

THE

NOVEMBER-DECEMBER 2003

VOLUME 30 NUMBER 6

CHINA BUSINESS

CBC



THE MAGAZINE OF
THE US-CHINA BUSINESS COUNCIL

R E V I E W

GREEN *Ambitions*

TOP 10
QUESTIONS

for Environmental
Business in China

GREENING the Beijing Olympics

BUSINESS, NGOs and the ENVIRONMENT

Mobile Phone Handsets • China's Film Industry

US\$22/HK\$220

Human Resources and ISO 9000 • Trade & Investment Quiz



Discover the splendour of China World Hotel, Beijing

Shangri-La's China World Hotel, Beijing has been restored with a dramatically renovated interior. Whether it is in the magnificent grand lobby, superbly remodelled rooms and suites, or the highly acclaimed restaurants, guests can once again experience the sheer splendour of Beijing's finest luxury hotel. All perfectly complemented by Shangri-La's legendary service.



China World Hotel

BEIJING

AT CHINA WORLD TRADE CENTER

A SHANGRI-LA HOTEL

Tel: (86 10) 6505 2266 Fax: (86 10) 6505 0828
E-mail: cwh@shangri-la.com Website: www.shangri-la.com

THE CHINA BUSINESS REVIEW



THE MAGAZINE OF THE US-CHINA BUSINESS COUNCIL

FOCUS: GREEN AMBITIONS

- 8 **China Stats**
A Story in Numbers: Fighting Pollution
- 10 **Top 10 Questions on Environmental Projects**
The US Commercial Service answers the most frequently asked questions about environmental business opportunities in China.
James Mayfield
- 16 **Making Green in Beijing**
Beijing's hosting of the 2008 Olympic Games is good news for foreign firms specializing in environmental goods and services.
Timothy Hildebrandt
- 22 **Cultivating Environmental NGO-Business Partnerships**
Cooperation among NGOs and foreign companies in China reaps lasting benefits.
Jennifer L. Turner
- 26 **Commentary**
The Green Olympics and CSR
Marc Brody and Craig Zachlod

FEATURES

TELECOMMUNICATIONS

- 28 **The Fight for China's Handset Market**
Domestic mobile phone producers are making their move.
Ted Dean

TECHNOLOGY

- 32 **Focus on China Optics**
Chinese optics manufacturers are quickly establishing a niche for themselves in the global marketplace.
Rebecca Weiner and Xie Yu

ENTERTAINMENT

- 42 **China's Film Industry Steps Out of the Shadows**
An end to state-run monopolies in production, distribution, and theater operation augurs a bright future for film in China.
William Brent

HUMAN RESOURCES

- 46 **Human Resources and ISO 9000 in China**
Standard procedures can help measure—and improve—employee performance in foreign ventures in China.
William M. Hickey

DEPARTMENTS

- | | |
|--|--|
| 4 Short Takes | 50 China Business |
| 6 Letter from the President
of the US-China Business Council
Winter of Discontent? | 58 Last Page
Foreign Trade and Investment Quiz |
| 36 Economic Views
China's Credit Rating Agencies Struggle
for Relevance
<i>Scott Kennedy</i> | 60 Council Bulletin |
| | 62 US and PRC Government Contacts |

Short Takes

Shanghai Asks: Why Are We Sinking?

Shanghai government officials recently debated the reasons the city has reportedly been sinking 1.2–1.5 cm per year for more than 10 years. Some government officials blame the city's roughly 3,000 buildings of 18 floors or more, and argue that the city should impose a plan to restrict high-rise construction. Such a plan may be released this fall.

Others—including geologists in Shanghai who believe the city has been sinking since 1921

and that, on average, the city center has sunk by 2 m—contend that depletion of Shanghai's groundwater is to blame, citing years of unrestrained industrial, commercial, and household consumption. Whether the 1995 controls imposed on water use will help buoy the city remains to be seen.

