	11.6%		16.7%	

[1]Includes personnel engaged in retail, catering, and service trades.

SOURCES: State Statistical Bureau *Statistical Yearbook*; 1990 projections by China Energy Ventures based on 7th FYP

¥1.8 billion ($500 million) to build 48 district heating systems that will expand residential district heating from 40 to 100 million square meters by 1990. The proportion of city households using gas for cooking is targeted to double from 20 percent to 40 percent of all city households, requiring the installation of natural gas distribution pipelines with 9 million cubic meters per day capacity.

Urban transportation: In China's larger cities, traffic regulation and congestion are becoming serious problems as the number of cars and bicycles on the roads climbs rapidly. Beijing, for example, has more than 300,000 vehicles and 5 million bicycles vying for space on busy downtown thoroughfares. Workers without housing on factory grounds commonly face a commute of 1–2 hours in each direction to travel just a few kilometers. In the small and mid-sized cities, more streets and roads must be built to accommodate new apartment blocks.

The Seventh FYP's call for the addition of 30,000 public buses and 14,000 km of public roads by 1990 will just scratch the surface of the urban transportation problem. In the near term, modern traffic design and control engineering would help ease congestion, while in the longer term the major cities may require construction of costly rapid transit systems. The market potential for foreign engineering firms in these areas is substantial.

Urban telecommunications: China has already begun to expand and modernize urban telephone and telecommunications systems. Telecommunications equipment imports reached $170 million in 1984 and $357 million in 1985 and are expanding at a rate of 50 percent per year. A number of foreign companies are already selling telecommunications equipment or even manufacturing some systems in China.

The Seventh FYP calls for installing an additional 3 million phone lines by 1990. State investments under the plan are targeted at ¥3-¥4 billion, or about $1 billion per year, of which at least half will be foreign exchange expenditures for equipment and technology imports. Shanghai alone plans to triple the size of its phone system by 1990 with an investment of ¥2 billion ($540 million), adding 38 phone exchanges and 750,000 new lines and upgrading 43 existing exchanges.

Construction equipment: China's total imports of construction equipment were $129 million in 1984 and $224 million in 1985. New orders for construction equipment were off somewhat during 1986 because of the foreign exchange squeeze but should recover by 1988 as the trade imbalance eases. The driving force behind construction equipment imports, including cranes, bulldozers, excavators, and other equipment is the urban building boom—a force that can only increase over the next few years.

Aggressive foreign companies are now reaching markets in large, inland cities such as Wuhan, Chongqing, Xi'an, and Shenyang. But few have the marketing resources or in-country personnel to reach mid-sized cities. Direct access to markets in small cities and towns, where the fastest growth in the urban population is occurring, is still out of the question for most firms.

Tapping the urban market

Rapid urbanization ranks with industrial modernization and the development of energy resources as among the most basic market trends in China, and is already having a substantial impact both on the domestic economy and on opportunities for foreign trade and investment. The increase in China's urban population during the decade of the 1980s alone will be greater than the entire population of the United States.

Identifying and pursuing opportunities in urban development presents a major challenge for companies doing business in China. There is simply no way for a foreign company, operating out of an office in Beijing or Shanghai, to reach potential markets in all 324 cities, let alone in all of China's 7,280 towns. The most aggressive foreign companies are now reaching markets in large, inland cities such as Wuhan, Chongqing, Xi'an, and Shenyang. But few companies have the marketing resources or in-country personnel to reach mid-sized cities. And direct access to markets in small cities and towns, where the fastest growth in the urban population is occurring, is still out of the question for most firms.

But the increasing commercial activity stimulated by economic reforms in China is helping to knit cities and towns together into local and regional market networks. Such networks can serve as channels of market access to the most rapidly expanding urban markets, particularly for consumer goods. The same channels will be used to sell products manufactured in the small cities and towns that are destined for export. A local Chinese partner with good access to the commercial network in China's cities and towns may thus become an invaluable asset to the company with broad marketing needs. 完

Consumer Forecasting

New Chinese studies predict steady growth in consumer demand

Jeffrey R. Taylor

Economic reforms have helped per capita income in China climb at an average annual rate of 15 percent in rural areas and 9 percent in cities and towns since 1978—*after* discounting for inflation. This rising purchasing power has fueled a growth in consumer demand that is nothing short of spectacular:

- In 1981 only 6 percent of urban households owned washing machines; by 1985 more than half of urban households had one.
- Spending on housing by rural families has risen so fast that floor space added since 1978 exceeds total rural housing construction in the previous 30 years.
- Consumption of self-produced goods in rural households fell from 60 percent of their total consumption in 1978 to 40 percent in 1985. Most peasants now buy their clothes, homes, and household articles rather than make them themselves.

How long will the consumption boom last? Answering this question is vital to Chinese planners who worry about meeting the vast demand for consumer goods they have helped to unleash as well as the effect this demand is having on inflation and the nation's foreign exchange reserves.

But instead of looking only to projections contained in official five-year plans for answers, planners are paying increasing attention to independent Chinese forecasts of consumer demand. Unlike the consumption forecasts of previous decades, the latest efforts by leading Chinese economists are available to the public. The best of these projections employ the full range of modeling techniques used by Western economists.

Though intended mainly for a Chinese audience, foreign firms can also benefit from studying these projections. Whether manufacturers of consumer or producer goods, firms will find the projections useful indicators of Chinese investment and business patterns over the next 10–15 years. Detailed consumption forecasts based on nationwide surveys of household income and expenditure can help consumer goods manufacturers determine the potential market for their products. And since consumer demand is the driving force behind demand for all commodities, the foreign capital goods manufacturer can also glean insights into the needs of domestic industry. In times of high consumer demand, Chinese factories will require imported machinery, supplies, and know-how to boost the volume and quality of their consumer products.

New studies look to 1990 and beyond

The findings of six of the best recent economic forecasts are reviewed here—most of them never before published in English (*see* box). All predict continued healthy growth in consumer demand to the year 2000, although at a slower pace than in recent years (*see* Table 1).

How realistic are these official and unofficial projections? There is good reason to believe that the projections for 1990 are not only attainable but quite conservative. China's official five-year plan targets have been set fairly low in the past. For example, rural per capita income in 1985 exceeded the Sixth Five-Year Plan target by 56 percent, and 1985 rural and urban per capita consumption exceeded the targets by 34 percent and 50 percent, respectively. Moreover, the Seventh FYP's per capita consumption target of ¥517 in 1990 is substantially lower than the weighted average of urban and rural per capita consumption targets.

Looking ahead to the year 2000, the various studies project the annual average growth rate of per capita consumption at between 3 and 5 percent. This is healthy growth but modest when compared to the 9 percent real average annual growth rate in per capita consumption from 1978 to 1985.

The consumption patterns projected for 1990 are not consistent with changes seen in most other countries as incomes increase. Nor are they borne out by historical consumption trends shown for China itself. For example, the 1990 projections generally predict a rising expenditure share for food and a falling share for articles of everyday use.

What accounts for these unusual results? Many of the projections for 1990 were based on pre-1985 data that underestimated the magnitude of changes in demand. Song and Liu's projections are a case in point: based on 1982 data, they arrived at one set of income and consumption estimates for 1990 that are actually lower than levels achieved in 1985! Consumption forecasting in a rapidly changing society is not an easy task.

More plausible is the higher share of spending on housing by 1990, projected in the Seventh FYP and in the study by Yang. Rural spending on housing is one of the fastest growing components of total rural consumption, and urban residents may also be willing to pay more as better housing becomes available.

Income and expenditure projections for the year 2000 are much

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more uniform than those for 1990. The forecasts generally indicate a reduced share of spending for food and fuel by the year 2000 and a higher share for clothing, consumer durables, housing, and services. Even though these projections assume per capita consumption growth of only 3–5 percent through the end of the century, it is enough to ensure that expenditure shares change in a manner more consistent with expectations and experience in other countries.

Declining rural–urban income gap

Although rural incomes have grown much more rapidly than urban incomes since 1978, peasants still have far to go to catch up with urban living standards. Per capita consumption in the countryside was less than half that of urban areas in 1985.

All but one of the projections for 1990 and 2000 assume a gradually narrowing discrepancy between rural and urban incomes. This assumption reflects compensation trends since 1978 and is consistent with official plans to lessen the gap between rural and urban living standards. If this holds true, the cities will continue to attract large numbers of rural migrants in the year 2000, though at a slower rate than they do now.

Annual consumption growth targets of 4.2 percent for urban residents and 5.1 percent for rural residents given in China's Seventh FYP appear modest compared to growth rates for the previous five years (7 percent for urban residents and 14 percent for rural residents, after inflation). During the 1990s, conservative projections see urban per capita consumption rising at an annual average rate of 2.1–2.5 percent, compared to 2.2–2.8 percent for rural households. The more optimistic projections for the year 2000 show consumption growth rates of 3.4–3.9 percent for urban dwellers, and 4.3–5.1 percent for rural citizens.

The significance of these growth rates from a marketing standpoint is that rural consumption is expected to grow faster than urban consumption. This means that even though rural residents may constitute less than half the country's total population by the year 2000, their relatively faster rates of spending could exercise a disproportionate effect on consumer goods markets in China.

The most detailed breakdown of urban and rural per capita consumption by commodity is contained in the forecast done by Yuan, Jin, and Xie. Their study suggests that not only will rates of growth be different among urban and rural consumers, but their consumption patterns will also vary significantly (*see* Table 2).

Implications for producer goods

The consumption patterns shown in the Yuan, Jin, and Xie study appear to have little relevance to foreign firms, although they show consumption patterns that should benefit domestic producers. In urban areas, for example, it would be difficult for foreign exports to compete with local products in such fast-growing consumption categories as dairy products, fruit, and residential housing. Of course, foreign firms need not focus on meeting the consumers' needs directly: they can take a step back and sell machinery, materials, and know-how to the Chinese firms serving consumers or even to *their* suppliers.

But how does one calculate the industrial requirements necessary to meet a projected level of future consumer demand? One innovative study of the impact future growth in demand will have on the economy is that done by Liu Guisu, an economist with the Ministry of Finance.

Liu's study is a useful marketing tool that projects the type of inputs and supplies China will need to meet its burgeoning demand for all final products, the largest component of which are consumer goods. In making his projection, Liu assumed continued constraints upon output growth in agriculture, electricity, coal, and petroleum. This is not an unreasonable assumption and lends further credence to the author's findings.

Table 3 summarizes two of Liu's scenarios for the year 2000. The "low growth" scenario assumes tight resource constraints, limiting growth

SIX FORECASTS OF CONSUMER DEMAND

The six studies highlighted here are among the best from China's new breed of economic forecasters. While their projection methodology differs, each relies heavily on detailed household income and expenditure survey data gathered by the State Statistical Bureau, and several employ relatively sophisticated price and income elasticity modeling. Since projections of any sort are only as good as the assumptions on which they are based, however, those who plan to make serious use of these projections may want to go back to the source for a closer look:

1. Song Min and Liu Anping, "Wo guo xiaofei pin de shouru tanxing fenxi ji xiaofei jiegou yusuan" [**Income Elasticity Analysis of Consumer Goods and Forecast of Chinese Consumption Structure**], *Shuliang Jingji Jishu Jingji Yanjiu [Quantitative and Technical Economics Research]*, No. 1, 1984. pp. 27–35 and 80.

2. Yang Shengming, "**Using a Statistical Data Approach to Forecast Consumption Structure for a Comfortable Standard of Living**," in Li Xuezeng, et al., eds., *The Structure of China's Domestic Consumptions: Analysis and Preliminary Forecasts*, World Bank Staff Working Paper No. 755 (Washington, DC: The World Bank, 1985). pp. 68–83.

3. He Juhuang, "**Demand System Analysis and Consumption Structure Forecasting**," in Li Xuezeng, et al., eds., op. cit. pp. 84–115.

4. Yuan Fengqi, Jin Xianglan, and Xie Fang, "Gongyuan 2000 nian de wo guo renmin xiaofei jiegou de yuce" [**Forecast of the Consumption Structure of China's People in the Year 2000**], cited by Liu Guisu in "Guomin jingji jiegou youhua de shuliang fenxi" [Quantitative Analysis of the Optimization of National Economic Structure], *Jingji Yanjiu* [Economic Research], No. 10, 1986. pp. 5–6.

5. Cheng Xiusheng and Tang Ruoni, "2000 nian zhongguo de renmin xiaofei" [**The Chinese People's Consumption in the Year 2000**], *Jingji Ribao* [Economic Daily], November 6, 1985. p. 3.

6. Liu Guisu, "Guomin jingji jiegou youhua de shuliang fenxi" [**Quantitative Analysis of the Optimization of National Economic Structure**], *Jingji Yanjiu* (Economic Research), No. 10, 1986. pp. 3–26.

Though not reviewed here, a recent study by Jacques van der Gaag, **Private Household Consumption in China**, World Bank Staff Working Paper No. 701 (Washington, DC: The World Bank, 1984) is also highly recommended.

TABLE 1
PROJECTIONS OF PER CAPITA INCOME AND CONSUMPTION

Item	1985 levels*	7FYP targets	1990 Projections† Song and Liu lower bound	1990 Projections† Song and Liu upper bound	1990 Projections† Yang	Year 2000 Projections‡ He	Year 2000 Projections‡ Yang	Year 2000 Projections‡ Yuan, Jin and Xie lower bound	Year 2000 Projections‡ Yuan, Jin and Xie upper bound	Year 2000 Projections‡ Cheng and Tang
Per capita income (yuan)	527	713	511	548	NA	836	NA	NA	NA	NA
Per capita consumption (yuan)	469	517	467	498	NA	762	NA	749	997	912
Per capita consumption distribution (%)										
Total consumption	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Goods	95.0	95.0	—	—	96.6	94.0	93.5	91.2	89.4	—
Food	55.2	55.0	56.1	55.3	57.6	50.4	51.4	49.3	46.6	50.0
Clothing	13.0	12.0	13.5	13.6	12.6	18.4	14.6	15.4	13.6	13.5
Articles for everyday use	17.2	15.0	15.9	16.5	11.6	19.7	16.5	17.8	19.7	16.5
Housing	6.3	10.0			11.6	3.6	7.6	6.6	7.6	
Fuel	3.3	3.0	14.2	14.3	3.2	1.9	3.4	2.1	1.9	20.0
Services	5.0	5.0			3.4	6.0	6.5	8.9	10.6	

* 1985 national income and consumption data are weighted averages of raw data from the urban and rural household income and expenditure surveys, with urban and rural population shares serving as weights.

† Seventh Five-Year Plan per capita income targets are weighted averages of urban and rural per capita net income targets, assuming an urban 1990 population share of 43 percent. A similar weighted average approach was used to derive national consumption figures from separate urban and rural consumption projections by Song and Liu for 1990.

‡ All year 2000 projections were derived by weighting separate projections for urban and rural consumption by assumed year 2000 population weights of 52 percent for urban areas and 48 percent for rural areas. Housing projections by He exclude urban housing.

TABLE 2
URBAN AND RURAL CONSUMPTION PROJECTIONS FOR THE YEAR 2000*

Item	*Low estimate* Urban households Per capita consumption (yuan)	*Low estimate* Urban households Average annual growth, 1981–2000 (percent)	*Low estimate* Rural households Per capita consumption (yuan)	*Low estimate* Rural households Average annual growth, 1981–2000 (percent)	*High estimate* Urban households Per capita consumption (yuan)	*High estimate* Urban households Average annual growth, 1981–2000 (percent)	*High estimate* Rural households Per capita consumption (yuan)	*High estimate* Rural households Average annual growth, 1981–2000 (percent)
Total	1,000.00	4.2	477.00	4.9	1,300.00	5.7	668.00	6.8
Food	490.00	3.4	238.50	4.0	598.00	4.5	320.64	5.6
Grain	63.00	1.3	66.00	.4	75.00	2.3	68.00	.6
Fresh vegetables	43.92	4.1	23.00	3.9	62.22	6.0	29.00	5.2
Edible vegetable oil	11.76	1.2	9.00	2.5	17.64	3.3	10.80	3.4
Meat	125.00	5.7	47.00	4.9	139.16	6.3	75.00	7.5
Fresh eggs	41.00	7.1	18.00	11.6	50.40	8.2	32.40	15.1
Fish and shrimp	16.80	2.9	3.00	3.6	19.60	3.7	6.00	7.4
Sugar	9.00	4.0	3.50	4.5	11.25	5.2	7.00	8.3
Cigarettes	14.00	1.5	9.90	5.2	16.80	2.5	10.50	5.6
Liquor and drinks	35.84	7.1	9.00	3.0	44.80	8.3	15.00	5.8
Tea	7.50	2.6	4.00	6.0	9.00	3.6	7.00	9.2
Candy	9.00	4.2	3.75	‡	12.00	5.8	4.50	‡
Pastries	10.00	2.6	4.00	‡	12.00	3.6	4.80	‡
Fruit	48.00	6.4	9.00	‡	60.00	7.6	12.25	‡
Fresh milk	22.10	11.4	.00	‡	27.20	12.7	.00	‡
Other	33.08	−2.9	29.35	16.7	40.93	−1.8	38.39	18.4
Clothes	160.00	4.6	66.78	5.6	182.00	5.4	85.50	7.0
Articles for everyday use	181.00	4.0	81.09	7.8	266.00	6.1	120.24	10.0
Fuel	15.00	2.3	16.70	2.4	15.00	2.3	23.38	4.3
Housing and rent	46.00	10.4	52.47	5.6	71.00	12.9	80.16	8.0
Services	108.00	7.4	21.46	8.4	168.00	9.9	38.08	11.7

‡ = Unable to calculate growth rate because 1981 consumption level was zero.

*SOURCE: Yuan, Jin, and Xie (op cit.)

to 5 percent for agriculture, 5.7 percent for electricity, 3.3 percent for coal, and 2 percent for petroleum; the "high growth" scenario assumes looser constraints, allowing growth of 9 percent in agriculture, 8 percent in electricity, 7 percent in coal, and 5 percent in petroleum.

Liu's projections, if correct, could mean brisk business for foreign manufacturers of producer goods. Total output required to meet the projected demand for final products in the year 2000 should amount to almost twice the level of final demand. This means that roughly half of all production will go to servicing the requirements of other industries rather than consumers. From the standpoint of total output levels, agriculture, construction, textiles, light industry, machinery, chemicals, and metallurgy are clearly the industries whose products and services will be in greatest demand. Output growth will be fastest for construction, building materials, forestry products, and textiles.

Assumptions and wild cards

The six forecasts introduced here are, of course, heavily dependent on their underlying choice of assumptions. Most studies, for example, simply assume that new urban residents will adopt the consumption patterns of individuals currently living in cities and towns. But is this so? Migration has tended to be greatest in small towns, where income and consumption levels are lower on average than in other urban centers. Migrants tend, moreover, to be concentrated in relatively low-paying jobs that are unpopular with long-time urban residents. And the many rural migrants supporting families back home are likely to save more—and spend less—than other urban dwellers.

These factors suggest that overall consumption patterns for migrants and long-time city dwellers combined could be significantly different in years to come than they are now. In particular, there may be somewhat slower movement toward the current spending patterns of high-income families in urban areas than is now assumed. Urban consumption shares for food and other necessities, as well as growth in spending on nonessentials, may not reach the levels predicted in these studies.

The effect of continued price reform on consumer spending patterns is another wild card. Of all the studies reviewed, only one took explicit account of anticipated changes in relative prices. Much is now known about urban and rural price elasticities for particular commodities in China, but more work still needs to be done to incorporate this information into demand projections.

Little is known of the effect of shortages on consumption decisions. For example, demand for household appliances in remote areas may outstrip supply, forcing consumers to spend less than they would like. Projecting demand based on this constrained expenditure pattern may be inappropriate if supplies become more plentiful in the future, as expected.

Also difficult to address is the effect that improvements in product quality will have on consumption patterns. With a greater variety of products to choose from, Chinese consumers have grown increasingly particular about what they buy. It is by no means certain that sales of a product in a high-growth sector will flourish if that product is perceived as inferior. Quality considerations are important, though virtually ignored in the projections reviewed here.

Finally, changes in the age structure of China's population are likely to affect demand patterns. The proportion of the population in their prime spending years (ages 15 to 64) is expected to jump from 65 percent in 1985 to 70 percent by the year 2000. This change suggests an additional increase in consumption levels, but none of the studies analyze the relationship between age and expenditure patterns in China. This is clearly an area for further work.

Know your customer

China's official and unofficial forecasts are valuable, if conservative, estimates of consumer demand trends in China through the year 2000. The assumption of slower future growth rates in consumption than shown in recent years reflects the expectation that Chinese policymakers will not allow the economy to become overheated, as happened at points during the Sixth FYP.

