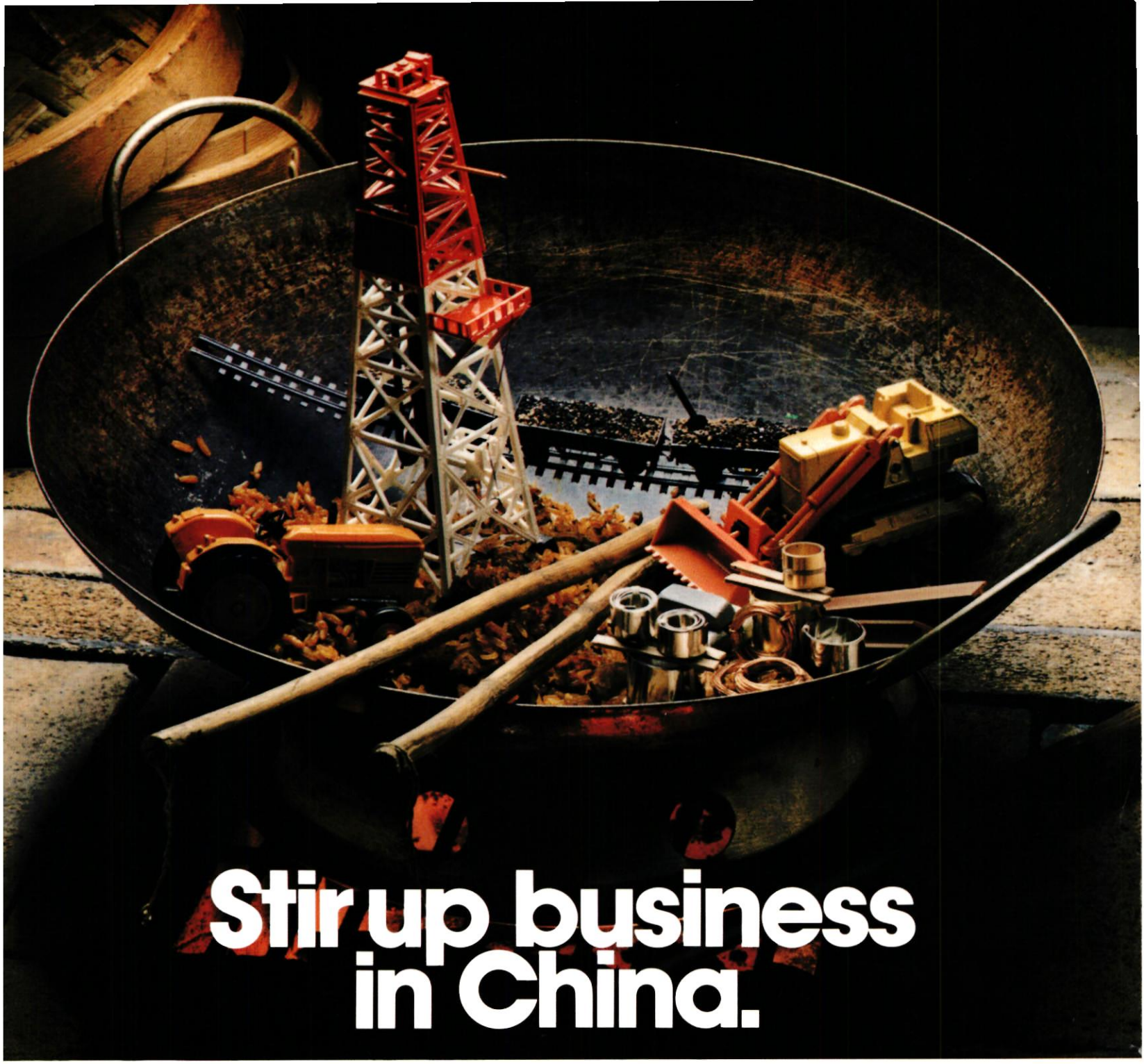
The China Business Review

March–April 1981

SOURCES: Official Chinese publications; 1980 World Bank Atlas.



Stir up business in China.

Call us at Chilton International.

We were the first U.S. publisher to go over the Great Wall. With our single-source reference volumes, AMERICAN ENGINEERING & INDUSTRY (AE&I) series.

First to respond when the People's Republic announced their new modernization program in 1978.

First to meet with Chinese technicians. First to find out what they sought. In American equipment. In services, technologies and products.

First to deliver reference volumes in technical Chinese . . . translated, typeset, printed in China . . . and carrying the sales messages of America's leading industries. Oil & Gas. Machine Tools. Steelmaking. Mining. Construction. Agriculture and related products.

The publication of these volumes is endorsed by the National Council for U.S.-China Trade.

If you're ready to start something cooking in China, ask about AE&I series. Second editions are just getting underway.

Call George Hutter (215) 527-3304. Or write Chilton International Company, Radnor, PA 19089.

Chilton
INTERNATIONAL

abc A division of ABC PUBLISHING
American Broadcasting Companies, Inc.

"Think like a wise man but communicate in the language of the people."

William Butler Yeats

If you want to do business with China, you must be able to communicate in Putonghua, the official language of the People's Republic of China. CHINATRANS, a leading authority on modern Chinese usage, can help you get your message across clearly, accurately, and effectively in PRC Chinese.

Through CHINATRANS, you will have direct access to the translation skills of well over 200 specialists—linguists . . . physicists . . . engineers . . . chemists . . . economists . . . political scientists . . . audiovisual experts—who know the language, the people, their interests, and understand how to communicate with them effectively.

And in addition to providing translating, typesetting, and publishing services, CHINATRANS' highly qualified professional staff can help you avoid marketing approaches that could be offensive because of political or cultural differences—help you take the right steps at the most appropriate time.

For more information about the wide range of specialized marketing support services available from CHINATRANS, call John Phipps at 202/296-3244. He will be glad to explain how CHINATRANS can help you build your business with China.

中

翻译

CHINATRANS • 202/296-3244 • Cable: CHINATRANS
The National Council for US-China Trade Translation Service, Inc.
1735 K Street Northwest • Suite 210 • Washington, D.C. 20006

The China Business Review

The Magazine of the National Council for US-China Trade
March–April 1981 Volume 8, Number 2

CONTENTS

Front Cover: *Artwork by John Isaacs.*

The China Business Review welcomes articles from outside contributors. Manuscripts submitted for consideration should be typed double-space and normally may not exceed 5,000 words. They should be sent to the Editor, *China Business Review*, Suite 350, 1050 17th Street, NW, Washington, DC 20036, USA.

The magazine is available for subscription in the US and Canada at $60 per year; elsewhere at $75 per year including airmail postage. A reduced rate of $50 per year is charged academic libraries in the US and Canada, and $30 for faculty and students (copy of faculty letterhead/current student I.D. is required).

The China Business Review is published bimonthly by the National Council for US-China Trade, 1050 17th Street, NW, Suite 350, Washington, DC 20036, USA. The National Council is a nonprofit organization incorporated under the laws of the District of Columbia. *The China Business Review* is published principally for members of the National Council. Controlled circulation postage paid at Washington, DC. Articles in the *Review* do not reflect Council policy, unless indicated. The National Council for US-China Trade is grateful to His Excellency Huang Zhen, minister of culture, The People's Republic of China, for the calligraphy on the front cover of *The China Business Review*.

China Wire

Belt-Tightening in Beijing

The 1981 budget-cutting measures announced February 27 by Yao Yilin, head of the State Planning Commission, dwarf even the drastic steps being proposed by OMB Director David Stockman. Foreign companies will suffer from the cuts, but in many ways the program bodes well for the future of China business.

China's cuts are twice as severe as Washington's—13.4 percent off the central government's original budget of $74.4 billion against the 6.6 percent cuts in Reagan's proposed budget for fiscal 1982. Beijing's budget package includes:

- a reduction of almost $10 billion in 1981 government expenditures aimed at fully balancing the budget;
- a 45 percent reduction in capital construction expenditures to below $20 billion for 1981;
- cancellation or postponement of a total of more than $2.7 billion worth of foreign plant imports, technology, and equipment;
- a reduction in coal, oil, and defense development budgets, and in funds for imported equipment.

The cuts will help reduce budget deficits of previous years ($11 billion in both 1979 and 1980) and slow down inflation—which was officially reported at 6 percent in 1979 and probably exceeded 10 percent last year.

Tightening-up in the PRC has not been limited to the budget. In line with China's ongoing introduction of measures to facilitate the development of a market economy and decentralized trade, such as China's management training program and its financial and legal training schemes (some 5400 lawyers are now being trained), procedures have been introduced to tighten control of the system within which business and trade will operate. These include:

Foreign Exchange. Regulations issued in December put foreign exchange control firmly back in the hands of the Bank of China—control that had been eroded by the informal use of foreign exchange as China's business and trade expanded (or rather exploded) in the past two years. While providing for stringent control, the regulations also help to support all enterprises that can earn foreign currency. This should help foreign companies doing business with Chinese enterprises.

Financial Discipline. To reduce inefficiency and waste, China's State Council in February stipulated strengthened enforcement of financial controls. The new measures include stricter controls on capital construction spending, reduction of commercial and foreign trade department inventories ("to withdraw currency from circulation"), and tight control over inspection tours, visits, exhibitions, and attendance at international meetings. The regulations also state: "It is strictly forbidden to use public funds for banquets or gifts or for sightseeing." For foreign companies, the new controls mean that firms are less likely than before to get drawn into projects that are unauthorized or less than fully planned. The controls will also mean that there may be fewer unnecessary expenditures in doing business with the PRC. Reduction of trade inventories will mean short-term purchase opportunities for foreign importers.

Protectionism. While protectionism has been rearing its head in the US and Europe, it has also made itself known in China for the first time. A February 11 article in *Renmin Ribao* said: "We must adopt a prudent approach towards imports because indiscriminate imports can be detrimental. In fact, no more motorcars and television sets should be imported." While saying it has been "absolutely necessary for us to import some advanced technology and equipment," and that this practice should not be changed, the article goes on to say that "when importing mechanical and electrical products, we must try to save our foreign exchange and see to it that such imports are beneficial rather than harmful to the development of our domestic machine building industry."

Addressing the question of why some enterprises have imported goods "indiscriminately despite high costs," the article says this is due to "our inadequate and low-quality products." It notes that in the past two years the number of imported television sets topped output of home-produced products by 9 percent and of tape recorders by 126 percent, and goes on to say that while it is wrong to close the country to international intercourse and "make everything ourselves," it is even worse to "look down on ourselves, import everything from foreign countries, and blindly worship imported goods."

In other words, the consumer market in China, especially for automobiles and TVs, will be best tackled from the inside, through joint ventures and other arrangements, the same way the Japanese are building automobile plants in the United States.

Meanwhile the competition is increasing within China. The First Ministry of Machine Building, which produces equipment used in agriculture, light industry, urban construction, and consumer categories, has been renovating and transforming its plants, introducing licensed foreign technology as never before, improving the quality of its products, and becoming much more sensitive to consumer's needs.

According to the ministry's figures, in 1979, only 14 percent of products were made to meet market demands. In 1980 the share of market-oriented goods took a dramatic leap—46 percent of products were expressly made according to customer requests.

Looking at the long term, foreign companies can definitely expect more domestic competition for their products within the PRC.

—Nicholas H. Ludlow

Washington Update

The Reagan Administration and China

The Reagan administration's views on the development of US economic relations with the PRC have yet to be fully spelled out. A *CBR* status report:

State Department Policy. At his confirmation hearings, Secretary of State Alexander Haig made a point of noting that he was on the "stalking horse" trip for President Nixon's historic visit to China in February of 1972 that ended with the signing of the Sino-US Shanghai Communiqué. In Haig's new role, he has firmly stated his "great confidence that we are going to be able to further the improvement of our relationship with the People's Republic of China." This improvement has been one of Haig's "long-standing and well-known objectives."

Haig also stated that "improving multinational or American investment—American participation in China's economic development, perhaps investment in return for raw materials—all of these things are constructive in the overall international climate and would contribute to an improved relationship."

Exim Export Credits. President Reagan proposed on February 18 that the US Export-Import Bank's direct lending authority should be cut to $5.1 billion in fiscal 1981 (October 1, 1980, to September 30, 1981), and be further reduced to $4.4 billion in fiscal 1982 (31 percent below Exim's current budget authority).

Those lower ceilings should not limit Exim's ability to finance US exports to China in the immediate future, inasmuch as China's own budget cutbacks in 1981 have led to the postponement or cancellation of many projects that were once prospective candidates for Exim Bank loans. One bank officer adds that since no China deal has yet drawn on Exim funds, applications will receive special consideration. Thus far only two US firms, Combustion Engineering and Westinghouse, have received preliminary commitments from Exim worth $75 million.

World Bank Loans. The World Bank's first loan commitment to China is expected sometime in late 1981. But the loan terms China must pay will depend largely on whether President Reagan and the US Congress decide to pledge $3.24 billion to the International Development Association (IDA), the World Bank's "soft-loan window." IDA will not be able to extend new loans from 1981 to 1983 unless it raises $12 billion from its 33 donor governments.

IDA loans have 50-year maturities, with ten-year grace periods, and are interest free. If IDA money is not available, China could still borrow from the World Bank, but at less attractive terms—loans with maximum 20-year maturation and five-year grace periods, carrying fixed-rate interest rates of 9–10 percent.

President Reagan has proposed that the US fulfill its IDA commitment in three fiscal-year appropriations, with the largest one of $2 billion being deferred until 1983. Forthcoming contributions from other donating countries are contingent on full US participation in the replenishment fund. According to a State Department official, other donors are saying that it is unrealistic to expect Congress to make such a huge appropriation to IDA in 1983, and are considering withdrawing their pledges to IDA.

International financial analysts do not understand why the Congress would want to renege on the United States' original commitment; for every $1 the US gives to the World Bank, $2.34 comes back in the form of US technology and equipment exports and loan interest payments.

OPIC. Officials at the Overseas Private Investment Corporation (OPIC), which comes under the financial authority of the Office of Management and Budget (OMB), expect to write about the same amount of political risk insurance in fiscal 1981 as last year—more than $1 billion. OPIC's loan program may be terminated, however, and the amount of its loan guarantees will probably be set below last year's ceiling of $180 million.

OPIC, a government agency established under the 1969 Foreign Assistance Act, has already received more than 100 inquiries and 22 formal letters of request for projects representing well over $100 million in proposed investments. Several of these are oil exploration and development projects. About half are joint ventures, another half are compensation trade arrangements, while one is a countertrade deal.

Export Controls. The liberalization of export restrictions on dual-use technology for China, announced in the fall of 1980 by the Carter administration, has been only partially implemented. Since the 1980 election campaign, licensing officials in the Commerce Department's Office of Export Administration have been playing it safe. The result: months of PRC licensing cases are backlogged and will remain so until the Reagan administration clarifies its position on US export-control policy.

Congress on China

Members of the 97th Congress, many of them making their Republican debuts on Capitol Hill, have spent the first few months of the session juggling committee assignments. Chairing the powerful Asia and Pacific Subcommittee of the House Foreign Affairs Committee will be Representative Stephen J. Solarz (D-NY). A fellow New York Democrat, Representative Jonathan B. Bingham, will chair the Economic Policy and Trade Subcommittee, also under the House Foreign Affairs Committee. The International Trade Subcommittee of the House Banking Committee, headed by Representative Fernand St. Germain (D-RI), is currently studying the types of loans Exim has been granting in order to determine whether the bank has unjustly favored aircraft and other large industries. The subcommittee is also concerned that continued high interest rates might force Exim Bank to seek congressional assistance in order to provide low-interest loans to US exporters. 完

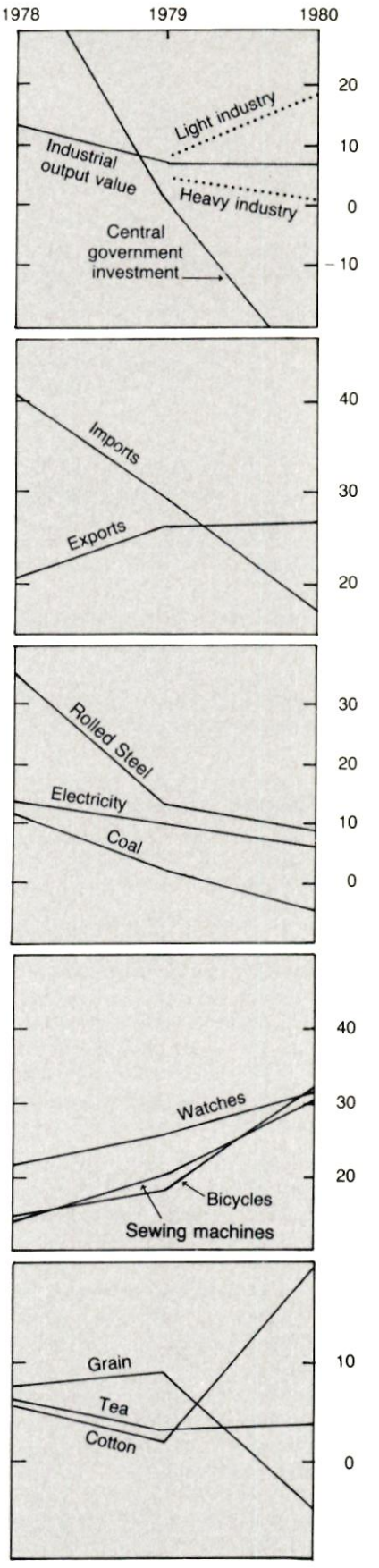
OFFICIAL OUTPUT FIGURES, 1979–80

KEY INDICATORS	1978	Percent change	1979	Percent change	1980	Percent change
Gross value of industrial and agricultural output (billion yuan, constant 1970 prices)	¥569.0	12.3	¥617.5	8.5	¥657.7	6.5
	$338.3	23.6	$398.6	17.8	$438.5	10.0
Gross value of industrial output (billion yuan, constant 1970 prices)	¥423.1	13.5	¥459.1	8.5	¥497.7	8.4
Of which:	$251.5	24.9	$296.4	17.9	$331.8	11.9
Heavy industry	¥242.4	—	¥261.1	7.7	¥265.3	1.6
	$141.1	—	$168.6	17.0	$176.9	4.9
Light industry	¥180.7	—	¥198.0	9.6	¥232.4	17.4
	$107.4	—	$127.8	19.0	$154.9	21.2
Gross value of agricultural output (billion yuan, constant 1970 prices)	¥145.9	8.9	¥158.4	8.6	¥160.0	1.0
	$86.7	19.8	$102.3	18.0	$106.7	4.3
Total investment in capital construction (billion yuan)	¥47.90	31.3	¥50.00	4.4	¥51.0	2.0
Of which:	$28.48	44.6	$32.28	13.3	$34.0	5.3
National budget	¥39.50	34.0	¥39.50	0.0	¥25.0	−36.7
	$23.48	47.7	$25.50	8.6	$16.7	−34.5
Budgets of provinces, localities, and enterprises	¥8.40	20.0	¥10.50	25.0	¥26.0	147.6
	$4.99	32.0	$6.78	35.9	$17.3	155.2
Total value of retail sales (billion yuan)	¥152.75	8.3	¥175.25	14.7	¥207.1	18.2[1]
	$90.81	19.2	$113.14	24.6	$138.1	22.1
Foreign Trade (billion yuan, fob/cif)	¥35.54	30.4	¥45.3	28.0	¥54.6	20.7[2]
	$21.13	43.6	$29.2	38.2	$36.4	23.8
Exports (fob)	¥16.79	20.2	¥21.2	26.3	¥26.9	27.0[3]
	$9.98	32.4	$13.7	37.3	$17.9	30.8
Imports (cif)	¥18.75	41.2	¥24.1	29.6	¥27.7	15.2[2]
	$11.15	55.5	$15.6	39.9	$18.5	17.9
Trade balance (exports minus imports)	−¥1.97	—	−¥3.10	—	−¥0.8	—
	−$1.17	—	−$2.00	—	−$0.5	—
Industrial Production (million metric tons unless otherwise indicated)						
Crude steel	31.78	33.9	34.48	8.5	37.04	7.4
Rolled steel	22.08	35.2	24.97	13.1	27.24	9.1
Coal	618.0	12.4	635.0	2.8	605.98	−4.6
Crude oil	104.05	11.1	106.15	2.0	105.91	−0.2
Natural gas (billion cubic meters)	13.73	—	14.51	5.7	13.7	−5.6
Electricity (billion kwh)	256.55	14.8	281.95	9.9	297.1	5.4
Consumer goods (million units)						
Bicycles	8.54	14.9	10.09	18.1	13.40	32.8
Sewing machines	4.86	14.6	5.87	20.8	7.66	30.5
Watches	13.51	22.4	17.07	26.4	22.55	32.1
Television sets	0.517	—	1.329	157.1	2.44	83.6
Radios	11.68	—	13.81	18.2	28.7	107.8
Agricultural production (million metric tons unless otherwise indicated)						
Grain	304.75	7.8	332.115	9.0	316.0	−4.9
Cotton	2.167	5.8	2.207	1.8	2.642	19.7
Oil-bearing crops	5.218	30.0	6.435	23.3	7.169	11.4
Sugarcane	21.117	18.9	21.508	1.9	22.3[3]	3.7
Sugar beet	2.702	10.0	3.106	15.0	5.3[3]	70.6
Tea (thousand metric tons)	268.0	6.3	277.0	3.4	290.0[3]	4.7
Exchange rate, yuan per US dollar	1.682	—	1.549	—	1.500	—

[1]Growth rate is 11.0 percent if 1979 sales figure, in constant prices, is increased 6.5 percent to ¥186.58 billion ($120.5 billion) to reflect inflation in 1979.
[2]Based on unrounded figures.
[3]Based on reported percentage increases.

SOURCES: Xinhua News Agency January 7 and 11, and February 6, 12, and 18, 1981; and State Statistical Bureau, *Communiqué on the Fulfillment of China's 1979 National Economic Plan*, released by Xinhua April 30, 1980.

Selected Growth Rates (percent per annum)



Council Activities

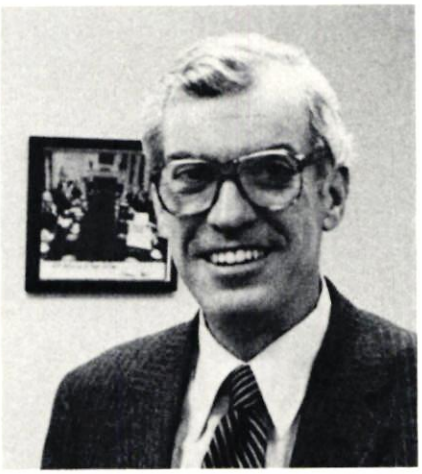
Christopher Phillips, National Council president, and his wife were among the special guests aboard Pan American World Airway's February 17 inaugural flight to China. Pan Am has been selected as the commercial carrier to service this route—from New York to Shanghai and Beijing via Tokyo—as well as a route from San Francisco to Shanghai and Beijing via Tokyo.

On March 19 President Phillips returned to Beijing with the Council's ten-member Board of Director's delegation. A wide range of issues related to two-way trade were covered in discussions between the Board members, led by Board Chairman David S. Tappan, Jr., and high-ranking Chinese officials. Prior to the trip the Board met with representatives of the new Reagan administration to brief them on the Council's role of facilitating US-China business cooperation.

New Vice-President

Roger Sullivan, formerly a senior staff member of President Carter's National Security Council, replaced John Dewenter as vice-president of the Council on February 2. Dewenter will be sorely missed after his two-and-a-half-year term at the Council, but he will remain at the forefront of US-China trade in the capacity of corporate managing director of China operations for the FMC Corporation, a Council member.

Sullivan joins the staff after a long and distinguished career as an Asian expert with experience in Chinese commercial and political affairs. From 1974 to 1976 he served as political advisor to the commander-in-chief of the US Pacific forces, where he won commendation as a "superb manager" who "successfully manages a wide variety of simultaneous projects, skillfully massaging them from idea to end product." Later he worked closely with the US business community, first in the number-two spot in the American Consulate General in Hong Kong, and then in Taiwan as deputy chief of the US diplomatic mission. In 1978 Sullivan was appointed deputy assistant secretary of state with responsibility for managing and coordinating US relations with East Asian countries. From January 1980 to January 1981, Sullivan played a leading role at the National Security Council in revamping the US export-control system to facilitate high-technology sales to the PRC.



Council Vice-President Roger W. Sullivan

Delegations

According to research conducted by the Delegations Department, 80 PRC delegations arrived on American shores during January 1981—nearly twice the number dispatched by Beijing at the same time last year. The proliferation of visiting delegations, some of which had overlapping interests and were poorly managed, has prompted officials in both Beijing and Washington to study ways to make delegations more effective.

The Council will host a delegation from the Ministry of Finance this June in cooperation with Ernst & Whinney and Coopers and Lybrand. Delegation members will participate with US legal specialists in a series of seminars on the intricacies of US tax, accounting, and foreign investment laws.

A Council-sponsored construction machinery delegation led by Stephen Markscheid was in China from March 31 to April 15. Markscheid remained in China to join Scott Seligman and his Chinese office assistant, Li Wenda, in the Council's Beijing headquarters.

Under the sponsorship of the China Enterprise Management Association, *CBR* editors Nick Ludlow and Jim Stepanek are making a spring trip to China to continue information exchanges initiated during a similar mission last year. In the planning stages are US delegations to China covering the areas of telecommunications, animal husbandry, crop protection, and petroleum processing.

Importers

The Importers' Steering Committee is seeking five Council members to join its ranks. The committee expects to face many challenging issues in the year ahead as China continues to experiment with trade decentralization.

The Council's Importer Services Department is working closely with the US Maritime Administration on the problem of excessive container usage fees passed on to importers by the US shipping industry. American shipping lines have been forced to levy these fees on account of the abnormally high rates charged by Chinese ports for handling containers. Case examples from member companies will be compiled and forwarded to the Maritime Administration.

The Importer Services Department is also providing data on China's export industries to the International Trade Commission, which is preparing a study on the domestic impact of granting China GSP (zero duties on specific goods). Under the US Trade Act of 1974, China must join GATT as a condition for receiving GSP treatment from the US. Currently, both Japan and the EEC extend GSP to China.

Exporters

The Telecommunications Committee, meeting January 28, approved a recommendation to develop a strategy to bolster industry support for the committee's telecommunications trade fair in November 1981. The Construction Machinery and Equipment Committee hosted a dinner for the visiting NORIN-

CO coal delegation in Houston on January 26. Members of the Agricultural Machinery Committee decided at their February 3 meeting to support a Council-sponsored agricultural machinery exhibition in China for the fall of 1982. On the same day, a proposal to hold a China energy conference under Council auspices was adopted by the Petrochemical and Petroleum Processing Committee.

The Agriculture Committee was briefed on the status of China's patent law on February 4 by Michael Kirk, director of legislation and international affairs in the US Patent and Trademark Office. Mr. Kirk was one of the 11 participants of a delegation that visited China in November to hold discussions with Chinese officials involved in setting up a new legal structure for patent, trademark, and copyright protection.

Council Installs QWIP Transceiver

In order to better serve its members, the National Council has installed a QWIP 1200 Series Transceiver which is compatible with the following units: Xerox Telecopiers III, 400, 400-1, 410 and Telecopier 200 in 4 and 6 minutes, 3M's VRC Remote 600, BRC Remote 603 in 4 and 6 minutes, VRC II Remote and Magnafax 856, and with Graphic Sciences dex 580 in 6 minutes FM, dex 3400 in 4 and 6 minutes FM, and dex 4100 in 4 and 6 minutes FM, and Stewart-Warner's FTR-180.

—Karen Berney

RMB:DOLLAR RATES AS OF FEBRUARY 4, 1981

	RMB/ US$	US¢/ RMB
December 24		
Bid	1.5341	65.1848
Offer	1.5265	65.5093
Median	1.5303	65.3467
January 3		
Bid	1.5418	64.8593
Offer	1.5342	65.1806
Median	1.5380	65.0195
January 6		
Bid	1.5262	65.5222
Offer	1.5188	65.8415
Median	1.5225	65.6814
January 9		
Bid	1.5371	65.0576
Offer	1.5295	65.3808
Median	1.5333	65.2188
January 13		
Bid	1.5449	64.7291
Offer	1.5371	65.0576
Median	1.5410	64.8929
January 16		
Bid	1.5547	64.3211
Offer	1.5479	64.6037
Median	1.5513	64.4621
January 19		
Bid	1.5556	64.2839
Offer	1.5479	64.6037
Median	1.5518	64.4413
January 22		
Bid	1.5510	64.4745
Offer	1.5432	64.8004
Median	1.5471	64.6371
January 24		
Bid	1.5634	63.9632
Offer	1.5556	64.2839
Median	1.5595	64.1231
January 27		
Bid	1.5759	63.4558
Offer	1.5681	63.7714
Median	1.5720	63.6132
January 28		
Bid	1.5822	63.2031
Offer	1.5744	63.5163
Median	1.5783	63.3593
January 29		
Bid	1.5886	62.9485
Offer	1.5806	63.2671
Median	1.5846	63.1074
January 31		
Bid	1.6108	62.0810
Offer	1.6028	62.3908
Median	1.6068	62.2355
February 4		
Bid	1.6028	62.3908
Offer	1.5948	62.7038
Median	1.5988	62.5469

Percentage RMB appreciation (+) or depreciation (−) against the US dollar as of February 4, 1981.

Percentage change	*Since*
−4.5	January 1, 1981
−6.1	February 4, 1980
−7.0	January 1, 1980
−1.6	January 1, 1979
+6.1	January 1, 1978

SOURCE: Standard Chartered Bank, Ltd., New York.

China Calendar

CULTURE AND BUSINESS

☐ **Beijing, March 18–25.** International Meeting on Petroleum Geology. For information, contact the director, Division of Natural Resources and Energy, Department of Technical Cooperation for Development, United Nations, New York, NY 10017.

☐ **Honolulu, March 19.** Part II of a three-part forum, "The Role of the Humanities in Hawaii-China Trade," entitled, "Value Conflicts and Implications for Business Stability." Frank Ching, Beijing correspondent for *The Wall Street Journal*, will be the keynote speaker. Part III, "Cross-cultural Business Attitudes: US, China, and Japan," will be held in April. The Governor's Advisory Council on China Affairs, The University of Hawaii Foundation, and the Hawaii International Service Agency (HISA) are the forum's cosponsors. For information, contact HISA, Old Federal Bldg., 335 Merchant St., Rm. 248, HI 96813; (808) 548–3048. Telex 7430356 (HISAS).

☐ **Brussels, March 30–April 10.** Community-China Business Week. Approximately 100 Chinese trade officials and 200–300 EEC officials will attend the conference sponsored by the Chinese Import Export Control Commission, the Ministry of Foreign Trade, and the European Community Commission.

☐ **Washington, DC, March 31.** "Washington Briefing on China's Energy: Politics and Priorities." Sponsored by the National Council, the briefing is the first of a series that will explore opportunities and problem areas in Sino-US trade. Members only are invited. For information, contact the Delegations Department at the National Council, (202) 828–8332.

☐ **New York City, June 1–2.** Seminar entitled, "Coinvestment and Trade-related Investment in China." Coopers & Lybrand, in conjunction with the National Council, will sponsor the seminar, which will focus on financial planning and regulatory framework and will feature the participation of members of the PRC's Ministry of Finance and Foreign Investment Control Commission. For information, contact James C. Dunn, senior consultant, Coopers & Lybrand, 1251 Ave. of the Americas, New York, NY 10020.

☐ **Chicago, June 4; Los Angeles, June 9.** A one-day seminar—"Investing in China." The seminar, cosponsored by the National Council and Ernst & Whinney, will address the issues of business ventures in China; Chinese accounting principles, rules and procedures; foreign exchange consideration; investment aspects; and Chinese taxes. Like the above-mentioned New York seminar, participants in the Chicago and Los Angeles seminar will include members of the PRC's Ministry of Finance and Foreign Investment Control Commission. For information, contact Michael A. Henning, partner in charge of international tax services, Ernst & Whinney, 153 East 53rd St., New York, NY 10022; (212) 888–9100.

EXHIBITIONS IN CHINA

☐ **Guangzhou, March 28–April 4.** The International Exhibition of Controlled Power (Fluid, Mechanical, and Electric). Sponsored by Great Sincere Technology Exchange Company, Ltd.; the Guangdong branch of the CCPIT; Hong Kong Tai Kung Pao; and Continental Translation and Printing Company, Ltd., the exhibition will be held in the Guangdong Exhibition Center.

☐ **Guangzhou, May.** The Automation Equipment Fair, staged by Multi-Control Import and Export, Ltd.

☐ **June 1981.** A Land Reclamation Technical Sales Seminar, cosponsored by the US Department of Commerce and the CCPIT. For the location of the seminar and other information, contact James Cox (202) 377–2544.

☐ **Guangzhou, July 12–21.** The 1981 Packaging Exhibition. Coorganized by Industrial and Trade Fairs, International, Ltd., and Wen Wei Enterprises and Adsale, the exhibition will open in the Guangzhou Foreign Trade Center.

☐ **Beijing, October.** A telecommunications fair. The fair will be cosponsored by Clapp & Poliak and US-China Trade Consultants. For information, contact Exhibitions Director Ned Krause at Clapp & Poliak (301) 657–3090.

☐ **Guangzhou, October 1–6.** Food Processing, Packaging and Technology Exchange. For information, contact the organizers, International and Trade Fairs at Radcliffe House, Blenheim Court, Solihull, West Midlands, B91 2BG, United Kingdom.

☐ **Beijing, November 3–13.** A telecommunications equipment exhibition, China-Comm 1981, cosponsored by the National Council for US-China Trade and Electronic Industries Association. For information, contact Clapp & Poliak (301) 657–3090.

☐ **Beijing, February 1982.** A light industry exhibition, cosponsored by the US Department of Commerce and the CCPIT. The show will feature textile machinery, health and pharmaceuticals equipment, consumer goods, printing equipment, and agricultural machinery. For information, call Nancy Rinehart, USDOC International Trade Administration, Washington, DC 20230; (202) 377–4810.

☐ **Beijing, March 1982.** An international petroleum exhibition and technical symposium. The Dallas-based Society of Petroleum Engineers and the CCPIT are organizing the events. For details, contact the society, 6200 North Central Expressway, Dallas, TX; (214) 361–6601.