China's Largest Used-Car Lot to Open in Shanghai

China's largest used-car lot is scheduled to open in Shanghai before year's end. The city has spent more than \$12 million to build the 72,000 m² lot in Jiading district's Anting Automotive Township. Officials may pull used cars from neighboring Anhui, Jiangsu, and Zhejiang to build Shanghai's inventory.

According to the Shanghai Used-Car Exchange Market's vice general manager, Shanghai's used-car trade reached 119,888 units in 2002, 44 percent more than in 2001, and is expected to reach 130,000 units in 2003—business worth roughly \$772 million. The official explained that as Chinese consumers grow wealthier, they tend to drive cars for only five to six years before selling them; in the past, owners drove a car until it wore out.

Freedom to Marry—and Divorce

Chinese couples no longer need permission from their employer to marry. Nor do they need a pre-nuptial health check. The PRC government recently changed China's 2001 Marriage Law, lifting these requirements. Divorce is also easier under the rules—an employer's permission is no longer needed, and the time required to divorce has been shortened from 30 days to 30 minutes. The new rules, which took effect October 1, also protect individual privacy.

Lower Tariffs + Rising Demand = Higher Dairy Imports

The China Dairy Product Industry Association reported during its ninth annual conference that China's dairy-product imports totaled 180,300 tons, a year-on-year increase of 39 percent, in the first six months of 2003. Milk powder imports reached 87,000 tons and whey powder reached 81,800 tons—up 77.6 and 11.3 percent, respectively, from 2002. The rise in dairy imports has been attributed to reduced tariffs, lower international market prices, and higher domestic demand in China.



PARTNERSHIP IN PROGRESS



Caterpillar machines and engines are designed and built for making progress possible around the world. With the same commitment, we have invested in local joint ventures to produce world-class hydraulic excavators, vibratory compactors, engine products, machinery components and castings in China. Cat products help China build infrastructures, extract natural resources, and provide power for many different industries. A complete dealer

network has been established to provide local support to Cat equipment users. As the world's leading manufacturer of the industry, Caterpillar is proud to be associated with China's growth. With our partners and customers, we are committed to building our future in China.



CATERPILLAR

Caterpillar (China) Investment Co., Ltd.

www.CAT.com

Beijing: (010) 6588 1618 Shanghai: (021) 6219 2723 Hong Kong: (852) 2848 0333

EDITOR Catherine Gelb

ASSOCIATE EDITOR Virginia A. Hulme

ASSISTANT EDITOR Paula M. Miller

BUSINESS MANAGER Naziha Hassan

ART DIRECTION & PRODUCTION Jon Howard/JHDesign, Inc.

JUNIOR EDITOR Isaac Cheng

ADMINISTRATIVE ASSISTANT Marcia Morrow

RESEARCH ASSISTANT Doris Grage

1818 N St., NW, Suite 200
 Washington, DC 20036-2470
 Tel: 202-429-0340 Fax: 202-833-9027
 E-mail: publications@uschina.org
 www.chinabusinessreview.com
 All commercial inquiries and renewal/purchase orders
 should be sent to the headquarters address above.

ADVERTISING

NORTH AMERICA

UHRY & ASSOCIATES

1117 E. Putnam Avenue, PMB 306, Riverside, CT 06878

Peter Uhry

Tel: 203-637-5478 Fax: 203-698-1725 E-mail: uhry@sbcglobal.net

Ed Winslow

Tel: 203-838-7985 Fax: 203-838-9660 E-mail: ewinpub@aol.com

ASIA

PUBLICITAS CHINA

Suite 405, Changfa Building, 128 Weihai Rd., Shanghai 200003 China

Amy Zhang

Tel: 86-21-6327-5618 Fax: 86-21-6359-3868

E-mail: azhang@publicitas.com.cn

Statement of Ownership, Management and Circulation required by the Act of August 12, 1970, Section 3685, Title 39, United States Code, showing the ownership, management and circulation of The China Business Review, published bimonthly by The US-China Business Council, 1818 N St. NW, Suite 200, Washington, DC 20036. Statement reflects position as of September 30, 2003.