How China itself plans to use these studies remains to be seen. The projections for the year 2000 may serve as a foundation for parts of the Eighth FYP (1991–95). If nothing less, the projections show how a new crop of highly trained analysts are honing their skills for future work. With all the discussion taking place in China on equating supply and demand through market mechanisms, consumption projections such as these will certainly play an increasingly important role. 完

TABLE 3
DEMAND-DRIVEN OUTPUT PROJECTIONS

Industry	Year 2000 demand for final products (billion yuan)	Output needed to satisfy demand (billion yuan) low growth	Output needed to satisfy demand (billion yuan) high growth	Average annual growth rate of gross output 1983–2000 (%) low growth	Average annual growth rate of gross output 1983–2000 (%) high growth
Total	1,865.6	3,640.0	3,969.9	7.3	7.8
Agriculture	337.9	715.3	903.0	5.0	6.4
Metallurgy	2.9	224.4	231.2	8.9	9.1
Electricity	8.6	56.5	81.5	5.7	8.0
Coal	12.4	28.9	52.6	3.3	7.0
Petroleum	25.8	43.4	71.1	2.0	5.0
Chemicals	27.6	212.2	234.2	6.4	7.0
Machinery	197.4	383.6	392.1	5.9	6.1
Building materials	33.4	174.1	175.3	12.2	12.3
Forestry products	10.6	50.0	51.6	9.0	9.2
Textiles	165.2	406.8	414.9	8.9	9.0
Light industry	280.8	393.7	399.1	7.4	7.4
Other industry	18.7	70.7	73.1	8.0	8.2
Construction	637.7	637.7	637.7	12.0	12.2
Rail transport	2.8	31.0	32.8	7.2	7.5
Communication and posts	7.3	53.0	55.2	6.7	7.0
Commerce, catering, and material supply	96.5	158.7	164.5	5.2	5.4

NOTE: Yuan values are expressed in 1981 prices. Final demand was assumed to grow at an average annual rate of 8 percent from 1981 to the year 2000.
SOURCE: Liu Guisu (op. cit.)

Forecast for Consumer Items

Shan Jie
China Features

China's consumer goods industries face two important challenges: rapidly increasing production of consumer products in high demand, and raising the quality of products for markets that are already close to saturation at current quality standards. China Features reports on the outlook for the coming year:

• Bicycles

Demand for high quality bicycles, long the principal means of transport for the great majority of urban and rural Chinese, seems insatiable. China already has more than 220 million two-wheelers, 22 for every 100 people. The annual sales volume of bikes stands at 31 million nationwide. Though prices for the better models soared in mid-1986 from ¥150 to more than ¥200, demand is still heavy, expecially in rural areas where lightweight and colorful models are becoming popular.

Demand is expected to grow to 37 million in 1987, a 20 percent increase over 1986. China now produces about 33 million bicycles a year.

• Color TV sets

In the cities, the market for black and white TV sets is almost saturated, but demand for color sets still outstrips supply. About 70 percent of television buyers would like to own a color TV. 1987 will see a 30 percent sales growth of color TV sets over 1986. But the 10 million color TV sets that are expected to enter the market this year will still fall short of demand by a wide margin.

Both black and white and color TV sets are just beginning to find a market in parts of rural China. Sales of black and white TV sets in 1987 are expected to increase by 10 percent over 1986 to 13 million. The government is also setting up "TV villages" which should increase the popularity of television in rural areas and boost TV set sales.

• Refrigerators

Though efforts are being made to increase the output of refrigerators, production still falls far short of demand. In cities, the average is only two refrigerators per 100 people. And output is only expected to reach four million units in 1987.

• Washers

There are an average of 14 washers for every 100 urban residents in China. Production, estimated at 14 million washers in 1987, is basically keeping up with demand. The most popular models are automatic and semi-automatic washers with big wave wheels, large capacities, and new waterflow patterns.

• Watches

Turning out its first watch 31 years ago, China's watch industry is now booming. In 1985 the country produced 54.3 million watches. Production increased by a big margin in 1986. According to one estimate, 1987 output will basically satisfy a projected demand of 61 million pieces. Electronic and quartz watches are especially favored among students. Currently one out of every three Chinese owns a watch.

• Sewing Machines

As ready-made clothes gain popularity, sewing machines are not the dire household necessity they once were. Nevertheless, famous-brand sewing machines like the "Flying Man" model are flourishing in today's market. Mini-sized, multifunctional, and portable types sell best. An estimated 7 million sewing machines will be sold in 1987.

• Tape Recorders

Fifteen out of every 100 urban residents owns a tape recorder. In rural areas the proportion is 3 out of 100. Output now exceeds demand, which is projected at 14 million in 1987. Producers plan to emphasize development of hi-fi stereo acoustical equipment.

• Electric Fans

China has about 64 million electric fans. Demand in 1987 is projected at 20 million. Like tape recorders, electric fans are in oversupply. Those faring best on the market are deluxe, multifunctional models.

• Cameras

Cameras are rapidly gaining popularity among millions of budding amateur photographers in China. Five to six urban residents out of every 100 own a camera. Models priced at ¥200–¥500 are the most sought after. The country's 12 million cameras still cannot satisfy demand, both in terms of supply and quality. 完

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US-China Trade Update

Moderate growth should continue in 1987, as the exports of both countries shift from commodities to manufactures

Karen Green

Last year proved to be better than expected for US–China trade. While some predicted that China's foreign exchange crunch would lead to a decline in two-way trade in 1986, the National Council for US–China Trade felt this pessimism unwarranted and predicted that bilateral trade would hold steady at the 1985 level of $8 billion. In fact, the trade figure hit $8.3 billion, a bit better than all estimates.

As usual, the two countries disagree on which side holds the favorable balance of trade, with both sides claiming a deficit of approximately $1.5 billion through the third quarter. This discrepancy is basically caused by differences in the definitions and accounting of CIF and FOB shipping and difficulty in determining the value of goods from China destined for the United States but transshipped in a third country, generally Japan or Hong Kong.

While China and the United States do not agree on the trade balance, both countries agree that US exports to China are decreasing slightly while China's exports to America are growing. On the face of it, this news is discouraging, but the aggregate figures disguise some positive trends and strong growth areas.

US EXPORTS

US exports to China in 1986 amounted to $3.1 billion compared to $3.8 billion during 1985 according to US Department of Commerce statistics. Several factors account for US sales to China slipping 18 percent last year, including the foreign exchange squeeze and Chinese limits on imports to prevent uncoordinated purchases in the wake of the economic decentralization. In a few cases, China's industrial ministries took advantage of the country's foreign exchange problems to set import limits that chiefly served to increase sales of their own products.

Bad year for commodity sales

The downturn in Chinese imports from the United States was not due only to import barriers erected to conserve foreign exchange. More important was the sharp decline in a number of traditionally strong imports such as wheat and lumber. The value of US wheat sales in 1986 fell over 90 percent, from $97 million to $6.4 million. Wood and lumber sales declined 45 percent, from $328 million to $180 million.

And 1986 was not the first bad year for US agricultural sales. In 1984, China curtailed US grain purchases, ostensibly in retaliation for US controls on textiles. But China would have probably cut back on large-scale grain imports anyway in view of the rapid growth of domestic production. After a slight decline in 1985, Chinese grain output rebounded in 1986 with a harvest yielding 390 million tonnes, up 10 million tonnes over 1985 and 4 percent above target. China has also developed alternative suppliers for cereals, currently including Canada and Australia. Wood and lumber sales have also declined in part due to countertrade deals with the Soviet Union that probably exceeded 600 million board feet in 1986.

Despite all this, the long-term picture in agriculture is by no means bleak. China is now eligible for subsidized agricultural sales under the US Department of Agriculture's Commodity Credit Corporation (CCC). Communist countries first became eligible for CCC's export bonus program last year when the Soviet Union bought 4 million tonnes of wheat. Now, in an attempt to counter competition from Western Europe, CCC sales can be made to any country that has purchased from the European Community (EC) under the EC's export subsidy programs. A USDA delegation returned from China in January to report that a 1 million tonne wheat sale to China is close to fruition.

By the end of the 1990s, China will also have to import feed grains since it must free up land to cultivate enough grain to feed its increasing population. China purchased 210,000 tonnes of US corn in late 1986, the first corn purchase from the United States in two years. The CCC also sold 145,850 tonnes of sugar to China for delivery in the first quarter of 1987, making it America's first large sale of sugar to China.

The shift to manufactures

But more significant on a broader level, US exports are shifting from foodstuffs to manufactured goods. The change portends a better long-term market for US exports, since China's imports of manufactured goods are far more stable than its imports of agricultural products.

Karen Green is the program manager for textiles, chemicals, and agriculture in the Business Advisory Services department of the National Council for US–China Trade and adviser to the Council's Import Committee. *This article is adapted from a speech given at the Council's FORECAST '87, a seminar held each year for member firms in Washington, DC.*

Sales of railway vehicles, for example, climbed dramatically to $170.7 million in 1986. Although this may represent a one-time sale, such sales often create bountiful follow-on markets. The banner year in aircraft sales in 1984 led to a 43 percent increase in sales of aircraft parts in 1986.

One reason for the upswing in US exports of manufactured goods was the stronger Japanese yen, which helped boost American competitiveness especially in high-technology products. During 1986, sales of office machines and computers rose 28 percent to $244.3 million. US telecommunications equipment sales were up 49 percent as Japanese market share dropped, but Western Europe picked up an even greater share of business.

Although US technology is generally acknowledged to be the most advanced in many areas, the Chinese still make their final purchasing decisions based on price, and the attractive concessional financing available from Western Europe and Japan puts US suppliers at a real disadvantage. Making a sale on the strength of the product alone is not easy if a European competitor can offer millions in government-backed loans, at low or no interest, for 30 years, with a 10-year grace period. This disadvantage is aggravated by US export controls, which are stricter than those of other individual COCOM nations or even COCOM itself.

China increased imports from the United States in key sectors designated for development in the Seventh Five-Year Plan (1986–90). Other priority areas include metalworking machinery, which saw sales climb 142 percent to $133.9 million; electric parts and equipment, which jumped 23 percent to $124.8 million; and power generating machinery, which hit $99.7 million, up almost 14 percent.

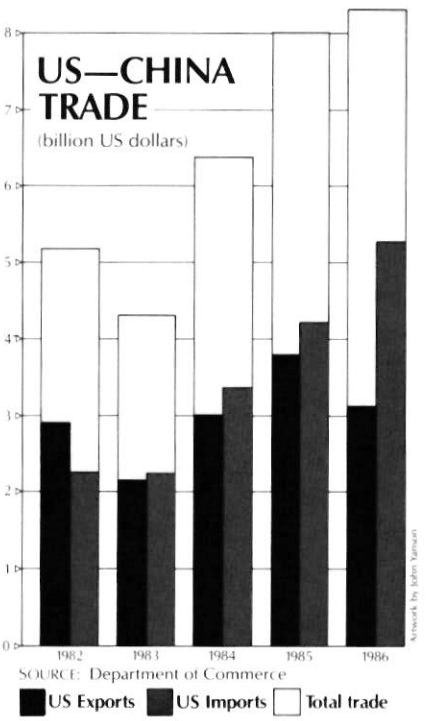
Evolving market shares

China did not slash overall imports in the wake of foreign exchange pressures as some observers feared, but instead dispensed with luxury items and products that could be made domestically while continuing to import products critical to modernization plans. Here again the Japanese were hardest hit. While the strong yen caused them to lose market share to Western Europe and the United States on products China was committed to buy, Japan lost even more in nonessential items such as refrigerators, televisions, and tape recorders—markets that largely shriveled up in 1986. In the first half of 1986, Japanese auto sales to China were down 91 percent from the preceding year while color televisions fell 87 percent. Toyota, for example, sold 90,535 vehicles in 1985, while 1986 sales were only projected to reach 8,000.

The Chinese cite their chronic trade deficit with Japan as another reason for declining purchases from that country. Japan had a $4 billion trade surplus in 1986, which, though down from $5.3 billion in 1985, is still high enough to cause continuing trade friction.

Both the United States and Western Europe are picking up market share as a result, but the European Community is outperforming the United States. This trend will continue. The Chinese claim to be diversifying their sources of supply, but this diversification, like the supposed link between their exports and imports, may be largely a rationalization for buying where it makes the best economic sense. Western Europe often wins out because it is more willing to license high technology and provide concessional financing.

Given the US budget deficit and the constraints imposed by the Gramm-Rudman bill, the US trade position may not improve much in the short term. But two to three years from now the picture is more encouraging. The emphasis in Congress this session will change from protecting US industry at home to helping US companies become more competitive worldwide.



The Chinese are in a good position to resume increased imports at the 6 percent annual rate projected in the Seventh Five-Year Plan. China's financial picture is sound; foreign exchange reserves are stable; and China's deficit is down since export earnings grew while imports dipped. The deficit from January through November 1986 was less than half that of the same period in 1985. The Chinese are also becoming slightly more amenable to international borrowing at commercial rates. In the first half of 1986, China borrowed $2.57 billion, of which less than 10 percent was at commercial rates.

CHINA'S EXPORTS

US Department of Commerce trade statistics for 1986 showed a healthy 24 percent increase in China's exports to the United States. China's success in increasing exports to the United States is remarkable in view of falling petroleum prices and rising protectionism.

Textiles take the lead

Until 1986, petroleum and its by-products were China's leading export to the United States. China lost $3 billion in export earnings worldwide last year due to falling oil prices. Sales to the United States alone dropped 32 percent, a loss of $333 million.

In the face of dwindling oil revenue, how did China manage to increase overall exports to the United States? China's continued expansion of textile trade was a key factor. A 78.4 percent increase in clothing and accessories earnings moved this category to first place among China's exports to the United States, ahead of petroleum sales. Earnings from textile yarns and fabrics were also up 27.1 percent.

Despite the growing number of US quotas, textiles and apparel account for 46 percent of China's total exports to the US. In 1980, when the two countries signed their first bilateral agreement governing textile trade, only eight categories were cov-

ered by quotas. Six years later, 67 categories are included. Three-quarters of China's textile exports now fall under US quota restraints, but the Chinese have consistently moved into new product lines as developed categories fell under restraint. Within controlled categories, they have also been able to improve quality in order to add per-piece value since the numbers cannot be raised.

Without quotas the Chinese would actually have less incentive to compete directly with US producers in high-quality goods and would stay in low-end goods longer—a market segment already abandoned by US manufacturers. And by limiting supply, quotas create an artificial demand that drives up prices to consumers. Since the Chinese will probably continue to find ways to maneuver around the quota system, the value of textile and apparel sales to the United States is likely to continue growing through 1987.

Emphasizing finished products

The strong showing of textiles vis-a-vis petroleum products indicates a shift in the composition of China's exports, similar to the trend in American exports. Chinese exporters are deliberately moving away from commodities and into higher value finished or semi-finished products.

Newer Chinese product lines such as footwear, toys, and sporting goods are emerging as top revenue earners. In 1981 the United States purchased just $6 million worth of toys and sporting goods from China, compared to $412.2 million worth in 1986. Similarly, Chinese footwear imports of $61.2 million in 1985 rose to $83.8 million in 1986.

But China's real goal for 1987 and beyond is to beef up sales of mechanical and electrical products. Last year mechanical and electrical goods accounted for under 10 percent of China's total exports worldwide—but exports in this area are growing fast. Total sales in 1986 reached $1.68 billion, up more than $500 million from the previous year.

Taken together, light industrial and electromechanical exports made up over 50 percent of China's exports worldwide. China can be proud of this achievement, since the export economies of underdeveloped countries usually rely far more heavily on textiles and commodities. But Chinese electromechanical products are mainly bound for Southeast Asia and the Third World and have yet to penetrate the US market.

Overall, China's export performance in 1986 was excellent. With the exception of petroleum products, traditionally strong sellers such as garments, antiques, and artwork all continued to grow in 1986. But China is beginning to diversify into light industrial and other manufactured goods, and more such products can be expected to penetrate the US market in the future.

Bilateral trade issues

In 1986 there were no political issues, such as arms sales to Taiwan, to cloud the US–China trade picture. Nor are any political issues currently looming for 1987. But some trade issues, particularly in the area of textiles, may create tension. China was extremely upset about the Textile & Apparel Trade Enforcement Act, or Jenkins Bill, which would have cut deeply into their textile sales. The bill was vetoed by President Reagan last August, with the veto narrowly sustained by the Congress. The Chinese lobbied hard to ensure the veto stayed in place and in numerous cases threatened to stop buying from US companies if the Jenkins Bill went through.

The ultimate failure of the Jenkins Bill did not put an end to the problem. It resurfaced the same week in Geneva at the signing of the extension of the Multifiber Arrangement (MFA). The MFA is an international agreement under the General Agreement on Trade and Tariffs (GATT), which controls international textile trade. Months later, China still declines to sign the renewed MFA which, largely at US insistence, covers silk, ramie, and other vegetable fiber products for the first time. Although neither silk nor ramie are produced in the United States, domestic industry representatives contend that they compete with other US-made products. China is unwilling to negotiate limits on these items, believing limits are unjust since China is virtually the world's only producer, but the United States has already begun imposing unilateral restraints.

The issue will heat up in the latter part of the year since America's bilateral textile agreement with China, which falls under the framework of the MFA, expires in December and must be renegotiated before then (*see The CBR*, Sept–Oct 1986, p. 26). Back on the domestic front, another textile bill will be brought by Butler Derrick (D-SC), Ed Jenkins' successor as the chairman of the House Textile caucus. According to its drafters, this bill will be far less stringent than last year's Jenkin's Bill so Congress may have a better chance of overriding the expected presidential veto.

Another major issue of concern to Chinese exporters is US import restraints, particularly antidumping laws. In filing dumping petitions, US producers ask the government to impose duties on foreign products that are sold for less than fair market value and appear to be injuring domestic industry (*see The CBR*, Sept–Oct 1986, p. 22). Antidumping actions are becoming increasingly common—in 1980, only one such action was brought, while in 1986 six were decided. The products investigated last year were bristle brushes, iron castings, wire nails, wax candles, steel pipe, and cookware.

But trade barriers are a two-way street. The Chinese have hindered access to their markets by banning imports of some 40 types of products and their production lines. They have erected indirect barriers as well (*see The CBR*, Jan–Feb 1987, p. 42). One example is the agricultural chemical registration procedures that mandate registration for all ag-chemicals. The registration process involves extensive and expensive field trials and toxicity tests. Foreign firms abiding by the system have spent years readying a product only to see the Ministry of Chemical Industry bring their own version to market with no testing whatsoever.

Trends to continue in 1987

The shift in the composition of both US and Chinese trade and China's increasing ability to diversify product exports will continue into 1987. In 1987 two-way trade will grow moderately, with the United States making more rapid gains in such areas as manufactured goods, office equipment, and telecommunications—areas where the United States is taking market share away from the Japanese. Except for some tension late in the year over textiles, the 1987 outlook for bilateral trade relations is promising. 完

China and the 100th Congress

A China trader's guide to issues and personalities in the new Congress

Paul Donnelly

China traders will want to keep an eye on Congress during the next two years. Leaders of both parties have announced that measures to reduce the recent trade deficit will replace taxes as their top priority for the 100th Congress. Trade issues may gain even further prominence as a popular theme for presidential hopefuls in the Congress as the 1988 elections approach.

Even the Reagan Administration, which vetoed protectionist trade legislation in the last Congress and continues to maintain that existing US trade laws are generally effective, has drafted proposals for specific "improvements" in US trade policy. The administration and the Democratic-controlled Congress are thus likely to compete for the lead in devising trade initiatives and in striking a workable balance between improving US competitiveness abroad and accommodating specific protectionist pressures at home.

Where that balance is finally struck may help shape the future of US–China trade well into the 1990s. Both countries want to maintain or increase their share of each other's markets. China is particularly concerned about actions Congress may take that will affect its export potential—and not without reason. After all, in the last Congress the House only narrowly failed to override a presidential veto of the Textile and Apparel Trade Enforcement Act, which would have cut China's textile exports to the United States by more than 50 percent. Moreover, the House of Representatives also passed a trade reform bill (HR 4800) last year that was labeled unfair to China by Chinese Ambassador to the United States Han Xu (*see The CBR*, Nov–Dec 1986, p. 6).

The Senate turns to "competitiveness"

As trade has evolved into a paramount political issue, "competitiveness" has emerged as the consensus goal in both Congress and the administration. The keynote of congressional initiatives on competitiveness this year is likely to be greater "reciprocity"—a principle that calls for the United States to be as open to a nation's products as that nation's markets are to US products.

Spearheading the Senate drive for greater reciprocity is Senator Lloyd Bentsen of Texas, the new chairman of the Senate Finance Committee. On February 5 Senator Bentsen and Senator John Danforth (R-Mo) proposed the Omnibus Trade Act of 1987. Unlike the House, the Senate trade debate has begun on a bi-partisan basis, with a majority of senators of both parties co-sponsoring the Bentsen-Danforth bill.

Both Bentsen and Danforth have long pushed for "free but fair" trade through reciprocity. Bentsen authored the amendment to the 1984 Trade and Tariff Act requiring the US Trade Representative to make an annual *Report on Foreign Trade Barriers*. The China section of the latest edition of this report estimates that China's various barriers to trade (including tariffs, import quotas, restrictions on services, and lack of patent protection) cost the United States about $260 million in lost opportunities in 1986. (To put this in perspective, however, the report estimates that Japan's protectionist policies for tobacco alone cost the US tobacco industry $600 million a year.)

The Bentsen-Danforth bill would authorize the president to negotiate reciprocal trade agreements require a series of specific executive branch trade policies to enhance American competitiveness; and strengthen US trade laws. Provisions that could affect China include adding the following to the list of unfair and unjustifiable foreign trade practices: state-owned enterprises trading on other than commercial terms; foreign governments requiring US firms to make special concessions before they are allowed to export; and requiring technology transfer as a condition of sales.

Clearly, trade is the top issue for the first months of this Congress. As one Republican senator put it, it would be "almost un-American" not to co-sponsor the trade bill. But there is no unanimity even among Senate Republicans, much less the Congress as a whole, regarding the particulars of trade reform. There are thus likely to be significant changes to the Bentsen-Danforth proposals before the full Senate votes on trade legislation.