☐ **Beijing, April 1982.** The Electronics Production Seminconductor Exposition. Sponsored by the first and fourth ministries of Machine Building, the exposition includes approximately 100 seminars. For information, contact Minor Scott, Industrial & Scientific Conference Management, Inc., 222 W. Adams St., Chicago, IL 60606; (312) 263–4866.

☐ **Guangzhou, July 7–14, 1982.** Food Processing and Packaging Expo/China '82. The exhibition will be held at the Guangzhou Trade Exhibition Center and will feature preparation, processing, and packaging equipment; supplies and services for the production of food and foodstuffs. For information, contact Minor Scott, Industrial & Scientific Conference Management, Inc., 222 W. Adams St., Chicago, IL 60606; (312) 263–4866. 完

Recharging the Electric Power Sector

Dori Jones

Design by Jennifer Arnold

In a period of economic reevaluation and cutbacks in foreign purchases, China's electric power industry is moving full speed ahead.

As part of an effort to overcome a serious power shortage that is hampering economic growth, the Chinese have launched a massive program to build large thermal as well as hydroelectric power stations and super high-voltage electricity transmission lines. Contracts with foreign, including US, companies are central to this program.

Two American firms recently agreed to help the Chinese upgrade their capability to manufacture thermal power generating equipment, and a third will soon begin design and engineering work for four new generating units at two thermal power stations. The Chinese have begun producing a range of equipment related to electricity generation and transmission under license to several European and Japanese firms (*see chart*). European companies also are helping the Chinese build two major thermal power stations in coal-mining areas.

The Chinese continue to negotiate with foreign firms for assistance in construction of other thermal and hydroelectric power stations and for technology to produce advanced generating equipment.

Scope of Construction Plans

Vice-Minister of Electric Power Li Daigeng announced last August that by 1990 the Chinese hope to build 60,000–64,000 megawatts (mw) of hydropower generating capacity and 70,000 mw of coal-fired thermal generating capacity, with each power station averaging more than 1,000 mw capacity. Given China's present construction projects and technical capability, this target seems overoptimistic.

The CIA study published last May calculated that to achieve a 7 percent annual growth in gross national product (considered an upper limit), China must add 75,000 to 84,000 mw of generating capacity, over and above the estimated 25,000 mw of capacity under construction as of 1979. Even if the economy grew at only 3 percent per year, the Chinese would need to begin construction of 20,000 mw of added generating capacity in the next five years or so.

Before 1985, the bulk of this growth must come from thermal power plants, since construction of new hydropower plants takes at least seven years.

Since 1979 the Chinese have been stressing the conversion of oil-fired plants to coal-fired power plants, while stepping up construction of "pithead" power plants in coal-mining areas to minimize the need to transport bulky coal over long distances.

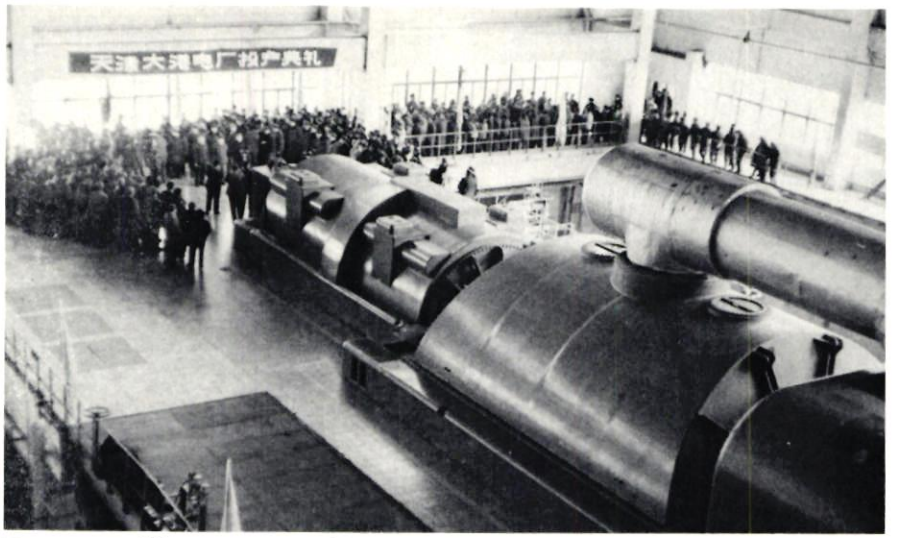
In 1979 the Chinese built 41 medium- and large-scale thermal and hydroelectric power plants with a total capacity of 4,150 mw. The Chinese were able to add only 2,075 mw of capacity in 1980, but they continued construction of hydro projects with a combined capacity of 9,200 mw, as well as 20 or more large pithead thermal projects (of at least 250 mw each) with a combined capacity of at least 8,000 mw. The Chinese are also adding capacity to existing plants and constructing more small-scale hydropower stations.

The largest thermal projects under construction, all near coal-mining areas, include:

Datong No. 2, Shanxi	1,200 mw
Suoxian, Shanxi	1,350 mw
Huainan, Anhui	750 mw

Huaibei, Anhui	600 mw
Qinling, Shaanxi	800 mw
Yaomeng, Pingdingshan, Henan	600 mw
Yuanbaoshan	adding 600 mw
Shiliquan, Zaozhuang, Shandong	500 mw
Xuzhou	600 mw
Douhe, near Tangshan, Hebei	adding 750 mw

Over the next ten to 20 years, Vice-Minister Li noted, the Chinese plan to build thermal plants near coal-mining areas in Huolin, Yimin, Shanxi, southern Mongolia, Huainan, Huaibei, Xuzhou, southern Shandong, western Henan, Liupanshui, Weibei, and Ningxia.



Two 320,000-kilowatt steam turbine generating units, provided by the Italian firm GIE, operate inside the Dagang Power Plant.

Foreign Contracts for Thermal Power Stations

While the bulk of this new construction will be handled by the Chinese, the Ministry of Electric Power has signed several contracts with foreign firms for assistance in constructing thermal power plants. Under the most recent contract signed December 1980, Ebasco Services, Inc., will provide engineering services for two 300-mw coal-fired units at Shiheng in Shandong Province, and two 600-mw coal-fired units at Huainan No. 3 plant in Anhui Province. This multimillion-dollar agreement is the first pure engineering contract signed with US firms for thermal plants. It will give China access to state-of-the-art design of large-scale generating units.

Previously the Chinese had turned to French, Belgian, and Japanese firms for major generating equipment like boilers, turbines, and generators. The largest of these deals, worth about $230 million, was signed in February 1980 with a consortium of three Belgian firms—Cokerill, Ateliers de Constructions Éléctriques de Charleroi, and Traction et Éléctricité—and a French firm Alsthom-Atlantique. This equipment is to be installed at two new 300-mw coal-fired stations near the Pingdingshan coal mines in Henan Province.

A few months earlier, Alsthom-Atlantique signed a $120 million contract for a 600-mw set of turbogenerators for the Yuanbaoshan power plant; the boilers for this station will be supplied by Steinmüller of West Germany. The French firm, together with Brown Boveri of Switzerland, sold 300 mw of equipment for the same plant in 1974.

Mitsubishi and other Japanese firms are already at work providing equipment for construction of two 350-mw thermal plants that will power the Baoshan steel complex near Shanghai under a $200 million contract signed in late 1978.

Licensing Power Generating Equipment

As the centerpiece of their plans to upgrade their manufacturing capability of electric power-generating equipment, the Chinese signed agreements with Westinghouse and Combustion Engineering late last year to produce advanced turbines, generators, and boilers in China under license.

Westinghouse's contracts, announced in mid-September, call for transfer of technology and sale of components for 300 mw-class and 600 mw-class steam turbines and generators. In December, Combustion Engineering signed a pair of companion agreements, subject to Chinese government approval, for transfer of technology and supply of components for 300-mw and 600-mw steam generators.

China's First Ministry of Machine Building is counting on these production licensing and technical assistance agreements to revamp its production capability in Harbin and Shanghai. There it must manufacture larger and more sophisticated equipment for use in the many large coal-fired power plants it plans to construct. So far, the largest steam turbines made in China are 300 mw; most Chinese-built turbines are 125 mw.

Under the more important of Westinghouse's two contracts, the technology transfer agreement, the company will provide the basic engineering and design technology for production of 300 mw-class and 600 mw-class turbines and generators. Four factories—a turbine plant and an electrical machinery plant each in Harbin and Shanghai—will begin by assembling imported components, gradually assuming greater shares of the manufacturing process until they can produce the equipment without imported parts.

Westinghouse will train more than 300 Chinese technicians (2,000 man-months) and will provide extensive consulting services. The Chinese will pay a fixed sum for the entire technology transfer program, rather than pay running royalties based on production.

Company spokesmen would reveal neither the length of the arrangement nor the planned capacity of the plants. But unconfirmed press reports say the program will last 15 years, and the Chinese plan to produce 4,000–5,000 mw per year of turbines and generators in the four factories by the fifth production year. The Chinese will need new manufacturing equipment to produce the turbines and generators to Westinghouse design, but as yet they have not selected the equipment to be imported.

The second Westinghouse contract was for the sale of components and parts for one unit each of 300-mw and 600-mw turbines and generators. Chinese factories will produce some components for these initial units; Westinghouse will export other parts, and the Chinese will assemble them for testing before beginning mass production sometime this year. Westinghouse's competitors for the contract

were Alsthom-Atlantique of France, Brown Boveri of Switzerland, and General Electric Company of the US.

Once the technology transfer process begins, the Chinese probably will sign additional contracts each year or so to import Westinghouse components. Their imports will gradually fall off as China learns to manufacture more of the equipment itself. The value of the two contracts has been estimated at "tens of millions of dollars," according to press reports, and the sale of components each year will undoubtedly raise the value of the agreements.

Westinghouse signed both contracts with First Ministry subsidiaries: the Chinese Machine Building International Corporation and the China National Electrical Equipment Corporation.

Boiler Contracts

Combustion Engineering's two contracts to upgrade China's boiler-production technology, as yet unapproved by the Chinese central authorities, also include a long-term licensing and technology transfer agreement, and an order of parts for "verification units," or model boilers, in each design category.

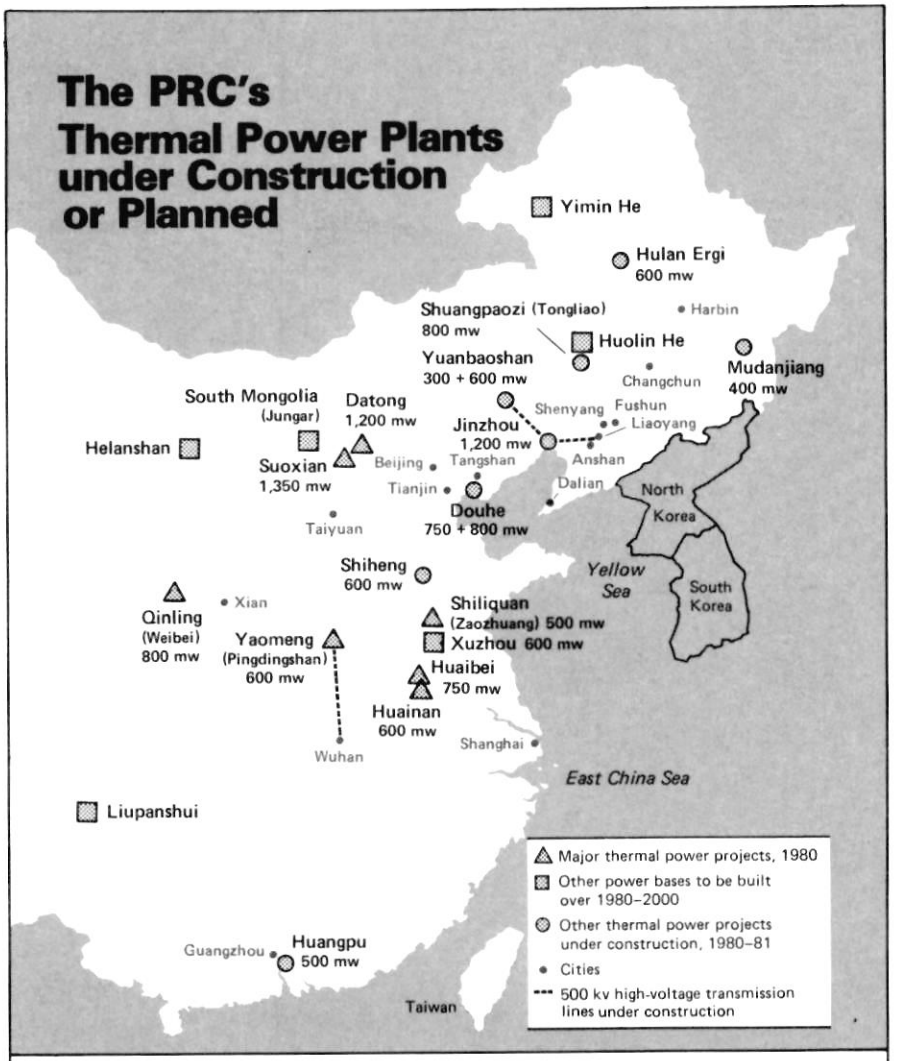
A company representative would not disclose the number of years the agreement will last nor the value of the first two contracts, but he noted that the Chinese would pay royalties for the boiler technology. The Chinese factories will need new manufacturing equipment to produce the boilers, he said. Yet they have not yet decided whether to import it or build it domestically. C-E won the contract over competition from Babcock and Wilcox.

The Chinese have requested US Exim Bank financing for both the Westinghouse and the Combustion Engineering contracts. Exim recently authorized preliminary commitments for these two projects, but refused to reveal their total value.

Allis-Chalmers Agreement

The Chinese are looking to the US for technology in the production of generating equipment for hydroelectric, as well as thermal, power stations. To such an end Allis-Chalmers and the China Machine Building International Corporation signed an agreement October 7, 1980.

The US company has not yet announced the details, but the agreement involves joint efforts in research, design, engineering, and manufacture



China's Lagging Electric Power Capacity

The Chinese have estimated that for every percentage growth in national industrial output value, electric power output must increase by 1.2 percent. Clearly, the growth in electric power output has not kept pace with that of industry in recent years. This lag may foreshadow a decrease in industrial growth in coming years.

	1977	1978	1979	1980 (estimated)	1981 (targets)
Electric power output (billion kwh)	223.40	256.55	281.95	297.1	312
Percentage change	9.8	14.8	9.9	6.4	4.0
National industrial output value, percentage change	14.0	13.5	8.5	6.0	6.0
New power-generating capacity (mw)	—	5,050	4,650	2,075	—
Total power-generating capacity (mw)	—	52,150	57,200	—	—
Power-generating equipment produced (mw)	3,181	4,383	6,212	—	—
Percentage change	—	52.1	28.4	—	—

SOURCE: Xinhua News Agency, February 26 and July 1, 1980; National Council files.
Table prepared by Dori Jones.

Electric Power Generating Plant and Equipment Sales to China 1978–80*

Company	Equipment	Value (million US $)	Approximate date of sale
Mitsubishi Heavy Industries, Mitsubishi Electric (Japan)	Boilers, turbines, generators for two 350-mw thermal power plants, Baoshan	$195	10/78
Related contracts			
Tokyo Electric Power Services Co., Toden Kenesetsu (Japan)	Design and engineering services	$2.15	8/78
Ohbayashi-Gumi, Mitsubishi Corp., Godo Sangyo (Japan)	Raw materials, equipment, and technical assistance for Baoshan power plant	$0.622	2/80
Steinmüller GmbH (W. Germany)	Two precipitators	NA	9/80
Alsthom-Atlantique (France)	600-mw set of turbo alternating-current generators for Yuanbaoshan	$120	10/79
Related contracts			
Steinmüller GmbH (W. Germany)	Steam boilers for above	NA	NA
Babcock Product Engineering, Ltd. (UK)	12 coal-pulverizing mills, equipment, and technology	$12.5	12/79
Related contracts			
Babcock Bristol (UK)	Control and associated instrumentation	$0.386	6/80
Laurence, Scott and Electromotors (UK)	24 high-tension electric motors	$1.13	2/80
Cokerill, S.A., Ateliers de Constructions Éléctriques de Charleroi S.A., Traction et Éléctricité S.A. (Belgium) and Alsthom-Atlantique (France)	Construction of two 300-mw coal-fired stations near Pingdingshan (Belgian boilers and generators, French turbines)		2/80
Related contracts			
Belgian consortium	Electrostatic precipitators for above	NA	9/80
Hotwork Development (UK)	1.5 million btu per hour recuperative burner	NA	5/80
Weir Pumps (UK)	Six sets of pumps and associated equipment for power stations	$2.9	1/80
ASEA Co. (Sweden)	Equipment for three 550/220 kv substations	$20	8/79
BICC Bryce Capacitors (UK)	High-voltage power capacitors for reactive compensation	$0.36	2/80
Alsthom-Atlantique (France)	Material and technology for autotransformers	$9.83	11/79
Hongkong Electric	Five 30-mw electric power generating plants dismantled for shipment to China	NA	8/78
Ebasco Services Inc. (US)	Design of four generating units, two 300-mw units at Shiheng, Shandong; two 600-mw units at Huainan No. 3	$12	12/80

*For information prior to 1978, *see CBR*, Sept.–Oct., 1977, "Table 2," p. 25.

Table compiled by Dori Jones.

of hydropower equipment, for both small- and large-scale power stations in China and in the US. Allis-Chalmers will help the Chinese upgrade hydraulic testing laboratories in Heilongjiang, Sichuan, and Tianjin. In addition, the company will provide training, and the Chinese will supply castings and forgings for hydro equipment and small hydraulic turbine-generators. A company spokesman would not reveal the value of the arrangement, but confirmed a formal agreement had been signed.

The Chinese already have found a market in the US for their turbine generators designed for small-scale hydroelectric power stations. A hydraulic turbine plant in Chongqing, Sichuan Province, announced a contract with a US company in January 1980 to export three sets of water-impulse turbine generators with a capacity of 200 kilowatts each. More than 20 sets of five to 200 kilowatt (kw) generators were sold to US firms in the last two years.

In January 1981, the Camanche hydropower station in California, 30 miles east of Stockton, purchased three sets of hydroelectric generating equipment, each with a capacity of 3,150 kw and valued at $2.6 million. The manufacturer, Dongfang Electrical Machinery Plant in Deyang, Sichuan Province, is the first Chinese producer of hydropower equipment to win a contract in the US through international bidding.

The Chinese also have exported small-scale hydro equipment to the Philippines, Africa, and Eastern Europe. The First Ministry held an international seminar-workshop on the development and application of small hydrogenerating techniques in Hangzhou in October and a concurrent exhibition of Chinese-built generating equipment. At that time, the Chinese announced intensive preparations for the establishment in China of an international training and research center on small hydrogenerating techniques in cooperation with the United Nations Development Program. About 100 Chinese plants produce 83 varieties of water turbines and more than 120 kinds of generators, according to Xinhua. The turbines can accommodate waterheads from as little as two to as much as 400 meters; the capacity of the generators range from 12 to 10,000 kilowatts. 完

Licenses for Electric Power Generation and Transmission Equipment

Company	Product	Date	Chinese Factory
Westinghouse (US)	300- and 600-mw steam turbines and generators	9/80	Harbin Steam Turbine Plant, Harbin Electrical Machinery Plant, Shanghai Turbine Plant, Shanghai Electrical Machinery Plant
Combustion Engineering (US)	300- and 600-mw steam generators (boilers)	12/80	Harbin Boiler Plant, Shanghai Boiler Plant
Klein, Schanzlin & Becker AG (West Germany)	Boiler water-supply pumps	—	Shenyang Water Pump Plant
Alsthom-Atlantique (France)	Autoformers and mutual inductors	11/79	Shenyang Transformer Plant
Energie und Verfahrenstechnik GmbH (West Germany)	Coal-grinding machines	—	Shenyang Heavy Machinery Plant
Fluiddrive Co. (UK)	Coupling machines for power plants	—	Dalian Fluiddrive Machinery Plant
Canadian Veln Co. (Canada)	Water-dredging machines	—	Dalian High-Tension Valve Plant
Brown Boveri Co. (Switzerland)	Switches and other electrical accessories	—	Beijing Low-Tension Electric Appliance Plant
McGraw Edison Co. (US)	Power capacitors	1979	Xian Electric Capacitor Plant
Alsthom-Atlantique (France)	500-kv reactors	—	Xian Transformer Electric Furnace Plant
ASEA Co. (Sweden)	High-tension capacitor-type sleeves for 200 and 500-kv transformers	—	Xian High-Tension Electric Porcelain Plant
Merlin-Gerin Co. (France)	SF6 circuit breakers in 72.5 to 550 kv-range	4/80	Pingdingshan High-Tension Switch Plant
Smiths Co. (UK)	Sparkplugs	1/80	Nanjing Electric Porcelain Plant
TLT Co. (West Germany)	Air-dispatching and -directing machines for large power-plant boilers	—	Shanghai Blower Plant

— information not available

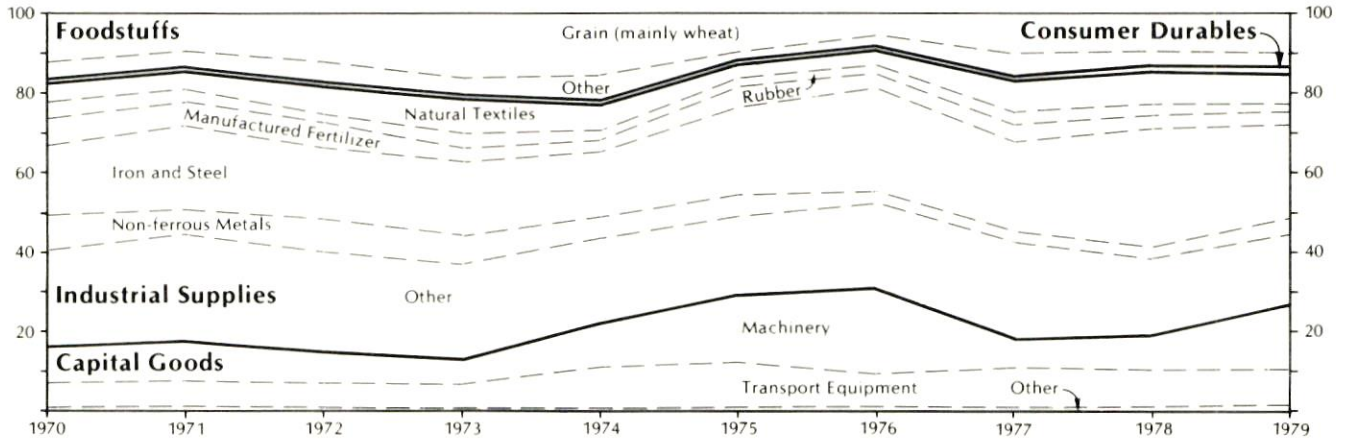
SOURCES: *Business China*, October 29, 1980, and other press reports.

Commodity Composition of China's Foreign Trade, 1970–79

Million current US dollars, exports (fob) imports (1970–76 cif, 1977–79 fob)[1]

Imports	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Capital goods *Of which:*	375	420	445	725	1,650	2,210	1,840	1,240	2,010	3,870
Machinery	195	215	210	310	770	1,265	1,300	500	955	2,430
Transport equipment	160	185	215	390	835	890	470	640	945	1,245
Precision instruments	15	10	15	15	40	50	60	75	85	150
Consumer durables *Of which:*	15	15	20	40	45	35	30	40	100	290
Wristwatches	5	5	5	20	20	15	15	15	45	75
Foodstuffs *Of which:*	395	320	510	1,080	1,600	900	565	1,110	1,350	1,860
Grains	280	215	345	840	1,180	675	325	655	965	1,430
Oilseeds[2]	0	0	10	65	160	15	5	115	35	115
Sugar	80	70	135	135	175	180	200	300	265	200
Industrial supplies *Of which:*	1,460	1,555	1,875	3,380	4,125	4,250	3,570	4,230	6,850	8,320
Natural textile fibers	95	125	215	450	520	260	190	420	695	995
Synthetic textile fibers	15	15	25	35	95	95	115	160	175	155
Paper and paperboard	15	10	20	35	100	80	45	60	95	160
Wood pulp	—	—	—	—	—	—	—	55	40	70
Rubber[3]	80	60	70	170	165	155	155	205	190	310
Petroleum and products	—	—	—	—	75	105	45	40	55	40
Manufactured fertilizers	140	135	145	210	220	405	230	320	430	615
Crude fertilizers[4]	—	—	—	—	—	—	—	35	50	70
Plastic materials	30	20	35	50	125	70	90	90	130	150
Metalliferous ores and scrap	—	—	—	—	110	125	125	110	160	140
Iron and steel	405	465	510	930	1,210	1,550	1,445	1,445	2,870	3,310
Nonferrous metals	210	150	235	410	415	450	260	250	410	490
Industrial metal products[5]	—	—	—	—	85	125	90	55	115	175
Chemical elements and compounds[6]	—	—	—	—	—	—	—	270	355	385
Total	2,245	2,310	2,850	5,225	7,420	7,395	6,005	6,615	10,305	14,345

Imports

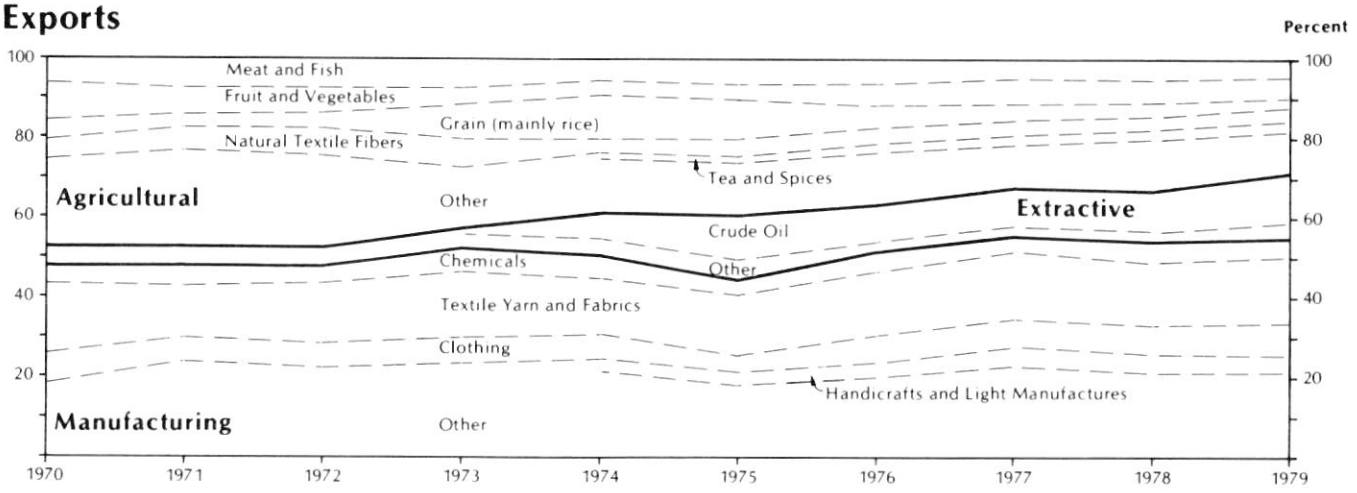


SOURCES: 1970–76: Richard Batsavage and John Davie, "China's International Trade and Finance," in US Congress Joint Economic Committee (ed.), *China Economy Post-Mao*, 1978, pp. 737–38.
1977: National Foreign Assessment Center, *China: International Trade Quarterly Review, Second Quarter, 1979*, January 1980, pp. 16–17.
1978–79: National Foreign Assessment Center, *China: International Trade, Second Quarter, 1980*.

[1]Cif figures may be converted to fob using ratio 1:0.91. This formula may cause distortion in the case of commodity categories with cif/fob ratios which differ from this average ratio.
[2]Oilseed imports almost exclusively soybeans.

Exports	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Agriculture *Of which:*	980	1,160	1,470	2,175	2,585	2,855	2,670	2,610	3,290	3,970
Live animals	65	90	110	135	195	215	230	245	255	250
Meat and fish	150	185	225	335	335	415	430	375	525	635
Grain	110	95	155	445	715	720	450	395	350	335
Fruit and vegetables	170	155	180	245	315	360	385	500	580	720
Tea and spices	—	—	—	—	100	100	140	180	230	315
Oilseeds	65	65	70	110	135	140	85	85	95	200
Eggs and dairy products	—	—	—	—	—	—	65	65	75	75
Vegetable oils	—	—	—	—	—	—	40	30	55	65
Natural textile fibers	100	120	205	330	190	250	285	290	400	510
Crude animal materials	115	105	115	170	200	230	260	335	375	445
Tobacco[7]	—	—	—	—	—	—	35	35	40	45
Hides and skins	—	—	—	—	—	—	30	35	55	70
Extractives *Of which:*	115	130	165	240	705	1,095	870	1,020	1,320	2,050
Crude minerals	—	—	—	—	105	120	65	85	140	185
Coal	—	—	—	—	115	130	95	80	100	175
Crude oil	0	0	0	30	425	760	665	795	1,015	1,580
Metalliferous ores	—	—	—	—	—	—	45	55	70	115
Manufacturing *Of which:*	1,005	1,210	1,515	2,660	3,370	3,225	3,715	4,470	5,470	7,660
Chemicals, of which	105	130	160	255	400	300	330	410	475	800
Essential oils and soap	—	—	—	—	—	—	45	60	60	85
Medicinal products	—	—	—	—	—	—	40	60	75	115
Leather and dressed skins	—	—	—	—	—	—	65	65	80	115
Paper	—	—	—	—	—	—	65	55	75	125
Textile yarn and fabrics	340	325	460	855	940	1,065	1,155	1,235	1,685	2,225
Nonmetallic mineral products	—	—	—	—	105	140	150	190	255	305
Iron and steel	40	65	65	120	170	85	105	95	165	210
Nonferrous metals	25	45	30	60	75	120	90	75	125	140
Metal products (industrial)	—	—	—	—	—	—	105	210	220	330
Machinery	90	120	125	215	150	210	215	250	275	380
Transport equipment[8]	—	—	—	—	105	130	70	45	50	70
Clothing	155	155	190	345	360	345	420	600	730	1,115
Footwear	—	—	—	—	—	—	65	80	105	145
Handicrafts and light manufactures	—	—	—	—	220	190	320	365	425	575
Total	2,095	2,500	3,150	5,075	6,660	7,180	7,265	8,085	10,075	13,675

Exports



[1]Over 90 percent natural rubber.
[4]Includes phosphate rock.
[5]Excludes hand-tools, and other household items.
[6]Includes ammonium chloride and potassium nitrate used as fertilizer.
[7]Probably consists entirely of raw tobacco.
[8]Transport equipment exports during 1970–73 included in machinery export figures.

Chart prepared by Martin Weil and Jim Stepanek.

CHINA'S HOUSING CRUNCH

Karen Berney

The Chinese government recently acknowledged that over half of the country's population lives in substandard housing. To compensate for the slow pace of government-built residential construction, Beijing is asking its citizens to lend a helping hand by building and buying dwellings of their own.

The housing shortage is especially acute in China's cities, where high rates of population growth together with the continuous demolition of existing housing for offices and factories have resulted in a sharp drop in the average per capita living space from 4.5 square meters in 1952 to 3.6 square meters in 1978. By contrast rural homes, though not equipped with the modern amenities characterizing city life, have an average floor space of 15 square meters per person.

But aside from space considerations, China's rural masses are faring no better than city folk. Some 100 million rural families (500 million people) are now seeking to relocate to modern dwellings made of brick and tile, but only 10 million rural homes are being constructed each year. An estimated one-third of the total urban population (about 50 million people) is described as living in cramped and even slum-like conditions. Beijing believes the problem can be solved in two to three years if the growth rate of the population is controlled—which is to say parents agree to have one child only—and at least 62 million square meters of new housing is constructed annually (enough to house 4 million families).

The next challenge is to provide newly moved families with apartment furniture, which is also scarce due to shortages of suitable timber.

The Private Solution

Beijing's short-term answer to the housing shortage is for the burgeoning urban populace to buy or build its own homes. As of last year, citizens have been encouraged to exercise their constitutional right to private home ownership. State-built homes are being put up for sale in all major cities to private buyers who pay in a lump sum or in installments extending over 15 years at an annual interest rate of 1 to 2 percent.

In addition, families can now purchase land and build dwellings themselves. This alternative has caught on most quickly in the coastal city of Fuzhou, where 1,500 households, aided by state loans for building materials and remittances from relatives abroad, already have put up 87,000 square meters of housing, equivalent to the amount completed by the city's housing administration each year. According to the State Statistical Bureau, privately built houses in 111 cities and towns amounted to 1.81 million square meters in the first ten months of 1980.

While home ownership may make sense for well-off families, most city residents apparently prefer to grin and bear it until new rental units are built. Rents normally account for only 4 to 6 percent of an urban family's expenditures; a typical Beijing household with a combined monthly income of ¥110 ($73) pays a monthly rate of ¥4.50 ($3) for a new two-room apartment with 25 square meters of living space, including the cost of electricity, water, and gas. Urban planners argue that unless rents are raised citizens will continue to forego private ownership by crowding into public housing. At the very least, rents should account for 8 percent of a family's income and cover depreciation, maintenance, and management costs, some planners recommend.

Reforming the Construction Industry

Beijing's long-term strategy to accelerate urban construction hinges on increasing the proportion of state investment in residential housing—from 7.8 percent of the capital construction budget in 1978 to 14.8 percent in 1979 and 1980—and turning construction enterprises into efficient and profitable units. The proposed reforms:

- Encouraging enterprises to invest a share of retained profits in new housing for their workers and staff; funds so used accounted for 64 to 81 percent of total investments in housing in various localities last year.
- Boosting the supply of essential building materials (rolled steel, cement, lumber, glass, and asbestos) and raising their prices to stimulate output and reduce waste;
- Allocating building materials directly to enterprises, instead of through commercial bureaus;
- Improving the utilization rate and productivity of construction machinery. A recent Chinese editorial noted that ¥1 worth of equipment in China only completes ¥2.5 of work in the time that ¥1 worth of the same machinery in the US finishes ¥20 of work.
- Pricing new homes like any commodity in order to reflect varying construction and materials costs and the quality of labor.