The names and addresses of the publisher, editor, and owner are: Publisher, The US-China Business Council, 1818 N St. NW, Suite 200, Washington, DC 20036; Editor, Catherine Gelb, The US-China Business Council, 1818 N St. NW, Suite 200, Washington, DC 20036; Owner, The US-China Business Council, 1818 N St. NW, Suite 200, Washington, DC 20036.

I hereby request permission to mail the publication named above at the postage rates presently authorized by 39 USC 3526.

Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total No. of Copies	6834	5500
b. Paid and/or Requested Circulation		
(1) Paid/Requested Outside-County Mail Subscriptions (Include advertiser's proof and exchange copies)	2958	2847
(2) Paid In-County Subscriptions (Include advertiser's proof and exchange copies)	353	379
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	24	14
(4) Other Classes Mailed Through the USPS	39	40
c. Total Paid and/or Requested Circulation (Sum of 15b. (1), (2), (3), and (4))	3374	3280
d. Free Distribution by Mail (Samples, complimentary, and other free)		
(1) Outside-County	1000	909
(2) In-County	75	75
(3) Other Classes Mailed Through the USPS	—0—	—0—
e. Free Distribution Outside the Mail (Carriers or other means)	728	1080
f. Total Free Distribution (Sum of 15d. and 15e.)	1804	2064
g. Total Distribution (Sum of 15c. and 15f.)	5178	5344
h. Copies not Distributed	1656	156
i. Total (Sum of 15g. and h.)	6834	5500
j. Percent Paid and/or Requested Circulation (15c./15g. x 100)	65%	61%

(Signed) Catherine Gelb, Editor



The China Business Review welcomes articles from outside contributors. Manuscripts submitted for consideration should be sent to the editor at the address above. The US-China Business Council obtains licenses for all rights to articles and artwork published in *The CBR*. Articles or artwork published in *The CBR* may be reprinted or reproduced only with the written permission of the US-China Business Council. Articles in *The CBR* do not reflect US-China Business Council policy, unless indicated.

The China Business Review, ISSN No. 0163-7169, is published bimonthly by the US-China Business Council, 1818 N Street NW, Suite 200, Washington DC 20036-2470, USA (Tel: 202-429-0340), a nonprofit organization incorporated under the laws of the District of Columbia. Periodicals postage paid at Washington, DC, and additional mailing offices. Postmaster, please send address changes to *The China Business Review*, 1818 N Street NW, Suite 200, Washington DC 20036-2470, USA. ©The US-China Business Council, 2003. All rights reserved. ISSN No. 0163-7169; USPS No. 320-050

Annual Subscription Rates: \$129 US/Canada and \$169 international, print only; \$149 US/Canada and \$199 international, print and online; \$89 online only. Single copy issues: \$25, \$35 airmail; issues over 1 yr: \$15, \$20 airmail. DC residents add 5.75% sales tax. Subscriptions to *The China Business Review* are not deductible as charitable contributions for Federal income tax purposes.

PRINTED IN THE USA



THE US-CHINA BUSINESS COUNCIL

美 中 贸 易 全 国 委 员 会

Robert A. Kapp

PRESIDENT, THE US-CHINA BUSINESS COUNCIL



A Winter of Discontent?

To live in Washington this fall, you would think there was a crisis coming in US-China relations. Bill after bill, resolution after resolution pops up in Congress, blasting China for alleged “manipulation” of its currency to cheapen its products on world markets and deprive US companies and workers of opportunities and jobs. In manufacturing-heavy states, where unemployment is high and plants are shutting down, politicians are being subjected to “all China all the time” from angry and worried constituents. The US-China trade relationship, at least inside the United States, is now a point of friction at the political level. US business is divided, with thousands of smaller domestic firms already on the warpath about the China threat driving the big trade associations toward protectionism, while large international firms with major China operations lie low to avoid the familiar political dangers of demagogic denunciation and populist reaction.