The Senate Finance Committee, under Bentsen's active leadership, is likely to take center stage in the trade debates affecting China and other countries that restrict US access to their markets. The new Senate Majority Leader Robert Byrd of West Virginia is not considered an ideological trailblazer for the party and is not likely to take a leading role on trade issues involving China without a solid consensus. Senator Republican Leader Robert Dole will certainly stake out a position on trade and foreign policy issues with an eye toward the presidential elections, but he is

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widely viewed as a centrist in the party and, barring unforeseen developments during the Republican primaries, China is not likely to be a major factor in his campaign.

The House on trade

HR 3, the Trade and International Economic Policy Reform Act, is the current Democratic package of proposed trade reforms in the House. Introduced on January 6 by likely presidential candidate Richard Gephardt of Indiana, the 'Gephardt bill' had more than 180 original co-sponsors—all Democrats. The fact that virtually every leading House Democrat signed the Gephardt bill before it was introduced does not mean that every provision of the bill is likely to survive the legislative process unscathed. It is a comprehensive bill, and one that even Representative Gephardt expects to be merely the starting point for debate.

As such, the Gephardt bill still provides an early indication of where the debate is likely to go—and how US–China trade may be affected. According to Gephardt, "There is nothing in this bill to preclude China's entrance in the world economy. We would welcome an expansion of China's involvement in international trade."

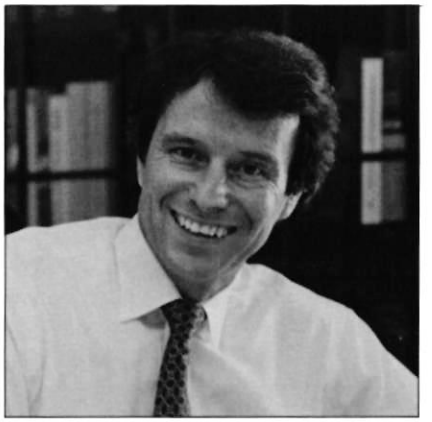
The House trade bill has been referred to six different House committees: Ways and Means; Agriculture; Banking, Finance, and Urban Affairs; Education and Labor; Energy and Commerce; and Foreign Affairs—which denotes either how comprehensive or how fragmented the House trade debate will be. In many cases it is not yet clear which committees will work on which issues.

It is clear, however, that the most important committee for US–China trade, at least in the early part of this Congress, is likely to be the House Ways and Means Committee, chaired by Daniel Rostenkowski of Illinois. Fresh from achieving a major coup in tax reform, Chairman Rostenkowski does not intend to let his Senate counterpart, Finance Chairman Lloyd Bentsen, dominate the international trade arena.

The Ways and Means Subcommittee on Trade will handle much of the initial reworking of HR 3 in early 1987. The full Ways and Means Committee will then take up the bill before it goes to the whole House. The full committee's review later this year will provide the best chance for fine-tuning the bill to reflect China traders' concerns. The trade debate may determine whether China's objections to US trade law as 'unfair and inconsistent' are resolved or exacerbated, particularly controversies over antidumping legislation, export controls, and what China regards as interference with internal matters such as labor rights.

Trade themes

Protectionism. Members of Congress respond to their constituencies. With the promotion of Representative Tony Coelho of California to the position of majority whip, the House leadership contains no representatives from the northeast for the first time in decades. This may presage a subtle shift toward concerns of the southern and western United States—and for China trade, an even greater concern with protecting two of those regions' key industries: textiles and semiconductors. The record trade deficit and concentrations of high unemployment in import-injured industries are the driving force behind trade reform. As Coelho points out, "In 1986, jobs were being lost in every congressional district as a result of imports."



Representative Don Bonker, chairman of the Subcommittee on International Economic Policy and Trade: "As far as technology transfer to China is concerned, I only see things getting better, not worse."

Immediately after the November 1986 elections, Chairman Rostenkowski led a Ways and Means Committee delegation on a fact-finding tour of East Asia. One of the most visible members of the delegation, Representative Ed Jenkins of Georgia (author of the textile quotas bill vetoed by President Reagan as too protectionist last year), repeatedly reminded his hosts that Congress would act on the record trade deficit this year. Following his trip, Jenkins observed that "some of the other countries in Asia are just as concerned that China will dominate the textile and apparel market as we are." But while more moderate textile quota legislation will be proposed this year by Congressman Butler Derrick (D-SC), Jenkins believes that the political momentum is now behind a more comprehensive approach to trade legislation.

Export controls: Export controls are likely to assume a prominent place in trade debates this year, with the outcome directly affecting US exports of sensitive technology to China. There is rising sentiment in Congress that the present US system of national security controls on high technology sales has contributed to the trade deficit, and that the system needs to be simplified and rationalized. But some in Congress, such as Jake Garn of Utah, former chairman and now ranking Republican on the Banking Committee, see the issue more in strategic than economic terms and continue to oppose liberalizing guidelines for increasing the sale of high technology to communist countries, including China.

For historical reasons, export controls in the Senate are under the jurisdiction of the Committee on Banking, Housing, and Urban Affairs, now chaired by Senator William Proxmire of Wisconsin. But short-term action on this issue is more likely to come from the House of Representatives. The Gephardt bill contains an entire section on export controls that specifically proposes loosening restrictions on high technology sales to China.

Congressman Don Bonker of Washington chairs the House Subcommittee on International Economic Policy and Trade (under the Foreign Affairs Committee), which handles export controls issues for the House. Representative Bonker has long favored increased trade with China, reflecting the interests of his constituency in exporting processed timber products. Bonker believes that this administration's policy of liberalizing export controls to China began well, but has since faltered in COCOM. He expects his subcommittee to "broaden, if anything, the export control section" of HR 3. While political developments in China may

USER'S GUIDE TO THE 100TH CONGRESS

The following committees and subcommittees are likely to take up issues relating to US–China business in 1987 and 1988. For up-to-date information on the House and Senate agendas, contact the Capitol switchboard: (202) 224-3121 (Senate) or (202) 225-3121 (House), or call the committees directly at the numbers listed below.

Committee	Chairman	Ranking Republican	Relevant jurisdiction for China watchers
SENATE			
Appropriations majority: 224-3471 minority: 224-7213	John Stennis (D-Miss)	Mark Hatfield (R-Ore)	All federal spending
Foreign Operations Subcommittee majority: 224-7274	Daniel K. Inouye (D-Ha)	Robert Kasten (R-Wis)	Spending on foreign aid, UN, World Bank, ADB, IMF, etc.
Armed Services majority: 224-3871 minority: 224-7530	Sam Nunn (D-Ga)	Strom Thurmond (R-SC)	Department of Defense, arms control
Banking, Housing, and Urban Affairs majority: 224-7391	William Proxmire (D-Wis)	Jake Garn (R-Utah)	International finance and monetary policy, export controls, Foreign Corrupt Practices Act
Finance majority: 224-4515 minority: 224-5315	Lloyd Bentsen (D-Tex)	Robert Packwood (R-Ore)	Tariffs, duties, import restrictions, international trade, bilateral trade agreements
International Trade Subcommittee	Spark Matsunaga (D-Ha)	John C. Danforth (R-Mo)	
Foreign Relations majority: 224-4651 minority: 224-7523	Claiborne Pell (D-RI)	Jesse Helms (R-NC)	Foreign policy involving foreign aid authorization, treaties, State Dept. nominations
East Asia and Pacific Affairs Subcommittee	Alan Cranston (D-Ca)	Frank Murkowski (R-Ala)	The geographic region defined by the Pacific Rim, including China
HOUSE OF REPRESENTATIVES			
Appropriations majority: 225-2771 minority: 225-3481	Jamie Whitten (D-Miss)	Silvio O. Conte (R-Mass)	All federal spending
Foreign Operations Subcommittee majority: 225-2041	David R. Obey (D-Wis)	Mickey Edwards (R-Ok)	Spending on foreign aid, UN, World Bank, ADB, IMF, etc.
Armed Services majority: 225-4151	Les Aspin (D-Wis)	William Dickinson (R-Ala)	Department of Defense, arms control
Banking, Finance, and Urban Affairs majority: 225-4247 minority: 226-7850	Ferdinand St. Germain (D-RI)	Chalmers P. Wylie (R-Ohio)	International finance, authority for US participation in IMF and World Bank, Foreign Corrupt Practices Act
Energy and Commerce majority: 225-2927 minority: 226-3400	John Dingell (D-Mich)	Norman Lent (R-NY)	Commerce, including export promotion and foreign investment in US
Interstate and Foreign Commerce Subcommittee	NA	NA	Export promotion
Foreign Affairs majority: 225-5021 minority: 225-6735	Dante Fascell (D-Fla)	William Broomfield (R-Mich)	Foreign policy, international trade (except bilateral trade agreements), export controls
East Asian and Pacific Affairs Subcommittee majority: 226-7801	Stephen J. Solarz (D-NY)	Jim Leach (R-Iowa)	The geographic region defined by the Pacific Rim, including China
International Economic Policy and Trade Subcommittee majority: 226-7820	Don Bonker (D-Wash)	Toby Roth (R-Wis)	Export controls
Ways and Means majority: 225-3625 minority: 225-4021	Daniel Rostenkowski (D-Ill)	John Duncan (R-Tenn)	Customs, bilateral trade agreements, import relief (e.g., antidumping, countervailing duties)
Trade Subcommittee majority: 225-3943	Sam M. Gibbons (D-Fla)	Philip M. Crane (R-Ill)	

Not all minority phone numbers were available at press time.

have made the issue more controversial this year, Congressman Bonker says, "As far as technology transfer to China is concerned, I only see things getting better, not worse."

Antidumping provisions: Another trade debate important to China will concern the application of antidumping rules to the exports of nonmarket economies. The Senate Finance and the House Ways and Means committees will debate whether to perpetuate the surrogate country method of determining dumping margins, which the Chinese condemn as inconsistent, or to replace it with a more predictable pricing remedy, as the administration has proposed.

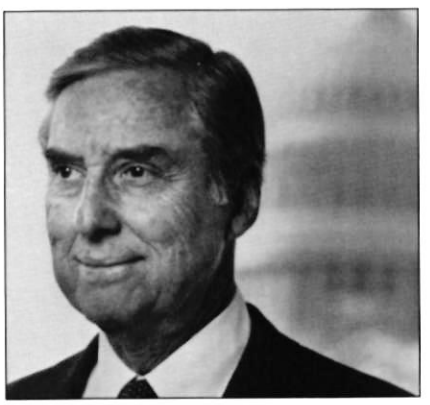
Contentious political issues

Trade is not the only China-related issue to watch in Congress. While it may be on the back burner for now, US policy toward Taiwan is among the most potentially disruptive issues in US–China relations. Congress explicitly assumed a role in maintaining Taiwan's security through the 1979 Taiwan Relations Act and does not necessarily consider itself bound by the administration's August 1982 communique in which the United States pledged to diminish arms sales to Taiwan.

The new chairman of the Senate Foreign Relations Committee may have a significant impact on the course of US–China relations. Claiborne Pell of Rhode Island, a former foreign service officer, has long been a leading advocate of self-determination for the people of Taiwan. Senator Pell is likely to hold hearings on Taiwan's future while he is chairman. Such hearings might provide a more visible forum for Taiwanese independence advocates to present their case. But, as they have in the past, the Chinese—and even the administration—will probably pay little heed to any Senate resolution regarding Taiwan's future.

With Jesse Helms of North Carolina assuming the role of ranking Republican on the Foreign Relations Committee, the potential for discord within the committee over China-related issues has risen sharply. The ranking minority position provides Senator Helms with a presumptive right to speak first for Senate Republicans on foreign policy issues. Senator Helms' record of obstruction on the committee is already impressive: he has held up confirmations, including that of US Ambassador to China Winston Lord, and was the primary force behind the requirement to negotiate an additional protocol to the US–China Tax Treaty as a pre-condition to Senate ratification. Helms is a longtime and outspoken foe of close US–China ties and is likely to use this committee position to promote relations with Taiwan.

The incoming chairman of the Subcommittee on East Asian and Pacific Affairs, Alan Cranston of California, is another likely player in any Foreign Relations Committee action affecting China. Senator Cranston was a key supporter of the Taiwan Relations Act and, during consideration of the US–China nuclear cooperation agreement, led efforts to reinforce China's commitment to nonproliferation before that agreement could take effect.



Senator Lloyd Bentsen, new chairman of the Senate Committee on Finance: "I don't expect Congress to pass trade legislation that will single out China . . . I'll be pushing for . . . expanding world trade . . . tearing down trade barriers . . . "

Another divisive issue in US–China relations has been the US decision to withdraw funding from the United Nations family planning program because of allegations that China's birth control measures include forced abortions. The Subcommittee on Foreign Operations within the Senate Appropriations Committee has jurisdiction over spending on UN programs. Senator Daniel Inouye of Hawaii took over the subcommittee this year from Senator Robert Kasten of Wisconsin, who sponsored legislation to protect Taiwan's seat on the Asian Development Bank (ADB) and remains a vocal critic of China's family planning policy. Inouye, on the other hand, strongly favors US participation in international family planning programs. If action is taken to restore the US contribution to the United Nations family planning effort, it is likely to originate here in the Senate subcommittee.

Will China stay out of the limelight?

The only congressional forum explicitly devoted to US–China trade no longer exists. The Energy and Commerce Committee, chaired by John Dingell of Michigan, has recently disbanded its Select Subcommittee on the Pacific Rim, originally called the Select Subcommittee on US–China Trade. Created in 1983 and chaired by Al Swift of Washington, the subcommittee had no legislative jurisdiction, but provided a useful forum for discussing US–China trade issues such as technology transfer and intellectual property rights. In its place the Energy and Commerce Committee has formed a new Subcommittee on Interstate and Foreign Commerce legislative jurisdiction over export promotion.

Another committee that still provides information on China's economy is the Joint Economic Committee, now chaired by Senator Paul Sarbanes of Maryland. The JEC has published a series of excellent reports on China's economy over the years and, while it too has no legislative jurisdiction, remains an intellectual focus of long-range thinking about China's economic development and US–China relations.

At this point it looks unlikely that any major foreign policy or trade crisis will arise to precipitate congressional action directly affecting US interests in China. But with a major omnibus trade bill brewing, issues with an indirect impact on US–China trade are sure to emerge.

The consensus is clearly for a general, comprehensive trade bill. China may thus stay out of the limelight for much of the time. As Senator Bentsen puts it: "We want to tear down barriers many countries have erected to trade, particularly in manufactured goods. I don't expect Congress to pass trade legislation that will single out China." The Finance Committee chairman goes on: "I would hope that six years from today we could look back and see world trade that started a steady expansion in 1986. That would be good for US businessmen, whether they do business in China or anywhere else." 完

China needs new and revitalized enterprises to achieve economic goals

The Evolving Enterprise

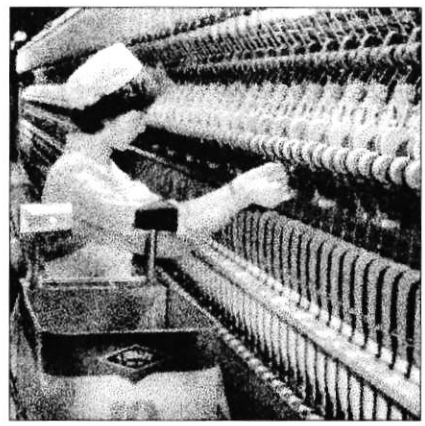
Julia S. Sensenbrenner

The boundaries between different types of enterprises in China are blurring as the government begins to relinquish direct administrative control—and even ownership in some cases—to the managers and workers within an enterprise. While managerial reforms seek to improve the internal workings at each factory, more fundamental changes in the enterprise ownership system imply redefinition of the basic Marxist concept of "ownership by the people." As enterprises evolve, they are gradually tipping the balance away from a predominantly State-run economy to one in which many enterprises set their own priorities, based on the needs of the market rather than the State.

How far these reforms will be allowed to go, and how fast, is by no means certain. Reforms begun in 1984 with the goal of giving more autonomy to enterprise managers are still being obstructed by recalcitrant bureaucrats and Party officials who refuse to acknowledge the new powers of the factory director. More fundamental changes involving new forms of enterprise ownership are still at an experimental stage and must weather opposition on both practical and theoretical grounds. But China's leaders appear to have accepted the fact that without changes in the enterprise system, economic reforms will be stymied.

Revitalizing State and collective enterprises

• **State enterprises** operate largely within China's central planning system. In 1985 the 7,900 large and medium-sized and 85,800 small State enterprises accounted for some 70 percent of China's total value of production. The State sets output targets for these enterprises and supplies



them with the raw materials needed to achieve these targets.

Limited reforms are taking place within this group, especially at the smaller State enterprises. Until 1983 all State enterprise profits were remitted directly to the State. Now enterprises pay a national corporate tax and various local taxes and have more control over how they use profits and set wage and bonus rates (*see The CBR*, Sept–Oct 1986, p. 62).

Nevertheless, the large and medium-sized State enterprises, including China's 7,000 "key" industrial enterprises, have been the slowest to implement reforms separating the Party and bureaucracy from management of the enterprise. State and Communist Party administrative "departments in charge" are particularly reluctant to relinquish managerial control over these backbone industries of the Chinese economy including transport and communications, energy, and other strategic sectors such as steel, cement, nonferrous metals, and lumber.

Late last year a survey conducted by the State Economic Commission confirmed that almost all large and medium-sized State enterprises "showed few signs of vitality, due to a lack of decisionmaking powers." This year, the government has made improving the management and economic efficiency of key industrial enterprises a top priority. To accomplish this, it will place more of these enterprises under the direct supervision of the State Planning Commission. Removal from the ministerial accounting systems allows the economic performance of each enterprise to be evaluated more independently and may also help enterprises avoid some of the intermediate-level bureaucratic control and regional ties imposed by provincial planners. A second plan, endorsed by a national conference on economic work in late January, is to use multiple variations on the responsibility system to tailor management to the individual situations of each large enterprise.

Passage of a bankruptcy law in December 1986 by the Standing Committee of the National People's Congress should also help increase efficiency among China's State enterprises. With over 20 percent of State enterprises now believed to be operating in the red, the law threatening unprofitable State enterprises with closure is an important break with the past. Ta-kuang Chang discusses the debates and experiments preceding passage of this law on page 42.

• **Collective enterprises** could more accurately be termed semi-private, semi-State enterprises. Collectives were traditionally run by the workers themselves, but during the 1960s and 1970s many of the larger

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urban industrial collectives came under the direct control of national and provincial bureaucracies. Today the State is gradually withdrawing funding and handing the reins back to the workers.

From 1980–85 the number of collectives grew 25 percent, reaching a total of 367,800. This growth reflects increasing vitality in the economic system and a national move to reclassify small State enterprises as collectives—by putting them under local guidance, removing them from State planning systems, and implementing a tax on profits.

Managerial reforms have penetrated collectives fairly readily. But their relative autonomy from the State planning system is not always an advantage. Collectives face increasing competition for raw materials and funds, lower wages and poor working conditions, a shortage of good managers and talented or skilled personnel, and low-quality technology and equipment.

Entrepreneurs and foreign investors make a comeback

• **Private enterprises** did not totally disappear when large private companies owned by China's capitalists were nationalized during the 1950s. Small individual enterprises completely outside the State planning system continued to fill gaps in the economy, particularly in the service sector. Although the number of individual enterprises steadily declined in the 1970s to about 100,000 in 1978, they rebounded to more than 11.6 million businesses employing almost 18 million workers by 1985.

The rapid growth of this sector slowed in 1986 due to bureaucratic interference; heavy and often arbitrary taxes (individual entrepreneurs must pay a commercial, profit, and new individual tax); difficulty in securing a shop location and financing; and trouble obtaining goods and materials. At mid-year the number of individual enterprises had dropped by 190,000, although by year-end it had climbed back to 1985 levels.

The serious problems that caused this slump continue to plague private enterprises, compounded by negative press reports (accusing individual entrepreneurs of speculation and other illegal activities) that have given them a poor image. But the government seems committed to this sector. A new organization, the All China Self-Employed Laborer's Association, was formed in late-1986, and a new law to protect the rights of private entrepreneurs is in the works.

Individual enterprises and collectives tend to be concentrated in the service sectors, where they accounted for 59.6 percent of all retail sales in 1985. (Collectives made up 37.2 percent of the total and private businesses contributed the other 15.4 percent.) Service sector enterprises are generally more suited to individual or collective ownership because they operate outside industrial supply channels, in areas less crucial to the overall functioning of the economy, and require less start-up capital.

• **Foreign investment enterprises** have grown rapidly in number since 1979, when China passed the first of a series of laws allowing foreign investment. By the end of 1986, 7,734 contracts had been signed to establish enterprises involving foreign investment.

Although the value of their production is still minor compared to the State sector, enterprises with foreign investment play a catalytic role in promoting changes in Chinese enterprises. Sino–foreign joint ventures served as operating models for China's new joint-stock enterprises, for example. And the desire of foreign businesspeople to have laws governing all relevant aspects of their operations in China may be pushing Chinese lawmakers to move ahead on new legislation governing enterprise ownership and operations.

Guangdong Province has become a testing ground for experiments with foreign enterprises and is pioneering its own regulations to define corporate existence and responsibilities for companies with a foreign element located in the special economic zones. Alexa Lam's article on page 45 looks at these important regulations, which may serve as a test case for a national corporation law.