Speeding Up Rural Construction

In the countryside, a peasant family has three housing options: finance the cost of building or remodeling on its own house; rent a home built and owned by a collective enterprise; or purchase one built by a collective. Only the most wealthy communes and brigades can underwrite residential construction, so the first method is the most commonly practiced.

In the past, it usually took years of frugality for a peasant family to afford the cost of even the least expensive home, costing about ¥1,000 ($670). But under Beijing's new liberal policy of letting production teams decide how to invest their resources, peasants have come up with a way to lighten the individual household's financial burden. By drawing on a common fund consisting of 5 percent of the yearly cash income of each household, a family can immediately launch a construction project and reimburse the team later through installment payments. A November 17 report in *Beijing Review*, said this method enabled 49 rural families in Guangdong Province to relocate to two-storied red brick buildings with an average per capita living space of 17 square meters in no time at all. This demonstrated that the best solution lies with the people, the report concluded. 完

BROADCAST ENGINEERING

Is the #1 Broadcast Technology Magazine in North America.

#1 in Circulation
#1 in Advertisers
#1 in Exclusive Advertisers
#1 in Inquiries

And soon to be #1 in CHINA.

广播工程

Broadcast Engineering's new Chinese language edition

Photo courtesy of NASA

Call 913-888-4664
Ad closing: June 19

China's Growing Consumer Market

China's growing consumer market is based on simple economics: though most peasants earn less than $250 per year, at least 30 million urban Chinese make eight times that amount.

Karen Berney

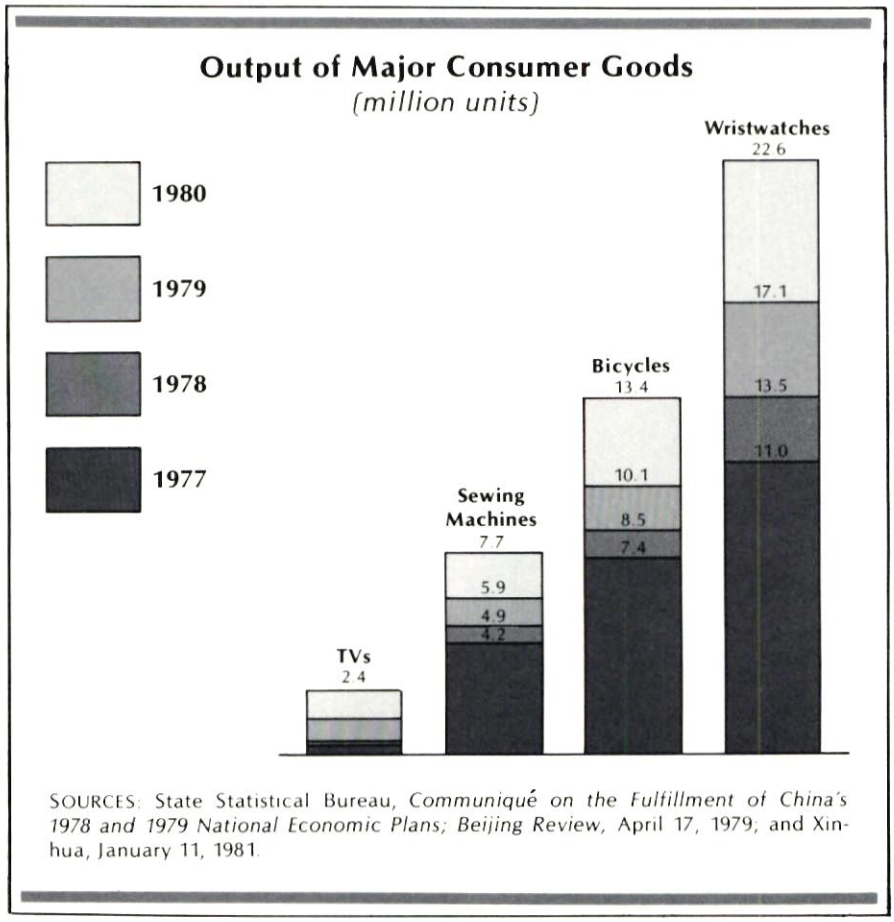
The number of relatively affluent Chinese is rapidly expanding China's market for ready-made consumer goods. The PRC's total imports of consumer goods in 1979 reached $290 million (or 2 percent of the country's total import bill), according to US government figures. Today Beijing is making outright purchases abroad of China's most sought-after luxury items. Japanese firms have been deluged with orders for more than 1 million TV sets and 2 million conventional wristwatches. Observers believe that Beijing soon will begin courting other foreign suppliers in order to curb China's black market in color TV sets, radios, pocket calculators, and Hong Kong jeans.

The government's long-term goal is to reduce consumer goods imports as domestic output increases. This year's production of bicycles, sewing machines, and watches overshot government targets and rose by 32.8, 30.5, and 32.1 percent respectively over 1979 (*see chart*). The country now has 7 million TV sets, and output in 1981 is expected to reach 2.5 million sets. Under terms of contracts signed with Corning Glass, Telefunken of West Germany, and numerous Japanese suppliers, China is importing assembly line equipment and technology to mass produce components for about 6 million color sets annually.

But well-off urbanites aren't waiting for domestic production to come on stream. Chinese buyers are flocking to department stores, tourist hotel shops, and friendship stores that sell imported TVs, cameras, calculators, watches, Kodak film, *Time* magazines, California wine and champagne, Coca-Cola, Marlboro cigarettes, and most recently, Shiseido skin-care products. The goods at tourist shops are supposedly for sale only to foreigners, but Chinese apparently manage to slip by the door guards, or have foreign friends buy goods for them. Price tags are now denominated in both the new script and RMB, a sign that profit-conscious vendors are actively soliciting Chinese customers.

"The Chinese don't think twice about spending ¥1,000 ($660) on a consumer good, so foreign-made electronic products are virtually flying into their hands," reports one US trader.

Most foreign-made items are sold on consignment—not the most desirable way to reach the Chinese populace-at-large, exporters agree. The Chinese vendor sets a retail price to ensure large profits, and only pays the foreign exporter the cif (cost, insurance, and freight) price when the merchandise has been sold, thereby avoiding all risks. But sales on consignment can facilitate the establishment of a company's brand name and provide premarketing intelligence on the strength of China's demand for foreign consumer goods. 完



SOURCES: State Statistical Bureau, *Communiqué on the Fulfillment of China's 1978 and 1979 National Economic Plans; Beijing Review*, April 17, 1979, and Xinhua, January 11, 1981.

Personal Incomes in China

China's new national goal, first announced by Party Vice-Chairman Deng Xiaoping in August, is to raise per capita GNP to $1,000 by the end of the century. By then, predicts *Beijing Review*, washing machines, TV sets, refrigerators, and other consumer durables will be permanent fixtures in Chinese homes while the national diet will contain significant quantities of meat, eggs, and sugar.

China's total GNP is the sixth largest in the world, just above the UK and below France. But its 1979 per capita GNP of $253 ranked 101st among the more than 150 countries and territories of the world. No wonder a Chinese economist has described hitting the $1,000 mark as "no easy task."

If the goal is to be reached, per capita GNP must grow by 7 percent, total GNP by more than 8 percent, and population by no more than 1–2 percent per year for the next 20 years. These rates of growth are in line with past trends, according to Chinese government statistics, which show that per capita GNP has grown by 12 percent per year since 1975 (*see* Table 1). Although the methodology used was not revealed, these remarkable growth rates are undoubtedly due in large part to the 24 percent appreciation of the RMB vis-à-vis the US dollar since 1975. Hence, it is not clear to what extent the figures reflect real improvements in living standards.

Growing Income Inequality

Even if the average person's income increases, Beijing recognizes that not everyone will enter a new age of prosperity at the same time. China's leading economic planner, Xue Muqiao, recently said: "differences in prosperity are so great, sometimes in terms of centuries, that it is impossible for all provinces and counties to join the front ranks of the world at once. The problem is that by the end of the century, 70 to 80 percent of the population will still remain poor."

Income inequality in China is pronounced, most observers believe. The largest gap is between city people and peasants. Indeed, urban per capita GNP in 1979 was about $430 (given the government's own figure of $253 GNP per capita for the whole country, and estimates by several American Sinologists that the income of China's 160 million urban residents is at least twice that of peasant incomes). Even the

Table 1: GNP Growth Rates

		GNP at Current Prices	
	Population	*Amount*	*Per capita*
Year	*(millions)*	*(billion US $)*	*(US $)*
1975	919.70	142.55	155
1976	932.67	141.77	152
1977	945.23	161.63	171
1978	958.09	199.28	208
1979	970.92	245.64	253

SOURCES: *Beijing Daily*, October 27, 1980; *Beijing Review*, October 27, 1980; and State Statistical Bureau Communiqués, June 27, 1979, and April 30, 1980.

Table 2: Official Income Data

	Annual per capita income in 1979 derived from collective labor*	
Location	*Yuan*	*Dollar equivalent*
Beijing suburban communes	368	238
Shanghai suburban communes	260	168
Suburban commune national average	300	194
Hubei Province	200	129
Shenyang Municipality, Liaoning Province	147	95
Zhejiang Province	120	77
Heilongjiang Province	110	71
Henan Province	109	70
Shanxi Province	104	67
Liaoning Province	100	65
Xizang Autonomous Region	100	66
Jiangsu Province	95	63
Sichuan Province	80	52
Guangdong Province	78	50
Anhui Province	75	48
Qinghai Province		
low estimate	70	45
high estimate	150	97
Gansu Province		
low estimate	70	45
high estimate	162	105
Xinjiang Province		
low estimate	66	43
high estimate	107	69
National average	102	66

*Excludes income earned from household sideline production, which was reported as ¥58.0 ($38.6) per household in 1979.
SOURCE: National Council provincial files.

$430 figure underestimates the relative affluence of the 27 million people residing in Beijing, Tianjin, and Shanghai, whose GNP per capita reportedly exceeds $1,900.

Within rural areas, the income gap between rich and poor peasants is also fairly wide. Farming areas near Beijing, Shanghai, and other relatively developed regions boast incomes well above the rural average, as indicated by the income data in Table 2.

Food Consumption Regains Level of 1930s

Virtually no improvement in per capita food consumption has taken place in the first 30 years of the PRC. The government's own estimates place current per capita food consumption at just over 2,000 calories a day—about the same level of caloric consumption as in the 1930s (*see* Table 3). The rise in food consumption to the same standards of about 40 years ago stemmed from China's record harvests in 1978 and 1979.

In analyzing the current age, sex, and weight characteristics of the Chinese population, Professor Vaclav Smil of the University of Manitoba calculates the daily food energy needs of the average Chinese at approximately 2,120 calories. This matches current food availability in China but probably understates the food energy needs of the most physically active segment of the labor force.

The impact of emphasizing grain production at the expense of other crops is shown in Professor Smil's table on the composition of the Chinese diet: grains alone supply 80 percent of the population's food energy requirements and nearly four-fifths of its protein needs. But he notes that an all-vegetarian diet is not unique to China and prevails in many other developing countries, including India and Nigeria.

A detailed look at the average Chinese diet in 1978 reveals that 96 percent by weight (355.9 kilograms) came from grain and other vegetal foods, while only 4 percent (15.9 kilograms) came from pork, fish, eggs, and other animal sources (*see* Table 4). According to Professor Smil, the lack of animal protein in the Chinese diet may be gradually corrected under China's latest agricultural policies which stress diversified cultivation, fish breeding, and animal husbandry, among other sideline pursuits neglected during the Cultural Revolution. —Karen Berney

Table 3: China's Daily Per Capita Food Consumption, 1929–80

Years	*Vegetal Foods*	*Animal Foods*	*Total*
1929–33	2,070	210	2,280
1931–37	2,073	153	2,226
1933	1,940	190	2,130
1949–58	—	—	2,017
1957	1,962	113	2,075
1960–61	1,790	110	1,900
1964–66	1,863	182	2,045
1974	1,910	135	2,045
1977–78	2,030	100	2,130
1978	1,850	86	1,936
1979–80	2,150	—	—

SOURCES: Vaclav Smil, associate professor, Department of Geography, University of Manitoba, Winnipeg, Manitoba, Canada, R3T 2N2. Professor Smil's references:

1929–1933. John L. Buck, *Land Utilization in China,* Nanjing University Press, 1937, p. 407.

1931–1937. T. H. Shen, *Agricultural Resources of China,* Cornell University Press, Ithaca, New York, 1951, pp. 378–81.

1933. Ta-chung Liu and Kung-chia Yeh, *The Economy of the Chinese Mainland: National and Economic Development, 1933–1959,* Princeton University Press, Princeton, NJ, 1965, pp. 28–30.

1949–58. John L. Buck, "Food Grain Production," in *Food and Agriculture in Communist China,* F. A. Praeger, New York, NY, 1966, p. 72.

1957 and 1974. Vaclav Smil, "Food Availability in Communist China: 1957 and 1974," *Issues and Studies,* Vol. 13, No. 5, May 1977, p. 55.

1960–61. W. Klatt, "Communist China's Agricultural Calamities," *The China Quarterly,* No. 6, Apr.–June, 1961, p. 75.

1964–66. Food and Agricultural Organization (FAO), Food Balance Sheets 1964–66 Average, Rome, 1971, p. 134.

1977–78 and 1979–80. Vaclav Smil, 1980.

1978. Central Intelligence Agency (CIA), *China: Demand for Foreign Grain,* Washington, DC, 1979, p. 1.

Table 4: China's Diet in 1978

	Daily per capita consumption			**Annual per capita consumption**
Foodstuffs	*Total food energy (calories)*	*Protein (grams)*	*Lipids (grams)*	*(kilograms)*
Milled rice	915	17	1	92.8
Wheat flour	330	11	1	33.7
Corn	280	7	3	29.5
Other grains	170	6	1	18.3
Potatoes	160	3	1	64.5
Soybeans	30	3	2	3.4
Vegetable oil	50	—	5	2.0
Vegetables	60	4	1	103.5
Fruit	5	—	—	5.2
Sugar	30	—	—	3.0
Total vegetal	2,030	51	15	355.9
Pork	65	2	6	7.5
Fish	10	2	1	4.5
Animal fats	10	—	—	0.4
Poultry	5	1	1	0.9
Eggs	5	1	1	1.8
Other meats	5	—	1	0.8
Total animal foods	100	6	10	15.9
Total	2,130	57	25	371.8

SOURCE: Vaclav Smil.

TECHNOLOGY TRANSFERS

As their available budgets shrink, Chinese negotiators have shown greater willingness to discuss licensing and subcontracting deals in order to gain access to foreign technology.

Martin Weil

One of the most intractable problems facing China's planners has always been how to modernize industry with limited investment funds and even less foreign exchange. The dilemma has become progressively more acute since the economic readjustment policy was first announced in early 1979, and particularly so since the December 1980 Party work conference authorized a drastic cutback in the central government's 1981 investment budget from the previously announced ¥55 billion ($34.8 billion) to ¥30 billion ($19.0 billion).

As budgets have been reined in, China has deemphasized expensive turnkey plant purchases. This move stems as well from the realization that imports of sophisticated hardware by themselves transmit neither operational nor design and manufacturing know-how. The Chinese have learned this lesson the hard way through such wasteful experiences as their inability to operate $500 million worth of German and Japanese equipment at the Wuhan steel mill.

The policy change is evident in recent contracts that call upon foreign firms to play a much larger role in the operation of Chinese factories. In their agreements to oversee construction of a drill-bit plant in Chengdu and a new TV glass plant in Shanghai, for example, US firms Hughes Tool and Corning Glass have both incurred ten-year contractual obligations for technician training, production assistance, and transmission of newly discovered technical information (*see CBR*, July–Aug., 1980, p. 54). This presents a marked contrast to previous turnkey arrangements, under which the foreign companies' obligations were basically defined by mechanical and performance guarantees in connection with the successful startup and operation of imported factories.

When Hughes began discussions in 1978 the Chinese were mainly interested in buying a plant. Ironically, it was the company, which views itself a major innovator of drill-bit technology, that first suggested a longer-term technology transfer arrangement.

With fewer funds to spend under the new policy the Chinese are placing greater emphasis on upgrading existing plants. US firms have responded by drawing up a variety of technical assistance arrangements with Chinese factories. Some examples:

Licensing. Prior to 1979, China expressed only a limited interest in licensing (the sale of proprietary know-how in exchange for fees, royalties, or other forms of payment). In only a few isolated instances were licenses sought for the machine building industries; licensing agreements that were signed mainly covered proprietary processes in imported turnkey plants that manufactured petrochemicals, centrifugal compressors, and advanced aircraft engines.

Since then, however, licensing has been discussed for a wide variety of product lines in the machine building industries. To assure a more thorough technology transfer than could be obtained from simply supplying drawings and training technicians, the Chinese are promoting the concept of "coproduction" in many licensing negotiations. In a coproduction arrangement a Chinese factory assembles imported components until it learns how to manufacture the final product using primarily domestic materials.

In the electric power machinery industry—currently a top priority—the Chinese are seeking licensing arrangements for all types of major equipment. Three important contracts have been signed with Westinghouse, Combustion Engineering, and Allis-Chalmers for steam turbine-generators, boilers, and water turbine-generators (*see* p. 25). Other sectors in which licensing is

being vigorously promoted include shipbuilding, automotive parts, and instrumentation. In addition, many types of general-purpose machinery are to be produced under license (*see box*). Significant agreements have been reached, including one with Limitorque, a Philadelphia Gear Corporation subsidiary, to produce valve actuators in Tianjin; with Verson Machine Tool of Chicago to produce metal-pressing equipment; with Sperry Vickers to produce hydraulic valves; and, in January 1981, with Cummins to produce internal combustion engines for use in many different types of machines. The aforementioned Hughes and Corning Glass deals also fall in this category. (Corning's $25 million contract will be paid in cash, and its Shanghai partners did not even show interest in pursuing the company's offer to seek US Exim Bank financing.)

Licensing of metallurgical equipment is an increasingly high priority, particularly in the wake of the cancellation of phase two of the Baoshan iron and steel project. Several US firms have been approached to discuss the sale of roll-manufacturing know-how. (The rolls are used in rolling mills.) Mannesman-Demag of West Germany recently concluded one of the first solid agreements in the metallurgical field, involving coproduction under license of seven small continuous billet casters. The Germans will supply the first caster, while the Chinese will manufacture the seventh after gaining mastery of the process.

Joint equity ventures and compensation trade. A recent flurry of joint venture agreements in small but sophisticated products such as process-control instruments, vacuum pumps, pharmaceuticals, and television sets, has raised the total number of joint ventures approved by the Chinese government to 24 (*see box*). In all the new agreements, the Chinese are assured of a continuous technology transfer over a ten- to 20-year period. Many companies willing to engage in joint ventures despite their risks and uncertainties are motivated as much by a desire to gain a foothold in future sales as by the expectation of immediate profit from the ventures themselves.

Considerable technology transfer also has taken place under the terms of compensation trade arrangements. A number of what the Chinese call "joint ventures" are actually arrangements of this sort. Examples from heavy indus-

China's Joint Equity Ventures

China's Foreign Investment Control Commission (FICC) announced in December that the country had entered into more than 300 "joint ventures" with foreign companies. Total investment in these ventures is reportedly $1.8 billion, of which $1.4 billion represents foreign capital; the average amount of foreign investment per venture amounts only to $4–$5 million. The largest known foreign investment is $72 million in the Great Wall Hotel.

Of the 300-plus ventures, however, only those listed below are true joint-equity ventures. FICC provided a list of 17 to the *CBR* in January 1981. Seven additional joint-equity ventures have received FICC approval, according to the Chinese media and unofficial foreign press reports.

The remaining ventures are "contractual joint ventures," or "joint management projects," in which foreign firms supply capital and equipment, and the Chinese side handles the management, with profits split according to contract provisions. The *CBR* was told that nearly all of these projects are located in Guangdong, presumably because of the province's connections with Hong Kong and Macao Chinese, who are the source of investment funds. Fully 26 of the Guangdong deals involve investments in housing projects for Overseas Chinese. FICC officials indicate that through 1981, these projects were implemented without FICC approval, but that tighter control might be imposed in the future.

Venture	Chinese partners	Foreign partners
Approved solely by FICC	*(Equity shares in parentheses)*	
1. Beijing Air Catering Co., Ltd., has catering rights for international flights of CAAC and 14 other airlines from Beijing	Civil Aviation Administration of China (51%)	China Air Catering, Hong Kong, Ltd. (49%); owned by Hong Kong Land subsidiary Dairy Farm (50%), Jamestown Investments (32%), and Bank of East Asia (18%)
2. China-Schindler Elevator Co., Ltd., Beijing and Shanghai; 20-year agreement	China Construction Machinery Corp. (75%)	Schindler Holding AG, Switzerland (17%); Jardine Matheson & Co., Ltd., Hong Kong (8%)
3. Tianshan Woolen Textile Co., Ltd., Urumqi. Total equity $13 million; to manufacture 464 tons woolen yarn and 720,000 sweaters per year.	Urumqi No. 1 Knitwear Mill, and the Urumqi People's Knitwear Mill, (51%)	Peninsula Knitwears, Ltd., and Rawcott International, Ltd., Hong Kong and Toyo Boshi Kogyo Co., Ltd., Japan (49%)
4. Jianguo Hotel, Beijing	China International Travel Service (51%)	Zhong Mei Hotel Development Venture, Ltd., Hong Kong (49%)
5. Great Wall Hotel, Beijing; $72 million investment financed by loan from consortium led by Nordic Bank, Ltd.; ten-year agreement	China International Travel Service (51%)	E-S Pacific Development and Construction Co., Ltd., Bermuda (49%)
6. Palace Hotel, Beijing	China International Travel Service	Yick Ho, Ltd., Hong Kong
7. Guangming Overseas Chinese Electronics Co., Ltd.	—	Electronics Enterprises, Ltd., Hong Kong
8. Name and activity of joint venture not disclosed by mutual agreement of partners	—	—

Approved by FICC and provincial or municipal authorities		
9. Westlake Rattan Co., Zhejiang	Zhejiang Furniture and Sundry Goods Industrial Corp.	New Arts Enterprises, Hong Kong
10. Orient Optical Factory, Zhejiang	—	Fada (Prosperity) Optical Factory, Hong Kong
11. Yanhua Standard Battery Co., Hebei	—	Standard Battery, Ltd., Hong Kong
12. Jinhua Watchdial and Watchhand Corp. Total equity $450,000; to produce 2.4 million watch-dials and -hands.	Tianjin Watch Components Factory (70%)	Wah Hing Watch Component Factory, Hong Kong (20%); Wah Sing Corp. (10%)
13. Sino-French Joint Venture Wine Co., Ltd., Tianjin	Tianjin Wine Factory (62%)	Rémy Martin, France (38%)
Approved by provincial authorities according to FICC guidelines		
14. Guangming Pig Farm, Guangdong	—	Overseas United Co., Philippines
15. Jianqiao Enterprises, Fujian	—	Jin Gang (Golden Port), Ltd., Hong Kong
16. Yiguang Color Photograph Studio, Fujian	—	Minhua (Fujian) Trading Center, Hong Kong
17. Fujian Erzhou Crafts Factory (manufactures artificial flowers)	—	Jiahua Trading Co., Hong Kong
Approved by FICC according to unofficial press reports		
18. China Orient Leasing Co. (will lease machinery from abroad with funds borrowed on the Euromarket, among other sources)	Beijing Machinery and Electrical Equipment Co. (30%); China International Trust and Investment Corp. (20%)	Orient Leasing Co., Japan (50%)
19. China-Otsuka Co., Ltd., Tianjin will manufacture 6 million 500 cc ampules of glucose and physiological salt; 20-year agreement	China Pharmaceutical Corp. (50%)	Otsuka Pharmaceutical Co., Japan (50%)
20. Fujian Hitachi Ltd., Fuzhou. To assemble 200,000 color and 180,000 b and w TVs per year.	Fujian Electronics Import and Export Corp. (40%); Fujian Investment and Enterprise Corp. (10%)	Hitachi (38%); Hitachi Sales Co. (10%); Toei Shoko, Ltd. (2%)
21. Name not disclosed; to manufacture vacuum pumps	Shanghai General Machinery Co. (50%)	Busch KG, West Germany (50%)
22. Name not disclosed; will manufacture electronic instruments	Shanghai Instrumentation Industry (51%)	Foxboro Instruments, US (49%)
23. Name not disclosed; will manufacture pneumatic instruments in Zhaoqing, Guangdong; 20-year agreement	Guangdong Instrument Factory (51%)	Foxboro Instruments, US (49%)
24. Computer World Publishing Services	Enterprise not disclosed (60%)	US company name not announced (40%)

SOURCES: Foreign Investment Control Commission, January 28, 1981; National Council Beijing representative, Scott Seligman; Xinhua and foreign press reports, various dates.

Table prepared by Martin Weil

try include the Shanghai Aircraft Factory's contract to supply doors for McDonnel Douglas DC 9 jets, and the Dalian shipyard's contract to repair an oil rig and manufacture parts for two other rigs for Baker Marine of Houston. In these cases the Chinese factories are treated much like company subcontractors.

Both companies believe their arrangements, which require minimal capital investment, will transfer manufacturing skills in a manner commensurate with China's ability to absorb them. From the Chinese point of view, they are commercially attractive in that they earn foreign exchange, as well as improve manufacturing technique. In some cases, they may have the added advantage of taking up underutilized production capacity.

In light industry, notable compensation trade arrangements call for the Great Eastern Corporation of Connecticut, AMF Voit, and the BRS (Nike) Corporation to purchase bicycles, basketballs, and running shoes made to specification by several Shanghai and Tianjin factories. In a variation on the buyback theme, Reynolds Tobacco has leased machinery and sent training and quality-control personnel to a Xiamen (Amoy) cigarette factory, and will pay a royalty for all sales of Camel Filter cigarettes manufactured there.

One of the most promising industries for compensation trade and other types of arrangements is consumer electronics. Sony, for example, reached agreement with a Beijing factory in January 1981 to produce 100,000 radio-cassette players for export to the company in 1982. It hopes to follow this up by producing televisions for the Chinese domestic market, and later by establishing a joint venture to manufacture radio-cassette players and TVs.

Problems Still Remain

Despite the success stories, a number of technical assistance discussions with US firms have failed thus far to result in concrete agreement. Well-known examples are the joint-equity venture negotiations involving Ford and General Motors for a truck plant, licensing deals with US companies for large off-highway trucks, and the proposed joint ventures with Beatrice Foods in various food-processing enterprises. Many of the failures are explained either by the low priority attached to the projects by Chinese central authorities, or by their excessive

costs. There are other issues, however, that have proven troublesome in a number of different negotiating contexts, such as:

Size and duration of licensing royalties. The traditional Chinese aversion to paying "running royalties," (license fees pegged to the output of the licensing plant), arising from the reluctance to make long-term financial commitments and to divulge production information, has relaxed only slightly in recent years. Chinese negotiators, however, still prefer to purchase proprietary know-how in fixed, or so-called "lump sum," payments. But many companies are unwilling to accept such terms, and the Chinese have not made up their minds on this issue. One company told the *CBR* that in a drawn-out licensing negotiation for power equipment, the Chinese side first insisted on lump sum, expressed willingness after six months to accept running royalties, and later readopted its original stand.

In some cases, including the Hughes drill-bit plant, Limitorque's valve-actuator agreement, the Sperry Vickers valve contract, and the French helicopter deal, running royalties were agreed upon. The Chinese, however, have tended to insist on lower royalties than companies would like (in several cases as low as 2–4 percent). The Hughes arrangement stipulates a running royalty expressed as a percentage of output value, with the proviso that the total fee for the ten-year agreement will reach a certain minimum regardless of the plant's output.

While minimizing the length of their financial obligations the Chinese have tried to maximize the period foreign companies are obligated to provide assistance and information about technical advances. The average duration of recent agreements appears to be ten years. (Allis-Chalmers, however, signed a licensing agreement with the Ministry of Metallurgy that will last only the length of time necessary to manufacture one ore-grinding mill.)

Scale and speed of technology transfer. Some of China's initial proposals in the machine building industry set forth completely unrealistic timetables, given China's financial, technological, and manpower limitations. To mention a couple: the coproduction under license of 50 advanced McDonnell Douglas passenger aircraft in just four years' time, and of 200 170-ton off-highway trucks in a comparable period. Different ministries and corporations apparently have varied considerably in moving discussions to a more realistic plane. According to some companies, for example, the Fifth Ministry of Machine Building (conventional land armaments and many civilian machines) through its North China Industrial Corporation (NORINCO) subsidiary has shown more business sense than the First Ministry in licensing negotiations.

With whom to negotiate? Determining where negotiating authority lies is no easy matter, especially now that China's entire foreign trade structure is in a state of flux. Some companies have signed contracts with ministerial corporations (Westinghouse signed with First Ministry of Machine Building subsidiaries), others with a foreign trade corporation (Hughes Tool with MACHIMPEX), still others directly with local industrial and foreign trade authorities (Corning Glass with the Shanghai Instrumentation Bureau and Foreign Trade Bureau). Yet other companies, particularly those involved in compensation trade deals, have signed contracts with several administrative levels simultaneously (Great Eastern with the Shanghai Bicycle Company, and the China National Light Industry Products Import and Export Corporation). To make matters more complicated, the signatories are not always the parties that arranged the deal. Hughes has revealed, for example, that the Ministry of Petroleum was the prime mover in the drill-bit agreement.

Conflicts between FTCs and ministries. The relative authority of foreign trade corporations (FTCs) and ministerial corporations is clearly a politically volatile issue. The major concern of FTCs is to obtain the most favorable commercial terms, while end-user corporations are more interested in the technical and practical aspects of a licensing agreement. This difference in perspective has meant that TECHIMPORT, in particular, has proven much less flexible and understanding than end-user corporations. Brown Boveri's high-voltage powerline technology was once selected for the First Ministry of Machine Building and "shoved down their throats" by TECHIMPORT, according to a US power company representative. Brown Boveri had not succeeded at the time of the contract in making its technology operational, but was selected nonetheless because of the favorable commercial terms it offered TECHIMPORT.

Although ministerial corporations (particularly those affiliated with the First Ministry of Machine Building) have recently become more involved in contract negotiations, they still have limited autonomy. There are standard clauses in contracts signed with ministerial corporations making them subject to "Chinese government approval." In the course of higher-level review (which may go as high as the State Council in important deals) at least one US company has found that difficult new conditions had been inserted into its contract.

Conflicts between ministries. US companies have also been the victims of jurisdictional battles between competing ministries. One firm attempting to license a product applicable to both coal washing and metal ore dressing gave up when it became clear it would be impossible to sell to both the Coal and Metallurgy ministries. In other cases, such as large off-highway vehicles, competing companies have been played off against each other by plants of as many as four ministries.

Conflicts over "dual leadership." Tension between local and central authorities is built right into China's industrial management system, inasmuch as Chinese enterprises are usually under the "dual leadership" of a local authority (such as a province, prefecture, county, or city) and a central government ministry (or its local bureau). Large factories tend to be under the control of a province and the provincial-level bureau of a ministry. (Adding to the complexity of the system is the fact that these bureaus are themselves under dual control by the province and a ministry.) A small factory, on the other hand, may be under a county and a county-level industrial bureau. (The bureau, too, is under the jurisdiction of both the county and the industrial bureau at the next highest level, in this case a prefecture.) In general, the role of local authorities tends to be greater in light industrial factories than in major heavy industrial plants.

Under such a system it is not surprising that a company negotiating a compensation trade arrangement must obtain the approval of both central and local authorities. In the review process leading to Foreign Investment Control Commission approval, which reported-

ly is now necessary to consummate any compensation deal involving local authorities, any of these interests have opportunities to change or sabotage a deal they are unhappy with.

One of the striking features of most, if not all, known US compensation trade agreements is that central organizations have played an active role both in selecting the local factory and in negotiating the contract. The three companies that successfully concluded agreements to manufacture their cigarettes in China, including Reynolds and Phillip Morris from the US, were each assigned their specific factory by the Ministry of Light Industry. Many negotiations with local authorities that progressed without central knowledge or involvement, on the other hand, have encountered approval problems at later stages.

There apparently have also been cases where local authorities have undercut well-advanced negotiations. One US company signed a compensation trade contract in 1980 with the Shanghai branch of the Light Industrial Products FTC and the Shanghai municipal authorities, which was "subject to government approval." The US company was later informed by factory personnel that the production schedule would have to be postponed for at least one year and the contract renegotiated, because municipal authorities attached greater priority to expanding production of domestically designed products for the domestic market.

The need for buyback. Chinese negotiators routinely ask, at least in initial proposals, that full or partial payment for know-how be made in the form of products and components, creating problems for some companies which see no obvious way to utilize them. There is considerable variation in how resolutely this condition is pressed, however, probably reflecting the amount of foreign exchange controlled by the negotiating organizations, and the economic priorities in Beijing. In agreements concluded by Westinghouse, Combustion Engineering, and Corning Glass, there are no "buyback" commitments at all. In the French helicopter deal, on the other hand, as much as 25–30 percent of the license fee may be paid for in parts. Verson Machine Tool has also agreed to accept partial payment in the form of output. 完

RECENT CASE EXAMPLES

Considerable persistence and imagination on the part of foreign and Chinese enterprises have led to the successful conclusion of several noteworthy licensing and subcontracting deals despite Beijing's current economic slowdown. The specific technical, legal, and financial arrangements—the key contract terms that made these deals work—are discussed at length below.

Aerospatiale Helicopter Agreement

The Aerospatiale contract, signed in July 1980 and reportedly worth at least $100 million, calls for joint production of 50 French Dauphin helicopters at a Harbin factory (with a reported annual capacity of 200 helicopters) and at a plant at Zhuzhou, Hunan Province, which will build the engines. The deal calls for the sale of two complete helicopters in late 1981, with complete Chinese fabrication of helicopters three and a half years later, according to French press reports. Both factories reportedly will produce under license for an additional three- to four-year period during which they will probably continue to import certain raw materials such as alloys for the engine and pylons and epoxies for the rotor. Aerospatiale has agreed to introduce the Chinese to appropriate machine tool manufacturers abroad.