Outside of trade, the United States and China seem to be managing their official relations reasonably well. The visit of Premier Wen Jiabao to the United States in early December, the expected meetings of presidents George W. Bush and Hu Jintao at the Bangkok Asia-Pacific Economic Cooperation meetings, the visit of the PRC Defense Minister Cao Gangchuan to the United States, and the visits of the whole top echelon of the Bush Administration’s economic cabinet (Treasury Secretary John Snow, US Trade Representative Robert Zoellick, and Commerce Secretary Donald Evans) suggest that mature government-to-government contacts at the highest levels are now routine—as they need to be, if problems in the US-China relationship are to be managed successfully.

Aside from the lurking possibility that some uncontrollable chain reaction arising from the politics of Taiwan’s March presidential election could put the United States and China at loggerheads, trade friction is the potential collision *du jour*.

The animus, for the moment, is on the US side. The pressure to “do something about China” is coming from small businesses and manufacturing interests increasingly concerned about Chinese inroads into the US market and Chinese competition on price in third-country markets—all facilitated, they argue, by an RMB-dollar exchange rate that renders China’s goods artificially cheap. China surely has a list of dissatisfactions with US treatment, ranging from antidumping and safeguard

cases against Chinese imports to security controls on US dual-use exports, but for the moment China is not initiating conflict with the United States.

That could change. One bill now before Congress, for example, would slap a 28 percent tariff on all Chinese imports if China failed to revalue its currency to suit US tastes. That would likely initiate a cycle of retaliation that would not only corrode trade ties, but would pollute the broader US-China engagement in which both sides have invested heavily over the past several years, especially since September 11, 2001.

In a US election year, there’s always the possibility of unexpected mayhem on international affairs. Hammering one’s political opponents for not dealing properly with foreign miscreants is a staple of the campaign season. It has happened on China before. It could happen again.

When all is said and done, though, I remain cautiously optimistic that we’ll get through the coming year without a trade-focused China eruption. Here is why.

1 The central case in question is not open and shut

On the debate over the value of the renminbi (RMB, or yuan), the focal point of US political energies directed at China these days, Congress’s own research arm, the Congressional Research Service, in a brilliant and succinct report dated September 29, 2003, *China’s Currency Peg: Implications for the U.S. and Chinese Economies*, says:

In the medium run, an undervalued yuan neither increases nor decreases aggregate demand in the United States....[I]t is expected to have no medium or long run effect on aggregate US employment or unemployment. As evidence, one can consider that the US had a historically large and growing deficit throughout the 1990s at a time when unemployment reached a three-decade low. However, the gains and losses in employment and production caused by the trade deficit will not be dispersed evenly across regions and sectors of the economy.

Another acute observer, economist Arthur Kroeber of *China Economic Quarterly*, cuts to the bone on the notion that the RMB should be valued at a particular level against the dollar, a concept that drives much of the fiery animus in the Congress:

Every time you see a currency analyst announcing that the "true" value of a currency is such-and-such, ask yourself why that person is toiling at an investment bank rather than sitting on the beach at Bora Bora counting his or her winnings from the currency trading casino. The fact is that no one knows what value the RMB would have if it floated tomorrow, and there is even less way of knowing what its value might be six months out.

On the merits, then, the furor over the Chinese currency lacks persuasive power. In the end, substance does matter; "politics" alone will not be determinative.

2 The political realities

One could argue that a big congressional dust-up over China, fed by the anti-PNTR (permanent Normal Trade Relations) coalition of 2000 and a new array of trade associations driven by angry constituents, offers political temptations.

Hitting alleged foreign mischief-makers for harming the US economy beats trying to come to grips, for example, with the colossal budget deficit that leaves Uncle Sam dependent on infusions of capital from hard currency holders like China and Japan.

Throwing a nearly 30 percent tariff on a hundred billion dollars' worth of imported products goes to US consumers might look more politically palatable than just raising taxes forthrightly.