New forms of ownership

• **Leased State enterprises.** In an attempt to make State enterprises more profitable, the Chinese government has begun to allow unprofitable State enterprises—mainly in the service sector—to be sold or leased to collectives and individuals. In fact, by October 1985, of the total 85,805 small State enterprises involved in retail, commerce, and catering services, more than 49,000 had reportedly been leased to collectives and some 7,300 had been rented to individuals. Another 7,847 were transferred to collective ownership, and a few were sold to individuals.

With the success of these service sector experiments, China has moved into leasing some small and medium-sized industrial enterprises. Wuhan reportedly leased 35 small industrial enterprises, and most of them have since emerged from the red. And in October 1986, the first medium-sized State enterprise, an automobile engine factory also in Wuhan, was leased to 10 Chinese investors. Although the State generally retains ownership of the original property and funds of the enterprise, the collective takes possession of the fixed assets owned by the State and, in return, provides depreciation funds, pays an agreed upon percent of profits to the State, and maintains and renews assets.

• **Joint-stock companies.** Reformers hope that allowing enterprises to issue public stock will increase enterprise accountability, raise employee motivation, and help promote China's nascent money market reforms.

Most of the enterprises now issuing shares in China are collectives or private enterprises whose employees buy the stock. But to test the idea of converting State enterprises to a share system, a few State enterprises are also experimenting with stocks. In Guangzhou, for example, several State enterprises were allowed to sell 30 percent of their stock to employees in order to raise money and improve management. And Chongqing recently ruled that all new enterprises in that city should be set up as joint-stock companies.

Stock-issuing enterprises pose the greatest challenge yet to the State ownership system, since classification of the enterprise as State, collective, or individual becomes extremely difficult. The case of the Beijing Tianqiao Department Store Company, which first issued public shares in 1984 after the merger of two department stores and a wholesale store, illustrates the ownership problem. The company sold 51 percent of its shares to the State, 26 percent to banks, 20 percent to other enterprises, and 3 percent to individuals. When it came time for the company to register, Tianqiao was unsure what type of ownership to claim. Finally, it

was agreed that the company is a new type of commercial entity—a mixture of all three types of ownership.

Joint stock companies remain very much an experiment. Conservatives raise the theoretical objection that stocks undermine the socialist nature of enterprises by eliminating ownership by the whole people and raising the specter of exploitation, since stock owners earn profits without putting in labor. Opponents also argue that shares should only be sold to workers in the issuing enterprise, not the general public, precluding the need to establish a whole new set of institutions to supervise and regulate stock transactions. Some planners fear they will lose control of capital construction spending if enterprises are allowed to raise their own funds, while other critics point out that individuals often do not realize the risk they are taking by investing in stocks. Yet so far these experiments with joint stock ownership generally appear to be successful in raising employee productivity. Moreover, the government has demonstrated that it can maintain control of stock-issuing State enterprises if it chooses to, by holding on to the largest block of shares.

• **Lateral economic cooperation.** Almost all economic transactions between China's enterprises used to be administratively orchestrated, but economic reforms now allow many enterprises to establish their own business relationships with each other. The term "lateral economic cooperation" is being used to describe the new forms of direct enterprise-to-enterprise cooperation, to distinguish them from transactions ordered and executed by administrative hierarchies.

One of the most common new forms of enterprise association is the domestic joint venture. Large State enterprises making brand-name, high quality products have found expanding production to be costly and time-consuming, if not impossible due to limits on existing infrastructure. To grow, they are now joining forces with smaller enterprises in towns and rural areas. Large enterprises escape restrictive administrative control and obtain new resources, while their partner benefits from ready-made markets and better-quality production.

Other forms of enterprise association include: successful but capital-short enterprises (often collectives) that obtain financing from other enterprises; raw material or components/parts producers that contract to supply the producers of final goods in return for a portion of the products; and State, collective, and individual enterprises (or any combination thereof) that pool their funds for research purposes or contract with specific research institutes to improve technology or develop new products. These associations have already produced new legal entities similar to large corporations based on share holding, or cooperative ventures between enterprises under different ownership systems.

Establishing legal boundaries

China hopes to define the hazy boundaries between the different forms of enterprises through legislation governing the formation and activities of all types of enterprises. While State enterprises already have a large body of legislation governing their activities, as detailed by Natalie Lichtenstein in her article on page 38, the legal framework governing State enterprises is still far from complete—and even fewer laws regulate the activities of other types of enterprises.

A law governing publicly owned enterprises is expected to be passed by the National People's Congress this spring, establishing fundamental guidelines on how State enterprises fit within the larger economy. The law will detail the legal liabilities of enterprises, factory directors, and their administrative units; the relationships between an enterprise and its administrative unit or the local government; and an enterprise's basic responsibilities and activities.

To help resolve debates over ownership, a second important law will be a national corporation (or company) law governing enterprises that issue shares or fall outside of the State ownership system. Senior Chinese officials indicate that such a law will probably be promulgated during 1987 but is not likely to be implemented before 1988.

The passage of a corporation law remains controversial due to its basic assumption that corporations should issue stock and have a board of directors. If the Chinese government eventually does pass a law based on such a "Western" ownership concept, it will signal that the government is ready to put its stamp of approval on the widespread and fundamental changes taking place in enterprises throughout China. 完

New laws and relationships for China's increasingly independent enterprises

Law and the Enterprise

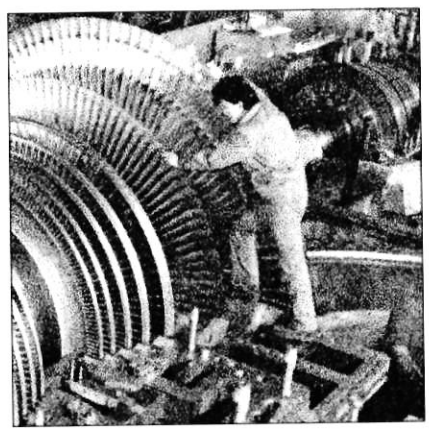
Natalie G. Lichtenstein

Enterprises in China today are, legally speaking, in a state of flux. Their operations, administratively controlled by the State for more than 30 years, are changing dramatically as a result of China's greater reliance on market forces and the growing separation of business and administrative functions.

While many new laws and regulations enacted in the 1980s attempt to codify enterprise reform (*see* box), defining an enterprise in legal terms remains difficult. Indeed, experiments in enterprise autonomy continue to outpace the national legislation that is needed to clarify enterprise rights and responsibilities.

What is an enterprise?

According to Article 41 of China's recently passed General Principles of Civil Law, State and collective enterprises are considered "enterprise legal persons." More detailed definitions of State enterprise rights and obligations are expected in a State



year.

Although the term "company" (or "corporation") is now in vogue among both State and collective enterprises, its legal implications remain unclear until China adopts a company law. A proposed company law, which is expected to address collective as well as State enterprises, has been under consideration for some time. The only existing legal definition of a company in China is found in the 1985 Provisional Regulations on Registration and Control of Companies. These regulations define companies as "economic entities engaged in production operations or service businesses which are established in accordance with the procedure in these regulations, have independent assets, are autonomous in management, solely responsible for profit and loss, and undertake economic responsibility in accordance with law." But this imprecise definition does not explain why entities might prefer, as a legal matter, to register as companies rather than as enterprises—as many are now doing.

To obtain the status of a legal person, State and collective enterprises (and companies) must apply for an operating license from the Administration for Industry and Commerce (AIC). The enterprise must submit documents to the AIC showing that it has been approved by the government "departments in charge" and the relevant planning department; in some sectors, it must also submit an enterprise charter. (Every company has to present a charter outlining its purpose, powers, organization, and other basic features.) The AIC, using criteria spelled out in the Regulations on Registration and Administration of Industrial and Commercial Enterprises, reviews the application and decides whether to issue a license.

Regulating enterprise activity

The State Industrial Enterprise Rules, promulgated in 1983, provide that State enterprises in certain sectors (mostly energy- and transport-related) must fulfill the responsibilities set by their supervisory units (usually the government department in charge). Once these plans are met, however, a State industrial enterprise can supplement production and—within the scope of State regulations—purchase goods, determine the price of its products, and apply

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for an export license. The enterprise is also given the right to manage its funds; set wages, bonuses, and fines for employees; and determine how it should be organized. In return, the enterprise assumes responsibility for quality control, environmental protection, and financial discipline. But it must still accept supervision from the local people's government in such matters as public security, fire prevention, land acquisition, and sourcing local supplies.

A 1984 State Council decision subsequently expanded State enterprise power, permitting these enterprises to retain 70 percent of depreciation funds and dispose freely of some other enterprise funds, produce and sell a broader range of products, set prices within 20 percent of State prices, and exercise greater decision-making power in the hiring and promotion of workers.

New relationship between the State and the enterprise

In China's planned economy, an enterprise's relationship to its supervisory unit (or department in charge) is crucial. All enterprises in China—even the country's few wholly foreign-owned enterprises—must report to some supervisory unit, usually a bureau within an industrial ministry that supervises factories.

The State Industrial Enterprise Rules of 1983 empower the supervisory unit to approve each enterprise's long-term program, annual plan, plans for major technical transformation or import of advanced technology, and appointments of higher-level management. The supervisory unit also determines the enterprise's product orientation and scale of production, and arranges the supply of inputs and sale of outputs under the plan. Most significant from a legal perspective is the stipulation that the decisions of a supervisory unit are binding on the enterprise, although the enterprise is free to propose changes. The supervisory unit, in return, bears economic and legal responsibility for its errors that harm the enterprise.

The relationship between the State and enterprises is changing as enterprise autonomy increases, guidance planning is substituted for mandatory planning, and market determination of inputs and outputs grows in importance. The fairly strict legal provisions in the State Industrial Enterprise Rules are expected to give way to further autonomy for enterprises when a State enterprise law is passed.

No general laws or regulations define the responsibilities of collective enterprises, although the number of collective enterprises has grown almost 40 percent since 1978. Legislation regulating the powers and duties of collectives will become increasingly important as their role in the economic system grows. Laws for collective enterprises need to be enacted, in particular to clarify the role of supervisory units in the operation of collective enterprises.

Monitored by many units

As the State substitutes indirect economic regulation for direct administrative control of enterprises, the legal relationship among the enterprises, local State agencies, and government departments is taking on added importance. Agencies and departments with a direct link to enterprise functions include:

- The AIC: In addition to registering enterprises, the local AICs are responsible for certifying and invalidating enterprise contracts, as provided in China's Economic Contract Law. The AICs also monitor enterprise compliance with the Trademark Law and the Regulations on Advertising.
- The tax bureaus: Now that State and collective enterprises pay income taxes, rather than simply remit profits to the State, tax audits are a growing priority. Provisional Regulations on Tax Management, issued in April 1986, strengthen the enforcement powers of the tax bureaus.
- Financial Supervision: The Accounting Law enhances fiscal discipline by establishing strict accounting procedures for State enterprises, and providing legal penalties and sanctions for noncompliance. Similar provisions for collective enterprises are alluded to in the Accounting Law. Established under the 1982 Constitution and operating under the Interim Auditing Regulations, the State Audit Agency inspects and reports on the financial performance of State enterprises.
- Banks: The advent of loan financing (in lieu of grants), coupled with the economic responsibility system for enterprises, has made commercial partners out of banks and enterprises. State enterprises, in particular, will now finance major capital construction through bank loans rather than financial allocations. But the bank still supervises enterprise use of loan funds and project implementation until the loan is repaid.

Loan contracts between the bank and enterprise have strong legal foundations. The Civil Law contains a special section on creditor's rights, including legal protection for lawful lending relationships. China has also passed Loan Contract Regulations that specify the content of loan contracts including interest, security, repayment, and default provisions.

In theory, loan contracts create an arm's-length relationship between the bank and enterprise, with legally enforceable rights and duties for both parties. In practice, the relationship is flexible enough to permit a bank to work out a compromise if the enterprise cannot meet its loan obligations. However, the Bank Management Regulations do prohibit nonbank units from granting exemption from loan repayment to any enterprise without State Council approval.

Contracts gain greater acceptance

As reforms allow enterprises to

make deals directly, without recourse to bureaucratic middlemen, contracts are no longer simply a way to ensure that State plans are fulfilled. To establish principles and regulations governing the commercial use of contracts, in 1982 the State Council promulgated the Economic Contract Law.

According to this law, a contract is a written agreement between legal persons, achieved through consultations and compensation of equal value. The contract should stipulate its basic objective; the quantity and quality of the goods involved; the price, time, place, and manner of contract fulfillment; and responsibility in case of default. Contracts between legal persons and individual entrepreneurs are subject to the same requirements, although contracts strictly between individuals are not. The law also spells out remedies in case a contract is modified or a party defaults—including doubling of deposit, payment of damages and penalties and, finally, resort to mediation, arbitration, and litigation.

By prohibiting enterprises from unilaterally altering or terminating contracts, using coercion against the other party, or soliciting interference from outside, China's Economic Contract Law has done much to allay the qualms of enterprises who have little experience with contracts. Because mediation or arbitration need not precede litigation in the case of default, the parties have greater control over dispute resolution. And if a contracting party's supervisory unit is responsible for its failure to fulfill a contract, the supervisory unit will be charged with breaking the contract and held liable for penalties and damages. This provision, together with the provision on *force majeure*, is reassuring to contracting parties that may fear being held legally responsible for events beyond their control.

Greater contractual freedom does not mean that State planning has become irrelevant, however. Economic contracts must accord with State laws and conform to State policies. Contracts that fulfill mandatory State plans must conform to State-set targets; contracts under guidance plans must take into consideration State targets as well as the actual conditions at the units concerned. Contract changes or cancellations are permitted only if they do not harm State interests or plans. On the other hand, a revision or cancellation of the State plan on which a contract is based is immediate grounds for modifying or canceling the contract.

The number and scope of transactions subject to State planning, and in particular mandatory planning, is likely to decline as economic reforms progress. For more and more transactions the contract will become the

SELECTED LAWS GOVERNING ENTERPRISE ESTABLISHMENT AND OPERATION

GENERAL

General Principles of the Civil Code. Adopted by the Sixth NPC 4/12/86; effective 1/1/87. *See The CBR* Sept-Oct 1986, p. 46.

ENTERPRISE REGISTRATION

Provisional Regulations on the Administrative System for National Specialized Companies. Issued by the SC 3/16/82.

Regulations on Registration and Administration of Industrial and Commercial Enterprises. Adopted 7/7/82. *See The CBR* Mar-Apr 1983, p. 28.

Provisional Regulations for the Registration and Control of the Names of Industrial and Commercial Enterprises. Approved by the SC 5/23/85; issued by the SAIC 6/15/85.

Provisional Regulations on Registration and Control of Companies. Approved by the SC 8/14/85; issued by the SAIC 8/25/85.

Provisional Measures for the Registration and Control of Lateral Economic Associations. Issued by the SAIC 3/31/86.

ENTERPRISE OPERATION

Provisional Rules for State Industrial Enterprises. Promulgated by the SC 4/1/83.

Provisional Regulations on Greater Decisionmaking Powers for State Industrial Enterprises. Issued by the SC 5/10/84.

Provisional Regulations on Control of Insurance Enterprises. Issued by the SC 3/3/85.

Provisional Regulations on Travel Agents. Issued by the SC 5/11/85.

Provisional Regulations on Control of Financial Trust and Investment Organizations. Issued by the People's Bank of China 4/26/86.

Regulations on the Responsibilities of Directors of State Industrial Enterprises. Adopted 9/15/86. Effective 10/1/86.

Regulations on the Responsibilities of Party Organizations in State Industrial Enterprises. Adopted 9/15/86. Effective 10/1/86.

Regulations on Workers' Congresses in State Industrial Enterprises. Adopted 9/16/86. Effective 10/1/86.

ECONOMIC CONTRACTS

Economic Contract Law of the PRC. Adopted by the Fifth NPC 12/13/81; effective 5/1/82. *See The CBR* Sept-Oct 1984, p. 13.

Regulations of the PRC on Arbitration of Disputes over Economic Contracts. Promulgated by the SC 8/22/83.

Provisional Regulations of the SAIC on the Confirmation and Handling of Invalid Economic Contracts. 7/25/85.

Provisional Regulations of the SAIC on Certification of Economic Contracts. 8/13/85.

SPECIFIC TYPES OF CONTRACTS

Contract Rules for Survey and Design of Construction Projects. Issued by the SC 8/8/83.

Contract Rules for Construction and Installation of Construction Projects. Issued by the SC 8/8/83.

Regulations on Property Insurance Contracts. Issued by the SC 9/1/83.

Regulations on Contracts for Sales of Industrial and Mining Products. Issued by the SC 1/23/84.

primary means of ensuring that enterprises fulfill their economic responsibilities. Hence, clear contractual rules to win the confidence of the contracting parties are needed more than ever.

Other enterprise relations

A growing body of legislation is encouraging enterprises to improve their performance by strengthening economic ties with other enterprises and by attracting new sources of capital.

According to China's Civil Law, joint business operations, for example, may be conducted either through a newly created economic entity that becomes a legal person in its own right, or through joint management by existing enterprises. Joint business operations are encouraged and regulated by the State Council Regulations on Lateral Economic Ties. The Regulations allow the participating enterprises to determine the form and structure of their associations and stress the voluntary nature of such associations among enterprises.

Another enterprise activity attracting a great deal of attention is the issuing of stocks and bonds to finance operations and investments. In the absence of national legislation governing stock and bond transactions, experimentation is going on in accordance with local rules. State enterprises in Guangzhou, Chongqing, Wuhan, Shenyang, and Changzhou can now issue dividend-bearing stocks directly to other businesses and individuals, with the permission of the People's Bank of China. Shenyang set up China's first post-Liberation securities market in August 1986, and Shanghai and Beijing have since opened their own markets. Shanghai has its own rules on public offerings of stock, promulgated by the local branch of the People's Bank of China, and last fall Guangdong Province, the city of Xiamen, and Hunan Province all passed regulations governing management of stocks and bonds. After sufficient local experimentation with the various alternatives, national regulations should be forthcoming.

Carefully controlled competition

Experiments with inter-enterprise competition, necessary to raise productivity and improve enterprise management, are also governed by a series of regulations. The 1980 Provisional Regulations on Promotion and Protection of Socialist Competition, as well as the 1984 Central Committee Decision on Economic Reform recognize that inter-enterprise competition is necessary to stimulate production and improve enterprise management. Monopoly is forbidden except in product areas under special

Regulations on Contracts for the Sale of Agricultural By-Products. Issued by the SC 1/23/84.

Regulations on Contracts for Processing Jobs. Issued by the SC 12/20/84.

Regulations on Loan Contracts. Issued by the SC 2/28/85.

Implementing Measures for Storage Contracts. Approved by the SC 9/25/85; issued by the Ministry of Commerce, Ministry of Foreign Economic Relations and Trade, and State Materials Bureau 10/15/85.

ENTERPRISE TAXATION

Trial Procedures for State Enterprises to Shift from the Profit-Delivery System to One of Taxation. Approved by the SC 4/24/83.

Trial Measures for the Second Step in Replacing Delivery of the Profits by State Enterprises with Payment of Taxes. Approved by the SC 9/18/84.

Provisional Income Tax Regulations for Collective Enterprises of the PRC. Issued by the SC 4/11/85.

Provisional Regulations on Tax Management of the PRC. Issued by the SC 4/21/86.

ECONOMIC REGULATION

Patent Law of the PRC. Adopted by the NPC 3/12/84; effective 4/1/85. *See The CBR* Jan-Feb 1985, p. 54.

Provisional Regulations on the Promotion and Protection of Socialist Competition. Approved by the SC 10/17/80.

Provisional Rules on Control of Advertising. Issued by the SC 2/17/82; effective 5/1/82. *See The CBR* Mar-Apr 1983, p. 27.

Trademark Law of the PRC. Adopted at the 24th Session of the Standing Committee of the Fifth NPC 8/23/82; effective 3/1/83. *See The CBR* Mar-Apr 1983, p. 28.

Accounting Law of the PRC. Adopted by the Ninth Session of the Standing Committee of the Sixth NPC 1/21/85; effective 5/1/85.

Provisional Regulations on Auditing. Issued by the SC 8/29/85.

Circular on Strengthening the Control Over Advertising. Issued by the SC 11/15/85.

Provisional Regulations on Bank Management. Issued by the SC 1/7/86.

Regulations Governing Several Questions on Further Promoting Lateral Economic Ties. Promulgated by the SC 3/23/86.

Circular on Earnestly Solving the Problem of Tied Selling of Goods. Issued by the SC 6/86.

Regulations Governing the Responsibility for Quality of Industrial Products. Promulgated by the SC 4/5/86.

The Law of the PRC on Enterprise Bankruptcy for Trial Implementation. Promulgated by the Standing Committee of the NPC on 12/2/86. *See The CBR* Mar-Apr 1987, p. 42.

LABOR

Provisional Regulations on the Recruitment of Workers by State Enterprises. Promulgated by the SC 7/12/86; effective 10/1/86.

Provisional Regulations Governing the Implementation of the Labor Contract System by State Enterprises. Promulgated by the SC 7/12/86; effective 10/1/86.

Provisional Regulations Governing the Dismissal of Undisciplined Staff and Workers of State Enterprises. Promulgated by the SC 7/12/86; effective 10/1/86.

Provisional Regulations Governing Unemployment Insurance for State Enterprises. Promulgated by the SC 7/12/86; effective 10/1/86.

(See also The CBR, Nov-Dec 1985, pp.40-45.)

Key:
NPC: National People's Congress
SAIC: State Administration for Industry and Commerce
SC: State Council

management by the State. Monopolies on advertising are also forbidden under the Regulations on Advertising.