The French won the agreement, negotiated with the China Aerospace Technology Import-Export Corporation (CATIC), a Third Ministry of Machine Building subsidiary, in fierce competition with Bell Helicopter USA, the largest firm in the industry. Bell at first had the inside track, having signed a memorandum of understanding with CATIC in October 1979 involving the production of its Model 412 helicopter (*see CBR*, Nov.–Dec., 1979, p. 20). China's ærospace engineers are said to have preferred the combination of Bell technology with Pratt and Whitney engines. The Chinese also liked the heavy-duty construction of the Model 212S purchased by China back in February 1979. The French Dauphin II is a lighter-weight helicopter than the Bell 412, and claims greater fuel efficiency.

However, a major split apparently developed between CATIC engineers and the financial authorities (probably in the Bank of China and FTCs) monitoring Chinese foreign exchange expenditures. The technicians ultimately lost out due mainly to Aerospatiale's more favorable financial terms.

The Chinese evidently agreed to pay a combination of lump-sum and running royalty license fees. The total fees came to about four times the selling price of one helicopter, according to one source. Royalty payments were expressed as a percentage (well under 10 percent) of the value of each helicopter part manufactured under license. The French may have offered close to a 50 percent lower royalty. They also are believed to have agreed to a royalty payment period several years shorter than Bell's offer and to have made it easy for the Chinese to export helicopters made under license.

Westinghouse and Combustion Engineering: Electric Power Generating Equipment

The Westinghouse and Combustion Engineering contracts with the First Ministry of Machine Building, signed in late 1980, call for the production under license of 600-mw thermal turbine-generators and boilers. China has not made a decision as yet as to how much capital equipment to import. Initially, the agreements will be implemented in turbine and boiler factories in Harbin and Shanghai, and in a boiler factory near Beijing.

Both firms will supply the majority of components for two sample units. The Chinese will provide other parts and do the final assembly. Parts for future units will be purchased on a case-by-case basis; there is no provision in the agreements specifying the exact percentage of parts to be manufactured in China. Company officials believed it would be difficult to predict how rapidly Chinese workers might learn the necessary manufacturing skills.

Both companies will receive fixed lump-sum licensing fees and neither is committed to buyback schemes. It is expected that China's domestic market will absorb all electric power equipment produced under the agreement, although there is no restriction against reexports in at least one of the contracts.

According to Westinghouse negotiator Robert Murphy, his company's contract was the first that the ministry

Transferring Technology to the First Ministry of Machine Building

The Chinese entity that has most actively solicited licensing and co-production agreements with foreign firms is undoubtedly the First Ministry of Machine Building, which is charged with the production of a wide range of general-purpose civilian machinery. The ministry has set up a subsidiary called the China Machinery Corporation for Economic and Technological Cooperation with Foreign Countries (CMCETC) to coordinate its technology import efforts. In a May 15, 1980, advertisement in the *People's Daily*, the ministry listed 36 technology transfer agreements involving factories under its jurisdiction, listed below along with other agreements that have come to the *CBR*'s attention. The Chinese signatories to many of the agreements were the foreign trade corporations, TECHIMPORT and MACHIMPEX in particular.

In the case of the US Rosemount Company, however, and quite possibly in other cases as well, the licensing agreement had not been finalized at the time of the First Ministry's announcement. In fact, Rosemount was still negotiating as of February 1981. Aside from showing that not only are foreign companies guilty of announcing their agreements prematurely, it also suggests that the ministry views its licensing arrangements as a means of improving its reputation with its Chinese customers; indeed the purpose of the *People's Daily* advertisement was to solicit domestic business for CMCETC in the licensed product lines.

The ministry's licensing program is also motivated by a desire to give its products more appeal to foreign buyers. With domestic demand likely to remain far below the industry's capacity in the current readjustment period, the ministry can be expected to launch an export drive in many of the licensed product lines. The CMCETC is in fact mandated to seek foreign business as well as technology.

Product	Foreign company	Chinese factory	Product end use
Coal-crushing machine	Energie und Verfahrenstechnik (EVT) Co., West Germany	Shenyang Heavy Machinery Factory	Power station boilers under 600 mw
Variable speed hydraulic coupling, 560–2,300 kw	Fluidrive Co., Great Britain	Dalian Hydraulic Machinery Factory	Accessory for power plants
Feed pump	Klein, Schanzlin & Becker Co., West Germany	Shenyang Water Pump Factory	Accessory for power-plant boiler, 200–600 mw
Outlet-inlet boiler blower	TLT Co., West Germany	Shanghai Air-blower Factory	Power-plant boilers, mines, among other uses
Single phase autotransformer	Alsthom-Atlantique Co., France	Shenyang Transformer Factory	500-kv transmission lines
Shunting reactor	Alsthom-Atlantique Co., France	Xian Transformer and Electric Furnace Factory	500-kv transmission lines
Current transformer	Alsthom-Atlantique Co., France	Shenyang Transformer Factory	500-kv transmission lines
High tension capacitance bushing	ASEA Co., Sweden	Xian High-Pressure Electric Ceramics Factory	220- and 500-kv transmission lines
Circuit breaker	Merlin-Gerin Co., France	Pingdingshan High-Pressure Switch Factory	High-voltage transmission lines
Power capacitor	McGraw-Edison Co., US	Xian Electric Power and Capacitor Factory	Improves power factors in electric machinery
Oxygen generator, 10,000 and 28,000 m^3/hr	Linde Co., West Germany	Hangzhou Oxygen Generation Machine Factory	Steel furnaces, chemical industry
Continuous billet-casting machine, 70 × 200 m^2	Mannesman-Demag Co., West Germany	Dalian Heavy Machinery Factory	Steel mills
Axial flow compressor	Sulzer Co., Switzerland	Shaanxi Blower Factory	Steel mill blast-furnace blowing
Turbine compressor	Nuovo Pignone Co., Italy	Shenyang Blower Factory	Metallurgical and chemical industry
Industrial gas turbine	Siemens Co., West Germany	Hangzhou Gas Turbine Factory	Petrochemical and metallurgical industries
Thermal forging press and flat forger	Eumuco, Ltd., West Germany	Beijing Heavy Machinery Factory, Tianjin Engine-Driven Generating Plant, among others	Vehicles manufacturing
Refillable hydraulic coupler	Voith Co., West Germany	Dalian Hydraulic Machinery Factory	Power transmission and many other kinds of machinery; electricity saver
Carburetors	Hitachi, Japan	Beijing Automobile Factory	—
Piston-grooving technology	Wellworthy Co., Great Britain	Wuhan Motor Accessories Factory	—
Automobile starter	Ricardo Co., Great Britain	No. 2 Automobile Manufacturing Factory, Wuhan	—

Abrasive materials	Mitsubishi Cement and Building Materials, Japan	Hangzhou Brake Materials Factory	Brake blocks
Sparkplugs	Smith Co., Great Britain	Nanjing Electric Ceramics Factory	—
Thin propylene film	Shinetsu Chemical Co., Japan	Dongfang Insulation Materials Factory	Dielectric for capacitors and other appliances
Machine seals	Crane Co., Japan	Tianjin Sealing Materials Factory	Rotating leak-proof machinery
Drainer	Velan Co., Canada	Dalian High-Pressure Valve Factory	Saves steam in a wide variety of industries
Plastic molding	Barber & Duffy Co., Great Britain	Shanghai Xinghuo Molding Factory	—
Arc-welding machinery	Sciaky Co., France	Shanghai Electric Welder Factory	—
Electric instrumentation	Yokugawa Electrical Factory, Japan	Xian Instrument Factory	Process control
Transducer*	Rosemount Co., US	Xian Instrument Factory	Electric instrumentation
Infrared ray analyzer	Maihak Co., West Germany	Beijing Analytic Instrument Factory	Electric instrumentation
High-pressure hydraulic valve	Sperry Vickers Co., US	Yuci Hydraulic Component Factory, Shanxi Province	Wide variety of machinery
High pressure hydraulic valve	Rexroth Co., West Germany	Beijing Hydraulic Component Factory	—
Miniature automatic switch	Brown Boveri Corp., West German branch	Beijing Low-Tension Electrical Factory, Shanghai Electrical Equipment Co.	—
AC contractor	Brown Boveri Corp., West German branch	Beijing Low-Tension Electrical Equipment Factory	Starter-control for electric machines
Thermal relay	Brown Boveri Corp., West German branch	Beijing Low-Tension Electrical Equipment Factory	Overload protection for electrical machines
Magneto starter	Brown Boveri Corp., West German branch	Beijing Low-Tension Electrical Equipment Factory	Starter-control unit for electric machines

Other First Ministry of Machine Building agreements announced since May 1980

Valve actuator*	Limitorque, US	Tianjin No. 2 Machinery Factory	Opens and closes valves
Metal-forming press equipment	Verson Machine Tool, US	Jinan No. 2 Machine Tool Plant	—
600- and 300-mw power-plant boilers	Combustion Engineering, US	Harbin and Shanghai, Electrical Machinery Plants	—
600- and 300-mw power plant turbine generators	Westinghouse, US	Harbin and Shanghai Electrical Machinery Plants	—
1- to 5-ton forklift trucks	Mitsubishi, Japan	Beijing Forklift Factory	—
Diesel internal combustion engine	Cummins Engine, US	Chongqing Truck and Engine Factory	Transportation and construction equipment
Water turbine generators	Allis-Chalmers, US	—	—

*Agreement still under negotiation or awaiting US government license.

NOTE: A list of licensing agreements of the Sixth Ministry of Machine Building (in charge of shipbuilding), is available in the *CBR*, Jan.–Feb., 1981, p. 46.

Chart prepared by Martin Weil.

was authorized to sign on its own. He had observed during the negotiations, however, that the ministry was restricted as to the terms it could offer.

Corning Glass: How to Sell Black and White TVs

Corning had one of the smoothest negotiating experiences. The Communications Ministry put Corning in touch with local industrial authorities in several cities in November 1979. Corning discovered quickly that the Shanghai group had by far the most realistic technical and commercial sense. Less than a year later the company had won (over Japanese competition) a $25 million contract to oversee construction and operation of a plant to produce 4 million black and white TV screens annually. The agreement was signed with the Shanghai Foreign Trade Corporation, and the Shanghai Bureau of Instruments and Telecommunications. The license fee is a flat sum. No product buyback is stipulated.

The reason Beijing's approval came through quickly, company officials believe, was because the glass screens are needed to complement black and white picture tubes that will soon be turned out by new plants supplied to China by Matsushita and Nippon Electric Corporations. The shortage of TV screens has created a major bottleneck in China's rapidly growing TV industry (*see CBR*, Jan.–Feb., 1981, p. 14).

Corning is accommodating the Chinese desire to manufacture as much of the plant's equipment in China as possible. Certain pieces, including fans and compressors, will be made without Corning's help, and certain others, such as kilns and conveyors, will be made according to Corning drawings and specifications. The combustion, pressing, and sealing machines and instrumentation are beyond China's current technological capabilities, and will be supplied by Corning. In addition, Corning will supply certain raw materials such as polishing abrasives at the startup. China is endowed with excellent raw material for glassmaking.

The training of Chinese technicians is a central feature of the agreement. Fully 25 types of skills were identified in the contract. The company will have approximately 50 technicians in China at startup, about half for plant construction and half for operation. The company is extremely impressed with

the caliber of the Chinese engineers with whom it is dealing.

McDonnell Douglas' Step-by-Step Approach

McDonnell Douglas' memorandum of understanding with the China Aerospace Technology Import-Export Corporation (CATIC), signed October 1979, called for coproduction of 50 DC 9 passenger jets in Shanghai, with the Chinese to subsequently produce as many as 200 DC 9s under license.

Although still under discussion, the deal has run into several snags, including a counter-offer from Boeing to provide technical assistance in refurbishing 737s in China.

The potential $3 billion price tag of the DC 9 project came under critical review in late 1979 by an *ad hoc* coordinating group, which in February 1980 became the Machine Building Commission headed by Vice-Premier Bo Yibo. Questions were also raised as to whether China needed so many large passenger aircraft.

McDonnell Douglas negotiators then proposed a smaller, more manageable program, which culminated in a $2 million contract for the Chinese to supply DC 9 plants in the US with 100–200 sets of two main landing-gear doors. The door was chosen, according to McDonnell Douglas' Gareth Chang, because it incorporates essential technological processes involved in modern aircraft fabrication, namely, sophisticated welding and chemical treatment of sheet surfaces. Based on progress with the door, both McDonnell Douglas and the Chinese will get a better idea of how rapidly to proceed with their original plan to build passenger aircraft in China.

Under the terms of the landing-gear door contract, McDonnell Douglas sent to Shanghai two quality-control technicians and one tool engineer. The company will also supply aluminum and steel alloys in the beginning to ensure quality.

McDonnell Douglas received its first doors on schedule in February 1981, at which time they were subjected to FAA tests.

Baker Marine and Dalian Shipyard Jointly Produce Offshore Oil Rigs

In a more sizable arrangement reportedly worth $100 million, Baker Marine has agreed to pay the Dalian shipyard for the steel construction of two jackup offshore drilling rigs. The cranes, winches, and other sophisticated equipment will come from Singapore, and the piping and drilling equipment will be added in the United States. The steel, in order to ensure high quality, will be purchased from outside China. The shipyard will be obligated to return the design drawings to Baker upon completion of the contract.

According to Baker spokesmen, the work does not really involve any new techniques for the shipyard, which has previously manufactured submarines and other vessels (*see CBR*, Jan.–Feb., 1981, p. 47). However, quality control must be higher than the Chinese are accustomed to. To ensure this, Baker is stationing three people (Chinese speakers from Singapore) at the shipyard, and is also having the work inspected by an employee of the American Bureau of Shipping. Construction, which has already begun, is expected to take about one year.

The shipyard has also contracted to repair and renovate a vintage 1967 Baker rig. Subsequently the company plans to either put the rig back into operation, or sell it on the world market.

The Voit Volleyball Deal

One of the largest compensation trade deals to date is Voit's ten-year contract signed jointly with China National Light Industrial Products Import-Export Corporation (INDUSTRY), and the Shanghai Rubber and Leather Industrial Corporation. Voit, a subsidiary of AMF, will purchase soccer balls, volleyballs, and basketballs made to the company's specifications by Shanghai factories. Voit is optimistic that its total purchases may reach $50 million.

The company's agent, Altman Incorporated of New York, made the original contact with the Shanghai factories, to which it was introduced by INDUSTRY officials in Beijing. The cooperation among the Chinese parties was reportedly smooth, and the contract was concluded in June 1980 after about six months of negotiations.

The existing machinery in the 40-year-old factories will be used for rubber processing, leather clicking and shiving, and some other basic processes. Used machinery for some specialized processes, such as winding, moulding, and manufacturing bladders and valves, will be supplied by Voit. The Chinese side was particularly eager to obtain sophisticated testing machinery for quality control. Voit will retain title to the machinery it provides, primarily to spare the Chinese the expense of purchasing it. The contract stipulates that the Chinese can use the machinery at no other factories, and for no other purpose than manufacturing for Voit. Voit is taking the added precaution of insuring the machinery with the US Overseas Private Investment Corporation (OPIC). Company officials indicate that the know-how transferred is mainly embodied in the machinery.

China will supply the nylon, rubber, and leather raw material (the balls will be various combinations of these materials). Chinese-manufactured raw material samples have been approved by Voit technicians, although some of the materials, particularly cow leather, may have to be imported.

Quality inspection will be done in China by Voit personnel from Hong Kong. So far, the quality of test samples has been impressive, according to company spokesmen.

The first balls are expected to be produced by May 1981, and will be marketed in the US and other countries.

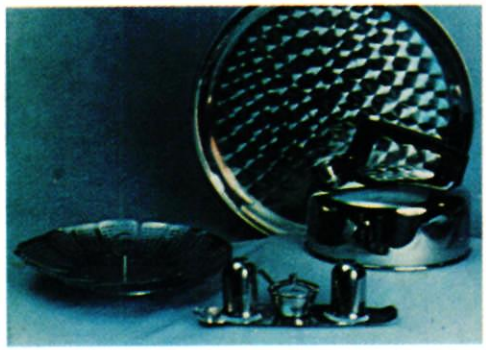
Reynolds Tobacco Introduces Camels to Fujian

In its April 1980 agreement reached jointly with the Ministry of Light Industry and Fujian industrial authorities, Reynolds Tobacco loaned cigarette manufacturing equipment to the Amoy Cigarette Factory for the production of Camel Filter cigarettes. These are already being marketed by the Chinese in friendship stores for foreigners. Reynolds, which supplies the processed tobacco, is paying the Chinese a fixed sum for each case of cigarettes sold. The Chinese are free to use the know-how acquired, although not the machinery itself, in other plants.

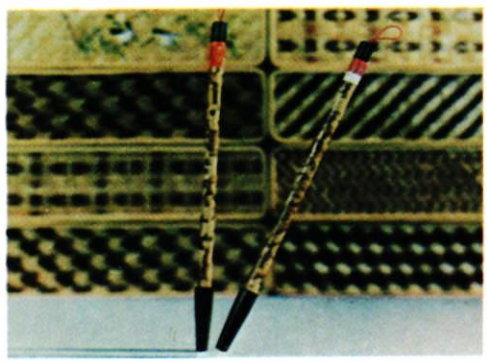
Reynolds has stationed three to four technicians and quality-control people in the plant. The cigarettes cannot be sold without meeting Reynold's standards.

The agreement is to be renegotiated in 1982, with Reynolds retaining the option to sell the equipment or bring it back to the US. The company is considering a longer-run project to develop a joint brand using American and Chinese tobacco to be sold in the Chinese domestic market. Working out the distribution rights however, poses complications. —Martin Weil

China: The Modern Source





Our Corporation is a leading supplier of light industrial products in China. The products handled by our Corporation are General Merchandise, Stationery, Sports Goods, Household Electric Appliances and Building Materials. Buyers' brands, designs and materials are also accepted.

For further details, please contact: China National Light Industrial Products Import & Export Corporation, Shanghai Branch. Address: 128 Huqiu Road, Shanghai, China. Cable: INDUSTRY,SHANGHAI. Telex: 33054 INDUS CN.

Communications Satellite Program

An Aborted Launch

Karen Berney

A December 30 Chinese cable informing NASA that Beijing had postponed the purchase of a US satellite broadcast and communications system said that the buying date would be moved back "several years, due to the fact that China is now in a period of economic readjustment, and has financial difficulties as well." The decision surprised the four US aerospace firms bidding on the deal—Hughes Aircraft, RCA, GE, and Ford Aerospace—all of which recently hosted officials from the Chinese Society for Astronautics and were anticipating an imminent purchase order.

The postponement cable sent by Ren Xinmin, president of the Chinese Academy of Space Technology (CAST), to NASA administrator Robert Frosch, calls into question implementation of the Sino-US Understanding on Cooperation in Space Technology signed on January 31, 1979, shortly after normalization of diplomatic relations. Specifically, the agreement records China's intention to purchase, "under suitable conditions," a US-designed and -launched communications satellite with associated ground equipment as well as a Landsat ground station (*see box*).

Now, two years later, that very caveat has provided Beijing with a face-saving device for saying the project was not a high enough priority to justify the foreign exchange expenditure. The understanding stipulates neither purchase deadlines nor legal obligations. It is anyone's guess whether Beijing will even follow through on its end of the agreement.

Sizable Contracts Suspended

The deferment has halted negotiations on more than $200 million worth of export business for the US aerospace industry. Hughes Aircraft, RCA, GE, and Ford Aerospace were competing to supply one operational and one spare communications satellite worth $100 million. Numerous manufacturers of ground equipment hoped to cash in on China's requirement for 15 communications stations and thousands of receive-only TV terminals totaling $100 million, and the US rocket company Rockwell International or McDonnell Douglas, would have supplied the first $30 million launch. In addition, Rockwell International and Comsat were vying for a systems engineering and consulting role valued at 5 percent of the satellite contract.

Negotiations began more than two years ago and involved reciprocal technical exchanges between US and Chinese space agencies and numerous technical seminars in Beijing. The corporate investment, apart from the cost of staging the two-week seminars ($60,000 apiece for the four satellite-suppliers) ranged from a low of $25,000 claimed by Comsat to a high of $500,000 spent by Hughes to support an *ad hoc* "China desk" of 30–40 engineers and marketing specialists. GE's in-house "Chinasat" budget was about half that of Hughes', but was jacked up by the cost of maintaining a Space Division representative in Beijing. According to National Council estimates, US companies are now paying more than $100,000 a year to keep one man, a telephone, telex, and secretary in the Beijing Hotel.

During the nearly one-year lull following initial discussions in Beijing, each company closely monitored China's plans and priorities, looking for a clue as to the status of the satellite project. But only GE's man on the scene had an inkling of what was under way.

"Our representative filed reports indicating that neither the staffing nor work activities of the Chinese Satellite Communications Corporation [the procurement arm of CAST] corresponded to the 24-hour-a-day-type effort needed to get the project off the ground," a GE spokesman later remarked. GE therefore expected a delay, but not one amounting to "several years."

Why Beijing Postponed the Satellite Project

In the course of debating the pros and cons of proceeding with the satellite project, Beijing revealed the criteria upon which it based its decision. Significantly, these apply to a broad range of technology transfer packages:

• *Large-scale imports projects yield significant technology transfer payoffs.* The understanding between Beijing and Washington called for the satellite to be delivered in orbit, thus denying China access to technology deemed critical to US national security. In order to increase its chances of winning the contract, Ford Aerospace offered to contract out some of the satellite's subsystems to foreign suppliers such as MBB in West Germany and Thompson CSF in Great Britain, thereby circumventing US export control regulations and increasing China's access to manufacturing know-how.

• *Projects should not deplete China's pool of scientific, technical, and managerial talent in a given field of specialization.* When technicians are dispatched to manage projects involving foreign technology, China's own research and development programs sometimes suffer. A country with hardly more than 300,000 research scientists cannot disperse its talent in too many directions.

• *Projects should heed China's limited absorptive capacity.* Are the infrastructure and support staff available to assimilate the project into the economy? In view of China's shortage of skilled manpower, meeting this criterion may necessitate violating the second. Thus, the decision to commit top-flight engineers to import projects may ultimately depend on the size of their contribution to widening the PRC's base of science and technology.

Company Reactions: Business as Usual

The companies involved do not intend to lower their profiles in China as a result of the postponement. Business is still good between other subsidiaries and China. Explains GE, "We are a multi-industrial company, manufacturing products to fit all of China's modernizations.... It's economically viable to sustain a presence in Beijing." The firm is now negotiating sales for a number of products, including transformers, locomotives, air conditioners, and light-bulb technology.

An official from RCA Astro-Electronics was just as upbeat; "We will continue to extend the red-carpet treatment to the Chinese.... Besides, we have other divisions with commercial interests in China." RCA Globcom, for example, erected an earth station in Shanghai for former President Nixon's 1972 visit to China, coordinated a series of Marisat tests with the Ministry of Posts and Telecommunications in late 1979, and most recently proposed installing a Q-FAX cable routing service between the two countries. Its consumer electronics division, RCA Radio Corporation, may soon conclude a joint venture agreement with a Nanjing factory for the subassembly of TV components that will be exported to RCA's TV factory in Indianapolis.

Rockwell International, which has grossed $35 million in China sales each year since 1976, is shedding no tears over the suspension of the Chinasat deal. Following the signing of a $15 million contract to supply high-speed printing presses to the *People's Daily*, its automotive division received an invitation to start joint venture discussions with a Shenyang factory for the production of off-highway axles, brakes, and gearboxes.

"When China is ready to move again, we'll be there," says the vice-president of Rockwell's Overseas Corporation. "Until then, we're content to sit back and pursue other prospects."

But one of the four aerospace companies is still trying to rekindle China's interest in the satellite project. It is planning to submit a new proposal incorporating cooperative production and assembly in China and thus, lower up-front costs. The firm stands ready to take less remuneration in the sale in the interest of exploiting its current lead in satellite technology. European and Japanese companies are quickly applying US innovations and could prevail in later competition because of their willingness to provide China with access to technology.

Both Hughes and Comsat adopted the attitude "nothing ventured, nothing gained," emphasizing that purchase delays and even last-minute contract cancellations are one of the calculated risks of doing business. In 1974 Brazil had already given contractors a detailed RFP (request for proposal) and then decided to cancel its program. Each potential supplier lost $1 million.

"It would have been much worse if China had submitted an RFP," notes an RCA executive. At that point "gallons of money" would have been invested in custom-designing a Chinese satellite system, he said. Because China nipped

China's Telecommunications Imports

The value of China's imports of telecommunications apparatus rose from about $10 million in 1977 to $135 million in 1979. The relatively low dollar-value of trade in each category, with the exception of TV-related equipment, is indicative of China's efforts to minimize imports of foreign communications technology.

Telecommunications Imports by Category
(in US dollars, market shares in percentages)

	1977	1978	1979
TV receivers	$1,589,000	$4,620,000	$83,225,000
Japan	96	90	86
Europe	3	9	2
Singapore	—	—	12
Line telephone equipment	$1,620,000	$3,071,000	$5,351,000
Europe	76	80	65
Japan	20	7	10
US	—	8	15
Radio broadcast receivers	$4,000	$42,000	$9,915,000
Europe	50	84	—
Japan	25	12	59
Hong Kong and Singapore	—	—	41
Microphones, loudspeakers, and amplifiers	$181,000	$275,000	$421,000
Europe	53	71	51
Japan	37	21	37
US	7	5	—
Hong Kong	—	—	10
Other telecommunications equipment**	$6,840,000	$14,681,000	$35,963,000
Europe	77	76	48
Japan	12	13	16
US	10	6	15
Hong Kong	—	—	15
Total value of imports	$10,234,000	$22,689,000	$134,875,000
Europe	65	63	18
Japan	27	23	62
US	7	5	5
Hong Kong and Singapore	—	—	15

*The category "Europe" includes the following countries: Great Britain, France, Federal Republic of Germany, Switzerland, Belgium, Luxembourg, Denmark, Italy, The Netherlands, Austria, Sweden, Yugoslavia, Norway, Canada, Finland, Australia, and New Zealand.

**This residual category includes radar, microwave, radio navigation, and TV transmission and reception equipment, among other items.

SOURCE: Standard International Trade Classification Revision No. 1, United Nations. Data is based on the telecommunications exports of 20 countries to the PRC for 1977, 1978, and 1979. Under the import figures are the countries and regions with the largest market share for that year.

Communication Logistics, Consult the Experts

CTPS CTPS CTPS CTPS CTPS
CTPS CTPS CTPS CTPS CTPS
CTPS CTPS CTPS CTPS CTPS
CTPS CTPS CTPS 中国 编译
CTPS CTPS CTPS 印务 公司

Highly recommended by Chinese and US officials, CTPS provides accurate and high-quality services for your communication needs to the People's Republic of China. We have a 16 year track record in translating and printing technical literature for China.

Our translators were educated in China in the appropriate technical fields. Our management force in San Francisco and Hong Kong have technical degrees to ensure the accuracy of our work.

CTPS was selected as the exclusive agent for the largest professional translation and printing corporation in China—CTPSC-Beijing. CTPSC was established under the State Science and Technology Commission. It has the largest resource of technical translators, its own modern printing plant, and a nationwide distribution network for all foreign literature in China.

Given CTPS's large resource bank to draw upon—China, Hong Kong and San Francisco—we can expertly serve all of your needs: **publication advertisement, exhibition presentations, audio-visual presentations, brochures, product catalogs, escorting/interpreting, contracts/proposals, manuals, business cards.**

CTPS-USA (SF), Inc.'s publication of **US-China Electronics** is enthusiastically received with wide support in China. The journal is published in cooperation with the Fourth Ministry of Machine Building.

US-China Agriculture directory, also in Chinese, is published with the cooperation of the Ministry of Agriculture. Both publications serve as vital official sources of scientific and technological information for China's scientists, technicians, engineers, foreign trade buyers, management cadres, and end-users working toward China's modernization.

China's Foreign Trade: Its Policy & Practice, published by CTPS in English, provides an official view of China's trade policy. Written by trade authorities in China, it is on the best sellers list in Hong Kong. Available from CTPS-USA (SF), Inc.

Contact Judy Poon,
153 Kearny St., #511, San Francisco, CA 94108 (415) 362-2445.

CTPS CHINA TRANSLATION & PRINTING SERVICES–USA (SF) INC.

the project in the bud, the companies had only gone as far as offering off-the-shelf technology. RCA's design, for instance, was a modified Anik-B satellite built for Canada, while GE and Ford presented designs that utilized earlier developments in Ku Band technology.

But Ford Aerospace does not share the business-as-usual attitude of its colleagues. "If the same people who were working on the China project had been busy with other programs, we'd be better prepared today to compete for bona fide customers in the US and abroad," claims a Ford spokesman.

Ford's more jaundiced view is understandable. The satellite project was being pushed by Henry Ford himself, who saw it as a means for making a prestigious and high-visibility entry into China. Company executives also had high expectations that China would reverse Ford's plummeting sales record. In paying a visit to the firm's Palo Alto headquarters, Vice-Premier Bo Yibo's delegation "did everything but tell us that we were going to get the contract," said one official. That Ford did indeed have an inside track was confirmed by Wang Defu, second secretary for science and technology at the PRC embassy, in a *CBR* interview. The Ford official added, "We started the project when China trade fever was raging and we didn't make a concerted effort to determine if China had the money to proceed." The firm usually conducts this sort of investigation before wooing customers.

Lessons Learned

Beijing's handling of the satellite deal points to a few of the precautionary measures that foreign companies should take in pursuing business in China. First, companies planning to host delegations from the PRC should find out in advance whether the group has the authority to speak for Beijing. For instance, just a few weeks prior to the deferral notification, engineers from the Chinese Society of Astronautics sent out signals to the six companies that the deal was still on. Was this simply the result of a breakdown in communications and coordination between different-level organizations within the same industry?

Second, before tying up resources in an all-out marketing effort, companies should determine whether the proposed deal is subject to bureaucratic infighting. GE correctly surmised that CAST's failure to gear up for the project reflected deep-seated problems. Having failed to obtain a consensus among different user-agencies on the satellite's applications, CAST could not begin drafting the necessary documentation for the system's final configuration. Though Beijing's foreign-exchange shortage may have contributed to the delay, the involved companies agree that persisting end-user disputes contributed to the State Council's decision to relinquish support for the project.

A final lesson to remember: Firms should consider writing contract clauses that provide for compensation in the event that a project is postponed or canceled after work has begun.

Beijing repeatedly has assured US companies that those who stick it out while business is slow will reap benefits later. By preparing for the pitfalls of China trade in its time of transition, US salesmen can help top management

Landsat Ground Station Stymied

Not only has Beijing postponed its purchase of a US communications satellite, but it now wants to buy a Landsat ground station from a non-US supplier. Under the terms of the Understanding on Cooperation in Space Technology signed by NASA and China in January 1979, China agreed that both the satellite and ground station would be procured in the US "under suitable conditions."

Now Beijing says that it can't afford to spend the $10 million or $13 million being asked by the two potential US suppliers—Lockheed and GE, respectively. It would like to put out a worldwide tender in the hope of driving down the price. Thus in October China made overtures to the Canadian firm, MacDonald Dittwiler, said by industry officials to be undercutting US competition by offering the station for about $8 million.

NASA argues that US manufacturers are best qualified to design and equip a station to get maximum performance out of Landsat instrumentation, including the new Thematic Mapper scheduled to fly on Landsat D in late 1981. The station would receive and process Landsat earth-resources data.

Besides, notes NASA, a purchase on the international market would violate the terms of the understanding. "Then it will become a diplomatic issue to be handled by the State Department and reviewed at the White House level," claims Dr. William Raney, who coordinates exchanges between NASA and Chinese space organizations.

Another delaying factor is Beijing's recent request to split up the Landsat package. Because of radio frequency interference problems it wants the receiving equipment placed miles away from Beijing, and the processing apparatus located within the city to facilitate access by multiple end users.

The idea isn't washing at NASA headquarters. "The US government already decided there should be one configuration at one location, and the Chinese agreed," notes Raney.

More significantly though, the use of two separate sites would require the duplication of some equipment, namely, the high-density tape recorders and PDP 11/70 computing system. NASA was expecting rough going in obtaining the export license approvals for just *one* set of equipment. "The power of the computers and recorders exceeds even the new threshold levels established by the Department of Commerce (*see CBR*, Sept.–Oct., 1980, p. 25) for approving PRC license applications," reports Raney.

The Landsat ground station will be one of the first export licensing cases studied by the Reagan administration and could well set precedents and future US policy on technology transfer to China. During this period China could decide to go with Canada, but Washington would still hold the trump card; it's within US power to block the sale in COCOM, and it's up to NASA to program the Landsat D satellite to transmit data to the PRC's ground station.

So, companies will have to sit tight until NASA and Beijing patch up their differences. In the meantime, NASA has asked China to provide a detailed, technical justification for two sites and is also trying to persuade Beijing against it on the grounds that two sites are more costly than one.

—Karen Berney

justify continued confidence in China as a reliable business partner.

Current Communications Plans

What is Beijing in the market for, now that its communications satellite plans have been deferred? Experts in the field expect several trends to emerge:

- Beijing is likely to consider designing and launching a major operational satellite of its own in the late 1980s. This does not preclude the acquisition of one or more foreign satellites or subsystems like earth- and sun-sensors, traveling-wave tube amplifiers, and transponders. By all accounts China is still determined to set up "TV colleges" across the nation to redress the country's shortage of teachers. The communications satellite deal that fell through would have provided more than 20 hours of programming a day over two TV channels.
- In the interim China will lease one to two transponders on the International Telecommunications Satellite Organization's (Intelsat) IV-A Indian Ocean satellite to upgrade its telephone and data transmission and TV networks. To hook up to the IV-A as well as to the recently launched Intelsat V, China signed a $9.1 million contract with Nippon Electric last July for construction of the Beijing No. 3 Ground-Communications Station.
- China became a signatory to Intelsat in 1976 and currently pays a fee of $400,780 a year to lease 60 halfway international telephone circuits on Intelsat IV. (China's international telephone traffic is projected to grow at an annual rate of 14 percent, which would require the use of about 370 halfway circuits by 1993.) Intelsat officials expect Beijing to announce its intention to request space segment capacity on the IV-A and V in April at the annual meeting of signatories in Auckland, New Zealand.
- Domestic development will shift to manufacturing the ground equipment to support Intelsat.