Whacking at foreign trade offenders might also prove easier than trying to deal with perennial questions of workforce

training or structural economic adjustment, at a time when public schools are closing early for lack of funds and community colleges are shutting the door on young Americans' hopes for self-betterment because there is no money for staff and equipment.

Nevertheless, my hunch is that the China fury won't fly.

For one thing, a number of congressional leaders have already displayed little enthusiasm for legislating China's international monetary policy, and, equally important, many other congressional leaders have paid no attention to the China currency issue at all. There is a big difference between introducing legislation and steering it through Congress to final passage.

For another, much of the rising congressional chorus on China aims primarily to pressure the executive branch to "do something," and the executive branch normally has a more measured approach to frictions with China. No one really expects Congress to make a difference through constructive contact with China on outstanding economic issues; one does expect that from the Bush Administration.

Third, there has been no media feeding frenzy on the central issue, i.e., the alleged Chinese "manipulation of the currency." The media don't exactly drive the government, to be sure, but it is revealing and significant that major daily newspapers like the *New York Times* and the *Wall Street Journal*, and magazines like *Business Week*, have refused to jump on the punitive bandwagon. Quite the contrary: These mainstream publications have questioned the validity of the accusations against China on the currency issue and have counseled against confrontation on the matter.

3 The benefits of engagement

The potential for a corrosive degeneration of US-China relations over trade and economic frictions over the next year cannot be dismissed. Advocates of the benefits of expanded trade and investment have been loath to stand up and argue for the benefits of their already huge engagement with China, for a variety of reasons. The strength of their message is undercut by China's continuing failure to deliver on some of its key WTO market-opening promises. One of America's enduring "culture wars" leaves US multinationals open to withering political assault if they point out the benefits to US corporations derived from

their activities in China, even though China's contribution to corporations' global competitiveness merits recognition in the United States. Popular disenchantment with large corporations in the wake of repeated scandals drains any potential reservoir of sympathy for firms defending their decisions to operate in or import from China. Politically, the voice of the production worker whose job is in doubt *always* trumps the voice of the consumer whose household budget benefits from economically priced imports. Facing this maelstrom, American corporations engaged in China have so far tended to remain above the fray. Retailers whose existence depends heavily on the availability of Chinese products have been equally quiet.

Such reticence may stand them in good stead, but it may not. If we are to navigate the turbid waters of US-China relations over the next year, those with the most at stake in a growing bilateral trade and investment relationship will need to remind the key forces in US politics of the benefits that already flow from engagement with China. And they will need to work vigorously with the international business community, the US government, and the global trading system to ensure that China lives up to its key WTO commitments. Without that progress, the prospect of political conflict with China over trade policy will rise measurably.

Perhaps this just boils down to more shadow play. The United States, at the broad national-interest level, simply does not need a corrosive conflict with China over politically volatile but substantively shaky claims of Chinese currency manipulation. We have pressing global concerns and domestic difficulties, to which China is not a party or in which it is only marginally involved. China certainly doesn't need a major economic conflict with the United States as it struggles through unending domestic economic reorganization, banking problems, unemployment, and a whole host of familiar economic dilemmas. Perhaps, then, both sides will engage in a game of mutual accommodation aimed not so much at final resolution of incendiary domestic issues but rather at averting irreversible bilateral conflicts.

But the Coalition of the Raging exists, at least in the United States, as winter comes. Whether that coalition can force confrontation in the name of victory on its own powerfully felt agendas is the question of the season. 完

A Story in Numbers: Fighting Pollution

China's overall air pollution is high, although per capita emissions are low.

Table 1
Carbon Dioxide Emissions in Selected Countries, 1999

Region	Total million metric tons	Per capita metric tons	Kg/\$PPP GDP
Brazil	300.7	1.8	0.3
China	2,825.0	2.3	0.7
European Union	2,408.4	7.9	0.4
India	1,077.0	1.1	0.4
Japan	1,155.2	9.1	0.4
Russia	1,437.3	9.8	1.6
United States	5,495.4	19.7	0.6

Source: World Bank, *World Development Indicators 2003*

Note: GDP is adjusted for purchasing power parity to account for cross-border price differences. PPP=purchasing power parity.