The State Industrial Enterprise Rules define the State role as safeguarding lawful competition among enterprises and prohibiting the use of inappropriate or illegal competition, including trademark fraud, consumer fraud, price control, and bribery. In addition, the State Council's Circular on Earnestly Solving the Problem of the Tied Selling of Goods attacks the practice of selling quality products on the condition that inferior items are purchased at the same time.

Where true inter-enterprise competition comes into play, cases of bankruptcy may crop up. So far only one has been reported, at the Shenyang Explosion Prevention Equipment Factory, a collective enterprise declared bankrupt in August 1986 under Shenyang's municipal regulations. National legislation on bankruptcy, passed on December 2, 1986, will go into effect three months after the still-awaited State industrial enterprise law goes into effect. Officials hope the fear of bankruptcy will spur enterprises to improve efficiency and profitability.

Enterprise relations with workers concerning matters such as trade unions, worker safety, wages, and benefits, are governed largely by China's labor regulations. But with the October 1986 introduction of a labor contract system for all new employees in State enterprises, the State will have to reconcile the differences between these regulations and workers' own contractual provisions. Provisional regulations on worker dismissal, recruitment, and unemployment insurance were promulgated at the same time as the new labor contract system. In the gradual changeover to a labor contract system, these new regulations will ensure workers' rights are upheld as enterprises begin using contracts to employ new workers.

Protecting China's consumers

Consumer rights are protected by a growing body of legislation. The Company Registration Regulations protect consumers against underfinanced companies or companies not fully prepared to open for business. Other regulations prohibit enterprises from using names that could mislead consumers or be easily confused with another enterprise. The State Industrial Enterprise Rules prohibit the sale of below-standard products and require manufacturers to repair, exchange, or recall defective products. State Council regulations on product liability in 1986 reinforce this concern.

Similarly, the Trademark Law provides for supervision of trademarks in order to stop fraudulent practices that harm consumers. Finally, rules on advertising require that advertising be clear and truthful and indicate when goods are substandard, trial-manufactured, or on trial sale. The rules also provide that "no advertisement will be allowed to practice fraud or to hoodwink or deceive end-users or consumers in any way whatsoever."

An evolutionary process

In addition to legislation developing under the impetus of economic reforms, Chinese enterprises are subject to myriad internal rules and regulations written long before the post-1978 reforms were introduced. Often unpublished and specific to particular economic sectors, these internal rules will eventually need to be adapted to the restructured relations between enterprise and government. In the meantime, enterprise reform is fostering legal consciousness among enterprises that should pave the way for greater adherence to the many laws that reform has brought. 完

The remarkable making of the Chinese bankruptcy law

The East is in the Red

Ta-kuang Chang

On August 3, 1986, a historic event took place in China's northeastern city of Shenyang. For the first time since the founding of the People's Republic of China, a Chinese enterprise officially went bankrupt. Although the Shenyang Explosion Prevention Equipment Factory was only a small collective enterprise with fewer than 80 workers, its bankruptcy heralded a radical step forward in China's program of enterprise reform and a new phase in the gradual shift from central planning to a mixed economy.

Characteristic of China's empirical approach to reform and legislation, the country's first bankruptcy was an "experiment" conducted four

months before the Law of the PRC on Enterprise Bankruptcy for Trial Implementation (the "Bankruptcy Law") was passed on December 2, 1986. Moreover, trial implementation of the Bankruptcy Law, which applies only to State enterprises, will not begin until three months after implementation of the Law of the PRC on Enterprises Owned Wholly

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by the People (i.e., State enterprises)—a law that will not be passed before the spring of 1987.

Unprecedented debate over draft law

The two-year legislative process leading up to approval of the Bankruptcy Law was almost as remarkable as the new law itself. In the past, approval of laws by China's popularly elected legislature, the National People's Congress (NPC) and its Standing Committee has often been viewed as a rubber-stamp formality. This time the NPC Standing Committee not only vigorously debated the bankruptcy draft law, but also made numerous substantive amendments—in what was "an unprecedented democratic atmosphere," according to the Chinese press.

In another departure from tradition, the NPC debates on the law were covered extensively in the press and on television. And in the propaganda campaign that customarily accompanies the lawmaking process, slick new features were added: opinion polls and "test market" cities.

Foreign lawyers were even called in by the legal draftsmen to discuss the experiences of Western countries with bankruptcy laws. Meetings held in Beijing in August 1986 provided foreign lawyers with a rare glimpse into the thinking of some of the draftsmen and highlighted the fundamental differences between Chinese and Western conceptions of bankruptcy. Drafters also considered other bankruptcy models, including China's own bankruptcy laws of 1906 and 1935; the widely admired Hungarian and Yugoslavian bankruptcy laws; and the rarely applied law of the Soviet Union.

The draft bankruptcy law was first presented by a vice chairman of the powerful State Economic Commission to the 16th session of the Standing Committee of the Sixth NPC in June 1986. The law was originally scheduled to be passed during the August–September 17th NPC Standing Committee session, and indeed, the usually authoritative *Beijing Review* prematurely announced its passage in August. But controversy between supporters and opponents of the law proved so intense that the law was finally tabled until the November–December (18th) session. Even then the draft law still encountered heated debates and was only passed in December after the two sides reached the peculiar compromise of publishing the law but not implementing it until at least six months later.

The intensity of the debate was not unexpected for a law questioning so many of socialism's fundamental assumptions. But the extent to which the leaders allowed heated issues to be played out in the press, for all—including foreigners—to see, was nothing short of astonishing.

Justifying a "radical" remedy

At the heart of the debate was the question of whether bankruptcy was possible in a socialist state. Some argued that it was not, since China's State enterprises are owned by the State and operate in a State-controlled economy. Mindful of earlier claims that the absence of bankruptcy in China proved the superiority of socialism, many opponents stressed the inherent duty of the socialist state to protect the jobs of its citizens.

Interestingly enough, the bankruptcy law also encountered objections from reformers who questioned the practicality and fairness of forcing enterprises into bankruptcy as long as enterprises lacked real control over their own costs, prices, and management. But the reformers turned the argument of the conservatives on its head and instead called for faster and more radical reforms in order to give enterprises enough decisionmaking power to make bankruptcy a meaningful deterrent. Some press commentators even boldly proposed that the system of ownership in the country should be altered, granting managers "relative ownership" of the enterprise, while the State retained only "absolute ownership."

Supporters of the law argued that poorly managed enterprises were a drain on China's "socialist commodity economy." Many pointed to a need for a legal mechanism for disciplining and, in the worst case, closing inefficient enterprises.

Who goes bankrupt—and when?

At what point should a Chinese enterprise be considered bankrupt or imminently bankrupt? The earlier drafts of the bankruptcy law, tried out in the test cities, stated that an enterprise would be given a one-year warning of imminent bankruptcy when its balance sheet and income statement violated certain financial ratios. One draft set a ratio as total debt exceeding 60 percent of tangible assets, while in another draft the ratio was specified as losses exceeding 80 percent of registered capital.

But the law drafters soon realized that such mechanical financial-ratio criteria did not work: they failed to take into account the differing capital structures and circumstances of Chinese enterprises, many of which have tremendous debts and are chronically in the red. Nor were the drafters willing to allow major enterprises in vital industries to go bankrupt. In meetings with drafters, American lawyers pointed out that the former US bankruptcy statute contained analogous balance sheet tests for bankruptcy, but these were abolished in 1978 in favor of the broader standard for involuntary company bankruptcies of "generally not paying debts as they become due." Similar general standards are found in the bankruptcy laws of other Western countries.

During the August–September session of NPC Standing Committee discussions, law draftsmen changed the financial-ratio criteria for bankruptcy to a more general bankruptcy criterion—an enterprise sustaining heavy losses because of poor management and unable to pay debts that are due. A public utility enterprise or an enterprise essential to the national economy and the people's livelihood will not be deemed bankrupt if the "relevant governmental departments" provide subsidies or otherwise helps it to repay its debts. An enterprise will also be spared bankruptcy if it obtains guarantees that its debts will be repaid within six months of the petition for bankruptcy.

The question of foreign ventures

Earlier ambitious drafts of the bankruptcy law would have applied to Chinese–foreign equity joint ventures, Chinese–foreign cooperative ventures, wholly foreign-owned enterprises, individual enterprises, collective enterprises, and State enterprises. To some foreign investors, the drafts raised the alarming possibility that some of their money-losing investments in China might actually be declared bankrupt. Other foreign lawyers and investors actually hoped the new law *would* apply to Chinese–foreign joint ventures. In acknowledging the priority rights of secured

creditors in such a law, China would have taken an essential step toward the establishment of a national mortgage system for joint ventures.

Without such a national mortgage system, foreign bank loans to a joint venture generally cannot be secured by the assets of the joint venture. Such loans now must be guaranteed by the foreign investor (usually an unacceptable risk) or by one of the Chinese financial institutions authorized to provide guarantees—most of which are dangerously overcommitted on guarantees and must abide by strict limits on the amount they can guarantee.

But given the often-divergent rules that govern Chinese enterprises and those involving foreign investment, innumerable technical difficulties arose in drafting a bankruptcy law that would satisfy the needs and peculiarities of both. Thus, during the August–September session of the NPC Standing Committee, the draft law was revised to apply only to China's State enterprises. Meanwhile, a separate local bankruptcy regulation for enterprises involving foreign investment is now being tried out in the Shenzhen Special Economic Zone (*see* p. 45).

Although the Shenyang Explosion Prevention Equipment Factory was a collective enterprise, and so not covered under the revised Bankruptcy Law, its bankruptcy proceedings continued under Shenyang's own Trial Provisions, and its assets were auctioned off in September 1986, returning about 50 fen (50 percent) on the yuan.

Pinpointing responsibility

Because a primary purpose of the Chinese bankruptcy law is to discipline inefficient enterprises, the law's drafters paid much attention to developing effective means of punishing the management of bankrupt enterprises and seemed disappointed to learn that Western bankruptcy laws did not contain such provisions. In the United States, for example, managers of inefficient companies can be fired but are subject to criminal penalties only if they commit fraud or other crimes.

Earlier drafts of the bankruptcy law provided severe penalties for the managers of bankrupt enterprises, and following the Yugoslavian bankruptcy law model, prohibited such managers from taking similar managerial positions for three years. In the later draft, the rule became much more general, providing that the legal representative of the enterprise and the leaders of the "department in charge" principally responsible for the bankruptcy of the enterprise would face "administrative sanctions," but that criminal penalties could be imposed only if criminal acts had been committed.

Discussing the bankruptcy law with the Chinese drafters also clarified for Western lawyers the seldom-understood importance of the "department in charge"—the government agency that directly supervises the daily operation of all enterprises in China, including Chinese–foreign joint ventures. While the Chinese government is beginning to recognize that Chinese–foreign joint ventures should not be tightly controlled by the department in charge, this supervisory unit still plays a crucial role in the business aspects of Chinese enterprises—and bankruptcy will be no exception. Under the bankruptcy law, the department in charge is the only party authorized to petition for reorganizing the bankrupt enterprise. And after the enterprise and its creditors reach an agreement approved by the court, the department in charge "carries out" and "coordinates" the reorganization of the enterprise. But if the leaders of the department in charge are responsible for an enterprise going bankrupt, they are subject to "administrative sanctions."

Protecting the workers

Hardline opponents of the bankruptcy law were particularly concerned about the plight of workers laid-off from bankrupt enterprises, since the existence of a bankruptcy law questions China's long-held assumption of permanent employment. Bankruptcy law supporters first tried to head off debate on this issue by proposing that, since the State Council had already passed the "Interim Provisions on Unemployment Insurance for State Enterprise Employees," specific provisions on worker benefits could be deleted from the bankruptcy law. But, in general, the Unemployment Insurance Provisions provide less generous benefits than those specified in the early drafts of the bankruptcy law. For example, under the Unemployment Insurance Provisions, a worker laid off by bankruptcy will receive 50–75 percent of his previous wages (reduced from up to 90 percent) for two years (instead of three), and such benefits will be funded by employer contributions of 1 percent of the total wage bill (reduced from up to 5 percent).

During the November–December session, the conservatives amended the final law to require that the government must "through all different means, appropriately arrange reemployment for and guarantee the basic living needs of the workers of bankrupt enterprises." But the specific guidelines for unemployment benefits of the earlier drafts were deleted from the final law.

In the Shenyang bankruptcy, the factory's handicapped workers were placed into other jobs by the relevant government departments; chronically ill and retirement-age workers were allowed to retire; and other workers received 75 percent of the original wages for six months, then ¥30 per month from a relief fund if still unemployed.

Experimentation and the lawmaking process

The legislative process for the Bankruptcy Law included many significant innovations in soliciting public opinion and attempting local experimentation, which may mature in the future into uniquely Chinese democratic institutions.

As with most Chinese laws, the lawmaking process began with formation, in December 1984, of a drafting task force comprised of officials with relevant experience or knowledge. The drafting task force was headed by a State Council official who, in an unusual move one month earlier, had published his own proposed draft of the bankruptcy law in the widely circulated magazine *Democracy and the Legal System*. The task force then traveled to major cities to solicit opinions on the draft.

China has evolved a successful procedure for getting the bugs out of new laws by implementing local versions of such laws in the special economic zones or Guangdong Province before their eventual promulgation on a national level. But industrialized cities with their many older enterprises, rather than the newer economic zones, were chosen as more appropriate sites to "test market" the bankruptcy law.

In February 1985 the Shenyang

city government issued the Trial Provisions for Handling the Bankruptcy and Closing of Urban Collectively Owned Industrial Enterprises. Subsequently, several enterprises in the four test cities of Shenyang, Wuhan, Chongqing, and Taiyuan were given "yellow warning cards" of imminent bankruptcy. These enterprises were warned that, unless they reduced their losses within one year, they would be declared bankrupt.

Some of these enterprises made a turnaround and escaped bankruptcy. One did not. To date, a total of 11 enterprises in the four test cities have received yellow warning cards. Many of these failing enterprises have been described in detail in the press, perhaps to serve as negative examples.

In September 1985 the task force completed an opinion solicitation draft of the Bankruptcy Law, which circulated to a large number of national and local government departments for comment. This is one of the most important steps in the Chinese legislative process. After compiling the comments received on this draft, the task force drew up a formal draft law, approved in principle by the Standing Committee of the State Council on January 31, 1986, and submitted to the NPC Standing Committee for approval.

But the opinion gathering went much further than this. In a novel experiment, more than 500 people in four other cities responded to a detailed poll about the law in January 1986. The generally favorable results were widely publicized in the press during that summer. But in a revealing commentary, one article reported ingenuously that 81 percent of those who had not already participated in a propaganda seminar on the bankruptcy law thought it would *not* be possible to promulgate and implement the law. But of those who attended a seminar, 91 percent agreed that the bankruptcy law should be promulgated as soon as possible. This illustrated, according to the article, the importance of propaganda work.

Scholars, officials, and experts also expressed their views on the Bankruptcy Law at a major policy conference on the law held in Shenyang last year, and their opinions will again be solicited at the conference on the Bankruptcy Law to be held next fall in Wuhan and Chongqing.

Perhaps the most significant aspect of the making of the Bankruptcy Law, as already noted, was the "unprecedented democratic atmosphere" of the debates of the NPC Standing Committee, and its important input in the law's formulation.

The conservatives in the National People's Congress who had voiced opposition and supported amendments to the Bankruptcy Law are precisely those who have disagreed with the rapid pace of China's recent reforms. Led by Peng Zhen, chairman of the NPC Standing Committee, these conservatives used the occasion of the January 1987 (19th) session of the NPC Standing Committee to express their views on "bourgeois liberalization." Therein lies the paradox of democracy: that China's elected legislature is developing into the very forum for conservative opposition to the economic and political reforms. 完

Landmark regulations govern all companies with foreign investment in Guangdong's SEZs—from establishment to dissolution

Foreign Corporate Identity

Alexa Lam

Two experimental laws promulgated late last year in Guangdong Province are China's first comprehensive attempt to define corporate existence and responsibilities for companies with a "foreign element"—including Chinese–foreign equity ventures, Chinese–foreign cooperative joint ventures, wholly foreign-owned enterprises, and Chinese–foreign companies limited by shares. It is no coincidence that these legal experiments are taking place in Guangdong—home to the majority of China's foreign investment projects. Guangdong's pathbreaking legislation may eventually serve as a model for national laws related to Chinese–foreign ventures, as national legislative draftsmen gradually move beyond their current efforts to define the legal environment for Chinese enterprises.

The first of these two laws, the Regulations on Foreign Companies of the Guangdong Special Economic Zones (the "Regulations"), confer legal person status on Chinese–foreign cooperative ventures for the first time and provide some ground rules for operating these ventures. Promulgated last September and in effect since January 1, 1987, the Regu-

lations address the establishment, operation, management, liability, and liquidation of the above four types of enterprises located in Guangdong's special economic zones (SEZs)—Shenzhen, Zhuhai, and Shantou. The Regulations are not retroactive, however—existing enterprises may continue to enforce specific provisions in their contracts and articles of association even if they conflict with the new provisions.

The second law, the Foreign Companies Bankruptcy Provisions of the

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Shenzhen Special Economic Zone ("the Shenzhen Bankruptcy Provisions"), promulgated on December 7, 1986, applies to all Chinese–foreign equity and cooperative ventures, wholly foreign-owned enterprises, and Chinese–foreign companies limited by shares and established in the Shenzhen SEZ. They supplement the Regulations, providing additional legal clarification for the bankruptcy of certain Shenzhen-based companies whose total assets cannot cover debts as they fall due. Although the procedures for liquidating and dissolving companies are generally set out in the Regulations, it makes good sense, and is indeed common practice in the West, to establish separate detailed rules governing bankruptcy, which is just one of the grounds for liquidating and dissolving companies.

Limiting liability

China's national laws governing Chinese–foreign equity joint ventures and wholly foreign-owned enterprises confer legal person status upon these entities, entitling them to civil rights and responsibility for their own civil obligations. No similar regulation yet exists for cooperative ventures. The Regulations, however, hold that at least in Guangdong's SEZs, cooperative ventures and Chinese–foreign companies limited by shares are also Chinese legal persons.

In fact, the Regulations go a step further by identifying all four types of Chinese–foreign cooperation as limited liability companies. The Regulations do not explain what "limited liability" means, however. In most countries this term means that liability for each of the company's shareholders is limited to the amount of the company's capital that has been subscribed but remains unpaid by such shareholder, and indeed similar principles are found in China's 1983 implementing regulations for equity joint ventures.

But many Chinese organizations find this definition hard to accept. In one joint venture contract negotiation, the Chinese party insisted on deleting a clause stating that the "creditors of the company shall not have recourse to the joint venture parties but shall look solely to the assets of the company for satisfaction of their debts." The Chinese claimed that, since the concept of limited liability is well understood in China, putting such a provision in the contract could only be taken as a lack of faith in the sophistication and good faith of the company's future creditors. Yet one Chinese participant later commented that it would not be fair to allow joint venture parties to deny liability to their creditors when the joint venture has trouble paying!

Given this confusion over terminology, it is not surprising to find that the Regulations contain a contradictory provision stating that if a cooperative venture cannot pay off its liabilities upon liquidation, the JV partners are personally liable in accordance with the ratio of their profit sharing—a classic formulation for unlimited liability. The Shenzhen Bankruptcy Provisions, on the other hand, classify all four types of Chinese–foreign companies as limited liability companies, without noting the personal liability, if any, of partners in a cooperative venture. It is hoped that such contradictions and ambiguity will be resolved in the national corporation law now being drafted, since foreign investors need to know the exact limits of their exposure in any chosen form of investment.

Some investors may now face even greater exposure with the new requirement in the Regulations that all four types of Chinese–foreign companies must have registered capital valued at a minimum ¥1,000,000 (approximately $270,000)—at least 25 percent of which must comprise the first payment. This may dampen the enthusiasm of Hong Kong and Macau investors with small projects in Guangdong Province.

Management concerns

The Regulations on Foreign Companies of the Guangdong Special Economic Zones introduce certain subtle yet fundamental changes in the management and control of equity ventures and cooperative ventures that may shake up the delicate balance of power in some joint ventures. Previously, many partnership-like cooperative ventures had a loose, informal body as their nucleus of control, but this practice is no longer permitted.

China's 1983 equity joint venture implementing regulations specify that the Chinese partner appoints the chairman of the board, a pattern that has generally held true for cooperative ventures as well. (All four types of Chinese–foreign ventures must designate a board of directors as their highest authority.) Typically, the foreign partner appoints the general manager, who has the final say (without having to obtain his Chinese deputy's consent) on day-to-day operational matters. The foreign party uses this general manager to control company operations while the chairman acts more as a figurehead. But the Regulations now provide that, if both partners and the municipal government agree, the venture's chairman may be appointed by the foreign partner and the deputy chairman by the Chinese partner.

The right to appoint the joint venture chairman may be more important now that the Regulations add to the power given to the chairman under the JV Implementing Regulations. For instance, the chairman's responsibilities now include carrying out board policy decisions and handling major problems in accordance with both the articles of associations and board resolutions. And, if the general manager and deputy general manager of equity and cooperative ventures do not agree, the chairman makes the final decision.

The Regulations also grant the board of directors power to set minimum prices for a joint venture's products. If the general manager and the deputy general manager sell below this minimum without approval from the chairman or the board, they bear responsibility for the economic consequences. If taken literally, this provision also gives the chairman the power to independently authorize sales below minimum prices. As sales are usually the venture's lifeblood, the foreign partner will want at least as much say as the Chinese partner in setting prices. Although the foreign partner may now want to appoint the chairman to resolve this and other management problems, the feasibility of doing so remains uncertain.