The Intelsat Option

According to official reports, China's communications network consists of a 145,000-km microwave mainline that transmits telegram, telephone, facsimile, TV programs, and radio broadcasts from Beijing to the provinces via a 960-channel microwave transmitter and 600 sets of microwave equipment; 38 central TV stations that feed programming to a few thousand low-power TV deflection relay stations and county-level wired broadcast stations. In terms of annual operations, the system distributed a total of 3 billion letters, 130 million telegrams, 16 billion newspapers, and transmitted 205 million long-distance calls in 1979, representing a total cost of ¥1.2 billion ($800 million), according to the Ministry of Posts and Telecommunications.*

The Intelsat approach is a fast and inexpensive way for China to expand this existing infrastructure. For an initial outlay of about $3.2 million—evenly split between the space and ground segments—and additional payments of $1.6 million a year to Intelsat, China will receive a high-quality network that provides efficient telephone and data transmission and TV reception.

Based on the experience of other developing countries, Intelsat officials predict the following scenario: China will use both transponders for telephone and data traffic during peak business hours; in the evening, one transponder will revert to TV transmission exclusively, while the other continues to provide telephone service. Such an arrangement will simultaneously transmit 500 telephone conversations and 56 kilobytes of data during the day, alongside 1,000 calls and two TV channels at night. If China decides to maximize TV time, it may do so by broadcasting for three to four hours, and then taping programs for delayed broadcast to provincial and local areas.

"If China's Intelsat experience proves successful, it is likely to request additional capacity. In fact, it could lease up to six to eight transponders over a period of five years before the idea of procuring an independent system abroad becomes cost competitive,"

China's Eight Satellites

Since 1970 China has independently launched eight experimental satellites from the missile-testing site at Shuangchengzi in northern Gansu Province. The next launch is scheduled for this year using *Long March 3*, China's first three-stage rocket. The vehicle is under construction at the Shanghai XinXin Machinery Plant, and is capable of placing 900 kilograms in orbit. The known characteristics of the PRC's satellites are shown below.

Satellite/Launch date	Characteristics and performance
Chinasat 1, April 1970	Payload: 173 kg; apogee, 2,384 km; perigee, 439 km; orbital inclination, 68.5°. Design and assembly: Beijing East Scientific Instrument Factory. Stayed in orbit one week and broadcast the patriotic song, "The East is Red."
Chinasat 2, March 3, 1971	Payload: 273 kg; apogee, 1826 km; perigee, 266 km; orbital inclination, 69.9°. Design and assembly: Beijing East Scientific Instrument Factory. Designed to test solar cells; recovered in May 1979 after transmitting on one circuit for seven years.
Chinasat 3, July 26, 1975	Payload: 2,300 kg; apogee, 464 km; perigee, 185 km; orbital inclination, 69°. Design and assembly: Shanghai Huayin Machinery Plant. Remote-sensing satellite.
Chinasat 4, November 26, 1975	Payload: 2,300 kg; apogee, 484 km; perigee, 173 km; orbital inclination, 63°. Design and Assembly: Shanghai Huayin Machinery Plant. First successful returnable satellite, landed with photocapsule.
Chinasat 5, December 26, 1975	Payload: 2,300 kg; apogee, 387 km; perigee, 183 km; orbital inclination, 69°. Design and assembly: Shanghai Huayin Machinery Plant. Scientific research satellite.

Chinasat 6, August 31, 1976	Payload: 2,900 kg; apogee, 464 km; perigee, 175 km. Equipped with remote sensors to monitor radar transmissions.
Chinasat 7, December 7, 1976	Payload: 2,900 kg; apogee, 489 km; perigee, 167 km; orbital inclination 59°. Returned to Earth with photographic material.
Chinasat 8, January 26, 1978	Payload: 2,900 kg; apogee, 482 km; perigee, 159 km; orbital inclination, 57°. Recovered four days after launch.
Scheduled launches	
Chinasat 9 (STW-1 and -2) experimental synchronous, communications satellites, 1981–82	Weight: 420 kg; location, STW-1 at 70° longitude, STW-2 at 125° longitude. Frequency range, 4000–4200 MH_2. Xian Institute of Radio Technology is developing six transponders for each. Shanghai Scientific Instruments Factory is responsible for assembly. Precursors to operational satellite; test radio communications services.
Chinasat 10, polar orbiter meteorological satellite, 1982–83	Weight: 650 kg; apogee, 900 km; resolution, 4 km; orbital inclination, 99°; instruments, 2-channel radiometer for resolution in visible and infrared bands, built by Shanghai Institute of Technical Physics. Design and assembly: Shanghai Huayin Machinery Plant; designed to test technology and equipment in preparation for planned operational satellite by 1985.
Chinasat 11, 1985	China's first operational geostationary satellite for meteorological data transmission.
Chinasat 12, 1985	Experimental earth-resources satellite being designed at Shanghai Huayin Machinery Plant, capable of 79-meter resolution at 700 km altitude.

SOURCES: *China Space Report*, based on observations made during AIAA visit to the PRC in November 1979, and Chinese Society of Astronautics delegation to the US, December 1980; *Beijing Xiandaihua*, vol. 2, no. 10, October 16, 1980.

concludes an Intelsat official. The cost: only $22–$29 million.

Export Opportunities Under Intelsat

Given its present network, China will need about forty 6- and 4-GHz (transmit and receive) earth terminals to support Intelsat, costing between $25,000 and $35,000 each. Such Chinese facilities as the Nanjing Radio Factory are adequate for the manufacture of ground equipment, but limited capacity at these facilities may force China to contract for turnkey delivery of about 15 stations, Intelsat believes. For reasons of reliability and performance, it will probably be in the market for some key components like low-noise amplifiers, receivers, multiplexing devices, and measuring and testing instruments. Scientific-Atlanta, for example, received $1 million in orders from the PRC for ground station testing equipment last year, and projects exporting $0.5 million more in 1981.

It also will be necessary for China to improve the antennas and radio communications apparatus in its three existing ground stations (two in Beijing and the other in Shanghai) to ensure dual polarization purity from Intelsat satellites. But US companies should hurry. Nippon's contract covers the modification of Beijing's No. 2 Ground Station.

Longer-Term Prospects

Analysts never tire of citing the fact that China's population of close to 1 billion has about 0.4 telephones per 100 inhabitants (though Beijing boasts 3.7 telephones per 100 people) as evidence of China's crying need for communications expansion. But the stark reality is that nearly 80 percent of the population live in rural areas on communes where the demand for individual telephone service is negligible.

Urgently needed items that will be given priority include automatic postal and parcel-sorting equipment. PABX systems, telex exchanges, and teleprinters. US telecommunications manufacturers should especially aim marketing strategies at the local departments of the Ministry of Posts and Telecommunications, which are making joint investments with other ministries to build communications links between industries and their subordinate factories and enterprises.

Vendors of the kind of defense support equipment which can now be sold directly to China's military should not overlook the PLA's pressing need for mobile radio systems and tactical ground radar. The chance to meet the Chinese officials who will make such purchases will take place on November 3–13, 1981, at the National Council-Electronic Industries Association Exhibition in Beijing.

China's largest investment in communications during the readjustment period involves adding a total of 400,000 sets of long-distance electromechanical crossbar exchanges, 5,000 lines of long-distance telephone channels, and 100,000 square meters of production space to its existing network by 1982. According to a Xinhua report of January 11, approximately 19.5, 40, and 60 percent of these respective targets were achieved in 1980.

Experts estimate it will be another ten years before China phases out crossbar equipment, going directly to digital and optical fiber technology. But in preparing for the leap, it will be shopping for an outside contractor to supply both manufacturing know-how and a master plan capable of solving the formidable problems of standardization, integration, and training involved in designing and installing a modern, nationwide network. 完

*The Beijing Long-Distance Telephone Building houses China's 1,800-channel wave-carrier and 960-channel microwave system with coaxial cables, automatic coding crossbar telephone exchange, electronic long-distance telephone switchboard equipment, and 60-channel image-processing equipment. The Beijing Telegram Building mainly transmits telegrams, telex, and newspaper facsimile via cable, microwave, and satellite communications.

China Bookshelf

General

Background Notes: China. Washington, DC: US Department of State, Bureau of Public Affairs. March 1980.* 20 pp. 75¢. This profile briefly covers the demography, geography, history, government, economy, defense establishment, and foreign relations of China and Sino-US relations.

China Facts and Figures Annual, vol. 3, 1980, by John L. Scherer. Gulf Breeze. FL: Academic International Press, Box 1111, 32561, 1980. 296 pp. Available as a standing order. Volume 3 of the annual series of handbooks contains a variety of statistics and lists, including listings of major plants by industrial sector. Most recent information is for 1979, although a list of 1980 provincial leaders is included.

China Briefing, 1980, ed. by Robert B. Oxnam and Richard C. Bush. Boulder, CO: Westview Press, 1980. 126 pp. $14.50 hardbound, $6.50 paperback. This collection of seven background papers commissioned by the China Council of the Asia Society contains papers written or revised in the spring of 1980. Specialists review current developments in Chinese leadership, politics, economics, trade, art, literature, and foreign policy. Appendices include biographies of Politburo members.

Report from Beijing. Menlo Park, CA: SRI International, 1980. 44 pp. Available to associates upon request; other companies, $50. The report summarizes presentations of officials during a March 1980 SRI visit to China, observations of the members of the delegation, and selected additional material on China's economic planning. Emphasis is on China's trade policy and foreign investment in China.

China Trade

Doing Business with China. US Department of Commerce, International Trade Administration, November 1980.* 58 pp. $3.75. Essential for the newcomer to the China market and a basic reference for China traders, the new edition of the handbook reflects recent changes in China's foreign trade structure and policy.

China Trade Review and Prospects, by Vembar K. Ranganathan. New York: Citibank (International Public Affairs, 18th Floor, 399 Park Avenue, NY 10043), 1980. 96 pp. Single copies available at no charge. An up-to-date survey of China's economy and foreign trade, the report outlines current trade practices and approaches to the China market. China's import priorities and export potentials are analyzed by industrial sector.

Business Profile Series: The People's Republic of China, 3rd ed. Hong Kong: The Hongkong and Shanghai Banking Corporation, 1980. Available from all bank offices; in Washington, DC: 1828 L St., NW, Suite 711, 20036. 84 pp. Single copies available at no charge. Although the report serves as an advertising medium for the bank's services, it also presents much useful information for doing business with China, including a list of opportunities for trade and advice for China travelers. Charts of PRC government structure and lists of organizations and officials are appended.

Business with China: An International Reassessment, ed. by N. T. Wang. New York: Pergamon Press, 1980. 145 pp. $25. First in a series of publications of the China International Business Project, Columbia University, this volume contains the proceedings of a conference held in New York April 10–11, 1980. The papers presented address not only trade with China, but also political, legal, financial, direct investment, and technological questions. Speakers included officials of the US and Chinese governments and representatives of the business and academic communities.

Exporting to China. Wellington: Technical Help to Exporters, Standards Association of New Zealand (Private Bag), 1980. 35 pp. $50. The brief report focuses on standards in China and illustrates recommended labels for goods in transit. Tables of average monthly rainfall, humidity and temperature, and maps of seismic activity and wind and snow pressure are included.

China Business Directory: A Practical Guide to Trading with the People's Republic of China, by Phillip M. Perry. Westport, CT: Technomic, 1980. 352 pp. $55. Poor editing and a reliance on 1977–1978 economic information characterize what might have been a useful reference on China's economy and trade. Some updating is evident, but conflicting and outdated information is presented. Many tables and charts are reproduced without citation from other sources.

Travel

Travel Guide to the People's Republic of China, rev. ed., by Ruth Lor Malloy. New York: William Morrow & Co., 1980. 366 pp. $17.95 hardbound, $10.95 paperback, plus $1 postage and handling. Written in a conversational style, the guide will be as interesting to the armchair traveler as it is useful to the China-bound tourist. Many tips on culture and customs are included, along with an English-Chinese phrasebook, important addresses, and information on 90 cities.

Books and business guides submitted for possible review in The China Business Review *should be sent to the National Council's book editor, Marianna Graham.*

*Available from the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

Insurance in China

China's foreign trade has doubled in only three years, and direct foreign investment has gone from virtually nothing to $1 billion in 18 months. But how much of the potential business will the People's Insurance Company of China share with foreign underwriters?

James B. Stepanek

Turbulent changes mark the 32-year history of the People's Insurance Company of China (PICC), China's state-owned insurance monopoly. Once staffed by 50,000 people in 1,500 branches, PICC was virtually snuffed out in 1959 during the Great Leap Forward and again in 1969 at the height of the Cultural Revolution. Only PICC's foreign trade activities were permitted to continue, owing partly to the infamous "missing platinum case," uncovered when Premier Zhou Enlai learned that a valuable shipment of platinum which mysteriously disappeared had not been insured.

During those years, whenever a factory suffered a mishap or fire, repairs could not begin until higher authorities got around to appropriating funds. The ensuing delays hurt production terribly, Chinese now admit. No wonder then that the Shanghai Essence Plant was jubilant upon learning, after its boiler exploded last March, that it could be back in business in just one week, thanks to prompt indemnification by PICC's new Shanghai branch which reopened in January 1980.

PICC's recent return to normalcy is reflected in its published accounts, which show assets of nearly half a billion dollars and a "loss ratio" (incurred claims to earned premiums and reserve fund payments) of only 67 percent in 1979 (*see* p. 39). In trade with Hong Kong and Macao, PICC's loss ratio is reportedly under 10 percent. A loss ratio of 70 percent or more is considered normal in the US insurance industry.

Foreign Trade Role

Ever since its inception on October 20, 1949, PICC has been concerned mainly with the insurance of physical cargo and vessels engaged in China's international trade. It continues to monopolize that business today, insuring nearly all US-China trade. Indeed, more than 90 percent of US exports to China are on an fob (free on board) basis, while a few shipments are c and f (cost and freight) and an equally high proportion of US imports from China are cif (cost, insurance, and freight), according to the letters of credit departments of the Bank of America and First National Bank of Chicago.

Some observers say that air-freight cargo is more often insured by US companies, due to China's poor air transport facilities. Control Data Corporation of Minneapolis generally quotes fob prices, according to Jackson Hipps, director of marketing at Control Data's trading subsidiary. Control Data then quotes insurance and freight costs separately. So far Chinese importers have elected to buy Control Data computers cif. Boeing jet liners sold to China are also covered by US insurers, since China prefers to take delivery after the planes land in Beijing.

Although it is PICC's policy to urge Chinese end-users and foreign trade corporations (FTCs) to use its coverage, it allows them to choose their own insurers. Writing in *China's Foreign Trade*, Professor Liu Chaojin of the Beijing Foreign Trade Institute added that "in the case of China's exports, the policy choice is left to the foreign buyer."

Nonetheless, one New York banker observes that "the quest for trade with China has meant that many US firms give their insurance business to PICC," adding that "this has given PICC the upper hand."

Most traders seem satisfied with PICC's marine coverage. "PICC's ocean marine policies compete very well internationally," a West coast underwriter acknowledged. Likewise PICC's cargo insurance provides standard international coverage with most trade conducted under open cover contracts. ("Open cover contracts" insure different types of cargo below a certain prescribed value, thereby avoiding the need to write a new policy for every shipment.) With regard to ship-hull insurance, PICC usually writes Total Loss Only (TLO) contracts, meaning that indemnification is paid, according to Chubb underwriters, only if a vessel is lost or destroyed. PICC contracts may be written in US dollars or in any other major world currency. The Bank of China will make the foreign exchange available to PICC to honor claims in foreign currency.

Reinsurance

The rapid growth in PICC's activities in recent years has spurred a major effort to reinsure its risks abroad. In insurance parlance, this means PICC "retroceded" or "reinsured" part of its domestic and foreign liabilities to foreign insurance companies, agreeing to pay them premiums in return. PICC paid out $47 million in premiums in 1979, and in turn collected $132 million in reinsurance premiums on international risk it had agreed to "assume," or buy, from foreign companies (*see* "Profit and Loss Statement," p. 39).

By assuming these risks PICC had to pay $90 million in claims to foreigners in 1979 (equivalent to 68 percent of the foreign exchange it earned from reinsurance premiums). Meanwhile, foreign firms paid $26 million in claims to PICC (equivalent to 57 percent of the revenues they earned by assuming PICC's domestic and international liabilities).

It is normal for large international insurance companies to spread their risks around the globe this way. When PICC sells its risks abroad, foreign companies become responsible for paying any claims to PICC's clients. PICC must pay premiums abroad for this service, however. So in order to compensate for the foreign-exchange drain, PICC is willing in return to accept risks of foreign insurance firms, since these earn hard-currency premiums.

PICC currently maintains reinsurance relations with more than 900 insurance companies in 120 countries

and regions, according to an official September 1980 press release. By reciprocal agreement, PICC relies on these contacts both to handle claims settlements below a prescribed amount and to conduct on-the-spot surveys, which ensure that its foreign customers get indemnification promptly and in local currency.

PICC's major US contacts include the American International Group (AIG), Continental Corporation, the Fireman's Fund Insurance Companies, Chubb & Son Inc., Marsh & McLennan International Inc., and the Prudential Reinsurance Company.

Between 1977 and 1979, only about $1 million worth of business each way was annually transacted between PICC and US firms on a net basis (premiums received minus claims and commissions paid, and on the outflow side of the ledger, premiums paid minus claims and commissions received), according to US balance-of-payments statistics. This represents about one-tenth of 1 percent of the worldwide business of US insurance firms.

Now AIG is working hard to regain the prominent role it once played in the China trade. The company traces its origins to a Shanghai company established in 1919 by C. V. Starr.

In November 1975, AIG and PICC reached their first reciprocal reinsurance agreement, authorizing each company to handle the other's claims. Then on September 29, 1980, AIG President M. R. Greenberg and PICC Acting General Manager Song Guohua signed an agreement creating the China-America Insurance Company, Ltd., the first joint venture between PICC and *any* foreign company. Incorporated in Bermuda, the 50–50 joint venture was capitalized at $5 million initially, with authorized capital of $25 million.

As a "nonadmitted" company in the US market, the China-America Insurance Company, Ltd., may not solicit business in the US, or even maintain personnel there. But it is considering taking the necessary steps to become admitted in New York State.

An AIG subsidiary, American International Underwriters (AIU), formed a new China division in December 1980, headed by Houghton Freeman. In the same month, AIG opened a Beijing liaison office headed by Stephen Jen, also vice-president of the China-America Insurance Company, Ltd. (Tokyo Marine and Fire Insurance Company, Ltd., in October 1980, became the first foreign insurance company to set up an office in China.) Continental Corporation recently received permission to open an office in Beijing in early 1981.

In February 1981, Continental organized the South Place Syndicate, together with PICC, Nissan Fire and Marine, and 11 other international insurers to participate in the newly established New York Insurance Exchange. The exchange was set up in March 1980 to compete with Lloyd's of London. PICC owns a 10 percent share of the syndicate, which is managed by the Continental Reed Stenhouse Management Company, another Continental subsidiary.

Observers feel PICC's participation in these syndicates will give it experience in the US reinsurance market. Its direct participation in the US insurance industry is limited in some states by laws regulating insurance underwriters. But the US reinsurance market is open to PICC, inasmuch as this is a wholesaler's market in which American and foreign insurance firms trade already-written coverages.

Marsh & McLennan International, a wholly owned subsidiary of Marsh & McLennan Companies, Inc., reached agreement with PICC in July 1980 for Marsh to issue binders of insurance on PICC's behalf. (Binders are temporary understandings, often based on no more than a telephone conversation, which offer coverage pending the preparation and execution of the policy itself.) Marsh will also act as a broker for its clients in China. (A brokerage firm such as Marsh & McLennan acts as a middleman that will shop around for the best insurance coverage for its clients. It is unaffiliated with any insurance company, unlike an underwriter, which writes insurance policies on behalf of one company, or an insurance agent, an independent operator who may work for more than one company.) Under terms of the agreement, PICC will pay Marsh & McLennan for its services and technical assistance with commissions or fees.

Both Chubb & Son and the Fireman's Fund, an American Express subsidiary, reached separate understandings with PICC in 1980 covering such areas as reinsurance and the survey and settlement of claims in each other's jurisdiction.

Chubb is reportedly involved in the East Point Reinsurance Company (Hong Kong), whose shareholders include Jardine Matheson, the Hong Kong and Shanghai Banking Corporation, and the Ming An Insurance Company (Hong Kong)—a company "with close connections to PICC," according to one report. In late 1980 Ming An joined International American Syndicate, Inc., an AIG-organized syndicate participating in the New York Insurance Exchange.

In Hong Kong PICC maintains two "state-private" insurance subsidiaries, China Insurance Company, Ltd., and Taiping Insurance Company, Ltd. Both underwrite marine transportation, fire, life, personal accident, workers' compensation, and motor vehicle insurance. The Taiping Insurance Company, Ltd., has a Singapore branch.

Most insurers believe the rising number of joint ventures and compensation trade deals in China will generate more reinsurance business. Although Article 8 of China's 1979 Joint Venture Law provides that only PICC may insure a joint venture in China, AIU's Executive Vice-President Peter Hammer says, "We see opportunities as intermediaries to advise our clients, smooth out differences in claims handling, and hopefully, to reinsure these accounts."

The type of business most likely to open up is known in the industry as "facultative reinsurance." This occurs when PICC insures a joint venture or foreign equipment in a compensation trade deal, and then turns around and cedes or sells a portion of the coverage it has written to a foreign insurer. (Under facultative reinsurance, the party assuming the risks reinsures a specific contract. Under "treaty reinsurance," the type generally sold in world reinsurance markets, the buyer does not know the nature of the individual risk being reinsured, and merely receives a share of another company's risks in exchange for the right to receive a share of the seller's premiums.)

Political Risk Insurance

Joint ventures in China have given rise to renewed interest in political risk insurance. On January 11, 1980, the *People's Daily* announced that PICC's head office would commence writing political risk insurance covering foreign investments in China. The report aroused considerable curiosity. Since the confiscation of foreign property in China would presumably be done by the Chinese government, who would dare take out such an insurance policy

with PICC, an agent of the Chinese government?

"Actually the policy makes some sense," one US underwriter told the *CBR*, "because it insures against arbitrary political acts by Chinese provinces and export zones that have increased autonomy over foreign trade matters."

A case in point is the political risk coverage written by PICC's Guangzhou branch covering the deluxe $10 million East Lake Housing Development near Guangzhou. The contract insures the builder, Chrysoberyl River Development, Ltd., of Hong Kong, against construction delays due to unspecified "political hazards," probably including riots and confiscation by government departments.

Most US insurers naturally caution their clients to read the fine print carefully before signing such contracts. Areas covered include "war, actions similar to war, strikes, riots, as well

PICC's 1979 Accounts
(in million yuan, dollars)

PROFIT AND LOSS STATEMENT

Income			**Outflow**		
Premiums:			Claims:		
Direct insurance[1]	¥171.2	($110.5)	Direct business	¥88.0	($56.8)
Inward reinsurance[2]	¥204.0	($131.7)	Inward reinsurance	¥139.0	($89.7)
Less: reinsurance ceded	¥72.3	($46.7)	Less: reinsurance ceded	¥41.0	($26.5)
Reserve fund, at beginning of year	¥94.8	($61.2)	Commissions:		
Investment, interest, and other income	¥33.7	($21.8)	Direct business	¥26.6	($17.1)
			Inward reinsurance	¥57.4	($37.1)
			Less: reinsurance ceded	¥21.9	($14.2)
			General expenses and other expenditures	¥18.1	($11.7)
			Balance of profit and loss statement	¥44.0	($28.4)
			Reserve fund, at end of year	¥121.2	($78.2)
Total	**¥431.4**	**($278.5)**		**¥431.4**	**($278.5)**

BALANCE SHEET

Assets			**Liabilities**		
Fixed assets	¥5.7	($3.7)	Government capital	¥50.0	($32.3)
Cash and bond deposits	¥554.3	($357.8)	Statutory reserve	¥85.3	($55.1)
Investments	¥27.7	($17.9)	General reserve	¥250.0	($161.4)
Premiums receivable	¥16.4	($10.6)	Insurance fund	¥121.2	($78.2)
Due from companies and other entities	¥26.4	($17.0)	Claims reserve	¥90.3	($58.3)
			Other reserve	¥12.8	($8.2)
Deposits held by reinsurers	¥67.4	($43.5)	Due to companies and other entities	¥13.6	($8.8)
Sundry debtors	¥7.2	($4.7)	Deposits held for reinsurers	¥32.1	($20.7)
			Sundry creditors	¥5.4	($3.5)
			Overall profit:[3]		
			Brought forward	¥0.4	($0.3)
			Current year	¥44.0	($28.4)
Total	**¥705.1**	**($455.2)**		**¥705.1**	**($455.2)**

NOTE: Dollar amounts based on unrounded RMB figures using exchange rate of ¥1.549 per $1.

[1]24.84 percent over 1978 of ¥137.1 million ($88.5 million).
[2]27.92 percent over 1978 figure of ¥159.5 million ($103.0 million).
[3]11.79 percent over 1978 profit of ¥39.8 million ($25.7 million).

SOURCE: People's Insurance Company of China, *Report of the General Manager*, September 1980.

as. . .confiscation," according to the August 1980 issue of Hong Kong's *Economic Reporter*. The same writer points out that PICC "does not bear the responsibility for the losses incurred by the deliberate or criminal acts on the part of the insured and their representatives which lead to the confiscation or prohibition of the investment items by the government departments concerned." US investors should also take note of a February 11, 1980, report in *Beijing Review* which announced that PICC's political risk coverage summarily exempts enterprises that "violate the law."

Foreign Political Risk Coverage

Political risk insurance is also available from both private and public insurers in the US. The Overseas Private Investment Corporation (OPIC), a US government agency established under the 1969 Foreign Assistance Act, already has received more than 100 inquiries and 22 formal Requests for Registration for insurance for projects representing $100 million in proposed investments. These include oil exploration and production projects, auto and truck manufacturing, and bottling and food processing plants. About half are joint ventures, another half compensation trade arrangements, while one is a countertrade deal, according to OPIC officials.

Contrary to common belief, OPIC will insure such forms of investment as debt, royalties, and licensing fees, not just equity. Its three types of policies cover:

- political risk of expropriation, nationalization, or confiscation;
- inconvertibility of profits, earnings, or return of original investment into US dollars; and
- war, revolution, and insurrection.

OPIC offers up to 90 percent insurance coverage for an initial investment for 20 years at low premiums. It may also insure up to 90 percent of a venture's earnings. Its rates are substantially lower—sometimes over 50 percent less—than prevailing private-sector rates.

Not only does OPIC cover outright nationalization, but also situations akin to "creeping expropriation," in which government action short of seizure makes it impossible for a foreign firm to operate.

When disputes develop, China has agreed to seek settlement through the mechanism of subrogation, as outlined in an Investment Incentive Agreement with OPIC signed last October 30. The agreement provided that OPIC would acquire the rights of the aggrieved company, and calls for disputes between China and the US arising out of the agreement to be settled by arbitration.

Some private insurers such as Lloyd's and AIG also write expropriation and currency convertibility insurance. To minimize competition with the private sector, "OPIC does not have authority to provide coverage against civil strife of a lesser degree than revolution or insurrection," notes Felton Johnston, OPIC's deputy vice-president for insurance.

Domestic Coverage: Opportunities for Insurers

PICC offers a wide range of insurance services to foreign businesses and embassies in China. In addition to the above-mentioned cargo insurance policies, PICC covers:

Employer liability. This covers an employee's "bodily injury or death while working for the insured," according to an article by Li Xuekong in the August 1980 issue of *Economic Reporter*.

Personal accident. This covers bodily injury or death, provided death occurs "within 180 consecutive days after the date of such bodily injury," reports Li Xuekong. Premiums vary according to the hazards associated with the occupation and the scale of compensation desired.

Product liability. Designed to protect manufacturers and exporters, this covers property damage, bodily injury, sickness, disease, and death caused by a defective product.

Foreign manufacturers in the PRC may obtain product liability insurance, along with marine and transport insurance, and miscellaneous surety (covering such items as customs duties and taxes) for products exported under compensation trade, according to the 1980 Chubb & Son publication, *Insurance in China*.

Compensation trade. To encourage compensation trade, PICC announced last August it would lower its cargo insurance premiums on "processing of imported raw materials" (*lailiao jiagong*). PICC's new policy "can be contracted in advance for inward and outward transport insurance. . . . The customs note or the inventory can serve as the dispatch notice," according to Li Xuekong. The advantage here is that the new policy covers "the import of raw materials through processing the export of the finished products, instead of the past method of contracting policies in several stages," he writes.

Automobile. This covers collision, property damage, and third-party bodily injury and property damage. "The annual third-party premium up to a limit of ¥100,000 ($66,700) is currently $143," an AIG official told the *CBR*. Automobile insurance is mandatory in Guangdong Province and must be obtained from PICC's Guangzhou branch; elsewhere in China, foreign vehicles may be insured either by PICC or foreign underwriters.

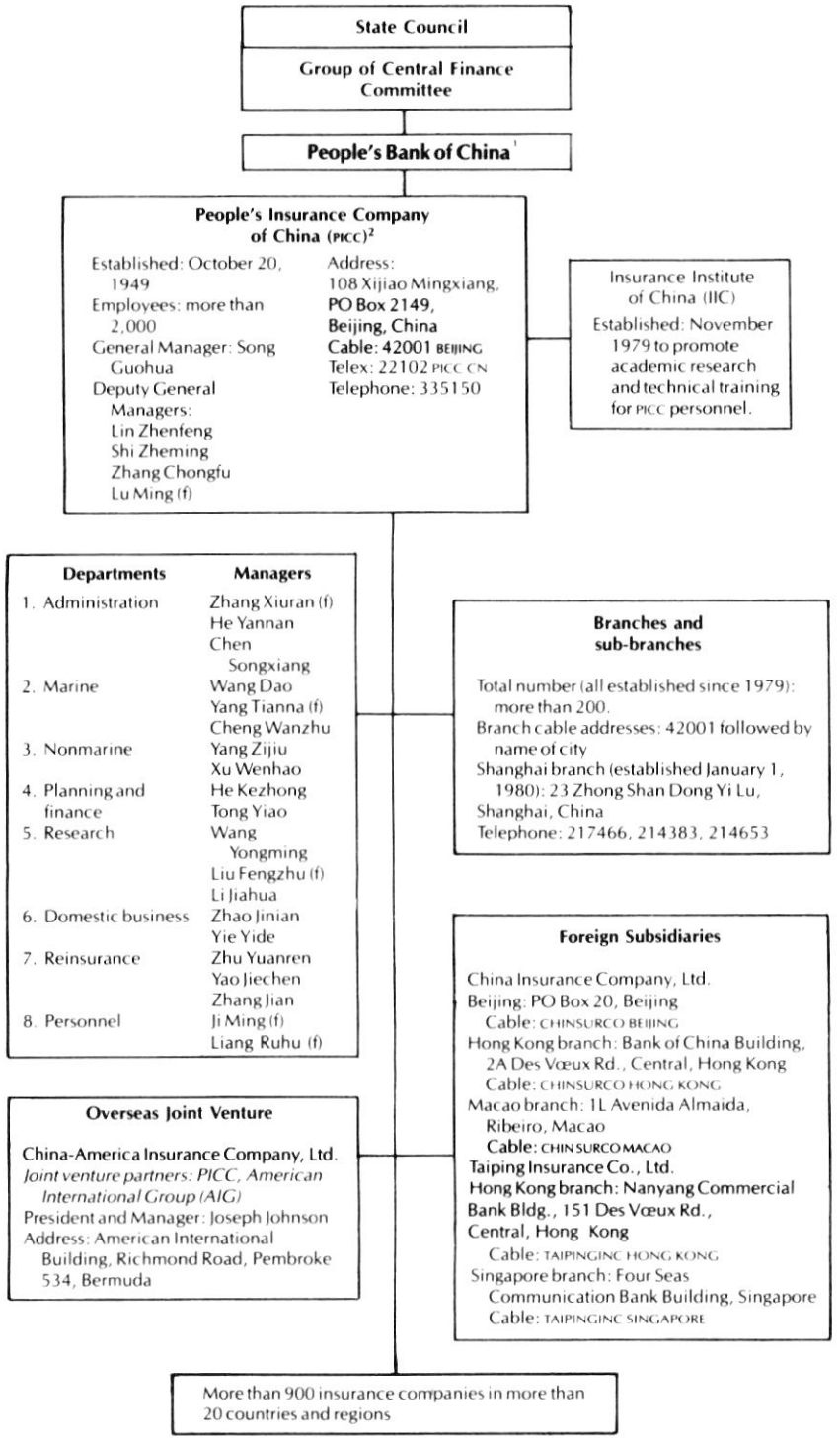
Fire. Contracts written by PICC cover fire, lightning, floods, falling aircraft, volcanic eruptions, bursting pipes, and subsidence, among other calamities. Rates reportedly vary with the type of construction.

CAR and EAR. These terms owe their origins to British and German underwriters, who drew a distinction between Contractors All Risk (CAR) and Erection All Risk (EAR). CAR contracts cover civil engineering projects that require substantial earth moving and the construction of buildings. By contrast, EAR contracts are used to cover machinery installation or machinery testing. Some US insurance firms, such as AIG, have combined CAR and EAR insurance under one "contract works" policy.

PICC's standard CAR and EAR contracts contain two sections covering property damage during construction, and third-party liability insurance according to Chubb. Their complexity arises from the fact that they cover projects under construction—hence the insured value of the property necessarily changes over time. CAR contracts tend to have separate schedules insuring the project, materials, machinery, debris removal, and worksite buildings. Machinery damage rates are 2–3 percent of the real value of the machinery, according to a Chinese source. In general, however, Chubb underwriters have estimated that the construction of a hotel in Beijing will carry a premium of about 3.5 percent.

Worker's compensation. Chubb & Son urges clients to acquaint themselves with China's labor laws, specifically China's 1951 National Labor Insurance Regulations, which apply to joint ventures employing 100 or more workers. Such enterprises have to pay a 3 percent monthly payroll tax. Thirty

Organization of the People's Insurance Company of China



[1]In a June 1980 official publication, *Financial Overview of the People's Republic of China* (translated by FBIS) the People's Bank of China, China's central bank, is shown as having direct supervisory responsibility for the People's Insurance Company of China.

[2]An article by PICC's Deputy General Manager Zhang Chongfu in the February 15, 1980, issue of *Economic Management* revealed that China planned to set up a State Insurance Management Bureau in charge of three new companies handling reinsurance, foreign insurance, and domestic insurance. The plan would presumably mean the break-up of PICC as a single entity.