For clean skies, China must shift from coal to gas.

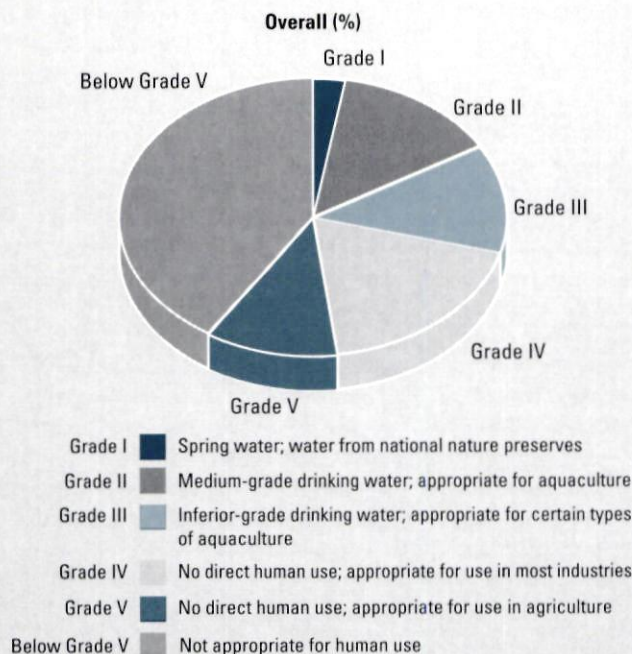
Table 2
Sources of Electricity in Selected Countries, 2000

Region	Hydropower (%)	Coal (%)	Oil (%)	Gas (%)	Nuclear power (%)
Brazil	87.3	2.9	4.8	0.7	1.7
China	16.4	78.3	3.4	0.5	1.2
European Union	11.6	27.8	7.4	14.5	35.8
India	13.7	77.4	1.0	4.5	3.1
Japan	8.1	23.5	14.7	22.1	29.8
Russia	18.7	20.0	3.8	42.3	14.9
United States	6.2	52.7	3.1	15.7	20.0

Source: World Bank, *World Development Indicators 2003*

China's water is also dirty—most is unsuitable for direct human contact.

Figure 1
River Water Quality in China, 2002



Sources: PRC State Environmental Protection Administration (SEPA), *2002 Report on the State of the Environment*, SEPA/State Administration of Quality Supervision, Inspection, and Quarantine, *Environmental Quality Standards for Surface Water*

The crux of the problem: A large population and scarce resources.

Table 3
Water Pollutants and Resources in Selected Countries

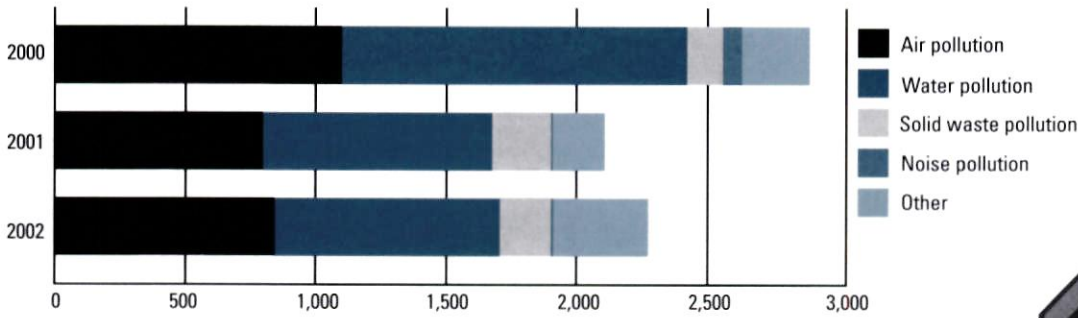
Region	Organic pollutants, metric tons/day	Per capita freshwater, m3
Brazil	629.4*	43,022
China	6,519.9	2,241
European Union	NA	3,832
India	1,648.5	1,878
Japan	1,359.6	3,389
Russia	1,485.8#	30,904
United States	2,562.3	9,985

Source: World Bank: *World Development Indicators 2003, Statistical Information Management and Analysis System*

Notes: *1995. #1998. NA=not available. Emissions data from 1999 unless otherwise noted. Freshwater resources data from 2000. Organic pollutants include fertilizers, sewage, and petroleum.