Foreign investors are often concerned about the legal duties and liabilities of Chinese–foreign venture directors. The Regulations make it clear that if an enterprise commits illegal acts such as operating outside its permitted scope of operations; deliberately withholding information from tax, municipal, and administrative bureaus; fraudulently avoiding debts; or breaking the law, the enterprise, its legal representative, and all "persons responsible" are subject to criminal sanctions and

fines. The national corporation law needs to clarify a director's fiduciary duty to the company and its members and indicate whether a director is included in the "all persons responsible" category.

Mortgage of equity interest

There is no national mortgage law in China. The Provisions of the Shenzhen Special Economic Zone on Administration of Mortgage Loans, promulgated in 1986, represent the country's first attempt, albeit at a provincial level, to provide for the creation, registration, and enforcement of mortgages over certain types of property, including stock ownership in equity ventures and cooperative ventures in the Shenzhen SEZ.

Under the Regulations, a party can now pledge its ownership interest in an equity or cooperative venture provided that the board approves. For cooperative ventures, the amount secured cannot exceed that party's total investment less the return on investment received by that party so far. Whether wholly foreign-owned enterprises can mortgage their interest remains unclear, although there is no reason this right should be denied to such investors.

Specific guidelines for companies limited by shares

Companies limited by shares could play an important part in opening up ownership of the means of production. Already a number of State and collective enterprises are experimenting with this corporate form through the issue of shares to employees and members of the public.

As companies limited by shares become more popular as a form of investment and a means of raising capital and minimizing risks, the rules governing the structure, powers, and liability of such companies and the responsibilities of shareholders, directors, and officers must be clearly spelled out for the protection of investors and creditors. The Regulations begin to clarify some of these issues, but uncertainties remain.

• **Incorporation.** The Regulations specify that a minimum of five incorporators can establish a company limited by shares—but at least half must be from the Guangdong SEZs. Equity ventures, cooperative ventures, wholly foreign-owned enterprises, and companies limited by shares established in the Guangdong SEZs should all qualify, in theory, as "parties from the Guangdong SEZs." But whether Chinese authorities will allow such a broad interpretation of the term remains to be seen.

• **Public vs. Private.** The Regulations do not say whether a company limited by shares is considered public or private. In the West, this is a practical distinction—investors wishing to form a closely controlled corporation with limited outside access will opt for a private company that, in many jurisdictions, is not even required to file an official list of directors and shareholders. Public companies, whose shares are publicly listed and traded, offer investors more liquidity. As China's fledgling stock exchanges grow and new ones open, it will be important to differentiate between public and private companies and to impose stricter disclosure and filing requirements on the former.

• **Shares.** The Regulations envisage that, after fulfilling a 25 percent subscription rule for incorporators, a company may invite subscriptions from the public. But the disclosure requirements governing the prospectus or offering document are rather sketchy. While the prospectus must disclose the company's total stated capital, the size of the offer apparently need not be revealed.

The Regulations place no limit on the number of shares a company may issue or the number of shareholders it may have. This echoes the Provisional Measures of Guangdong Province for the Administration of Stocks and Bonds (the "Stock Measures"), which specifically restrict State enterprises to issuing shares with a stated value less than 49 percent of their aggregate net assets but places no limit on other types of enterprises.

Even more important, the Regulations specify that shares may be offered to PRC entities and foreign investors. Apart from the requirement that at least half of the incorporators come from the Guangdong SEZs, there are no other restrictions on the nationality or domicile of the shareholders.

All shares are freely transferable, with two exceptions. Incorporators cannot transfer their shares during the first year, and any shares trans-

Photos courtesy of China Features

A workshop of the Huasi Enterprise Share Co. Ltd. in the Shekou SEZ. Companies in Guangdong's SEZ now invite share subscriptions from the public.

New factories crowd together in Shenzhen's Special Economic Zone.

ferred by directors must be approved by the board.

• **Dividends.** Although the Regulations do not impose any ceiling on the amount of dividends payable, the Stock Measures do stipulate that the total amount of dividends and profits distributed annually cannot exceed 15 percent of the company's "capital share" (presumably the capital represented by the total stated value of all shares issued). Nor can the dividend exceed by more than 20 percent the rate of interest announced by banks for one-year, fixed-rate deposits. (It is not clear, however, what size of deposit should be used as the standard for determining interest.)

• **Bonds.** Share companies can also issue bonds with the approval of the SEZ municipal governments. Bonds, like shares, may be sold to foreign investors, and the value issued may not exceed the company's total net assets. Funds raised by issuing bonds with the alleged purpose of paying off existing debts may not be used for any other purpose.

In offering documents, the company must disclose the amount of its paid-in capital, current net assets, and the purpose of the issue. Some of the information typically disclosed in a bond issue in the West—such as the company's most recent audited balance sheet and profit and loss statement, auditor's report, particulars of directors, list of shareholders, and major contracts signed or obligations undertaken by the company—do not have to be disclosed.

Although the Regulations impose no restrictions on interest rates payable on bonds, the Stock Measures stipulate that they cannot exceed the interest rate offered by banks for fixed-period deposits by more than 25 percent. (Again, it is not clear what size deposit should be taken as the standard.)

Allowing foreign investors in the Guangdong SEZs to incorporate limited liability companies and acquire shares and bonds issued by such companies is a major step toward opening up the Chinese capital financing market.

Voluntary and compulsory dissolution

The Regulations describe the liquidation process from initial dissolution procedures to creditors' meetings, debt priority, capital repayment, and civil as well as criminal sanctions. In general, the Shenzhen Bankruptcy Provisions contain similar but at times conflicting provisions on company liquidations due to bankruptcy. The bankruptcy provisions fail to specify their relationship with the previously approved Regulations, or how conflicts between the two pieces of legislation should be resolved.

The Regulations specify two types of dissolution—voluntary and compulsory. For voluntary dissolution, a company must apply to the municipal government, which will approve the request unless the company or the joint venture partners have committed "gross violations." Acceptable reasons for voluntary dissolution include: expiration of the joint venture term, an event of *force majeure*, the sale or transfer of all the company's assets, and fulfillment of any other grounds for dissolution as stipulated in the joint venture contract or articles of association.

Compulsory dissolution proceedings begin when an interested party petitions the local people's court for an order for dissolution. A company failing to follow environmental pollution regulations, for example, could be dissolved by the court upon petition by an interested party (*see* p. 51). Other grounds include gross violation of the law by the company or a joint venture party, a major breach

of the provisions of the joint venture contract or articles of association, or bankruptcy.

All companies being dissolved must go into liquidation, voluntary or compulsory, except companies with no outstanding liabilities that are dissolved due to merger or term expiration. Liquidation procedures follow the British and Hong Kong models, with the two types of liquidation subject to different degrees of administrative and judicial control.

Guide to bankruptcy proceedings

The Shenzhen Bankruptcy Provisions, which focus on only one of the grounds for dissolution, i.e., bankruptcy, permit either the company or its creditors to petition the court to declare the company bankrupt. Since bankruptcy is defined as the inability of a company to pay all its debts as they fall due because of insufficient assets, a number of Chinese–foreign joint ventures established with a precarious debt–equity ratio, and operating at a loss for some time, could well be the subject of bankruptcy petitions. Newly established joint ventures that expect to operate at a loss in the initial term should not be affected unless the debts generated by the losses exceed the assets (which include the registered capital) of the ventures.

While the Regulations are silent on this point, the Shenzhen Bankruptcy Provisions envisage that the company and its creditors may proceed to a settlement that will spare the company from a bankruptcy ruling. The settlement terms must be approved at a creditors' meeting and accepted by the court.

Once the municipal government or court gives the order for dissolution, a liquidation committee is set up. Under the Regulations, the company can appoint this committee if it is involved in voluntary liquidation, but the Shenzhen Bankruptcy Provisions make the court responsible for appointing the liquidation committee in all cases.

A public notice of liquidation must be published, stating the deadline for filing claims. Written notice must also be sent to the company's creditors. Creditors failing to file their claims before the deadline have no recourse to the company's assets after they are distributed.

The liquidation committee takes over the assets of the company, confirms the creditor list and debt amount, prepares a list of assets, winds down the company's affairs, calls in debts including the company's subscribed but unpaid capital, liquidates assets, pays off all debts, and distributes any remaining assets to shareholders. Liquidation proceedings must be completed within 180 days—a short time if there are overseas creditors or any disputes over liability.

The duty of disclosing information relevant to a liquidation is placed squarely on the board of directors, who may be ordered by the court to deliver all relevant information. Directors are liable for concealing, destroying, or forging relevant documents. In addition, the company, its legal representative, and all responsible parties can be fined and prosecuted if they dispose of the company's assets themselves after the company has been declared bankrupt.

Allowing foreign investors in the Guangdong SEZs to incorporate limited liability companies is a major step toward opening up the capital financing market.

After all debts are paid, the remaining assets are to be distributed to the shareholders, joint venture partners, or the proprietors of wholly foreign-owned enterprises in accordance with the ratio of their contribution to the company's registered capital. This ratio may be altered if specifically provided for in the joint venture contract or articles. This leaves room for what has been common practice among Chinese–foreign cooperative ventures—a contract providing that all net assets of the company will be transferred to the Chinese partner upon expiration of the contract term.

Creditors' rights

Under the Shenzhen Bankruptcy Provisions, certain transactions entered into by a company within the 180-day period prior to the court's acceptance of a bankruptcy petition are deemed invalid. Fraudulent favoring of creditors, voluntary transfers of the company's property without fair compensation, and repayment of debts not yet due can be declared invalid, and presumably the liquidation committee can recover the property involved for the benefit of creditors.

The Shenzhen Bankruptcy Provisions define "debts provable in bankruptcy" to include all debts, whether or not payable by the date of petition. The definition does not include interest accrued after the bankruptcy order is issued by the court, expenses incurred by creditors in proving the debts owed to them, and damages suffered by third parties as a result of a breach of contract resulting from the bankruptcy of the company concerned.

Debts that have been proved are paid in the following order: liquidation expenses, employees' wages and social security payments, taxes, and then all other debts. Although "secured loans" are not bound to this order, the rights of a secured creditor are not clearly defined in the Regulations. The Shenzhen Bankruptcy Provisions, on the other hand, formally recognize that a creditor whose loan is secured by assets of a company shall be a preferred creditor.

The road to national legislation

Incomplete as they may be, the Regulations on Foreign Companies of the Guangdong SEZs will help Chinese lawmakers understand many of the issues involving foreign investment enterprises that still require resolution.

The national corporation law, expected sometime this year, should also draw on the expertise gained from implementing the Regulations and, where appropriate, the Shenzhen Bankruptcy Provisions.

The national corporation law should spell out the relationship between the Regulations and the national law, establishing the respective supremacy of these two pieces of legislation in the event of conflict. As China creates a body of economic law, it is not only imperative that each piece of legislation is workable, but that the body of law as a whole is logically coherent and internally consistent. 完

Curbing Environmental Pollution

Tougher requirements await investors in the economic development zones

Lester Ross and Mitchell A. Silk

When negotiating parties deliberate over a foreign investment contract, environmental protection normally ranks low on their list of priorities. But foreign investors that breach local and national rules governing environmental protection may be leaving themselves open to intrusive on-site inspections of their technology and records, stiff fines, and even criminal prosecution. Since new regulations appeared in 1986, enterprises in China's foreign economic development zones (i.e., special economic zones, 10 coastal cities, and economic and technological development zones) are expected to adhere to environmental standards that can be more stringent than those applied elsewhere in China. To avoid the risk of harsh and often arbitrary penalties, foreign investors in these zones should determine their obligations under national and local environmental protection regulations *before* signing a contract.

Because enforcement has been limited and inconsistent to date, some foreign firms underestimate the importance of China's environmental protection regulations. Although China's existing environmental protection legislation dates back to 1979, when the Environmental Protection Law (for trial implementation) was promulgated, serious enforcement efforts began following the establishment, in 1980, of the Bureau of Environmental Protection (SBEP). Upgraded to a State bureau in 1984, the SBEP administers hundreds of local bureaus and monitoring stations. Substantially increased funding for these bureaus and monitoring stations during the Seventh Five-Year Plan should strengthen enforcement even further.

Environmental regulations can apparently override the provisions of any contract.

New rules for China's economic development zones

The 1986 Provisional Regulations for Environmental Management in Foreign Economic Development Zones (hereafter, the "Environmental Regulations") are yet another indication of China's sustained commitment to environmental protection. This set of regulations requires, among other things, that environmental protection clauses be included in *all* future economic contracts in the zones. This is a significant first, since the 1979 Environmental Protection Law and the existing joint venture legislation do not contain specific instructions for environmental certification of foreign investment projects.

The need for such regulation is clear given the high levels of pollution in China's major cities and waterways. The special economic zones in particular have developed in a manner reminiscent of boom towns. In their enthusiasm to attract foreign investment, local officials at first gave little thought to applying controls to hazardous industrial operations such as dyeing works and tanneries.

But while the environmental impact of "progress" may have been ignored in the SEZs, it was not overlooked in Beijing. Beginning in 1982 a growing chorus of conservative Party cadres seized upon environmental problems in the special economic zones as ammunition with which to attack their reformist rivals. Recognizing the problems of disorderly development in the SEZs, reformers realized that stricter enforcement of environmental laws was needed to put the SEZs—and foreign-assisted development in general—in a better light.

The 1986 Environmental Regulations had their origins in the seminal case of Kaida Enterprises Ltd, a Hong Kong firm accused of violating local pollution standards in the Shekou Industrial District of Shenzhen. This case remains the only one of its kind in China today. All other disputes between foreign investors and China's environmental protection bureaus have been settled through administrative, rather than judicial, procedures. The way the Kaida case was resolved reveals much about the principles and practices

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governing enforcement of China's environmental protection legislation.

THE KAIDA CASE

Kaida Enterprises, Ltd. concluded a deal in 1981 to build a wholly foreign-owned plastic toy factory in the Shekou Industrial District, involving an investment of $16 million and a planned work force of 1,100. Negotiated before the Shenzhen Municipal Regulations on Environmental Protection were issued in October 1982, the contract contained neither specific provisions for pollution control nor any general references to environmental legislation. The contract was, however, subject to a provision that the project would comply with all relevant Chinese laws and regulations.

After Kaida commenced production in early 1982, local authorities began receiving complaints about foul odors and loud noises coming from the factory. During the following months the Shekou District Environmental Monitoring Station repeatedly urged Kaida to take remedial action, which Kaida estimated would cost about $40,000. The dispute simmered for a year. The following month, the Shekou monitoring station gave Kaida 60 days to comply with national regulations. This coincided with the promulgation of joint venture regulations that contained an article banning ventures operating in violation of pollution emission standards.

By December the environmental protection authorities had grown impatient with Kaida's inaction. The monitoring station asked the Shenzhen Intermediate People's Court to order Kaida to control its pollution and pay compensation for damages. During the court's preliminary investigation, the monitoring station presented evidence that Kaida had violated State noise pollution standards and that malodorous gases produced by plasticizers used in Kaida's mold-pouring shop had escaped from the factory.

Environmental law takes precedence

In preliminary negotiations, Kaida denied any liability on the grounds that its original investment agreement contained no provisions for pollution control, and because Chinese officials did not provide scientific data to support the complaints or copies of the relevant State standards to which they were expected to conform. Kaida also argued that in Hong Kong, the government (rather than the pollution source) bears responsibility for damages arising from industrial pollution—and therefore the local government should be responsible for any damage to the environment.

Although China has yet to establish specific standards to control air pollution emissions for this type of plant, the court evidently determined that a lack of industry standards did not exclude the application of more general noise and air pollution emission standards to Kaida.

After conducting its own investigation, the court found that Kaida had violated various provisions of the Environmental Protection Law, national emission standards, and local environmental protection regulations. The court issued an injunction ordering Kaida to suspend operations until the company was able to comply with most of the relevant standards and regulations and the Shenzhen branch of the State Administration of Industry and Commerce reissued a business license. Kaida was ordered to meet all expenses required to control emissions and, in addition, was burdened with a fine of HK$20,000 ($2,565), court costs, and the expenses of the government's consultants. Compensation for damages were not mentioned in the court's decision, indicating that damages were either not considered serious or that claims for such damages would not be entertained.

The lower court's decision established that China's environmental regulations can override the provi-

PARTIAL LISTING OF CHINA'S ENVIRONMENTAL PROTECTION BUREAUS

State Bureau of Environmental Protection
Binhe Hotel, 1 Chedao Gou, Haidian District, Beijing
Tel: 89-4931
Cable: 4933

Municipal Bureaus of Environmental Protection:

Beijing
4 West Chegongzhuang, Haidian District
Tel: 89-5731

Tianjin
207 North Jiefang Road, Heping District
Tel: 39-5821

Shanghai
193 Hankou Road
Tel: 21-0957
Cable: 0975

Guangzhou
Fu Qian Road
Tel: 33-0360

Dalian
1 Stalin Road
Zhongshan District
Tel: 23925, 28091

Qinhuangdao
Wenhua Road
Tel: 3058

Nantong
West Qingnian Road
Tel: 7000

Wenzhou
12 West Shuming Road, Lane 10
Tel: 5415
Cable: 3981

Ningbo
138 Liuding Street
Tel: 64484

Fuzhou
Municipal Government Building
Niaoshan Road
Tel: 51791

Yantai
Municipal Government Building
Tel: 24451, ext. 384

Zhanjiang
4 Nanqiao, No. 2 Road
Chikan District
Tel: 8725

Beihai
Gongyuan Road

Hainan Administrative Area
Fuhai Road
Haikou
Tel: 22203

Shenzhen
People's Government Building
Tel: city general operator

Shantou
185 Shantou Shiwai Malu
Tel: 74182; 73438; 75881

Zhuhai
Zhuhai City
Tel: city general operator

Xiamen
Xiamen City
Tel: 22548

sions of any contract. The court also emphasized that, as noted in Article 9 of the Environmental Protection Law, Chinese law (including environmental regulations) is applicable throughout China in accordance with the principles of national sovereignty—despite any special status that may be granted to foreign and Hong Kong investors.

The decision also created an implied legal obligation on the part of potential pollution sources to disclose information about their production technologies to officials monitoring compliance with pollution emission standards. At a minimum, any pollution source charged with a potential violation of environmental standards or regulations may be required to reveal technical details about their operations.

Judging from administrative and judicial practice in the Kaida case, Chinese courts and environmental protection bureaus appear to be less restrictive than their US counterparts about admitting evidence and establishing legal responsibility. And China's procedural safeguards do not afford the same degree of protection to a defendant's corporate secrets and property rights that US laws do.

POST-KAIDA DEVELOPMENTS

The principles established in the Kaida case were codified and strengthened in the 1986 Environmental Regulations, which require China's foreign economic development zones to incorporate environmental factors into their urban planning and commercial development projects. New provisions in the Environmental Regulations require the zones to: 1) ensure that enterprises conduct environmental impact analyses in conjunction with construction projects, 2) use zoning to reduce the impact of economic development on population centers and fragile or sensitive areas, 3) formulate stricter and more inclusive local standards than at the national level, and 4) set a preference for nonpolluting or low-polluting imports of technology and equipment. The Environmental Regulations also stipulate controls for all industrial processes that are potential sources of pollution. The additional stipulation that enterprises are allowed to import pollution control devices when domestic substitutes are not available should be good news for the foreign exporter of pollution control equipment. The regulations also require future economic contracts to include environmental protection clauses and grant environmental protection bureaus the right to review the environmental protection measures specified in these contracts.

Advice to the foreign investor

Because the economic development zones are required by law to devise stricter pollution control standards than apply nationwide, foreign investors should find out in advance what their local environmental protection obligations are, and the extent to which these obligations may be expanded in the future. In a proposed joint venture, this job is best left to the prospective Chinese partner, since it presumably has better access to such information and more experience to draw on in dealing with local environmental officials.

Foreign partners in a joint venture should also be aware that, even *after* signing a contract, they may be held solely responsible for the cost of installing additional pollution controls at their factory, as was Beatrice Foods in its joint venture in Guangdong some years ago.

Foreign investors should be prepared to satisfy maximal or "primary" Chinese pollution control standards because of the more demanding criteria applied to new pollution sources. Moreover, environmental authorities may expect a higher degree of compliance from technologically advanced foreign investment projects than they do from State enterprises.

Some foreign investors may find these requirements costly or arbitrarily enforced. A US company's electroplating plant in Shenzhen, for example, was not allowed to install an economical on-site steam generator to power its plant because Chinese officials feared pollution more than the consequences of Shenzhen's acute power shortage. Foreign investors may also have to pay higher penalties for violating pollution control standards due to their relatively large financial resources, their greater responsiveness to economic controls, or even the lack of political connections that sometimes enable Chinese enterprises to lessen the fines assessed against them.

Although local enforcement of the Environmental Regulations may be arbitrary, the regulations themselves are not out of line with comparable provisions elsewhere in the world. In fact, tighter regulation, if properly enforced, could serve both foreign and domestic interests in China. Joint ventures in the zones could even serve as models of environmental management for the whole country. While from a political perspective, tighter environmental regulations might even strengthen support for the zones, allowing China's open door advocates to argue persuasively that foreign investors will not recklessly pollute the environment and may actually contribute to enhancing it. 完

Photo courtesy of China Features

Chinese and foreign technicians discuss the impact of construction plans on Shenzhen's Shekou industrial district.