SOURCES: PICC, *Report of the General Manager,* September 1980; *Ta Kung Pao,* August 18, 1980; *Economic Reporter,* August 1980; and Xinhua news agency, various dates.

Chart prepared by Jim Stepanek.

percent of the funds raised by the tax goes into a general labor insurance fund, Chubb analysts report, and 70 percent goes into a local labor insurance fund.

Exhibitions. PICC's exhibition liability insurance form insures foreign equipment and goods on display in the PRC.

Insuring Offshore Oil Exploration

US oil companies wanting to take part in the development of China's continental shelf must obtain PICC coverage, an oil company attorney told the *CBR* in January. PICC writes towage, operation, and third-party liability risk insurance for oil-drilling rigs; these risks are reportedly reinsured in overseas markets.

PICC now underwrites:

- drilling rigs, platforms, and drilling ships;
- workshops, supply ships, and aircraft;
- seepage, pollution, contamination, and clean-up expenses;
- redrilling expenses; and
- offshore personal accidents.

As China's offshore oil resources are developed, "PICC will undertake insurance for offshore construction, oilfield production, storage, and transport facilities," Li Xuekong claims. The British Petroleum Company, Ltd., has reportedly applied for PICC coverage of its drilling operations at two stratigraphic data wells in the southern part of the Yellow Sea. In late 1980, Continental's subsidiary, the Marine Office of American Corporation (MOAC), held an offshore oil insurance seminar for top PICC officials and oil ministry planners.

PICC enjoys a monopoly only in the case of joint ventures; foreign insurance companies are free to compete for foreign business in other areas. Already US firms have begun to advertise their services in some areas where PICC's coverage is not comparable, like Loss of Foreign Royalties insurance, in which some companies offer a standard form contract to protect foreign parties in licensing agreements against the interruption of royalty payments.

US banks are also eager to take part in China's insurance opportunities. One of their most common insurance offerings is the standby letter of credit (standby L/C), which usually insures that a particular factory, mine, or engineering design is completed according to the contract terms. Standby L/Cs

are "payable on first demand," meaning that the bank will pay China, or whomever the obligee might be, without any questions. The bank conducts a credit analysis of the company undertaking the project, and calculates its risk, and charges accordingly.

Standby L/Cs differ from performance or surety bonds issued by insurance companies. A bid performance bond frequently covers a company's potential losses during international bidding. Advance-payment performance bonds, another common form, are available to buyers of projects. For example, if a US contractor in China wants a $1 million payment up front, China can pay the sum in advance, and then take out an advance-payment performance bond to protect itself in the event the project is not completed to satisfaction.

Performance bond premiums are generally 1 percent per year or less of the bond, while charges for a standby L/C are roughly one-half of 1 percent per year of the value of the guarantee. The difference in rates is due mainly to the greater potential involvement of an insurance company in a project. Unlike a standby L/C, a performance bond may oblige an insurance company to oversee or complete a project that it insures.

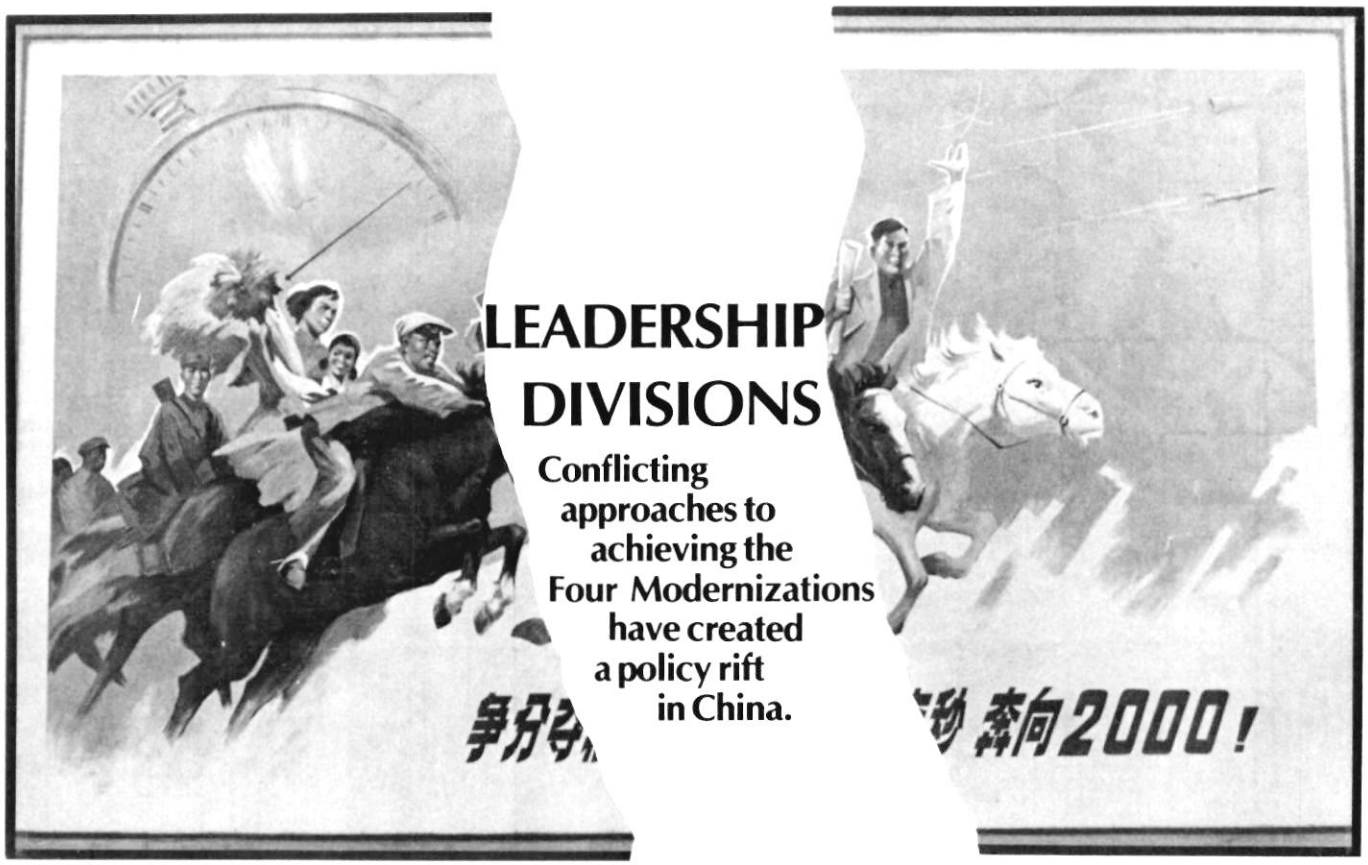
PICC's Domestic Operations

The decision to restore China's domestic insurance industry apparently was taken in November 1979 at a national insurance conference in Beijing. According to PICC's 1980 *Report of the General Manager*, it was resolved that "the resumption of the domestic [insurance] business would be carried out step-by-step throughout the country and from January 1, 1980."

At about that time a joint communiqué, issued by the People's Bank of China, State Planning Commission, State Capital Construction Commission, Ministry of Finance, Ministry of Foreign Trade, and General Administration of Exchange Control, ordered *all* factories importing "whole-set equipment to apply to PICC for transportation, construction, and installation insurance (according to a November 28, 1979, Xinhua bulletin).

By early 1980 PICC had reestablished branches in 120 Chinese cities. It also promised that by January 1981 branches would be established in all provinces, municipalities, and autonomous regions, except Tibet. PICC reportedly has issued a "national unified standard" of rates for all these areas, but permits local branches to set their own rates within a 20 percent range.

Despite these advances, domestic coverage for Chinese factories and average citizens is still incomplete. A recent *Economic Management* article by PICC Deputy General Manager Zhang Chongfu reports that China's crops, livestock, and the vast majority of its state enterprises are not insured. (Since then *ad hoc* exceptions have been made for state enterprises engaged in foreign trade.) Personal property insurance and life insurance policies are unheard of. Coverage in all these areas was available before 1958, the year marking the start of the Great Leap Forward. But at that time the Chinese government decided that insurance in a socialist state is superfluous—an idea, like so many others, that is changing today. 完



LEADERSHIP DIVISIONS

Conflicting approaches to achieving the Four Modernizations have created a policy rift in China.

Christopher M. Clarke

The monumental problems facing China today in some ways resemble those that confronted the People's Republic in its infancy: establishing the legitimacy of the regime based on performance; appealing to an alienated intellectual class; dealing with stagnant economic growth; raising a very low standard of living; providing adequate domestic energy resources; and creating an orderly transition of leadership. The latter problem is exacerbated by the fact that China must replace an entire generation of leaders, veterans who have led China for 30 years or more. Because the problems are so complicated, the Chinese leadership disagree over how to solve them. And because the problems are so pressing, this disagreement has recently become more strident and open.

The Issues

China's top leadership since 1977 has been composed of a number of loose groupings. These "factions" had worked out a *modus vivendi* until late 1980. Then it became clear that opposition to the policies of Deng Xiaoping and his protégés was paralyzing the government. As a result, many observers believe Deng set out to dismantle the opposition. This was partly achieved at the September 1980 National People's Congress (*see CBR*, Nov.–Dec., 1980, pp. 33–35), and continued in December 1980 and January 1981 with Deng's most drastic step—the attempt to force the resignation of Hua Guofeng from his positions as Communist Party chairman and chairman of the Central Committee's Military Affairs Commission. Deng's protégé Hu Yaobang is favored to take over the former position, while Deng himself has taken over the latter post temporarily.

The major split in the leadership occurred over the most effective way to achieve China's "four modernizations." In the last six months a public debate-by-proxy has surfaced in the Chinese press over the correct interpretation of the regime's avowed policy of "readjustment, restructuring, consolidation, and improvement." Basically this slogan embraces two strategies for development, which, while not mutually exclusive, do contain contradictions.

One strategy, labeled with the code word "readjustment," favors the status quo in terms of China's economic institutions, but sees a need to deemphasize heavy industry and costly, grandiose projects in favor of the traditionally neglected sectors, such as agriculture, and light and consumer goods industries. The other slogan, "restructuring," calls for radical changes in China's economy, casting it in a Yugoslav mold. This would be achieved mainly by transferring considerable economic authority from central government ministries to profit-and-loss oriented corporations. Dis-

agreement within the leadership centers around which of these strategies should take precedence, and to what extent and on what timetable.

The "Decentralizers"

One influential segment of China's leadership is most strongly represented in the Chinese Academy of Social Sciences. Its most vocal spokesman has been Academy Director Xue Muqiao. As early as the 1950s, Xue was advocating a more "market-like" approach for China, in which the number of centrally planned targets would be drastically reduced, local and enterprise autonomy increased, managers' responsibility and authority strengthened, and the profit motive emphasized. Some extreme proponents of this point of view, both in the 1950s and now, have questioned the leading role of the Communist Party in society and the economy.

Throughout 1979 and 1980, Xue Muqiao was vocal in advocating a radical restructuring of China's economic system. Similarly, Deng Xiaoping and his protégés, Premier Zhao Ziyang and Party Secretary General Hu Yaobang, have favored a program of rapid "restructuring." Their concerted effort has been to root out opponents of decentralization within the central bureaucracy. As a result, a large number of central bureaucrats have been publicly humiliated while Sichuan Province, where Premier Zhao made his reputation by quasi-capitalist policies, has been held up as a model. Deng, Zhao, and Hu, however, have emphasized the need for continued policy guidance and political supremacy on the part of the Communist Party, even while stressing the need to divorce it from improper interference in economic and administrative affairs.

This pressure for decentralization has led to several policy changes. As the *China Business Review* reported in its November–December 1980 issue, Li Kaixin, director of the State Bureau of Supplies, revealed that the number of centrally controlled commodities is to be reduced from 256 to fewer than 68. Similarly, the proliferation of new ministerial trading corporations means that the old FTCs under the Ministry of Foreign Trade each will have exclusive control over a vastly reduced number of items.

For example, the head office of the China National Metals and Minerals Import and Export Corporation (MINMETALS) will now monopolize only three commodities (tin, tungsten, and antimony). It will share control over some four more with the new China Metallurgical Import and Export Corporation (under the Ministry of Metallurgical Industry). Moreover, the appearance of provincial import-export corporations and special economic zones further advances the "restructuring" of the economy.

Leftist Remnants

A second segment of the Chinese leadership has resisted decentralization of authority. Over the past two years, the most vocal and vulnerable opponents of "restructuring" have, with one exception, been purged. Deng Xiaoping's campaign against the "whatever" faction ("whatever Mao said must be done, and whatever Mao didn't say must not be done") resulted in the removal of the "little gang of four" (Wang Dongxing, Wu De, Ji Dengkui, and Chen Xilian) in early 1980, and of Chen Yonggui, the leadership's token model peasant, later in the year. Deng's drive against his opposition has culminated in an open attack on the position of Party Chairman Hua Guofeng, who reportedly opposes Deng's centralization plans.

At stake is the Soviet-style central planning apparatus that still runs China's economy. One faction wants to keep the system. Another group blames it for 30 years of accumulated imbalances that plague China's economy.

Chen Yun: The Middle Ground

A third part of the leadership takes a moderate position. This group's apparent leader is Party vice-chairman and long-time economic planner Chen Yun. While in favor of a degree of decentralization, Chen is understood to believe that China's primary need is to emphasize investment in, and encouragement of, agricultural and consumer goods production. The key to Chen's thinking is balance, and that nationwide balance can only be accomplished by planning.

His argument appeared in detail in the December 30, 1980, *People's Daily*. Written by a "special commentator," the article singled out "decentralization and unrealistic management" as the chief causes of China's currently chaotic situation in capital construction. Extensively quoting Chen Yun's statements and positions from the 1950s, the author concluded that the "way out at present is to tightly grasp readjustment and stabilize the economy." He went on to say that "under socialist conditions, it is always necessary to achieve a high degree of centralization in capital construction. . . . During the period of economic readjustment, it is even more necessary to achieve a high degree of centralization in capital construction."

During the 1950s, Chen Yun used the Ministry of Commerce, which he headed, as a means for coordinating economic planning by regulating all inter-enterprise contracts. The current thinking of Chen and his followers seems to be that the central banking system—along with the State Council commissions—must take the major responsibility for such control in the 1980s. The same *People's Daily* article singled out the multiplicity of sources for construction funds as a major cause of waste, duplication, and "blind investment." This article and a number of others seem to be creating something of a "cult" around Chen Yun, presenting him as a counterweight to the policies and personalities of Deng Xiaoping, Zhao Ziyang, and Hu Yaobang.

Veteran Bureaucrats Defend Their Turf

Probably even more reluctant than Chen Yun to see the central bureaucracy gutted are veteran administrators like Li Xiannian, Ye Jianying, and Yü Qiuli. Yü, for example, is associated with the petrochemical sector's resistance to cutting back on capital construction projects; he has reportedly clashed with Deng Xiaoping on this and other issues. In recent months, there has been a series of attacks directed at the bureaucrats in charge of the heavy industry, capital construction, and energy sectors. The censure intensified in September 1980 when Metallurgy Minister Tang Ke was criticized for his handling of the construction of the Baoshan iron and steel plant. Then in December the Wuhan iron and steel plant was singled out in *People's Daily*, which hammered away at the fact that $1 billion was being spent on the plant, and yet no provision had

been made for the electricity or raw materials necessary to keep it operating at full capacity. These problems are not unique to Wuhan.

The petrochemical industry has also faced criticism. In addition to the humiliation of Vice-Premier Kang Shien in September (*see CBR*, Nov.–Dec., 1980, p. 33), two vice-ministers of the chemical industry were recently fired for fraud and corruption, and the Beijing Municipal Bureau for Chemical Industry was criticized for ignoring central directives. The combination of attacks on heavy industry, capital construction, the energy industry, and on the central bureaucracy as a whole, have clearly alienated and worried a number of powerful Chinese leaders.

The Military

Also suffering is a fifth major division of China's leadership: the military. Though the People's Liberation Army was instrumental in achieving the reelevation of Deng Xiaoping in 1977, since then it repeatedly has felt frustration and disappointment. No longer is the PLA held up as a model for all Chinese to follow, or as an attractive career for promising young men and women.

Recent public revelations of corruption and illegality at the PLA's very highest levels, and the linking of the trial of the "Lin Biao clique" of generals with the trial of the "gang of four," have seriously tarnished the military's public image.

These events followed the army's poor showing in the 1979 invasion of Vietnam, and in budgetary cutbacks over the last several years. As China attempts to balance its budget and to curb inflation, the military allocations have been reduced—reportedly from $14.8 billion to $12.8 billion.

There are signs that the military is also dissatisfied with the direction of current social and economic policies. The emphasis on a semicapitalist system of agriculture, for example, threatens the heritage of the PLA's halcyon years when it guided land reform, redistribution, and social equalization. For many of the old military commanders, this heritage, and the atmosphere of rural optimism and cooperation surrounding it, represent one of the two main reasons for the Communist Party's success in China's 20th-century revolution.

The second reason was of course, the Party's sponsorship of anti-imperialism. Certainly there exist military leaders who are less than completely happy with China's increasing economic and political intercourse with the West, and who would favor an easing of Sino-Soviet tensions.

Perhaps most immediately, however, current policies directly threaten the privileged position of military families, PLA veterans, and relatives of wounded or deceased soldiers and sailors. Demobilized veterans often found both employment and prestige as rural agricultural or political cadres. Under the new system, these positions have either been phased out or their power drastically curtailed. Likewise families of active-duty or deceased military men formerly were awarded extra work points and benefits to compensate for the loss of family work-power. These families now must fend for themselves. All these factors reduce the PLA's ability to replace demobilized troops with high-quality recruits.

The military is clearly dissatisfied with its diminished share of the budget, and with the deemphasis on industries from which it derives its armaments. The Vietnam invasion graphically demonstrated the antiquated nature of much of China's equipment, and especially of its transportation and command and control systems. These are expensive items to modernize, and PLA leaders feel insufficient effort is being devoted to the task.

In addition, many old commanders find themselves distressed at how slowly their comrades, who were purged both during the Cultural Revolution and after Lin Biao's 1971 attempted coup, are being rehabilitated. This sort of military dissatisfaction has been hinted at in the press in several ways. First, a number of articles praising the late Marshal Peng Dehuai appeared. Peng, who ran afoul of Mao after the Great Leap, was an outspoken proponent of a professional and well-equipped military establishment. Second, the Party's political authorities published several articles calling on military cadres to study the Party's policies. They pointedly reminded the army that while "political power grows out of the barrel of a gun," the Party must always command the gun. It is significant that the Party chose to publish some of these warnings in the PLA's own newspaper, *Liberation Army News*.

The abandonment of the Maoist legacy and the rehabilitation of people like Liu Shaoqi and the "rightists" condemned in 1957 after the Hundred Flowers campaign has also raised concern within the military leadership. Marshal Ye Jianying, China's senior statesman, is said to be especially concerned about the destabilizing political and social effect of the open repudiation of Chairman Mao. Military dissatisfaction has also reportedly blocked the retirement of the aged and infirm Marshal Xu Xiangqian as minister of defense, because the leadership cannot agree on a compromise replacement. Indicative of the level of disaffection within the army is the rumor that PLA representatives to the Fifth National People's Congress in September 1980 stormed out of the meeting at which it was decided to try the "Lin Biao clique" generals along with the "gang of four" civilian political offenders. This dissension, and the concern about the political reliability of the PLA with Hua Guofeng as its titular head, were among the reasons compelling Deng Xiaoping to take on the responsibility of chairing the Military Affairs Commission. This must have been embarrassing for Deng, who relinquished the post of PLA chief of staff only a year ago, ostensibly because of his confidence in the army and its leadership.

In an attempt both to modernize China's military thinking and to bring under control resistance within the PLA's leadership, Deng has simultaneously initiated a massive turnover of personnel at the top and bottom of the army. The regime is in the process

The "energy clique" held its own at the early March National People's Congress Standing Committee meeting. But one leading member, Kang Shien—chairman of the powerful State Economic Commission—was demoted to minister of petroleum.

of replacing as many as half of its 4.5 million troops. Some 280,000 already may have been demobilized. The government is seeking younger, better-educated replacements, but is apparently encountering difficulties in attracting such people in competition with other increasingly available and attractive career opportunities in the universities and in industry.

The Communist Party's announcement that it intends to reassess the membership of that half of the 38 million Party members who joined since the Cultural Revolution obviously threatens the entire lower- and mid-level leadership of the PLA. Many members recruited then are tainted by their association with Cultural Revolution leftists. In addition to this massive shake-up of the lower and middle echelons of the PLA enlisted and officers corps, Deng has also forcefully pushed for the retirement of aged senior military leaders. In the meantime, he has kept them off-balance by means of large-scale transfers of military commanders over the past several years.

Youth: The "Lost Generation"

Another alienated element with potential for social disruption is the generation of some 13 million youths "sent down" to the countryside after 1968. These people represent a lost generation who never completed their education and who now face a bleak future of unemployment or employment in unprestigious, unpleasant jobs. Most of these youths have returned to the cities from the countryside. Some are finding employment in private or small-scale cooperative service and manufacturing occupations. But many resent having lost their opportunity for higher education and upward socioeconomic mobility.

The Chinese press has recently carried a number of articles on organized illegal activities like smuggling, kidnapping, prostitution, drug use, and secret society (organized crime) activities. Urban China is experiencing the "teddy boy" and street gang phenomena common to the West in the 1960s. Returned "sent down" youth and disaffected teenagers are the core of this problem. State Labor Bureau Director Kang Yonghe, in an interview in *China Reconstructs* in February 1981, confessed his frustration with having to find jobs for returned youth at the same time that some 5 million new workers enter the labor market each year. The seriousness of the problem is revealed in the fact that the State Council maintains an office devoted to solving the problem of rusticated and educated youth, headed by the Party's propaganda director and former vice-premier, Wang Renzhong.

Thus, as China prepares its five-year plan and attempts to consolidate a leadership to assume the mantle from the Long March generation, sharp divisions among the rulers remain. The policies espoused by Deng Xiaoping appeal to a segment of China's elite, including much of the provincial and local leadership, scientists and intellectuals, and many peasants. At the same time, however, these policies have alienated a large and influential portion in China. Much of the military leadership, threatened central government bureaucrats (the newest half of the Party's membership), displaced rural cadres, and peasants not favored by the current policies, all remain dissatisfied. It remains to be seen if these elements can rally around a figurehead like Hua Guofeng, and cast Deng's policies aside. Such presentiments undoubtedly explain Deng Xiaoping's determination to prevent Hua from becoming such a rallying point. 完

China's Activities in the IMF and World Bank

Karen Berney and Dori Jones

In the year since the People's Republic of China assumed the China seat at the International Monetary Fund (IMF) and the World Bank, Beijing has provided, on a confidential basis, an unprecedented wealth of financial and economic data to both international organizations, and has made its first drawing on the IMF.

Making the Most of the IMF

Beijing formally took over China's membership in the IMF from Taiwan on April 17, 1980. A few months later, on September 11, the IMF's board of governors raised China's quota from 550 million to 1,200 million SDRs (special drawing rights), an increase from $700 million to $1,500 million. With this quota, China became the eighth-largest member of the Fund, larger than India but smaller than Italy. It held 3.02 percent of the total quotas and 2.83 percent of the voting power in the IMF.

China's quota was further increased to 1.8 billion SDRs when an across-the-board 50 percent quota increase was approved in late December 1980. Its share of total quotas remained roughly the same, while its voting power rose to 2.89 percent of the total.

An extra seat on the IMF's executive board was created for China so that China could be represented without diminishing the power of other countries. China's executive director, Zhang Zicun, and alternate executive director, Dai Qianding, now have offices at IMF headquarters at 1700 19th St., NW, in Washington, DC.

As another step in the process of becoming a full member of the IMF, the Beijing government welcomed an IMF survey team to China in November and provided previously unrevealed information on China's reserve position and balance of payments. IMF officials returned in February to hold discussions with the State Statistical Bureau on the possibility of publishing Chinese data in the IMF monthly, *International Financial Statistics*.

In November the Chinese made their first IMF drawing, amounting to 218.1 million SDRs (about $278 million) and nearly emptied their reserve tranche. In the IMF, a country's reserve tranche is equivalent to 25 percent of its quota and is payable in SDRs. Thus, with a quota of 1.2 billion SDRs, China's reserve tranche drawing would normally have been 300 million SDRs. However, in line with a previous IMF ruling, Beijing had been permitted to pay only half the amount in reserve currency it normally would have owed for the September increase in its quota. IMF member countries are automatically allowed to draw their reserve tranche to cover any balance-of-payments difficulties, with no conditions attached.

On March 3 the IMF approved a borrowing arrangement under which China will draw down the 450 million SDRs ($550 million) on its first credit tranche over the next 12 months. For this loan, repayable over three to five years at an annual interest charge ranging from 4⅜ to 6⅞ percent, China informed the Fund of economic measures it is adopting to rectify its balance-of-payments problems. China is also planning to borrow about 300 million SDRs (about $380 million) from the IMF's trust fund, created from profits of gold sales; this drawing would have conditions similar to those imposed on first credit tranche drawings.

World Bank: Three Loans Under Preparation

The PRC's activities in the World Bank, which it joined May 15, 1980, are still at a preliminary stage. Its share of the World Bank's capital stock was

First Three World Bank Projects

Project	Lender/Amount	Implementing Agency	Status
Technical assistance, scientific equipment, and computers to improve quality of education and research in sciences and engineering at 26 Chinese universities. Project will also strengthen university management systems for handling investment funds.	IDA $250–$350 million	Ministry of Education	Appraisal report and invitation to bid on equipment being prepared. Four Chinese teams have visited potential suppliers.
Irrigation and drainage facilities for 325,000 hectares of farmland in North China plain. Project also involves rural credit program, and other agricultural support services.	Lender to be determined	Ministry of Agriculture	Project specifications being prepared by China.
Modernization of existing ports to facilitate bulk cargo and container traffic.	Lender to be determined $235 million (estimate)	Ministry of Communications	Project specifications being prepared by China

SOURCE: *Development Forum*, March 17, 1981.

raised from 7,500 shares (formerly held by Taiwan) to 12,000 shares, or 3.86 percent of the total. China's voting power is now 12,250 votes, or 3.55 percent of the total. It stands as the sixth-largest member of the Bank, below Japan and above India.

The PRC was also given a seat on the Bank's executive board, which increased from 20 to 21 members to accommodate China. China's executive director, Wang Liansheng, and alternate executive director, Chen Hui, are now working at the World Bank headquarters at 1818 H St., NW, in Washington, DC.

In the summer and fall of 1980 the Bank sent a series of delegations to China to investigate the Chinese economy in preparation for writing a major 600-page economic report with numerous statistical appendices, which will be presented to the Bank's board of directors in June 1981. The report identifies and analyzes five priority sectors, and will serve as the data base for formulating current and future World Bank projects in the areas of human resources (education, health, and population), agriculture, transportation, energy, and industry.

The time elapsed between the start of a country economic report and project identification averages almost two years. But Beijing is quite eager to get its hands on Bank loans, especially from the World Bank's affiliate, the International Development Association (IDA), whose interest-free credits, repayable over a 50-year period, are designed for countries with annual per capita GNP under $680 (in 1979 US$). In an effort to speed up the Bank's initial lending operations, Beijing presented a list of 19 potential projects in July 1980. It was tentatively agreed to begin work on six of these, and three have progressed to the stage of being listed in a monthly summary of future Bank projects published in the March 17 edition of *Development Forum*.

The three loans under consideration, exceeding $500 million, are for projects in education, agricultural land improvement, and port modernization (*see chart*). By December, the education project—possibly the most advanced of the three—was ready to enter the appraisal stage. A delegation of education projects experts visited each of the 26 participating universities to review the technical, institutional, and financial aspects of the project. The ensuing appraisal report will provide the framework for negotiating the terms and conditions of the loan.

After negotiations the appraisal report, together with the loan documents, will be presented to the Bank's executive directors for approval, probably in June. A simple loan-signing ceremony will follow, marking the opening of Bank-funded projects in China.

The next step is the publication of an invitation to bid on the necessary equipment in *Development Forum* and major foreign newspapers. Interested companies generally have about 60 days to submit a standard bid document. The contract is usually awarded to the bidder with the lowest evaluated cost.

The other two projects are scheduled for appraisal in the coming months, and will provide the basis for further loans during the Bank's fiscal year ending June 1982.

The scale of eventual World Bank–lending to China is still unknown, but some reports have speculated that the Bank may offer as much as $10 billion over the next five years. China's participation in the Bank is bound to be extensive, due to a decision reportedly made at a high-level Chinese Communist Party conference in late December to limit China's foreign borrowing mainly to development agencies like the World Bank that lend at concessionary interest rates. 完

New Regulations

法 FOREIGN EXCHANGE

China's provisional exchange-control regulations, announced December 18, took effect March 1, 1981. They are devised to shore up central government control over foreign exchange and to stop abuses by Chinese domestic organizations.

Although foreign exchange was supposedly controlled by the state plan, the regulations reveal many ways in which organizations had gained control over foreign exchange for their private use as their financial contacts with the outside proliferated. These included: maintaining undeclared foreign exchange accounts abroad; acquiring money from Chinese organs stationed abroad (particularly in Hong Kong) or depositing money with them; retaining a percentage of export proceeds; accepting loans from Hong Kong, Macao, or foreign countries; obtaining foreign exchange for delegations traveling abroad. A December 30 *People's Daily* editorial admitted that a black market in foreign exchange has developed.

The new regulations make all these activities illegal. Henceforth all foreign exchange must be deposited with the Bank of China, including foreign investments in joint equity ventures and other Chinese enterprises, profits of Chinese organizations abroad, and foreign exchange retained by exporting enterprises. An organization formed in 1979 called the State General Administration of Exchange Control (SGAEC) is being made responsible for supervising all foreign exchange allotments.

Many of the new restrictions had been in effect previously, at least in theory. The key to making them work undoubtedly will be the enforcement powers of the SGAEC, which were not specified. A February State Council circular exhorting domestic organizations to repatriate all foreign exchange held abroad suggests that the regulations were not being universally heeded at the outset.

Foreigners are affected by the regulations in certain contexts. Employees of Chinese enterprises have to work out remitting foreign exchange abroad on a case-by-case basis, and enterprises using foreign investment capital must apply with the Bank of China to remit profits abroad. No more than 50 percent of the after-tax wages of foreign employees of such enterprises can be remitted. —MW

Provisional Regulations for Exchange Control of the People's Republic of China

Promulgated by the State Council on December 18, 1980.

Chapter One: General Provisions

Article 1. These provisional regulations are formulated for the purpose of strengthening exchange control, increasing national foreign exchange income, and economizing on foreign exchange expenditure so as to expedite the national economic growth and safeguard the rights and interests of the country.

All foreign exchange income and expenditure, the issuance and circulation of all kinds of payment instruments in foreign currency, dispatch and carriage into and out of the People's Republic of China of foreign exchange, precious metals and payment instruments in foreign currency, shall be governed by these regulations.

Article 2. Foreign exchange herein mentioned refers to:

a. foreign currencies, including banknotes, coins, etc.;

b. securities in foreign currency, including government bonds, treasury bills, corporate bonds and debentures, shares, interest and dividend coupons, etc.;

c. instruments payable in foreign currency, including bills, drafts, checks, bank deposit certificates, postal savings certificates, etc.;

d. other foreign exchange funds.

Article 3. The People's Republic of China pursues the policy of centralized control and unified management of foreign exchange by the state. The administrative organ in charge of exchange control of the People's Republic of China is the State General Administration of Exchange Control (SGAEC) and its branch offices. The specialized foreign exchange bank of the People's Republic of China is the Bank of China. No other financial institution shall engage in foreign exchange business, unless approved by the SGAEC.

Article 4. All Chinese and foreign organizations and individuals in the People's Republic of China must, unless otherwise stipulated by law or decree or in these regulations, sell their foreign exchange proceeds to the Bank of China. Any foreign exchange required is to be sold to them by the Bank of China in accordance with the quota approved by the state or with relevant regulations.

The circulation, use, and mortgage of foreign currency in the People's Republic of China are prohibited. Unauthorized sales and purchases of foreign exchange and unlawfully seizing possession of foreign exchange in whatever ways and by whatever means are prohibited.

Chapter Two: Exchange Control Relating to State Organizations and Collective Economic Units

Article 5. Foreign exchange income and expenditure of state organs, armed forces units, nongovernmental bodies, educational institutions, state enterprises, government establishments, and urban and rural collective economic units in China (hereinafter referred to as domestic organizations) are all subject to control according to plan.

Domestic organizations are permitted to retain a proportion of their foreign exchange receipts in accordance with relevant regulations.

Article 6. Unless approved by the SGAEC or its branch offices, domestic organizations shall not:

Possess foreign exchange; deposit foreign exchange abroad; offset foreign exchange expenditure against foreign exchange income; or use the foreign exchange belonging to state organs stationed abroad or Chinese enterprises and establishments resident in foreign countries or in the Hong Kong and Macao regions, by way of borrowing or acquisition.

Article 7. Unless approved by the State Council, domestic organizations shall not issue securities with foreign exchange value inside or outside China.

Article 8. Departments under the State Council and people's governments of various provinces, municipalities, and autonomous regions, shall compile annual overall plans for domestic organizations under their respective jurisdiction whereby loans may be accepted from banks or enterprises in foreign countries or in the Hong Kong and Macao regions. These plans shall be submitted to the SGAEC and the Foreign Investment Control Commission for examination and forwarding to the State Council for approval. The procedure for examining and approving individual borrowings shall be prescribed separately.

Article 9. The portion of foreign exchange retained by domestic organizations, nontrade foreign exchange and foreign exchange under compensatory trade received in ad-

vance for later payments, funds borrowed in convertible foreign currency, and other foreign exchange held with the approval of the SGAEC or its branch offices, must be placed in foreign currency deposit accounts or foreign currency quota accounts to be opened with the Bank of China, and must be used within the prescribed scope and be subject to the supervision of the Bank of China.

Article 10. When domestic organizations import or export goods, the banks handling the transactions shall check their foreign exchange receipts and payments either against the import or export licenses duly verified by the customs or against the customs declaration forms for imports or exports.