BOOKSHELF

书刊介绍

Mechanical and Electronic Industries Yearbook of China 1985, compiled by the Mechanical and Electronic Industries Yearbook of China Compiling Committee. Hong Kong: Economic Information & Agency (342 Hennessy Road), 1986. 492 pp. $60 including airmail postage.

This very impressive yearbook is the first comprehensive monograph on China's mechanical and electronic industries to appear in English. Compiled with the assistance of Chinese government departments and industrial corporations, the book describes over 60 types of industrial and electronic equipment manufactured in China, ranging from farm machinery to semiconductor components. In most cases more than one ministry or corporation produces a certain type of equipment, and their individual activities and contributions to each sector are discussed.

Especially valuable for the foreign businessman are the lists of China's technology imports from 1981–84 that include information about the type of technology imported and the foreign partner. One chapter is devoted to output statistics by industry and province. The book closes with a directory of major enterprises arranged by industry sector. —JLL

China's Special Economic Zones: Policies, Problems and Prospects, edited by Y. C. Jao and C. K. Leung. Hong Kong: Oxford Univ. Press, 1986. 249 pp. $37.

A collection of essays written between 1983 and early 1985 by scholars from Hong Kong University, the Chinese University of Hong Kong, and the University of New South Wales, this work traces the development of the SEZs since their inception in 1979. Divided into three parts: environmental and demographic problems, political and legal developments, and the economy and management, this book takes an in-depth look at the problems of the SEZs and how their shortcomings can be expected to hamper their ability to attract sizable foreign investment.

The authors generally agree that the SEZs, though experimental and plagued with problems of poor planning, Party interference, and an underdeveloped infrastructure, have proved their worth to the reformist leadership that established them.

China's Special Economic Zones gives a thoughtful accounting of the SEZs from a variety of perspectives: theoretical, economic, legal, and managerial. But as is the case with many books surveying business developments in China, much of the material covered has already been adequately treated in Chinese and foreign periodicals. The case studies in chapter 11, for example, while interesting, add little to the growing literature on foreign investor's experiences in China. The book is valuable, therefore, more for its comprehensive coverage than for new information on conditions in the SEZs. —Timothy Cornish

The China Directory of Mechanical Industry and Commerce, edited by the China Directory of Mechanical Industry and Commerce Editorial Office. Hong Kong: Economic Information & Agency (342 Hennessy Road), 1986. 376 pp. $53 including airmail postage.

This book is a bilingual directory listing mechanical, electrical, and instrumentation factories, corporations, and some research institutes in China. Each factory profile lists the plant's name, address, and director; its main products or business activities; and the plant's trademark when available. Like other Chinese factory directories, this volume contains information that is highly valuable but poorly organized. Inclusion of an index and cross references would have made the job of looking up factories, loosely arranged into 14 industrial categories, much easier. An appendix containing directory information for China National Machinery and Equipment Import & Export Corporation is included. —JLL

Bureaucratic Politics and Chinese Energy Development, by Kenneth Lieberthal and Michel Oksenberg. Washington, DC: International Trade Administration, 1986. 405 pp. $19. Available from the US Government Printing Office.

The purpose of this study is to examine how policies are made in China. Taking the case of energy, the authors introduce the principal leaders and bureaucratic actors involved in the policymaking process. The operation and history of three ministries are described in detail: Petroleum, Coal, and Water Resources and Electric Power. Biographies include those of Vice Premier Li Peng, Tang Ke, vice chairman of CITIC and former Minister of Petroleum, and State Councillor Kang Shi'en.

Primarily interested in demonstrating the pivotal role of bureaucracies in decision making and assessing how a variety of factors influence policy outcomes, the authors buttress their argument through detailed case studies of hydroelectric and coal projects. The authors also devote considerable space to describing the Chinese negotiating process and the evolution of China's approach to foreign assistance with energy projects. Although only energy ministries are analyzed, this valuable resource should be applicable to other ministries and thus of interest to all those working in China. —Bruce Vernor

The Shanghai Capitalists and the Nationalist Government, 1927–1937, by Parks M. Coble, Jr. Cambridge, MA: Harvard University Press, 1986. 269 pp. $21

cloth, $14 paper.

Originally published in 1980, this book has been reissued with a new preface in which the author maintains that "the economic system of China today more closely resembles that of the pre-1949 era than most would have thought possible a decade ago."

Coble's thesis debunks the long-held assumption that Chiang Kai-shek's Kuomintang was the hand-in-glove ally of the Shanghai capitalists. Covering the period from the Kuomintang's consolidation of power to the Japanese invasion of 1937, Coble proposes that the Kuomintang's constant need for money shaped its policies to the advantage of foreign capitalists and the detriment of local interests. Chinese capitalists, who wanted limits placed on foreign privileges, had little influence on the Nanjing government, and never coalesced into a political force.

Once Chiang's Northern Expedition against rebel warlords ended, the conservative wing of the Kuomintang worked with the capitalists they distrusted to preserve the status quo. But their shared interest in quashing the Communist-controlled labor unions and other dangerous manifestations of discontent was not enough to stave off the growing hostility between them.

Coble dismisses the idea that there were any real ideological quarrels between the Kuomintang and their capitalist "allies." The government's anticapitalist rhetoric reflected not genuine conviction, says Coble, but the need to keep the power of capitalists in check. This narrow interpretation overlooks the prevalence of anticapitalist sentiment among intellectual nationalists, not only in China but in other countries sharing China's Confucian heritage—namely, Korea and Vietnam.

Though less sensational in tone and more scholarly in approach than Sterling Seagrave's popular book *The Soong Dynasty*, Coble's financial history of the Kuomintang is anything but dry. His is a sordid tale of intrigue (including kidnappings, drug dealing, and personal financial gain) that pits Chiang, the military, and the Shanghai underworld against the capitalists. There are copious footnotes and a large bibliography. —PT

CHINA BUSINESS

中外贸易

Betsy Saik

The following tables contain recent press reports of business contracts and negotiations exclusive of those listed in previous issues. For the most part, the accuracy of these reports is not independently confirmed by *The CBR*.

National Council members can contact the library to obtain a copy of news sources and other available background information concerning the business arrangements appearing below. Moreover, member firms whose sales and other business arrangements with China do not normally appear in press reports may have them published in *The CBR* by sending the information to the attention of Betsy Saik at the National Council for US–China Trade.

中外贸易 CHINA'S IMPORTS THROUGH JANUARY 31

Foreign Party/ Chinese Party	Product/Value/ Date Reported
Agricultural Commodities	
(Australia)	Will supply 1.5 million tonnes of wheat. 11/86.
(Thailand)	Received order for 30,000 tonnes of glutinous rice and 20,000 tonnes of mung beans. $11.4 million (TB300 million). 11/86.
Ken-O-Kaw Farms International Inc. (US)	Will supply swine embryos. $50,000. 11/86.
Te Shen Co. Ltd. (New Zealand)/Guizhou Province Agriculture Department	Signed agreement to supply milk cows and sheep. 11/86.
(US)	Will supply 210,000 tonnes of corn and 60,000 tonnes of soybeans. 12/86.
Agricultural Technology	
Ibberson International Inc. (US)/Xiangfan, Hubei	Shipped modular feed manufacturing factory. 10/86.
(Japan)/Heilongjiang	Will provide instruments and equipment for Sanjiang Plain agricultural research project. $5.4 million. 11/86.
(New Zealand)/Guizhou Province Forestry Department	Agreed to exchange scientific and technological information, tree seeds, and forestry specialists and scholars. 11/86.
(New Zealand)/Guizhou Province Forestry Department	Signed letter of intent to have New Zealand send specialists to Guizhou to participate in constructing forest bases in Dulia Jiang and Qingshui Jiang and have Guizhou send specialists to New Zealand to participate in forestry projects. 11/86.
Charden Phokkhaphan Group (Thailand)	Agreed in principle to establish animal feed factory. 11/86.
Circle Steel Corp. (US)	Will supply grain storage bin prototype and signed letter of intent to build factory to make the bins. 11/86.
Nutrex International (UK)	CT: Signed letter of intent to supply livestock, technology, and equipment in exchange for agricultural and animal products. 12/86.
United Milling Systems A/S (Denmark)/China National Seed Corp. and China Seed Project Management Office of Ministry of Agriculture, Animal Husbandry, and Fisheries	Will supply two sets of vegetable seed processing equipment. 12/86.
Western Equipment & Supply Co., Inc. (US)/ China National Seed Corp. and China Seed Project Management Office of Ministry of Agriculture, Animal Husbandry, and Fisheries	Will supply two sets of cotton seed processing equipment. 12/86.
Western Equipment & Supply Co., Inc. (US)/ Xiangming Factory, Shanghai	Signed contract to manufacture cotton seed processing equipment. $150,000. 12/86.
United Nations/Tianjin	Will provide aid to set up experimental aquatics breeding base using marine biotechnology in salt ponds. 12/86.
Chemicals and Chemical and Petrochemical Plants and Equipment	
Eltech Systems (US); Asahi Chemical Industry Co. Ltd., Tokuyama Soda, and Asahi Glass (Japan); and Uhde GmbH (FRG)	LIC: Will supply technology for fabricating membrane cell components used in chlor-alkali plants in Gansu, Heilongjiang, Beijing, Tianjin, Liaoning, Shanghai, Lanzhou, and Guangdong. 10/86.
Saudi Basic Industries Corp. (SABIC)	Supplied 9,625 tonnes of low and high density polyethylene during 1986. 10/86.
Enichem Elastomeri (Italy)/SINOPEC	LIC: Will supply license and sub-license rights to produce styrene and butadiene. 11/86.
Sulzer-Escher Wyss Inc. (Switzerland)/Tanggu Saltworks, Tianjin	Installed line to produce 100,000 TPY of refined salt. 12/86.
Woodville Polymer Engineering Ltd. (UK)/ Qingdao Branch of CNTIC, CNTIC, Dalian Branch of CMEC, and MACHIMPEX	Signed contract to supply equipment and know-how to produce polymer components for bearing seals. $904,113 (£635,000). 12/86.
Chemicals (Agricultural)	
China-New Zealand Agricultural Consultants and East Coast Fertilizer Co. (New Zealand)/Guizhou Province Agriculture Department	Signed letter of intent to study prospects for manufacturing superphosphate fertilizer. 11/86.
Saudi Basic Industries Corp. (Saudi Arabia)	Will supply 200,000 tonnes of urea fertilizer in 1987. 11/86.
M.W. Kellogg Co. (US)/ CNTIC and Sichuan Chemical Works	Awarded contract to provide ammonia processing technology for new 600 TPY fertilizer facility. 12/86.

NA = Not available.

NOTES: Contracts denominated in foreign currencies are converted into US dollars at the most recent monthly average rate quoted in *International Financial Statistics (IMF)*. Contracts concluded over two months ago are also included if they were not reported in the last issue of *The CBR*. Leasing (LEAS), Licensing (LIC), Compensation (CT), and Assembling (ASSEM) deals are now included in the "China's Imports" section.

Construction Materials and Equipment

Bison-Werke (FRG)/ Beijing particle board facility	Received order for forming and pressline as part of cooperative agreement to build 10 board plants. $2.9 million (DM5.86 million). 7/86.
FL Smidth Og Co. (Denmark)/Huangpu, Guangdong	Will supply cement plant. 10/86.
(Indonesia)	Will supply 100,000 tonnes of cement in exchange for 400,000 tonnes of coal. $13 million. 11/86.
Birdsboro Corp. (US)/ CNTIC, Dalian Branch	Awarded contract to design continuous bar mill to produce rounds, reinforcing bars, angles, and window sash shapes. 11/86.
Interkiln Engineering Ltd. (UK)/Shanghai Pacific Ceramics Ltd.	Will design, supply, construct, and commission sanitary ware plant to produce 350,000 pieces annually. $14.1 million (£9.9 million). 11/86.
(NA)/Shi Tow Sugar Cane Chemicals Complex, Guangzhou	Signed contract to supply equipment to produce 30,000 cubic meters of medium-density fiberboard annually from sugar cane residue. 12/86.
The China Engineers Ltd. (HK), subs. of Sime Darby Berhad (Malaysia)	Signed contract to supply 40 cement trucks for World Bank-supported Yan Tan Hydroelectric Power Station Project, Guangxi. $1.9 million (HK$15 million). 12/86.
The China Engineers Ltd. (HK), subs. of Sime Darby Berhad (Malaysia), and Caterpillar China Ltd. (HK)	Awarded contract to supply 24 32-tonne off-highway trucks and four-wheel loaders for World Bank-supported Yan Tan Hydroelectric Power Station Project, Guangxi. $6.4 million (HK$50 million). 12/86.
Tumac Hoists Ltd. (UK) and Sun Fai Engineering Co. (HK)/Shenzhen and Shanghai	Received order for five passenger/good hoists. $355,950 (£250,000). 12/86.

Consumer Goods

Adler Sewing Machines Co. (FRG)/Beijing No. 2 Leather Factory	Supplied synthetic leather production line and related equipment. $591,971 (¥72.2 million). 11/86.
Mitsubishi Electric Corp. (Japan)/China Refrigeration Industry Co. Ltd., Guangzhou	Signed agreement to supply computer-controlled production line and testing facilities to produce up to 200,000 two- and three-door frost-free indirect-cooling refrigerators and signed seven-year agreement to transfer technology and provide technical information, guidance, and training for new plant. $10 million (first agreement only). 11/86.

Electronics and Electrical Equipment

Wang Laboratories Inc. (US)/CNTIC	Signed contract to provide computer system for World Bank-supported Railways Project. $1.4 million. 6/86.
Calma Co., subs. of General Electric Co. (US)/ CNCCC	Signed contract to supply two CAD systems for World Bank-supported Fertilizer Rehabilitation Project. $1.4 million. 9/86.
Barco Industries NV (Belgium) and Toshiba Corp. (Japan)	Barco will supply video monitors for Toshiba's TV studio being built in Beijing. 10/86.
Semi-Tech Microelectronics Corp. (Canada)/ Nanjing Telecommunications Works	Signed agreement to supply microcomputers and components. $1.8 million (C$2.5 million). 10/86.
Semi-Tech Microelectronics Corp. (Canada)/ Shenzhen Electronic Group	Signed agreement to design and supply microcomputers. $194.8 million (C$270 million). 10/86.
Hamilton/Brighton Inc. (US)/Beijing University	Concluded contract to sell CHINALAW data base developed at university's law institute. 11/86.
JHL Research Inc. (US)/ State Physical Culture and Sports Commission	Signed contract to provide 75 microcomputers for 1987 National Sports Festival in Guangzhou. 12/86.
Microphonics Technology Corp., and MTI (Canada), subs. of MTC (US)	Signed agreement to distribute software products including speech input system, style writer buffers, laser printers, personal computer board testers, and modems. 12/86.
Prime Computer Ltd. (HK)/Karamay Oil Corp.	Signed contract to supply oil exploration computer software system and CAD system for design and construction. $2.5 million. 12/86.

Electronics (Consumer)

NA (Netherlands)/China Electronics Import-Export Corp.	Will supply 2,200 14-inch color TVs in 1986 and 50,000 in 1987. 11/86.
Hitachi Ltd. (Japan)/ Shenzhen	Agreed to build plant to produce 1.6 million color TV tubes annually. 12/86.
Minolta Camera Co. Ltd. (Japan)/Shanghai Camera Factory and Shanghai ITIC	ASSEM: Supplied camera manufacturing facilities and parts to assemble 50,000 single-lens reflex cameras annually. $7.7 million (J¥1.25 billion). 12/86.
Toshiba Corp., Mitsui & Co. Ltd., and Nichimen Corp./MEI, China Electronic Equipment and Instrument Industrial Corp., and CNTIC	Signed agreements to build plants in Shanghai, Xianyang (Shaanxi), and Nanjing (Jiangsu) to produce tubes for color TV sets (850,000 tubes/year, 1.6 million tubes/year, and 1.5 million tubes/year respectively); to supply equipment to produce color TV tubes at Xianyang Color Tube plant; and to manage Shanghai color TV tube production project. 12/86.

Engineering and Construction

Taywood Engineering, subs. of Taylor Woodrow Group (UK)/Beijing	Will evaluate condition of reinforced concrete highway bridges and conduct training under consultancy agreement funded by Overseas Development Administration. 10/86.
Japan International Cooperation Agency/Shanghai Scientific and Technological Committee	Signed agreement to cooperate in building bridge over Huangpu River. 11/86.

Finance, Leasing, and Insurance

New York Stock Exchange (US)/BOC	Signed agreement to encourage and promote exchange of personnel, academic data, and financial information. 11/86.
GZB-Vienna, part of the Raiffeisen Banking Group (Austria)/Agricultural Bank of China	Signed agreement to exchange information on technical and commercial developments and to support agricultural development. 12/86.

Food Processing and Food Service

Stollwerck AG, subs. of Imhoff Group (FRG)/Children's Food Co., Shanghai	Awarded contract to supply plant to manufacture chocolate bars. 10/86.
Henry Simon (UK)/ Jiujiang	Received order for flour mill. $1.85 million (£1.3 million). 11/86.
Industrie Zanussi SpA (Italy)/MACHIMPEX and Jiangsu Foreign Economic Relations and Trade Commission	Will supply production line to produce 400,000 refrigerators annually for World Bank-supported Suzhou Fridge Factory Project. $10 million. 11/86.

Machine Tools and Machinery

Daniel Smith & Co. (UK)	Signed letter of intent to supply welded tube mill. 12/86.
Elof Hansson Co. and Holmen Paper Mill (Sweden)/CNTIC and Dandong Paper Mill, Liaoning	Signed contract to provide 120 TPY second-hand paper production line and technical software. 12/86.
Hitachi Seiki Co. Ltd. (Japan)/Beijing No. 1 Machine Tool Works	Signed contract to set up two horizontal processing workshops and install floating machine shop for milling machines. 12/86.

Medical Equipment and Devices

Amersham International Plc (UK)/China Isotope Corp., Beijing, and SINOCHEM	Concluded three-year agreement to supply radioactive and related products for use in medicine and to establish program for technological cooperation. $1.4 million (£1 million). 10/86.

Bio-Engineering Group Ltd. and Inter-Business Global Corp. (US)/Rainbow Development Co., Beijing, and Beijing Food Institute	Signed agreement to distribute "Catalasemeter" bacterial detection device. 10/86.
Environmental Tectonics Corp. (US)/Institute of Aviation Medicine, Beijing	Signed contract to install and provide training for Gyrolab spatial disorientation device. $1 million. 11/86.

Metals, Minerals, and Processing Technology

(Japan)	Will jointly exploit rare metals including cobalt, vanadium, and molybdenum, with joint geological survey team beginning work in Guangdong and Heilongjiang in 1987. 9/86.
China Resources Machinery Co., Ltd. (HK)/CNCCC	Signed contract to supply wire, deformed bar, steel channels, and I-steel for World Bank-supported Fertilizer Rehabilitation Project. 9/86.
(US)/Shenyang Copper Material Plant, Liaoning	Supplied 3,500-tonne extruder. $1.5 million (¥5.5 million). 11/86.
Kawasaki Steel Corp. (Japan)/Baoshan General Iron & Steel Works, Shanghai	Will supply steel mill design and engineering expertise to double mill capacity to 6 million TPY. 11/86.
Ovako Svenska AB (Sweden)	Signed contract to supply 7,720 tonnes of bar steel by year end 1986 and preliminary agreement to supply 3,780 tonnes during first quarter of 1987. 11/86.
Trade Interface Corp. (US)/Shanghai Public Utilities Bureau	CT: Will begin trial production of steel tube plant producing 40,000 pipes annually. $4 million. 11/86.
(USSR)/Wuhan	Signed contract to renovate Soviet-built metallurgical plant. $3 million (SwF5 million). 12/86.
Research Development Corp. (Japan)/Beijing Institute of Iron and Steel Technology and Chinese National Research Institute for Metals	Discussing supply of technology for extracting silicon, niobium, and phosphorus from scrap metal of automobiles and electric appliances. 12/86.

Mining Equipment

Nokia Corp. (Finland)/Shandong Radio Factory	Will supply digital radio relay system and multiplexing equipment for local coal mines. 12/86.
Powerscreen International Ltd. (UK)/Shanxi Province Coal Import-Export Bureau	Signed contract to supply coal preparation plant. $750,000. 12/86.

Packaging Materials

G.F. Tomlinson Group Ltd. (UK)	Concluded agreement to supply paper-pulp moulding systems to three paper mills for manufacturing packaging trays for eggs and apples. $1.1 million. 10/86.

Petroleum, Natural Gas, and Related Equipment

British Gas Corp. (UK)/China Offshore Gas Utilization Corp.	Will act as consultants on development of Yinggehai offshore gas field in South China Sea. 9/86.
Exploration Consultants Ltd. (UK)/Karamay Oil Co.	Will study petroleum potential of southwest part of Junggar Basin in Xinjiang Autonomous Region and provide training program for World Bank-supported project. $1 million. 11/86.
J.P. Kenny (UK)/China National Offshore Oil Development and Engineering Corp., subs. of CNOOC	Awarded contract to conduct study for submarine gas pipeline in Qiongzhou Strait between Hainan Island and Guangdong. 11/86.
Progetti International Technical Co. (Italy) and Texaco SpA (Italy), subs. of Texaco Inc. (US)/Capital Iron and Steel Co., Beijing	Signed contract to supply technology to convert coal into cooking gas. 12/86.
Rexnord Inc. (US)	Received order for oil-pipeline monitoring equipment to measure flow and usage of crude oil along Tieling-Dalian pipeline, Liaoning. $2.5 million. 12/86.

Pharmaceuticals

Dorr-Oliver BV (Netherlands), subs. of the British Petroleum Co. Plc (UK)/Mudanjiang Pharmaceutical Plant, Heilongjiang	Signed contract to supply starch plant to process 500 TPD of corn into pharmaceutical grade starch. $10 million. 11/86.

Ports

Sum Cheong Piling Pte. Ltd. (Singapore)/Nanhai Oil Shenzhen Development and Service Corp.	Will finance construction of Mawan Port in Shenzhen SEZ and railway linking port with Guangzhou-Shenzhen line. $60 million (port) and $50 million (railway). 11/86.

Power Plants and Equipment

Alsthom (France)/Beijing Heavy Machinery Works	Signed contract to supply two 330-MW steam turbine generator units. $196.2 million (FF1.3 billion). 11/86.
European Economic Community/Zhejiang	Signed agreement to jointly develop new energy resources on Dachen Island. 11/86.
Huatian Co. (Sino-Japanese JV)/Fujian Provincial Power Industry Bureau and MWREP	Signed letter of intent to build 1400-MW Shuikou Hydroelectric Power Station financed by World Bank loan. $149 million (¥551 million). 11/86.
Innse, member of Intalimpianti Group (Italy)/China Machine Building International Corp. and Qiqihar	Awarded contract to construct steam turbine plant. $4.3 million (L6 billion). 11/86.
Alsthom (France)/CNTIC and Jiangyou Thermal Power Plant, Sichuan	Signed contract to supply two 330-MW electric generating units. $200 million (DM403 million). 12/86.
John Brown Engineering and Jardine Engineering Corp. (HK)/CNTIC and MOP	Signed contract to supply gas turbines to five power plants at Liaohe Oilfield (Liaoning) and Shengli and Zhongyuan Oilfields (Shandong). $64.5 million (HK$500 million). 12/86.
Mitsui & Co. Ltd. and Toshiba Corp. (Japan) and Combustion Engineering Inc. (US)/CNTIC and Zhejiang Provincial Electric Power Bureau of MWREP	Signed contracts to supply 600-MW turbine engine and boiler system for World Bank-supported Beilun Harbor Thermal Plant in Ningbo, Zhejiang. 12/86.

Printing Equipment, Publishing, and Broadcasting

Ministry of Radio (Yugoslavia)/Ministry of Radio, Cinema, and Television	Will cooperate in broadcasting and exchanges of television programs and reporters over next five years. 11/86.
China Media Services, Ltd. (US-Sino JV)/Beijing Television Station	Signed three-year contract to act as exclusive agent in supplying US programming, including sales of commercial time to advertisers. 12/86.
Encyclopedia Britannica (US)/Encyclopaedia of China Publishing House	Published final book of 10-volume Chinese-language version of *Concise Encyclopaedia Britannica* as part of six-year project. 12/86.
Lorimar-Telepictures Corp. (US)/Shanghai Network	Reached five-year barter agreement to supply programs in return for advertising time. 12/86.
TASS (USSR)/Xinhua News Agency	Signed journalistic exchange agreement. 12/86.

Property Development

Det Ostasiatiske Kompagni A/S (The East Asiatic Co.) (Denmark)/Capital Iron and Steel Co., Beijing	Will build office/residential complex. $25 million. 10/86.
Cselt, member of Stet Group, and Giorgio Parmegiani (Italy)/Beijing	Negotiating agreement to construct postal center. 11/86.
Hilton International Co., subs. of Trans World Corp. (US)/Oriental Arts Building Co. Ltd.	Signed 15-year agreement to manage Beijing Oriental Hilton International. 12/86.

The Sheraton Corp., subs. of ITT Corp. (US)/ Shanghai Municipal Tourism Bureau	Opened Hua Ting Sheraton Hotel. 12/86.
Mainland Investors Pte. Ltd. (Singapore)/Shanghai	Awarded contract to build 30-story hotel. $43 million. 1/87.

Telecommunications

Plessey Telecommunications Ltd., subs. of The Plessey Co. Plc (UK)/Hunan Posts & Telecommunications Administration	Will supply two optical fiber telecommunications transmission systems to link Changsha and Xiangtan, Hunan. 8/86.
GEC Telecommunications Ltd., subs. of The General Electric Co. Plc (UK)/ Shenda Telephone Co. (Sino-UK JV)	Will supply single-mode optical fiber communication system for Shenzhen City. 9/86.
Oki Electric Industry Co. Ltd. (Japan)/Beijing	Will supply 352-line automatic switchboard system. 9/86.
Nippon Electric Co. (Japan) and Philips (Netherlands)/Ministry of Posts and Telecommunications	Will supply technology and equipment for 2,400-km optical fiber communications line along Yangtze River. 10/86.
Ericsson Information Systems Sverige AB, subs. of Telefon AB L.M. Ericsson (Sweden)/China Electric System Engineering and China Zhihua Corp. Ltd.	Received order for office telephone exchanges. $7.2 million (SK50 million). 11/86.
Matra SA (France)	Signed contract to install informatics system in Chinese satellite control center. $7.5 million (FF50 million). 11/86.
NEC Corp., Nissho Iwai Corp., Dai-Ichi Kangyo Bank, and China Commodities Corp. (Japan)	Signed letter of intent to establish communications network in six provinces to link production bases with distribution areas. 11/86.
Pan Am Pacific Satellite Corp. (US)	Signed formal agreement to launch communications satellite on Long March rocket. 11/86.
British National Space Center (UK)/Ministry of Astronautics Industry	Signed memorandum to send scientists to UK to help design British satellite in exchange for British experts lecturing in China. 12/86.
Cable & Wireless Ltd. (Far East) Ltd. (HK), subs. of Cable and Wireless Plc (UK) and Pirelli (UK) PLC/ Guangdong Posts & Telecommunications Administration	Signed contract to install optical fiber communications system between Hong Kong and Guangdong. 12/86.
Telefon AB L.M. Ericsson (Sweden)	Received order for advanced radio-communications systems. $10 million (SK70 million). 12/86.
Wako Koeki Co. Ltd. (Japan)/Ministry of Posts and Telecommunications, Tianjin, and Shanghai	Awarded four contracts to supply optical fiber cable, materials for connecting telecommunications line, tools for repair and maintenance jobs, spare parts, and fittings. $93.4 million (J¥15.2 billion). 12/86.

Transportation and Transportation Equipment

Netherlands Airport Consultant Organization/ Shanghai Municipality	Will provide master plan for new Hongqiao airport. 9/86.
All Nippon Airways Co. Ltd. (Japan)	Signed accord allowing ANA three flights per week between Tokyo and Beijing in exchange for allowing CAAC to fly to Nagoya or a city in Kyushu. 11/86.
British Aerospace Plc (UK)/CATIC and Shenyang Aircraft Corp., Liaoning	ASSEM: Signed contract to assemble aircraft rudders. $750,000. 11/86.
Cummins Engine Co. Inc. (US)/China National Automotive Industry Corp. and No. 2 Automobile Works in Shiyan, Hubei	LIC: Signed 10-year contract to provide technology, training, technical assistance, diesel engines, and engine components to produce 60,000 diesel engines for heavy-duty trucks. 11/86.

Nissan Motor Co. (Japan)/Changchun No. 1 Automobile Works	LIC: Finalizing talks to provide design and production expertise on cabs for three-tonne trucks. 11/86.
Siderbras (Brazil)/CITIC	Negotiating deal to exchange railway equipment and iron ore for coking coal. $50 million. 11/86.
Sumitomo Corp. (Japan)/Bureau of State Farms and China National Seed Corp.	Signed contract to supply 47 8-9 tonne trucks for World Bank-supported Seeds Project. $1.1 million. 11/86.
Welgas Holdings Ltd. (New Zealand)/NORINCO	Signed contract to design and develop compressed natural gas technology for large truck and bus engines and conduct training in marketing and technical expertise. $359,940 (NZ$700,000). 11/86.
General Electric Co. (US)/Beijing Civil Aviation Administration	Signed memorandum of understanding to supply engines to power five new Boeing aircraft. $130 million. 12/86.
Wako Koeki Co. Ltd. and Fuji Heavy Industries Ltd. (Japan)/Ministry of Railways	Awarded two contracts to supply two 30-ton flat cars, two operation coaches, three railway connection installation vehicles, and relevant special tools. $93.4 million (J¥15.2 billion). 12/86.
Miscellaneous	
(FRG)	Signed agreement for express mail service between China and FRG. 9/86.
(Bangladesh)	Signed barter protocol for two-way trade to be increased by $1 million in 1987. 11/86.
(Kuwait)	Initialed agreement to establish Kuwait-China Joint Committee to supervise implementation of all accords signed between two countries. 11/86.
(North Korea)	Signed protocol on exchange of goods. 11/86.
(Poland)	Will implement agreement on cultural and scientific cooperation during 1987 and 1988. 11/86.
(Switzerland)	Signed agreement to mutually promote and protect investment and to cooperate on peaceful uses of nuclear energy. 11/86.
China Countertrade Ltd. and London Export Group (UK)/Chongqing Foreign Trade Bureau	CT: Signed agreement to supply machinery and technology in exchange for products. 12/86.

中外贸易 JOINT VENTURES AND DIRECT INVESTMENT THROUGH JANUARY 31

Foreign Party/ Chinese Party	Arrangement/Value/ Date Reported
Agricultural Commodities	
Mitsui & Co. Ltd. and Taito Co. Ltd. (Japan)/Everbright Holding Co. and Modaomen Multipurpose Development Co., Zhuhai SEZ	Signed letter of intent for 3,000 TPY sugar refinery. $20 million. 12/86.
Agricultural Technology	
China-New Zealand Agricultural Consultants and Department of Scientific and Industrial Research (New Zealand)/Guizhou	Signed letter of intent for joint venture project to breed pasture seeds. 11/86.
Circle Steel Corp. (US)	Negotiating joint venture factory to manufacture low-temperature grain storage systems. 11/86.
Construction Materials and Equipment	
NA (Thailand)/Guangdong Highway Construction Co.	Will jointly invest in construction of 300-km highway linking Shenzhen and Shantou SEZs. 11/86.
Nissei Industrial Co. (Japan)/Tianjin	Concluded negotiations on establishing Tianjin-Nissei Construction Industrial Co. to manufacture prefabricated houses. 11/86.
Consumer Goods	
Bojut SA (France)/Nantong Menthol Factory	Established Nanjing-Bojut Co. to produce "European Aroma" range of cosmetics including 3.1 million bottles of perfumes. 9/86.
Jin Chi Group (HK)/Fujian Enterprise Holdings Co. Ltd., Fujian Investment Enterprise Co., and Putian Economic & Technical Coordination Corp.	Began construction of three companies to produce 20,000 tonnes of beer, 10,000 tonnes of malt, and 50,000 tonnes of glassware annually. $22.3 million (¥82.84 million). 10/86.
Brevetti Orafi (Italy)/Beijing Arts and Crafts Corp.	Established Beijing Orafi Ornament Co. to produce gold jewelry. (Italy:30%-PRC:70%). 11/86.
Caffco International (US)	Established joint venture to build plant to produce raw materials for pre-made floral arrangements. 11/86.
SOCOP (France)/NA (Tianjin)	Formed joint enterprise to produce 500,000 feet of goat, kip, and pig leathers monthly. 11/86.
(Japan)/Shanghai Branch of China National Arts & Crafts Import-Export Corp.	Established joint venture factory to produce embroidered shoes. 12/86.
(US)/Shanghai Branch of China National Arts & Crafts Import-Export Corp.	Established joint venture to produce equipment for making gold jewelry. 12/86.
Electronics and Electrical Equipment	
Hamilton/Brighton Inc. (US)/INSTRIMPEX	INSTRIMPEX-Hamilton-Brighton Computer Maintenance Service Station opened for business to service US-made computers and peripherals and provide technical consultancy services and training. 10/86.
Chronar Corp. (US)/Harbin Electronic Instruments Co. and Harbin Steam Turbine Corp.	Received approval from US and Chinese governments to establish Harbin-Chronar Solar Energy Electricity Co. amorphous silicon photovoltaic-panel production facility. (US:28%-PRC:72%). 11/86.
3D (US)/China Merchant Steam Navigation Co. in Shekou SEZ	Signed letter of intent to establish joint venture to produce video cassettes, compact discs, and CD players. 11/86.
JHL Research Inc. (US)/MEI	Planning two joint ventures to produce computers and editing and printing software. 12/86.
Minolta Hongkong Ltd., subs. of Minolta Camera Co. Ltd. (Japan)	Established Beijing maintenance center for photocopiers and photograph equipment. 12/86.
Electronics (Consumer)	
Car Audio Electronics (CAE) (Netherlands)/Huiyang Prefecture Industrial Development Co., Guangdong	Established Car Audio Electronics (CAE) (China) to produce car audio equipment. $2.5 million. (CAE:70%-PRC:30%). 11/86.
Matsushita Electric Industrial Co. (Japan)/Beijing Electron Tube Factory	Signed preliminary agreement establishing joint venture to produce 1.81 million color TV picture tubes annually. $160 million. (50-50). 12/86.
Minolta Camera Co. Ltd. (Japan)/China Household Electric Appliances Import Corp.	Signed agreement to provide after-sales services. 12/86.
Toshiba Corp., Mitsui & Co. Ltd., and Nichimen Corp./MEI, China Electronic Equipment and Instrument Industrial Corp., CNTIC, and Nanjing Huadong Electron Tube Plant	Signed protocol on possibility of setting up joint venture with Nanjing plant to produce color TV tubes. 12/86.
Food Processing and Food Service	
(Japan)/Shanghai	Will supply food packaging materials to produce 800 tonnes of plastic packages annually. $2.7 million. 10/86.

Jin Chi Group (HK)/Fujian Enterprise Holdings Co. Ltd., Fujian Investment Enterprise Co., and Putian Economic & Technical Coordination Corp.	Began construction of three companies to produce 20,000 TPY of beer, 10,000 TPY of malt, and 50,000 TPY of glassware respectively. $22.3 million (¥82.84 million). 10/86.
Nestle AG (Switzerland)/ China Development & Investment Corp., Beijing and Dairy Industry Corp. of Shuangcheng County, Heilongjiang	Signed 15-year contract establishing Nestle Shuangcheng Ltd. in Harbin to produce infant formula, infant milk cereals, and instant milk powder. $12.8 million (¥47.5 million). (N:60%–CDIC:20%–DIC:20%). 12/86.
Pepsico Inc. (US)/Ministry of Light Industry, Fujian Investment and Enterprise Corp., and Fujian Enterprises Co.	Received approval to open Fuzhou Pepsi-Cola Soft Drink Factory in January 1988 to produce 550 bottles per minute, with US providing bottling and quality-control equipment and water treatment facilities, and partners supplying land, labor, and management for bottling and sales operations. $4 million (US investment). 12/86.
The Coca-Cola Co. (US)/ Shanghai ITIC and Shanghai Food Industry Development Center	Announced "cooperative venture" agreement to open new facility to bottle Fanta Orange and Sprite soft drinks, produce PET plastic bottles, and manufacture Coca-Cola beverage base for local Chinese soft drinks and concentrate. 1/87.
Metals, Minerals, and Processing Technology	
Tecnotrade Spa (Italy)/ Ministry of Coal Industry	Signed agreement establishing company to produce, transport, and distribute coal. 10/86.
Davy McKee (Poole) Ltd. (UK)/China National Metallurgical Products Import-Export Corp.	Signed letter of intent establishing 3 million TPY iron and steel complex near Beilungang port, Ningbo. $4 billion. 11/86.
Military	
Aeritalia (Italy)/CATIC	Signed agreement to produce improved A5-M attack aircraft. 11/86.
Power Plants and Equipment	
Hutchison Whampoa Ltd. and Hong Kong Electric Co. (HK)	Will establish joint venture company for 2.4 million KW power plant in Wuxi, Jiangsu. $1.3 billion (HK$10 billion). (HK:40%–PRC:60%). 11/86.
Property Development	
Consco Investment Co. Ltd. (HK)/Tianjin International Investment & Engineering Co.	Signed 20-year contract establishing Tianjin International Building Co. Ltd. to build commercial/residential complex. $10 million. (HK:80%–PRC:20%). 10/86.
Yida (Beijing) Tourism & Investment Co. Ltd. (HK)/ China Law Academic Exchange Service Co.	Signed contract establishing Tianping Building Co. Ltd. to provide meeting sites and services for international and domestic law conferences and activities. Registered Capital: $12 million. (50–50). 10/86.
All Nippon Airways Co. Ltd. and C. Itoh & Co. Ltd. (Japan)/Beijing Trust and Consultative Co. of BOC and Beijing Xiyuan Hotel	Signed 18-year contract establishing China New Century (Epoch) Hotel Co. Ltd. to build hotel and office building. $77 million. (ANA:32%–CICL:8%–BOC:40%–XH:20%). 11/86.
LKN Investment International (Singapore)/Shanghai International Ventures & Consulting Corp.	Established joint venture to build hotel and international club. $60 million; partners investing $15 million with remaining $45 million coming from loans. (50–50). 11/86.
Sapporo Breweries Ltd. and Tokyo Maruichi Shoji Co. Ltd. (Japan)/Beijing Beiwei Hotel	Signed 17-year contract establishing Beiwei Sapporo Corp. to construct and manage hotel and annex. $6.8 million (¥25.2 million). (JAP:40%–PRC:60%). 11/86.
Tishman Speyer Properties and Shearson Lehman Brothers Inc., owned by American Express Co. and American Express Asset Management Holdings Inc. (US)/ Beijing Computer Industrial Corp. and Beijing No. 1 Semiconductor Device Factory	Signed contract to build Beijing American Express Center office/apartment complex. $150 million. 11/86.
Minnesota Brown No. 1 Development Co. (US)/ Shanhaiguan Economic Development Corp. in Qinhuangdao, Hebei	Signed contract to build hotel and villas in planned Laolongtou Holiday Resort. $50 million. 12/86.
Takenaka Komuten Co. Ltd., Japan Airlines Co. Ltd., and Japan Airlines Development Co. Ltd. (Japan)/Diplomatic Personnel Service Corp., Beijing	Signed contract establishing Beijing International Club Co. Ltd. to expand and upgrade the Beijing International Club including constructing hotel and office building and installing recreational facilities and office equipment. $90 million. (JAP:49%–PRC:51%). 12/86.
Scientific Instruments	
Ludwig Krohne GmbH & Co. (FRG)/Shanghai Guanghua Instrumentation Works of China Nuclear Energy Industry Corp.	Signed contract establishing Guanghua-Altometer Instrument Co. to produce 4,000 flow meters annually in Minhang Economic and Technological Development Zone, Shanghai. $5 million. (FRG:40%–PRC:60%). 12/86.
Telecommunications	
Tee-Comm Electronics Inc. (Canada)/Winco Electric Manufacturing Co. (HK-PRC joint venture)	Established joint venture to supply technology, blueprints for stampings, and tooling to Winco joint venture plant that manufactures pay telephones in Guangdong SEZ. $5.6 million (C$7.8 million). 8/86.
Transportation and Transportation Equipment	
Sankyu Inc. (Japan)/ SINOTRANS, Tianjin Branch, and SINOTRANS	Agreed to establish Tianjin Container Truck Transport Corp. to transport cargoes from new Tianjin port inland to northeast and northwest China. $1.9 million (Registered Capital: ¥7 million). (JAP:40%–TJ:40%–SINOTRANS:20%). 8/86.
Iskra Associated Enterprises (Yugoslavia)/ Sichuan	Opened joint venture factory to manufacture parts for aviation industry. 10/86.

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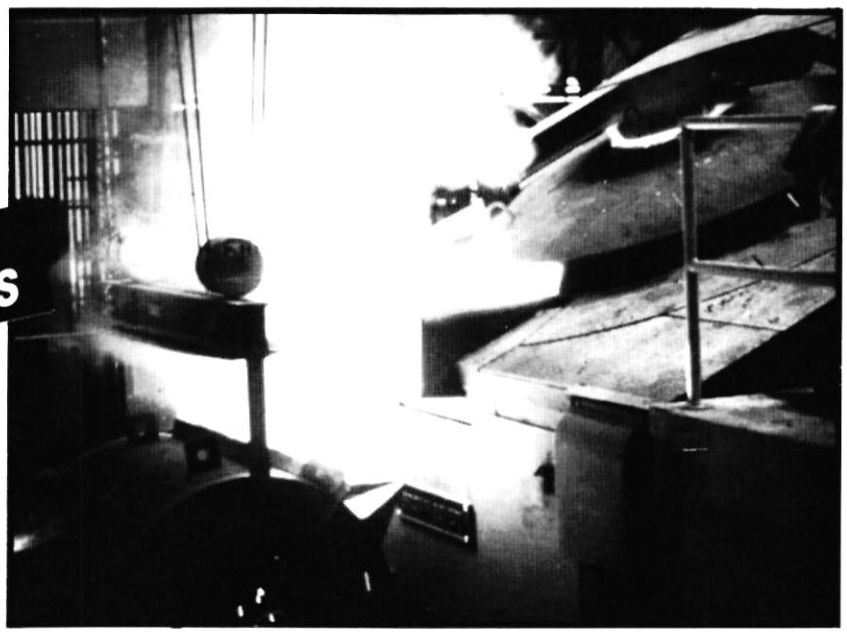

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