Article 11. State organs stationed abroad must use foreign exchange according to the plan approved by the state.

The operating profits of enterprises and establishments in foreign countries or in the Hong Kong and Macao regions must, except the portion kept locally as working funds according to the plan approved by the state, be transferred back on scheduled time and be sold to the Bank of China.

No Chinese organization stationed abroad is permitted to keep foreign exchange for domestic organizations without authorization.

Article 12. Delegations and work-groups sent temporarily to foreign countries or to the Hong Kong and Macao regions must use foreign exchange according to their respective specific plans, and must, upon their return, promptly transfer back to China their surplus foreign exchange to be checked by and sold to the Bank of China. Foreign exchange earned in their various business activities by the delegations and work-groups referred to in the above paragraph and by members thereof, must be promptly transferred back to China and must not be kept abroad without the approval of the SGAEC or its branch offices.

Chapter Three: Exchange Control Relating to Individuals

Article 13. Foreign exchange remitted from foreign countries or from the Hong Kong and Macao regions to Chinese or foreign nationals or stateless persons residing in China, must be sold to the Bank of China, except the portion retained as permitted by the state.

Article 14. Chinese and foreign nationals and stateless persons residing in China are permitted to keep in their own possession foreign exchange already in China.

The foreign exchange referred to in the above paragraph shall not, without authorization, be carried or sent out of China either in person or by others or by post. If the owners wish to sell the foreign exchange, they must sell it to the Bank of China and are permitted to retain a portion thereof as convertible foreign currency according to the percentage prescribed by the state.

Article 15. When foreign exchange that has been kept in foreign countries or in the Hong Kong and Macao regions by Chinese residents in China prior to the founding of the People's Republic of China, by Overseas Chinese prior to their returning to and settling down in China, by Hong Kong and Macao compatriots prior to their returning to and settling down in their home places, is transferred to China, the owners are permitted to retain a portion thereof as convertible foreign currency according to the percentage prescribed by the state.

Article 16. When foreign exchange belonging personally to individuals sent to work or study in foreign countries or in the Hong Kong and Macao regions is remitted or brought back to China, the owners returning after completion of their missions are permitted to retain the entire amount as convertible foreign currency.

Article 17. The percentages of foreign exchange retention permitted under articles 13, 14, and 15 of these regulations shall be prescribed separately.

Foreign exchange retained by individuals as permitted under articles 13, 14, 15, and 16 of these regulations must be deposited with the Bank of China. These foreign exchange deposits may be sold to the Bank of China or remitted out of China through the Bank of China, or taken out of China against certification by the Bank of China. It is however, not permitted, without authorization, to carry or send deposit certificates out of China either in person or by others or by post.

Article 18. Foreign exchange remitted or brought into China from foreign countries or from the Hong Kong and Macao regions by foreign nationals coming to China, by Overseas Chinese and Hong Kong and Macao compatriots returning for a short stay, by foreign experts, technicians, staff members and workers engaged to work in domestic organizations, and by foreign students and trainees, may be kept in their own possession, or sold to or deposited with the Bank of China, or remitted or taken out of China.

Article 19. Chinese and foreign nationals and stateless persons residing in China may apply to the local branch offices of the SGAEC for the purchase of foreign exchange to be remitted or taken out of China. When approved, the required foreign exchange will be sold to the applicants by the Bank of China.

When foreign experts, technicians, staff members, and workers engaged to work in domestic organizations, require foreign exchange to be remitted or taken out of China, the Bank of China will deal with their applications in accordance with the stipulations in the contracts or agreements.

Chapter Four: Exchange Control Relating to Foreign Representations in China and Their Personnel

Article 20. Foreign exchange remitted or brought into China from foreign countries or from the Hong Kong and Macao regions by foreign diplomatic missions, consulates, official commercial offices, offices of international organizations and non-governmental bodies resident in China, diplomatic officials and consuls as well as members of the permanent staff of the above units, may be kept in their own possession, or sold to or deposited with the Bank of China, or remitted or taken out of China.

Article 21. The conversion into foreign currency, if required, of visa and certification fees received in Renminbi from Chinese citizens by foreign diplomatic missions and consulates in China, is subject to approval by the SGAEC or its branch offices.

Chapter Five: Exchange Control Relating to Enterprises with Overseas Chinese Capital, Enterprises With Foreign Capital, and Chinese and Foreign Joint Ventures and Their Personnel

Article 22. All foreign exchange receipts of enterprises with Overseas Chinese capital, enterprises with foreign capital and Chinese and foreign joint ventures, must be deposited with the Bank of China, and all their foreign exchange disbursements must be paid from their foreign exchange deposit accounts.

The enterprises referred to in the above paragraph must submit periodic reports and statements of their foreign exchange business to the SGAEC or its branch offices, all of which are empowered to inspect their activities in respect to their foreign exchange receipts and payments.

Article 23. Except where otherwise approved by the SGAEC or its branch offices, Renminbi should in all cases be used in the settlement of accounts between enterprises with Overseas Chinese capital, enterprises with foreign capital, Chinese and foreign joint ventures, and other enterprises and individuals residing in the People's Republic of China.

Article 24. Enterprises with Overseas Chinese capital, enterprises with foreign capital and foreign partners in Chinese and foreign joint ventures may apply to the Bank of China for remitting abroad their net profits after tax as well as other legitimate earnings by debiting the foreign exchange deposit accounts of the enterprises concerned.

The enterprises and foreign partners referred to in the above paragraph should apply to the SGAEC or its branch offices for transferring foreign exchange capital abroad by debiting the foreign exchange deposit accounts of the enterprises concerned.

Article 25. An amount not exceeding 50 percent of their net wages and other legitimate earnings after tax may be remitted or taken out of China in foreign currency by staff members and workers of foreign nationality and by those from the Hong Kong and Macao regions employed by enterprises with Overseas Chinese capital, enterprises with foreign capital, and Chinese and foreign joint ventures.

Article 26. Enterprises with Overseas Chinese capital, enterprises with foreign capital, and Chinese and foreign joint ventures which wind up operations in accordance with legal procedure, should be responsible for the liquidation within the scheduled period of their outstanding liabilities and taxes due in China, under the joint supervision of the relevant departments in charge and the SGAEC or its branch offices.

Chapter Six: Control Relating to Carrying Foreign Exchange Precious Metals and Payment Instruments in Foreign Currency Into and Out of China

Article 27. No restriction as to the amount is imposed on the carrying into China of foreign exchange, precious metals and objects made from them; but declaration to the customs is required at the place of entry. To carry foreign exchange out of China or to carry out of China the foreign exchange previously brought in shall be permitted by the customs against certification by the Bank of China or against the original declaration form at the time of entry.

To carry out of China precious metals and objects made from them or to carry out of China precious metals and objects made from them previously brought in shall be permitted by the customs according to the specific circumstances as prescribed by government regulations or against the original declaration form at the time of entry.

Article 28. Renminbi traveler's cheques, traveler's letters of credit, and other Renminbi payment instruments convertible to foreign currency may be brought into China against declaration to the customs, and taken out of China against certification by the Bank of China or against the original declaration form at the time of entry.

Article 29. Unless otherwise approved by the SGAEC or its branch offices, the carrying or sending out of China either in person or by others or by post of the following documents and securities held by Chinese residing in China is not permitted: bonds, debentures, share certificates issued abroad, title deeds for real estate abroad, documents or deeds necessary in dealing with creditor's right or owner's right to possession regarding inheritance, real estate, and other foreign exchange assets abroad.

Article 30. The carrying or sending out of China of Renminbi checks, drafts, passbooks, deposit certificates, and other Renminbi instruments held by Chinese or foreign nations or stateless persons residing in China, is not permitted either in person or by others or by post.

Chapter Seven: Supplementary Provisions

Article 31. All units and individuals have the right to report any violation of these regulations. Reward shall be given to such units or individuals according to the merit of the report. Violators shall be penalized by the SGAEC, its branch offices, or by the departments of public security, or by the departments of Administration of Industry and Commerce, or by the customs. According to the seriousness of the offense, the penalties may take the form of compulsory exchange of the foreign currency for Renminbi, or fine or confiscation of the properties or both, or punishment by judicial authorities according to law.

Article 32. The exchange control regulations for special economic zones, for trade in border areas, and for personal dealings between inhabitants across the border shall be formulated by the people's governments of the provinces, municipalities, and autonomous regions concerned in the spirit of these regulations and in the light of specific local conditions, and shall be enforced upon the approval of the State Council.

Article 33. Detailed provisions for the enforcement of these regulations shall be formulated by the SGAEC.

Article 34. These regulations shall come into force on March 1, 1981.

法 RESIDENT OFFICES

The provisional regulations on foreign representative offices in China, promulgated on October 30, 1980, are designed to enable the Chinese government to closely monitor the approximately 100 foreign offices currently operating in Beijing, Shanghai, and other Chinese cities. Although the regulations, if interpreted literally, would impose many restrictions on company offices, they would also provide some benefits. Several US company representatives have been told informally that companies which successfully complete the three-step registration process prescribed by the regulations will be permitted one-year multiple reentry visas for one or two personnel.

As of early February the Chinese government had apparently not decided how to implement the regulations. Few (if any) American companies had received approval from the host organization to which they were told they must apply as the first step. (Companies who must receive approval from the Ministry of Foreign Trade made their initial application through a foreign trade corporation.)

The amount of the registration fee still has not been made public, although several companies were told informally that it might be in the neighborhood of several hundred dollars.

At least one US firm has been told it would be exempt from the supposedly compulsory registration because its office was involved in implementing an old contract in China rather than seeking new business. —MW

Provisional Regulations on the Control of Resident Representative Offices of Foreign Enterprises in China

Promulgated October 30, 1980

Article 1. To expand international economic exchange and trade, and control the resident representative offices of foreign companies, enterprises and other economic entities (herein referred to as foreign enterprises), these regulations are provided.

Article 2. Foreign enterprises that have a real need to set up resident representative offices in China must apply and go through registration procedures upon approval of their application.

No foreign enterprise shall engage in resident activities in China without prior approval and registration.

Article 3. When applying for setting up resident representative offices in China, foreign enterprises shall submit the following certificates and data:

1. letters of application signed by chairmen of the board of directors or by general managers of the foreign enterprises and containing the names of the resident representative offices, the responsible persons, the scope of business, the period of residence, and the location of the offices;
2. legal business certificates issued by the proper authorities of the countries or regions where the foreign enterprises are located;
3. credit certificates on the capital of the foreign enterprises issued by financial institutions having business transactions with the foreign enterprises;
4. power of attorneys issued by the foreign enterprises to the personnel of the resident representative offices and personnel résumés.

In addition to the certificates and data required under sections 1, 2, and 4 of Article 3, financial and insurance firms shall also submit their balance sheets and income statements as well as their organizational chapters and namelists of the board of directors.

Article 4. Foreign enterprises wishing to set up resident representative offices shall submit their applications to the following pertinent organs for approval:

1. trading and manufacturing firms and shipping agents shall

submit their applications to the PRC Ministry of Foreign Trade;
2. financial and insurance firms shall submit their applications to the People's Bank of China for approval;
3. maritime transportation firms and their agents shall submit their applications to the PRC Ministry of Communications;
4. air transportation firms shall submit their applications to the General Administration of Civil Aviation of China;
5. other foreign enterprises shall submit their applications to the responsible commissions, ministries, or bureaus of the PRC for approval depending on the nature of their business.

Article 5. Upon approval of their application for setting up resident representative offices, foreign enterprises shall, within 30 days from the date of approval, take the certificates of approval to the PRC General Administration of Industry and Commerce for registration. Registration certificates will be issued to the foreign enterprises after they fill out the registration forms and pay the registration fee. Foreign enterprises shall return the certificates of approval to the approving organs if they fail to register within the prescribed period.

Article 6. Upon approval of the applications for setting up resident representative offices in accordance with Article 4, personnel and their dependents of the representative offices shall take the certificates of approval to local public security organs to go through residence application procedures and to receive residence certificates.

Article 7. Resident representative offices wishing to change office names, responsible persons, business scope, period of residence, or location of offices shall submit their application to the original approving organs and, upon approval, take the certificates of approval to the PRC General Administration of Industry and Commerce together with a registration fee for change of registration. An application shall also be made with the local public security organ for change of residence certificates.

Article 8. Resident representative offices should present the registration certificate to and open an account with the Bank of China or banks designated by it according to the relevant regulations.

Article 9. Resident representative offices and their personnel should go through the procedures of tax-paying with local tax offices in accordance with China's taxation law and pay taxes accordingly.

Article 10. Resident representative offices and their personnel should fill out the custom declaration forms when importing necessary office equipment, daily necessities, and transportation means and should pay custom fees and unified industry and commerce taxes in accordance with regulations.
Imported cars and vessels should be registered with local public security organs so as to obtain licenses and plates, and license taxes for these cars and vessels should be paid to local tax offices.
The above-listed items should not be given away or sold. Applications should be made with the customs offices to obtain permits before giving them away or selling them. Imported items can only be sold to designated stores.

Article 11. Resident representative offices should rent buildings and employ workers through local foreign affairs units or other units designated by the Chinese Government.

Article 12. The PRC Government protects the legitimate rights and interests of resident representative offices and their personnel according to law and provides conveniences for their normal business activities.

Article 13. Resident representative offices are not allowed to set up their own transmitter-receiver facilities. They should apply with local telecommunications bureaus for use or lease of commercial telecommunications channels and facilities necessary for their businesses.

Article 14. Personnel of resident representative offices and their dependents should abide by Chinese laws, decrees, and related regulations in all their activities in China and in entry to and exit from Chinese territory.

Article 15. In case resident representative offices and their personnel violate these provisional regulations or commit other illegal activities, the Chinese organizations in charge have the right to conduct investigations and deal with them according to law.

Article 16. When the residential period of resident representative offices expires or when they cease business activities prior to the expiration date, they should inform the approving organizations in writing 30 days ahead of time and, after clearance of debts, taxes, and other related matters, deregister with the organizations that issued them registration certificates and submit the registration certificates for cancellation.
The parent foreign enterprises of resident representative offices remain responsible for any unfinished business of these offices.

Article 17. Resident representative officials that have already been granted permission to do business should present pertinent papers to the General Administration of Industry and Commerce within 30 days following the promulgation of the provisional regulations to conduct registration procedures.

Article 18. Matters not covered in the provisional regulations shall be dealt with according to related Chinese laws, decrees, and regulations.

Article 19. The provisional regulations apply to resident representatives of foreign enterprises in the same way they apply to resident representative offices.

Article 20. The provisional regulations take effect on the date of promulgation.

JOINT VENTURES

On December 14 the Ministry of Finance promulgated regulations on the implementation of the joint venture income tax law. Enforcement of these regulations is retroactive to the law's September 10 promulgation date. Much detail has been added to the law, which was published with commentary in the November–December 1980 issue of the *CBR*. Some important points remain unexplained, however, such as how joint ventures involving natural resources exploitation will be taxed.

The regulations provide considerable information on what constitutes taxable income and deductible expenses in industry, commerce, and services. Bonus, welfare, and expansion funds, as well as entertainment expenses greater than 0.3 percent of annual sales income are not exempt, but sales taxes and assets with a value of less than 500 yuan and a "short life" are included in deductible expenses.

Fixed-asset depreciation schedules (calculated according to historic prices) are specified for three broad categories of assets. There is also provision for amortization of "intangible assets," such as technical know-how and patent rights, and joint ventures are even allowed to amortize preincorporation expenses, although the amount in a given year cannot exceed 20 percent.

For purposes of calculating the permissible one-year tax holiday (*see CBR*, Nov.–Dec., 1980, p. 37), the "first year of profit" is defined as the first profitable year *after* initial operating losses are made up. Another incentive remains vague; local governments are given the power to reduce the local surtax in "special circumstances."

The regulations contain a new restriction regarding the amount of tax paid by a joint venture or its branches on income earned abroad to a foreign government, which can be credited against taxes owed to China. The amount cannot exceed that which would be assessed on the income at Chinese tax rates.

The regulations stipulate that auditing be done by "char-

tered public accountants in the PRC." As Owen Nee and Franklin Chu of Couddert Brothers point out, this seems to exclude participation by foreign accountants.

The sum of ¥5,000 is established as the maximum penalty for many kinds of offenses. Tax authorities must settle disputed assessments within three months' time. Since the Finance Ministry is the final interpreter of the regulations, it should be the key contact for companies with unanswered questions.

—MW

Regulations for the Implementation of the Income Tax Law of the People's Republic of China Concerning Joint Ventures with Chinese and Foreign Investment

Promulgated December 14, 1980

Article 1. These detailed rules and regulations are formulated in accordance with the provisions of Article 17 of the Income Tax Law of the People's Republic of China Concerning Joint Ventures With Chinese and Foreign Investment (hereinafter called tax law for short).

Article 2. "Income derived from production and business" mentioned in Article 1 of the tax law means income from the production and business operations in industry, mining, communications, transportation, agriculture, forestry, animal husbandry, fisheries, poultry farming, commerce, tourism, food and drink, service, and other trades.

"Income from other sources" mentioned in Article 1 of the tax law covers dividends, bonuses, interests and income from lease or transfer of property, patent right, ownership of trademarks, proprietary technology, copyright, and other sources.

Article 3. "A local surtax of 10 percent of the assessed income tax" in Article 3 of the tax law means a surtax to be computed and levied according to the actual amount of income tax paid by joint ventures.

Reduction or exemption of local surtax on account of special circumstances shall be decided by the people's government of the province, municipality, or autonomous region in which the joint venture is located.

Article 4. A foreign participant in a joint venture, who wants to remit its share of profits from China, shall report to the local tax authorities; the remitting agency shall withhold an income tax of 10 percent from the remittance. No tax shall be levied on that part of its share of profits which is not remitted from China.

Article 5. "The first profit-making year" mentioned in Article 5 of the tax law means the year in which a joint venture has begun making profit after its losses in the initial stage of operation have been made up in accordance with the provisions of Article 7 of the tax law.

Article 6. A participant in a joint venture, who reinvests its share of profit in this enterprise or in other joint ventures with Chinese and foreign investment for a period of not less than five years in succession, may receive a refund of 40 percent of the income tax already paid on the reinvested amount upon the examination and approval of the certificate of the invested enterprise by the tax authorities to which the tax was paid.

Article 7. The tax year for joint ventures starts from January 1 and ends on December 31 on the Gregorian calendar.

Article 8. The amount of taxable income shall be computed by the following formulæ:

1. Industry:
   a. Cost of production of the year is equal to direct material used in production of the year plus direct wages plus manufacturing expenses;
   b. Cost of product of the year is equal to inventory of semifinished product at the beginning of the year and in-production product plus cost of production of the year minus inventory of semifinished product at the end of the year and in-production product;
   c. Cost of sale of product is equal to cost of product of the year plus inventory of product at the beginning of the year minus inventory of product at the end of the year;
   d. Net volume of sale of product is equal to total volume of sale of product minus (sales returns plus sales allowance);
   e. Profit from sale of product is equal to net volume of sale of product minus taxes on sales minus cost of sale of product minus (selling expenses plus administrative expenses);
   f. Amount of taxable income is equal to profit from sale of product plus profit from other operations plus nonoperating income minus nonoperating expenditure.
2. Commerce:
   a. Net volume of sale is equal to total volume of sale minus: sales returns plus sales allowance;
   b. Cost of sales is equal to inventory of merchandise at the beginning of the year plus purchase of the year minus (purchase returned plus purchase discount) plus purchase expenses minus inventory of merchandise at the end of the year;
   c. Sale profit is equal to net volume of sale minus sale tax minus cost of sales minus: selling expenses plus overhead expenses;
   d. Amount of taxable income is equal to sale profit plus profit from other operations plus nonoperating income minus nonoperating expenditure.
3. Service trades:
   a. Net business income is equal to gross business income minus: business tax plus operating expenses plus overhead expenses;
   b. Amount of taxable income is equal to net business income plus nonoperating income minus nonoperating expenditure.
4. Other lines of operation:
   For other lines of operations, refer to the above-mentioned formulæ for calculation.

Article 9. The following items shall not be counted as cost, expense, or loss in computing the amount of taxable income:

1. expenditure on the purchase or construction of machinery, equipment, buildings, facilities and other fixed assets;
2. expenditure on the purchase of intangible assets;
3. interest on capital;
4. income tax payment and local surtax payment;
5. penalty for illegal operations and losses in the form of confiscated property;
6. overdue tax payment and tax penalty;
7. losses from windstorms, floods, and fire risks covered by insurance indemnity;
8. donations and contributions other than those for public welfare and relief purposes;
9. that part of the entertainment expenses for operating purposes above the quota of three per thousand of the total sale income in the tax year or above the quota of ten per thousand of the total operational income and those entertainment expenses that are not relevant to production and operation.

Article 10. Depreciation of fixed assets in use shall be calculated on an annual basis. Fixed assets of joint ventures cover houses, buildings, machinery and other mechanical apparatus, means of transport, and other equipment for the purpose of production with useful life of more than one year. But items, with a per-unit value of less than 500 yuan and a short useful life can be itemized as expenses according to the actual number in use.

Article 11. Fixed assets shall be assessed according to the original price.

For fixed assets used as investment, the original price shall be the price agreed upon by the participants at the time of investment.

For purchased fixed assets, the original price shall be the purchase price plus transport fees, installation expenses, and other related expenses incurred before they are put to use.

For self-made and self-built assets, the original price shall be the actual expenditures incurred in the course of manufacture or construction.

Article 12. In depreciating fixed assets, the residual value shall be assessed first and deducted from the original price, the principle being making the residual value at 10 percent of the original price; those requiring to retain a little or no residual value, shall be submitted for approval to the local tax au-

thorities.

The depreciation of fixed assets shall generally be computed on average by the method of straight line.

Article 13. The useful life for computing depreciation of fixed assets is as follows:

1. The minimum useful life for houses and buildings is 20 years;
2. The minimum useful life for trains, ships, machines, and equipment, and other facilities for the purpose of production is 10 years;
3. The minimum useful life for electronic equipment and means of transport other than trains and ships is 5 years.

For cases where the fixed assets of joint ventures, owing to special reasons, need to accelerate depreciation or where methods of depreciation need to be modified, applications shall be submitted by the said ventures to the local tax authorities for examination and then relayed level by level to the Ministry of Finance of the People's Republic of China for approval.

Article 14. Expenditures arising from the increase of value of fixed assets in use as a result of technical reform shall not be listed as expense.

The fixed assets continuing in use after full depreciation shall no longer be depreciated.

Article 15. The balance of the gain of joint ventures derived from sale of fixed assets at the current price after the net sum of nondepreciated assets or the residual value is deducted shall enter the year's loss and gain account.

Article 16. Intangible assets such as technical know-how, patent right, ownership of trademarks, copyright, ownership of sites, and other royalties used as investment shall be assessed by amortization according to the sums provided in the agreements or contracts from the year they begin in use; for the intangible assets that are brought in at a fixed price, the actual payment shall be assessed from the year they are put in use.

The above-mentioned intangible assets with provision of time limit for use, shall be assessed by amortization according to the provision of time limit for use; those without the provision shall be assessed by amortization in 10 years.

Article 17. Expenses arising during the period of preparation for a joint venture shall be amortized after it goes into production or business, with the amount of amortization not exceeding 20 percent each year.

Article 18. Inventory of merchandise, raw materials, in-production products, semi-finished products, finished products, and by-products shall be computed according to the cost price. For the method of computation, the joint ventures may choose one of the following: first-in first-out, shifting average, and weighted average. In those cases where a change in the method of computation is necessary, it shall be submitted for approval to the local tax authorities.

Article 19. Income tax to be paid in quarterly installments as prescribed in Article 8 of the tax law may be computed as one-fourth of the planned annual profit or the actual income in the preceding year.

Article 20. Joint ventures shall file their income tax returns and their final accounting statements with the local tax authorities within the prescribed period irrespective of profit or loss in the tax year and send the reports on auditing by the chartered public accountants registered in the People's Republic of China.

The accounting statements submitted by branches of joint ventures within China to their head offices shall be submitted to the local tax authorities at the same time for reference.

Article 21. Joint ventures shall file tax returns within the time limit set by the tax law. In case of failure to submit the tax returns within the prescribed time limit owing to special circumstances, application should be submitted in the same time limit, and the time limit may be appropriately extended upon the approval of the local tax authorities.

The final day of the time limit for tax payment and filing tax returns may be extended if it falls upon an official holiday.

Article 22. Income of joint ventures in foreign currency shall be assessed according to the exchange rate quoted by the State General Administration of Foreign Exchange Control on the day when the tax payment certificates are made out, and shall be taxed in Renminbi.

Article 23. The accounting on the accrual basis shall be practiced for revenue and expenditure of joint ventures. All accounting records shall be accurate and perfect and shall have lawful vouchers as the basis for entry account.

Article 24. The method of finance and accounting of joint ventures shall be submitted to local tax authorities for reference.

When the method of finance and accounting of joint ventures contradicts the provisions of the tax law, tax payments shall be computed according to the provisions of the tax law.

Article 25. Vouchers for accounting, accounting books, and reports used by joint ventures shall be recorded in the Chinese language or in both Chinese and the foreign language.

Accounting vouchers, accounting books, and reports shall be kept for at least 15 years.

Article 26. Sales invoices and business receipts shall be submitted for approval to the local tax authorities before they are used.

Article 27. Officials sent by tax authorities shall produce identification cards when investigating the financial affairs, accounting books, and tax situation of a joint venture and undertake to keep them secret.

Article 28. Tax authorities may impose a penalty of not more than 5,000 yuan on a joint venture which has violated the provisions of articles 9, 11 and 12 of the tax law according to the seriousness of the case.

Article 29. Tax authorities may impose a penalty of not more than 5,000 yuan on a joint venture which has violated the provisions of paragraph 2 of Article 25, and Article 26 of these detailed rules and regulations.

Article 30. Tax authorities shall serve notices on cases involving penalty in accordance with the relevant provisions of the tax law and these detailed rules and regulations.

Article 31. When a joint venture applies for reconsideration in accordance with the provisions of Article 15 of the tax law, the tax authorities concerned are required to make decisions within three months after receiving the application.

Article 32. Income tax paid abroad by joint ventures or their branches on their income earned outside China may be credited against the amount of income tax to be paid by their head offices upon presenting the foreign tax payment certificate. But the credit amount shall not exceed the payable tax on the income abroad computed according to the tax rate prescribed by China's tax law.

Article 33. Income tax returns and tax payment certificates used by joint ventures are to be printed by the General Taxation Bureau of the Ministry of Finance of the People's Republic of China.

Article 34. The right of interpreting the provisions of these detailed rules and regulations resides in the Ministry of Finance of the People's Republic of China.

Article 35. These detailed rules and regulations come into force on the same date as the publication and enforcement of the "Income Tax Law of the People's Republic of China Concerning Joint Ventures With Chinese and Foreign Investment."

法 PERSONAL INCOME TAX

The regulations for implementing the individual income tax law of the People's Republic of China were promulgated on December 14 by the Ministry of Finance for enforcement retroactive to the law's September 10 promulgation. The regulations add much detail and clarity to the law, which has been published with commentary in the November–December issue of the *CBR*.

The new regulations regarding taxation on income earned abroad do much to assuage double-taxation fears of foreigners who have been residing in China for one or more years. According to the regulations, only income earned abroad that has been "remitted to China" by those who have been residents from one to five years is considered taxable. In addition, taxable income earned abroad is computed separately from income earned in China, meaning that the ¥800 ($500 at the current exchange rate) standard deduction from

taxable income can be applied separately to each kind of income. The ambiguous second paragraph of Article 16 allows "taxpayers outside China" to credit tax payments to foreign governments abroad against taxes owed in China, but does not define "taxpayers outside China." Presumably they would include mainly Chinese citizens employed abroad.

The regulations do not resolve the issue of residency. The definition of one-year residency, according to Article 2, suggests that temporary absences during the course of a calendar year will not be considered to interrupt a foreigner's residency. But the stipulation in the first sentence that a person must live in China a "full 365 days within a tax year" to be considered a resident is difficult to interpret. Minimum residency for paying taxes for work and services performed in China is set at 90 days. Presumably this does not mean that a business person who leaves China for two days every 89th day is exempt, though the regulations do not make this absolutely certain. Termination of residency is also not defined.

The regulations further specify what income in China is taxable, including 21 different types of "personal services," and what kinds of interest and dividends are exempt. Cases in which it is not obvious how "single payments" are defined for personal services, royalties, or rental property, are interpreted by the regulations as all payments within a month. Salaries of "persons enjoying the same treatment as diplomats" are exempt (which may be designed to put the hearts of such state guests as Cambodian Prince Sihanouk and Southeast Asian communist leaders at ease).

Articles 21 and 22 appear to set the maximum penalty for failure to pay or report at ¥500 ($310). Tax authorities are required to decide all appeals within three months. Article 10 suggests that individuals with unpaid taxes will not be allowed to leave the country. —MW

Regulations on the Implementation of the Individual Income Tax Law of the People's Republic of China

Approved by the State Council on December 10, 1980, and promulgated by the Ministry of Finance on December 14, 1980.

Article 1. These detailed rules and regulations are drawn up in accordance with the provisions of Article 14 of the Individual Income Tax Law of the People's Republic of China (hereinafter called tax law for short).

Article 2. "Any individual residing for one year or more in the People's Republic of China" mentioned in Article 1 of the tax law means any individual who resides in China for a full 365 days within a tax year. No subtractions shall be made of the number of days of temporary absence from Chinese territory within the tax year.

A tax year starts from January 1 and ends on December 31 on the Gregorian calendar.

Article 3. Individuals residing in the People's Republic of China for one year or more but less than five years shall pay tax only on that part of their income gained abroad which is remitted to China; individuals whose period of residence in China exceeds five years shall pay tax on all their income gained outside China beginning from the sixth year of residence.

Article 4. The range of the various categories of income mentioned in Article 2 of the tax law is as follows:

1. "Wages and salaries" means wages, salaries, bonuses, and year-end extras gained from work in offices, organizations, schools, enterprises, undertakings, and other units.

Bonuses mentioned in the preceding paragraph do not include prizes and awards for scientific, technological, or cultural achievements.

2. "Compensation for personal services" means earnings from personal services in designing, installation, drafting, medical treatment, law practicing, accounting, consultation, lecturing, news reporting, radio and television broadcasting, contributions to publications, translation, calligraphy and painting, sculpture, cinema, drama and opera, music, dancing, acrobatics, ballad-singing and comic talk, sports, and technical services.

3. "Royalties" means income from the provision and transfer of patent right, copyright, the right to use proprietary technology, and other rights.

4. "Interest, dividends, and bonuses" means interest on deposits, loans, and various kinds of securities and dividends and bonuses from investments.

5. "Income from lease of property" means income from lease of houses, warehouses, machinery and equipment, motor vehicles and boats, and other kinds of property.

6. "Other kinds of income" means income specified as taxable by the Ministry of Finance of the People's Republic of China other than that provided in the preceding items.

Article 5. The following categories of income from sources in China, regardless of whether the place of payment is in China or not, shall be taxed according to the tax law:

1. Individual income from work and compensation for services within China. But, for individuals whose period of residence in China does not exceed 90 days, the above compensation paid by employers outside China shall be exempt from taxation.

2. Dividends and bonuses gained by any individual within China. But dividends and bonuses derived from joint ventures and from urban and rural cooperative organizations shall be exempt from taxation.

3. Remuneration for staff members sent to work abroad by governmental offices at all levels of the People's Republic of China.

4. Royalties and interest derived by any individual within China and income from lease of property within China as well as other kinds of income specified as taxable by the Ministry of Finance of the People's Republic of China.

Article 6. For a taxpayer, who has two or more categories of taxable income as provided in Article 2 of the tax law, income tax shall be computed and levied separately.

Article 7. If a taxpayer's taxable income is paid in kind or in marketable securities, that part of the income thus paid shall be computed in terms of money according to the market price at the time of its acquirement.

Article 8. "Prizes and awards for scientific, technological, or cultural achievements" mentioned in item 1, Article 4, of the tax law means prizes and awards given to individuals by the Chinese government or Chinese or foreign scientific, technological, or cultural organizations, for inventions or creations in the fields of science, technology, and culture.

Article 9. "Interest on savings deposits in the state banks and credit cooperatives of the People's Republic of China" mentioned in item 2, Article 4, of the tax law includes interest on savings deposits in Renminbi and foreign currency and interest on savings deposits in other banks entrusted by the state banks.

Dividends in investments by individuals in local construction (investment) companies in China, which pay no bonuses and whose dividends are not higher than the interest on savings deposits in state banks and credit cooperatives, are also exempt from tax.

Article 10. "Salaries of diplomatic officials of foreign embassies and consulates in China" mentioned in item 7, Article 4, refers to salaries of diplomats in foreign embassies, consuls, and other persons enjoying the same treatment as diplomats.

Tax exemption for salaries earned by other persons in foreign embassies and consulates in China shall be kept at the same level as the tax exemption for persons of similar status in Chinese embassies and consulates granted by the relevant countries.

Article 11. Compensation for personal services, royalties, and income from lease of property gained in China by individuals not residing in China shall be taxed on the full amount received in such payment.

Article 12. "Income from compensation for personal services,

royalties, or lease of property in a single payment" mentioned in Article 5 of the tax law means income gained on one single occasion or income from performance of only one piece of task of matter, and the amount so paid is counted as a single payment. For succeeding income from the same item that cannot be obviously divided into separate payments, such income received within a month is combined and counted as a single payment.

Article 13. For the same item of income gained by two or more persons in collaboration, deduction for expenses, if eligible according to the tax law, may be made from each share separately.

Article 14. The withholding agents in making various kinds of taxable payment shall withhold the taxes according to the tax law, turn them in to the state treasury in time and put them in itemized records for future reference.

The various kinds of taxable payment referred to in the preceding paragraph include payment in cash, payment by remittance, payment by the transfer of accounts and payment in marketable securities or in kind, the value of which is computed in terms of money.

Article 15. Withholding agents and taxpayers filing personal returns shall submit tax returns within the time limit prescribed the tax law. In cases of failure to submit the returns within the prescribed time limit on account of special circumstances, applications for extension shall be submitted with the prescribed time limit for approval to the local tax authorities.

The final day for tax payment and submission of tax returns may be extended if it falls upon an official holiday.

Article 16. For individuals residing in China for one year or more, the income gained outside China shall be computed and taxed separately from the taxable income earned within China. The amount of taxable income shall be computed after deducting expenses for different categories as provided in Article 5 of the tax law.

Income tax paid by taxpayers outside China for income earned abroad may be credited against the amount of income tax computed according to the tax rate prescribed by the tax law of China through applications by presenting a tax payment certificate.

Article 17. Individual income in foreign currency shall be assessed according to the exchange rate quoted by the State General Administration of Foreign Exchange Control on the day when the tax payment certificate is made out and shall be taxed in Renminbi.

Article 18. Individuals liable to the tax in China who desire to leave the country are required to pay off the tax to the local tax authorities seven days before departure from China and only then can they go through exit formalities.

Article 19. In conducting investigations concerning the payment of tax by withholding agents or taxpayers filing personal returns, the tax officials sent by tax authorities are required to produce identification cards and undertake to maintain secrecy.

Article 20. For the commission of 1 percent of the tax amount paid to the withholding agents provided in Article 10 of the tax law, the local tax authorities shall make out a refund notice for the withholding agents on the monthly basis in accordance with the actual amount of tax withheld and the withholding agents may go through refunding formalities at the designated banks.

Article 21. A withholding agent or taxpayer filing personal returns who has violated the provisions of Article 9 of the tax law shall be penalized 500 yuan or less by the tax authorities according to the seriousness of the case.

Article 22. A withholding agent or a taxpayer filing personal returns who has violated the provisions of articles 14 and 15 of these detailed rules and regulations shall be penalized 500 yuan or less by the tax authorities.

Article 23. The tax authorities shall serve notices on cases involving penalty in accordance with the relevant provisions of the tax law and these detailed rules and regulations.

Article 24. For cases of applying for reconsideration by a withholding agent or a taxpayer filing personal returns according to the provisions of Article 13 of the tax law, the tax authorities concerned are required to make decisions within three months after the application is received.

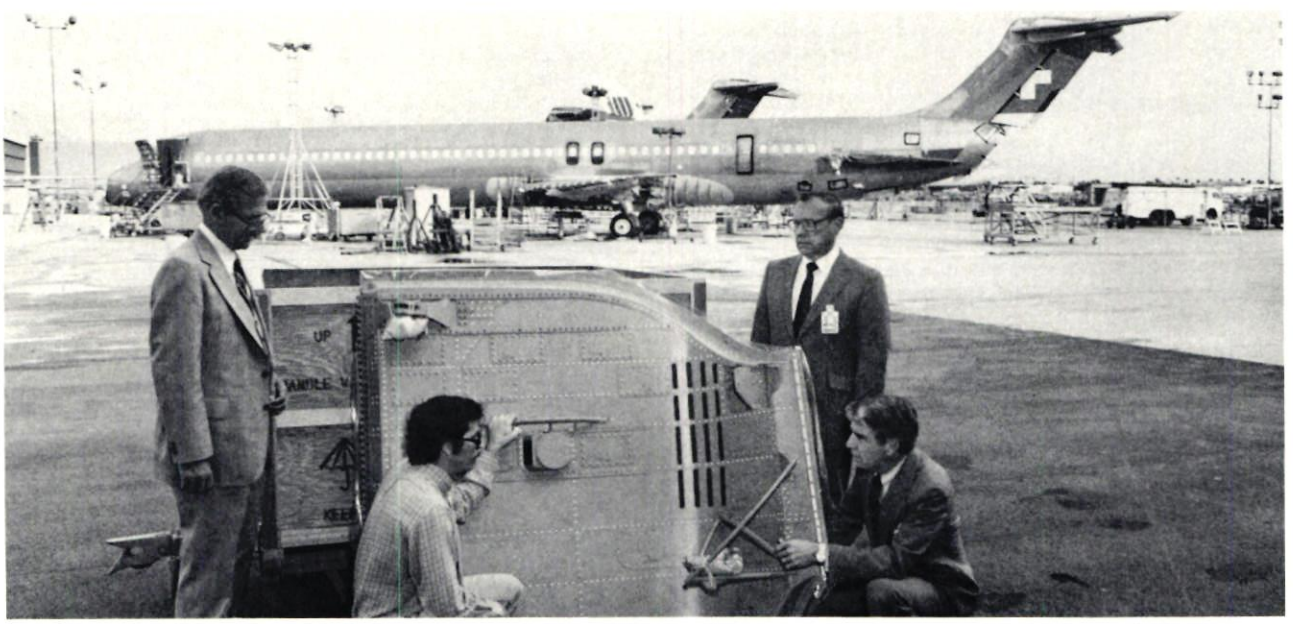
Article 25. Tax returns and tax payment certificates for individual income tax are to be printed by the General Tax Bureau of the Ministry of Finance of the People's Republic of China.

Article 26. The right of explanation of the present detailed rules and regulations resides in the Ministry of Finance of the People's Republic of China.

Article 27. These detailed rules and regulations come into force on the same date as the publication and enforcement of the "Individual Income Tax Law of the People's Republic of China." 完

Landing-Gear Doors from China

The first set of Chinese-built main landing-gear doors for McDonnell Douglas' Super 80 jet liner arrived in Long Beach in March. John C. Brizendine *(kneeling right)*, president of Douglas Aircraft Company and a former chairman of the National Council for US-China Trade, inspects first door with Paul Amuchastequi *(kneeling left)*, a Douglas assistant foreman who supervised construction of the landing-gear doors at the Shanghai Aircraft Factory. The value of the contract is more than $1 million (*see* p.28).



EXPORTS TO CHINA: 1981 SALES AND NEGOTIATIONS THROUGH JANUARY 30

The following chart contains recent reports of sales and negotiations exclusive of those listed in previous issues. The total value figure for sales includes only those deals listed as contracts or deals signed/won/secured/concluded. All others are counted as negotiations. The tables are prepared by the Council's assistant librarian, Catherine Yelloz.

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Agricultural Commodities			
Forestal Arauco and Constitución, SA (Chile)	Radiata pine logs and squared logs totaling 35,700 m^3	NVG	shipped 10/80
Seaboard Lumber Sales Co., Ltd. (Canada)	Sawn lumber	NVG	sold 11/21/80
(Austria)	110 calves and 50 bulls	NVG	delivered 12/80
Canadian Wheat Board (Canada)	1.4 million metric tons of wheat	$373.8 million	sold 12/3/80
(US)	500,000 metric tons of wheat for delivery in 1981–82	NVG	order announced 12/12/80
Agricultural Technology			
Washington Iron Works (US)	Contract to engineer, equip, and install the first medium-density fiberboard plant to be erected in Fujian Province	$11.5 million	contract awarded 10/80
Bühler-Miag (W. Germany)	Milling equipment for a new rice mill	NVG	order received 12/17/80
Blount Inc. (US)	Will design, equip, and supervise construction of a seed-processing plant in Ningxia Province	NVG	contract announced 1/6/81
Fiat, S.p.A. (Italy)	Accord to produce tractors and other agricultural equipment	NVG	negotiations announced 1/7/81
Chemicals			
Montedison, S.p.A. (Italy)	Agreement to expand their commercial and industrial exchange with CITIC	NVG	agreement announced 11/26/80
Dow Chemical Co. (US)	Agreement of cooperation with China International Trust and Investment Corporation (CITIC)	NVG	agreement signed 12/19/80
Construction Equipment			
Mitsubishi Heavy Industries (Japan)	Five-year technical agreement with forklift company in Beijing under which the firm will furnish production assistance on small-scale forklifts, as well as training of Chinese engineers	NVG	agreement signed 11/26/80
Ferranti Engineering (UK)	Karrilift gantry crane to the Shanghai Port Authority for use in its container terminal	NVG	delivered 1/81
Consumer Goods			
Shiseido Co. (Japan)	Negotiations with INDUSTRY (China Light Industrial Products I/E Corp.) to discuss a joint venture production facility in China and a technology transfer agreement	NVG	negotiations announced 1/21/81

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Electronics			
MEL (UK)	Test equipment and ancillaries	$362,400 (£150,000)	contract won 10/28/80
Baird Corp. (US)	Multicrystal gamma camera, Model 77	$229,000	order received 11/10/80
Stanford Technology Corp. (US)	Supply and installation of a digital image-processing system	NVG	contract signed 11/10/80
Murata Mfg. Co. (Japan)	Contract with Beijing No. 3 wireless equipment factory to produce ceramic condensers for audio equipment and television receivers	NVG	contract concluded 11/27/80
Alan Gordon Enterprises (US)	Bell & Howell Filmo 70 cameras	NVG	purchased 11/28/80
Foxboro Co. (US)	22-year joint venture agreement with the Shanghai Instrumentation Industry and the Guangdong Instrument Factory	NVG	agreement signed 12/9/80
Matsushita Electric Industrial Co. (Japan)	Manganese dry battery manufacturing plant	NVG	order received 12/11/80
Hitachi, Ltd. (Japan)	Joint venture with Fujian Province to manufacture both b and w and color television sets	$2.4 million	contract signed 12/19/80
Hitachi Consumer Products Pte., Ltd. (Singapore)	300,000 monochrome television sets	$19.2 million	order obtained 12/19/80
Sony Corp. (Japan)	Joint venture to produce and distribute electronic goods	NVG	agreement announced 1/15/81
Xerox Corp. (US)	Agreement covering the service of all Xerox products in China	NVG	agreement announced 1/16/81
Machinery			
Taylor Products (US)	Business deal with Howard Industries that will result in leasing of the firm's bagging equipment to the PRC	NVG	deal completed 11/80
King Taudevin and Gregson (UK)	An electric furnace for glassmaking	NVG	order won 12/80
Krupp Mak Manufacturers (W. Germany)	Agreement with the Yangzi River Navigation Industry Bureau to manufacture diesel engines	NVG	agreement signed 12/80
Combustion Engineering Inc. (US)	Supply of certain parts for two coal-fired steam generators, one with a capacity of 600,000 kilowatts and the other with half that capacity	NVG	agreement signed 12/12/80
Wellworthy (UK)	Two technical know-how agreements for the manufacture of automotive pistons and hard chrome plating of piston rings	NVG	agreements signed 1/81
Ing. K. Busch, KG (W. Germany)	Joint venture agreement with Shanghai General Machinery Co. for production of vacuum pumps	NVG	launched 1/20/81
Petroleum and Natural Gas			
US Baker Marine Corp. (Singapore)	Will make offshore rig-elevating jacks and cranes in Singapore for two rigs to be built at China's Dalian shipyard, and will send workers to Dalian to supervise building of the rigs	NVG	contract signed 1/7/81

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Power			
Ebasco Inc. (US)	Engineering services and technology transfer for two 300-mw coal-fired units to be built at the Shiheng plant and two 600-mw coal-fired units at the Huainan No. 3 plant in Anhui Province	NVG	contract signed 12/22/80
Scientific Instruments			
Omega International Corp. (US)	Ultra high-temperature thermocouple probes to be used for temperature measurement applications in extreme heat conditions	NVG	sale concluded 10/21/80
Shipping			
Uljanik Shipyard (Yugoslavia)	Five small 5,000-ton bulk carriers	NVG	planned for delivery 11/21/80
General Council of British Shipping (UK)	Introduction of a liner service between the UK and North China	NVG	talks announced 12/5/80
Marubeni Corp. (Japan)	Is preparing to help China update its international shipping system, particularly its chartering service and cargo insurance systems	NVG	tentative agreement reached 12/17/80
Wah-Chang International Group (Singapore)	Joint venture with Guangdong Shipbuilding Corp. to promote China's export shipbuilding	NVG	agreement signed 12/30/80
Steel and Steel Products			
(Japan)	600,000 metric tons of general carbon steel products during January and June 1981 at 1% higher prices	NVG	agreement reached 12/8/80
Steel Plants and Equipment			
Continua International Continuus Casting (Italy)	Will design and erect a complete steel-billeting mill	$1 million	order landed 12/12/80
Telecommunications			
Nippon Telegraph & Telephone Public Corp. (Japan)	Exchange of technology concerning telecommunications	NVG	memorandum concluded 11/11/80
Textile Plant and Equipment			
(US and Japan)	Construction of a jute carpet-backing mill in Guangdong with 200 broadlooms	NVG	negotiations announced 10/30/80
Federation of Yarn Twisters' Assoc. (Japan)	40 used false-twisters	$2.4 million	will purchase 11/24/80
Textile Products			
Unitex, Ltd. (not known)	Agreement with CHINATEX to make garments in Shanghai and Hangzhou for direct export	NVG	agreement announced 10/18/80
(Japan)	7,000 to 10,000 metric tons of nylon and polyester in the next three years	NVG	has agreed to sell 11/24/80
Tourism			
Moretti Construction Co. (US)	Deal involving the swapping of a 750-ton portable hotel (pieces built by Cliff Industries) to be set up in Beijing for 8,000 travel visas and land tour packages which will be sold to major US airline companies	NVG	deal concluded 12/80

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Transportation Equipment			
White River Distributors (US)	2400-gallon propane tank Ford truck	NVG	shipped 10/80
(France)	Plant to produce 100,000 to 300,000 motorcycles a year	$31.7 million (FF135 million)	negotiations announced 11/8/80
Miyago Trucking Co. (Japan)	Export of used trucks in exchange for Chinese coal	NVG	negotiations announced 11/24/80
Ta Tung Hong (Hong Kong)	Contract to provide limousines	NVG	contract won 12/80
Cessna Aircraft Co. (US)	3 Citation II planes	NVG	contract signed 12/2/80
TI Raleigh Industries (UK)	650 Raleigh Roadsters and 30,000 Sturmey-Archer three-speed hubs with trigger control (bicycles)	NVG	orders won 12/2/80
Miscellaneous			
Raritan River Steel Co. (US)	70,000 tons of steel wire rod	NVG	order filled 10/80
(W. Germany)	Technological aid	$8.1 million (DM15 million)	intends to give 11/19/80
(Sweden)	The pop group *Abba* will tape a program specifically for Chinese television	NVG	negotiations announced 11/20/80
Filmways Entertainment Group (US)	"240-Robert" action-adventure series	NVG	sold 12/15/80
David Syme and Co., Ltd. (UK) Syme Media Enterprises, Ltd. (Hong Kong)	Will help promote an English-language newspaper to be published in Beijing next year	NVG	agreement made 12/17/80
Sakura Seisakusho, Ltd. (Japan)	Will export a margarine and shortening plant and will provide the production know-how	NVG	contract announced 12/19/80
Wahing Watchdial Factory, Ltd., and Wah Sing China Watch Corp. (Hong Kong)	Joint venture with Tianjin watch-hand factory for the production of watchdials and watch-hands	NVG	announced 12/31/80
Wharton Williams (UK)	Will provide saturation-diving personnel and equipment and technical advisers to work with China Ocean Engineering Services	NVG	contract secured 1/81
Allen Group (US)	Will introduce selected automotive products, technology, and services to China in exchange for guaranteed supply of Chinese automotive accessories and related products	NVG	comprehensive agreement signed 1/8/81
Daiei, Inc. (Japan)	Contract with Tianjin to establish a joint venture to import and sell Chinese commodities such as food and carpets	NVG	contract signed 1/20/81
Licenses			
McGregor Cargo Handling, Ltd. (Hong Kong)	Technical cooperation agreement to produce and fit equipment under license	NVG	agreement signed 10/24/80
Combustion Engineering, Inc. (US)	Long-term licensing and technical transfer agreement, under which C-E will train Chinese personnel in designing and manufacturing the company's steam generators	NVG	agreement signed 12/12/80

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Lohmann & Stolterfoht (W. Germany)	Has licensed China Corporation of Shipbuilding Industry to build its Navilus marine drive systems in the 11,000-kw range for river and seagoing vessels	NVG	announced 12/17/80
Alsthom-Atlantique (France)	Will manufacture power generator circuitbreakers under a licensing and technology transfer agreement	NVG	agreement signed 1/15/81

Total value of 1981 sales listed through January 30 ..... $376.5 million +
Total value of 1981 negotiations listed through January 30 ..... $ 74.1 million +
Cumulative value of sales from January 1, 1979, through January 30, 1981 ..... $ 11.8 billion +
Cumulative value of negotiations from January 1, 1979, through January 30, 1981 ..... $ 6.7 billion +

CHINA'S EXPORTS: 1981 SALES AND NEGOTIATIONS THROUGH JANUARY 30

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Agricultural			
(US)	Raw down during the first eight months of 1980	$10,000	bought 11/17/80
Chemicals and Petrochemicals			
(Bangladesh)	Will receive Chinese assistance in setting up petrochemical project near Dacca	NVG	announced 11/80
Construction			
(Malta)	*a*) Construction of a breakwater *b*) laying of pipelines on seabed to lead fresh water from sister island, Gozo, to Malta	NVG	contract signed 11/21/80
Foreign Aid			
(Mali)	*a*) construction of a pharmaceuticals factory *b*) two dams projects *c*) installations of telecommunications for the Foreign Affairs Ministry	NVG	announced 11/28/80
(Australia)	Bilateral aid agreement in agricultural and civil engineering fields	$59 million	announced 12/27/80
(Guinea)	Signed a protocol under which the Chinese government will send another medical team	NVG	protocol signed 1/6/81
Light Industries			
Emporium-Capwell (US)	Goods from China this year	$5 million	bought 12/16/80
Metals and Minerals			
Cometals (US)	Long-term agreement for the supply of a minimum of 150,000 tons per year of Chinese refractory-grade bauxite beginning in 1981	NVG	agreement concluded 11/80
(US)	May import critical titanium, vanadium, and tantalum defense minerals	NVG	announced 11/80
(Japan, Philippines, Thailand, and Singapore)	Contract for the import of 370,000 metric tons of coal	NVG	contract signed 1/7/81

Company/Country	Product/Plant/Technology	Value (US dollars and local currency if known)	Status Date Announced
Petroleum Products and Equipment			
(US)	450 oil pumps produced by Baoji petroleum machinery plant of Shaanxi Province	NVG	order placed 12/17/80
Power			
Power Reactor and Nuclear Fuel Development Corp. (Japan)	Will import two tons of heavy water	NVG	contract signed 11/12/80
Shipping			
(Sri Lanka)	Two fast gunboats	gift	announced 12/2/80
Klaus Oldendorf Co. Peter Doehle Ship Co. (W. Germany)	Two container ships each	$44 billion (DM80 billion)	order placed 1/16/81
International United Shipping (Hong Kong)	Two 36,000-ton bulk carriers	NVG	bought 1/20/81
Green Island Cement Co. (Hong Kong)	Four 27,000-metric-ton bulk carriers	$49.2 million	order announced 1/27/81
Textile Products and Equipment			
(Sri Lanka)	5 million burlap sacking-bags	$2.8 million	order received 10/30/80
Transportation			
(Philippines)	5 sets of Model No. 55 CD tractors	NVG	imported 10/7/80
Cooperative Wholesale Establishment (Sri Lanka)	50,000 bicycles	NVG	order announced 12/80
Miscellaneous			
(Burma)	*a*) Rangoon-Syriam highway bridge *b*) spinning mill of 40,000 spindles *c*) three rice mills, each with milling capacity of 150 tons of paddy per day *d*) water supply in Moulmein *e*) padlock factory *f*) equipment worth $1.9 million	$1.9 million	discussions announced 8/80
Tri-Union Trading, Inc. (US)	Athletic shoes made from pigskin or cowhide	NVG	is importing 10/27/80
CBS (US)	Exclusive rights for North America to broadcast the "Gang of Four" trial	$40,000	bought 11/26/80
Al-Rammah (Yemen Arab Republic)	Contract with the Furniture Company of Fujian to establish a joint venture factory in Arab Yemen to make furniture	$455,000	contract signed 12/80
(Sri Lanka)	Will buy 9.5 million jute bags	NVG	contract signed 12/9/80

Total value of 1981 sales listed through January 30, 1981 ..... $ 5.5 million +
Total value of 1981 negotiations listed through January 30, 1981 ..... $44.1 billion +

NVG = No value given

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 in 1980 are also included if they were not reported in the last issue of the *CBR*.

The National Council for US-China Trade

OFFICERS AND STAFF

OFFICERS
Chairman: David S. Tappan, Jr.
Vice-Chairmen: William Anderson, J. Paul Austin
Secretary-Treasurer: G. A. Costanzo
Counsel: Walter Sterling Surrey
President: Christopher H. Phillips

WASHINGTON STAFF
President: Christopher H. Phillips
Staff Assistant to the President: Kenneth I. Bowman
Vice-President: Roger W. Sullivan
Director of Council Development: Richard Glover
Administrative Assistant: Lora F. McClure

Administration
Director: Patricia P. Caperones
Assistant to Director: Nell Chapin
Receptionist: Juliet Carr
Clerk: Anita Green
Office Assistant: Michael O. Miles

Office of the Comptroller
Comptroller: Richard L. Peterman, Jr.
Assistant to the Comptroller: Mary M. Connin

Publications, Research, and Planning
Executive Director: Nicholas H. Ludlow
Research Associate' Christopher M. Clarke
Executive Secretary: Michele Hyde

Exporter Services
Director: Norman W. Getsinger
Assistant Director: Harold C. Champeau
Assistant Director: Ernest C. Staber
Assistant Director: Richard Gillespie
Administrative Assistant: Gervaise Lee
Executive Secretary: Judy Bourke
Executive Secretary: Michele M. Provost

Importer Services
Director: Carolyn Brehm
Assistant Director: Jean Hoffman
Associate: E. Sabina Brady
Assistant: Sally Wile

Delegations Department
Director: Stephanie Green
Assistant Director: I-chuan Chen
Assistant Director: Jeanne Chiang
Projects Assistant: R. Gillian Leavitt
Administrative Secretary: Laurie F. Watt
Administrative Secretary: Bo Beach

MAGAZINE STAFF
Editor-in-Chief: Nicholas H. Ludlow
Editor: James B. Stepanek
Managing Editor: Carol S. Goldsmith
Staff Writers:
Dori Jones, Economy and Energy
Karen Berney, Agriculture, Science, and Technology
Martin Weil, Industry and Mining
Copy Editor: Kristen E. Carpenter
Production Assistant: Lori Starrs
Research Associate: Christopher M. Clarke
Research Assistant: Catherine Yelloz

Library
Librarian: Marianna Graham
Assistant Librarian: Catherine Yelloz
Library Assistant: Janet M. Stanakis

Promotions and Advertising
Manager: Suzanne M. Swim
Assistant: Connie Rinehart

Publications Sales
Manager: Sandra Bucci

COMMITTEES

EXPORTER COMMITTEE CHAIRMEN
Agricultural Machinery: Paul Johnson, *International Harvester Co.*

Agriculture: Thomas Plato, *Diamond Shamrock Corp.*

Banking and Finance: Mark Buchman, *Manufacturers Hanover Trust*

Construction Machinery and Equipment: James Z. Han, *Caterpillar Tractor Co.*

Engineering, Design, & Construction Services: Harold Sorensen, *Fluor Corp.*

Exhibitions: Ted Krause, *Clapp & Poliak*

Food Processing and Packaging Machinery Equipment: Robert W. Coughlin, *Pneumatic Scale Corp.*

Legal: Walter Sterling Surrey, *Surrey and Morse*

Mining and Metallurgy Industry: W. A. Haley, *Caterpillar Tractor Co.*

Petrochemical and Petroleum Processing: Robert W. Brimberry, *Dresser Industries*

Petroleum Production: Kenneth Crawford, *Caterpillar Tractor Co.*

Pharmaceuticals and Medical Devices: Adolph Sinkow, *Brotherston Hospital Supply Co.*

Telecommunications and Electronics: Donald L. Miller, *Rockwell International Corp.*

Transportation: C. J. Donoghue, *Dravo Corp.*

IMPORTER COMMITTEE CHAIRMEN
Importers' Steering Committee
Chairman: Robert Boulogne, *J. C. Penney Co.*
Vice-Chairman: Charles Rostov, *Trans-Ocean Import Co., Inc.*

Importers' Steering Committee Members
Murry Berger, *Seabrook International*
David Cookson, *Philipp Brothers Division*
Terence Doyle, *The Allen Group*
Ralph Dreyfuss, *Cometals, Inc.*
Eric Ho, *AMAX, Inc.*
Simon Katz, *New York Merchandise Co.*
William M. Kinch, *W. R. Grace & Co.*
Hy Kliman, *World Impex Corp.*
Marc Kunen, *Maven International, Inc.*
Steven Melnyk, *George Uhe Co., Inc.*
Harold Potchtar, *Toscany Imports, Inc.*
Suzanne Reynolds, *S. R. Reynolds, Inc.*
Steven Sauer, *R. Greenspan & Co., Inc.*
Lewis Shanks, *WJS, Inc.*

NATIONAL COUNCIL OFFICES AND US GOVERNMENT REPRESENTATIVES

The National Council for US-China Trade
1050 Seventeenth St., NW
Washington, DC 20036 USA

Telephone Numbers
Main Number: (202) 828–8300
Magazine: (202) 828–8350
Publications Sales: (202) 828–8326
Cable: USCHINTRAD
Telex: 89–7416

Beijing Office
Suite 1136, Beijing Hotel
Representative: Scott Seligman
Deputy Representative: Stephen Markscheid
Telephone: 552231, 556531, 558331, ext. 1136

Hong Kong Liaison
American Chamber of Commerce in Hong Kong (AMCHAM), 1030 Swire House, 11 Chater Road, Hong Kong
Telephone: 5–260165
Cable: AMCHAM
Telex: 83664 AMCC HX

US Government Representatives
The American Embassy staff in Beijing will be happy to assist you; please feel free to call them when you are in China.

Chief Economic Officer: Walter C. Lenahan
Officers: Howard Lange, Mary von Breisen, Kaarn J. Weaver
Agricultural Representative: William Davis (FAS/USDA)
Telephone: 522033, ext. 215, 216
Address: 17 Guanghua Lu
Cable: American Embassy

Shanghai Consulate
1469 Huai Hai Zhong Lu
Consul General: Donald M. Anderson

Guangzhou Consulate
Dongfang Hotel
Consul General: Richard Williams

Hong Kong Consulate
26 Garden Road, Hong Kong
Economic Section:
Chief: HenryA. Engelbrecht
Deputy Chief: John P. Modderno
Telephone: 5–239011

AMERICAN INDUSTRIAL REPORT helps you do business in the People's Republic of China

Since 1973, American Industrial Report has been bridging the information gap between U.S. and Chinese business and industrial circles.

With a circulation of 40,000 copies monthly, and a pass along readership averaging 30 readers per copy, American Industrial Report reaches more than 1 million influential decision-makers, in every province and major city in the People's Republic of China.

American Industrial Report's long track record and high reputation in the PRC have created a loyal and highly responsive readership, especially important in the unique cultural milieu of China where meaningful business relationships take great patience and persistence to cultivate.

Service-oriented

American Industrial Report's commitment to service for advertisers, coupled with its responsive readership, yield hundreds of solid business leads which might otherwise be impossible to secure. Reader reply cards are translated into English for the benefit of advertisers. Provided along with the cards are bi-lingual mailing labels for ease of follow-up mailings — at no extra cost to advertisers.

Special "Study Issues" are conducted periodically at no charge to advertisers with the objective of determining, from a consistent and reliable sample of PRC readers, the relative effectiveness of different types of advertising in the unique PRC environment.

American Industrial Report was the first foreign publication permitted by the PRC to conduct an extensive Readership Survey; and the first magazine for the PRC to apply for membership in the BPA Audit Bureau of Circulations, Inc.

Advertising is translated into Chinese at no extra charge.

International Industrial Report

In June and November, 1981, International Industrial Report will be launched, bringing a new international mix of advertising and articles to the same loyal circulation and readership. The June and November issues of International Industrial Report will feature special sections on the Chemicals and Petroleum industries respectively.

Additional services available

The publishers of American Industrial Report, China Consultants International (Hong Kong) Ltd., and their partners, the McGraw-Hill Publications Company, provide marketing support services for the PRC market which are complementary to advertising in American Industrial Report.

Translation and printing

China Consultants International (CCI) is a leader in the field of translation, typesetting, printing and distribution of technical and sales literature in the PRC. From Chinese language business cards to translated versions of corporate brochures, training manuals, or legal contracts, China Consultants International (CCI) provides professional and timely services.

CCI's office in Hong Kong has the largest simplified character phototypesetting capability of its kind in the world, with skilled operators specializing in correct PRC usage.

In addition to being pioneers of industrial advertising in the PRC, China Consultants International (CCI) is a leader in the field of foreign industrial exhibitions in China. With jobs awarded by competitive bidding, China Consultants translated and printed the official catalogs for the U.S. National Economic and Trade Exhibition in Beijing, 1980; Medicgerma Exhibition of German Medical Technology in Tianjin, 1980; the Swiss Machine Tool Exhibition in Shanghai, 1979; and many more.

China Consultants International also provides translation and dubbing of films, video shows and slide presentations.

Direct mail marketing

CCI offers extensive direct mail lists within the PRC categorized by type of industry, type of organization, and geographical location — offering companies a unique direct marketing tool for delivering product and technical literature.

CCI officers and staff travel extensively and constantly throughout China, maintaining contacts with readers and keeping abreast of the latest developments in the marketplace.

Research and publications

Market research on selected PRC economic and industrial sectors is also available from China Consultants, whose published books include the well-known "Advertising and Selling to the People's Republic of China."

For more information about translation and printing, film dubbing, direct mail or market research services , contact one of the offices below:

Cynthia Chin
China Consultants International (Hong Kong) Ltd.
Suite 500, Dominion Centre
43-59 Queen's Road East , Hong Kong
Tel: 5-270639 Telex: 75368 AMRHK HX
Cable: ENTRECHIN

Jane Sharp
China Consultants International Inc.
1511 K Street Northwest
Suite 804, Investment Building
Washington, D.C. 20005
Tel: (202) 393-4343 Telex: 904059 WSH

Ellen Fong
China Consultants International Inc.
151 Union Street
San Francisco, California 94111
Tel: (415) 433-6163 Telex: 470262 PACD UI

For more information about advertising, contact your nearest American Industrial Report/McGraw-Hill sales representative:

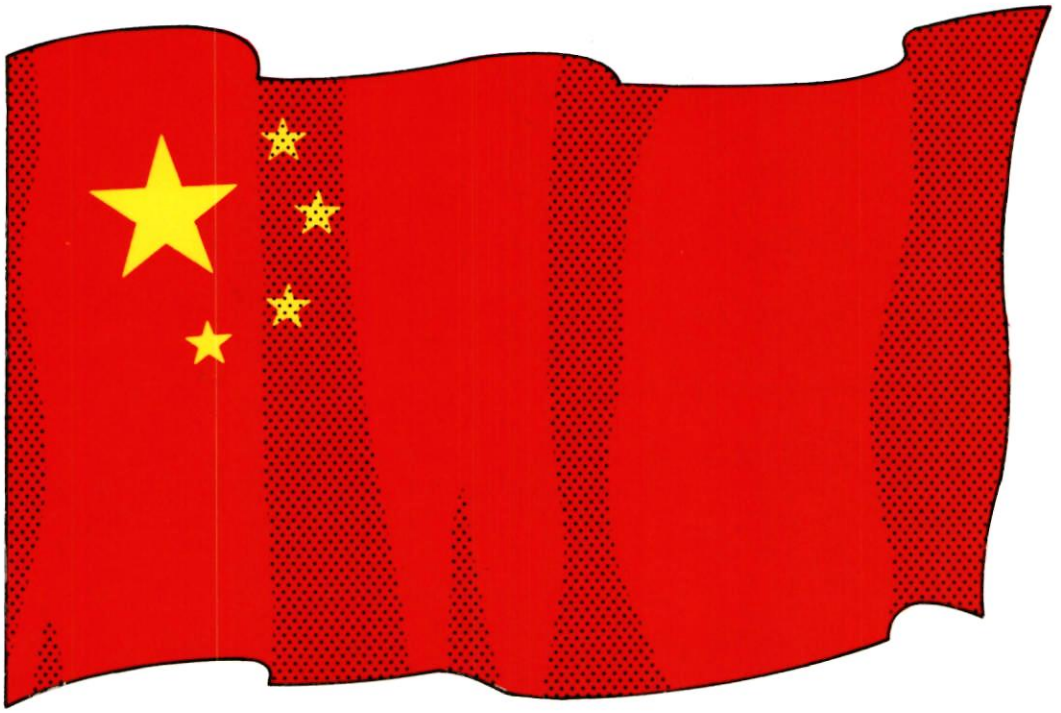
New York:	Joan Silinsh (212) 997-3585 Ian Stewart (212) 997-2946
Chicago:	Bob Gilot (312) 751-3716
Denver:	Shirley Klotz (303) 825-6731
Houston:	John H. Pariseau (713) 462-0757
Los Angeles:	Lynne Simonfy (213) 487-1160
London:	Richard Harradine 01-493-1451 Peter Welland 01-493-1451 Vivien James 01-493-1451
Paris:	Ken Davey 720-3342
Milan:	Roberto Laureri 86-90-617
Frankfurt:	Irmgard Oettinger 72-01-81
Tokyo:	Akio Saijo (581) 9811/5

“我不知道你是谁
" I don't know who you are.
我不知道你的公司
I don't know your company.
我不知道你的公司的产品
I don't know your company's product.
我不知道你的公司代表什么
I don't know what your company stands for.
我不知道你的公司有那些顾客
I don't know your company's customers.
我不知道你的公司办得怎样
I don't know your company's record.
我不知道你的公司的声誉如何——
I don't know your company's reputation.
那么，你到底要卖些什么给中国？”
Now – what was it you wanted to sell us?"

申克国际货运公司

Schenkers announces:

Regularly scheduled consolidated air freight service to China



U.S.A./China

Schenkers is a major international forwarder with 26 American offices staffed with experienced personnel trained to manage your transportation needs to the People's Republic of China.

- REPRESENTATIVE OFFICE IN BEIJING
- IMMEDIATE TRACING SERVICE
- ON THE SPOT TROUBLE-SHOOTING
- TOTAL PROJECT HANDLING
- CHARTER SERVICE AVAILABLE

SCHENKERS

International Forwarding Agents · Customs House Agents · IATA Cargo Agents

BEIJING OFFICE: INTERNATIONAL CLUB TELEPHONE 52-3887 TELEX: 22402 ALTMA CN

NEW YORK: World Trade Center (212) 432-3000
JFK Airport (212) 632-7349

SAN FRANCISCO: (415) 871-0375