But despite stagnant spending on environmental projects...

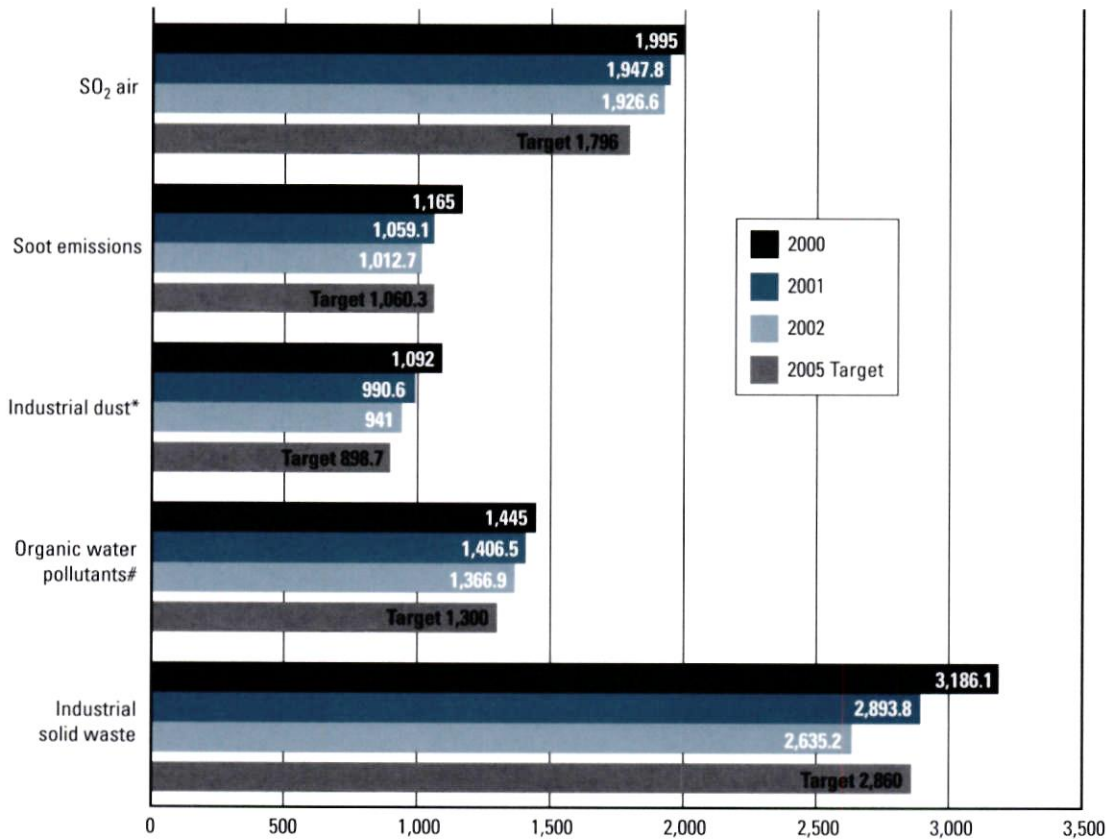
Figure 2:
China's Completed Environmental Investment in Industrial Abatement
(\$ million), 2000-02



Sources: National Bureau of Statistics (NBS), *China Statistical Yearbook*, 2001 and 2002; SEPA, *Report on the State of the Environment*, 2000, 2001, and 2002.

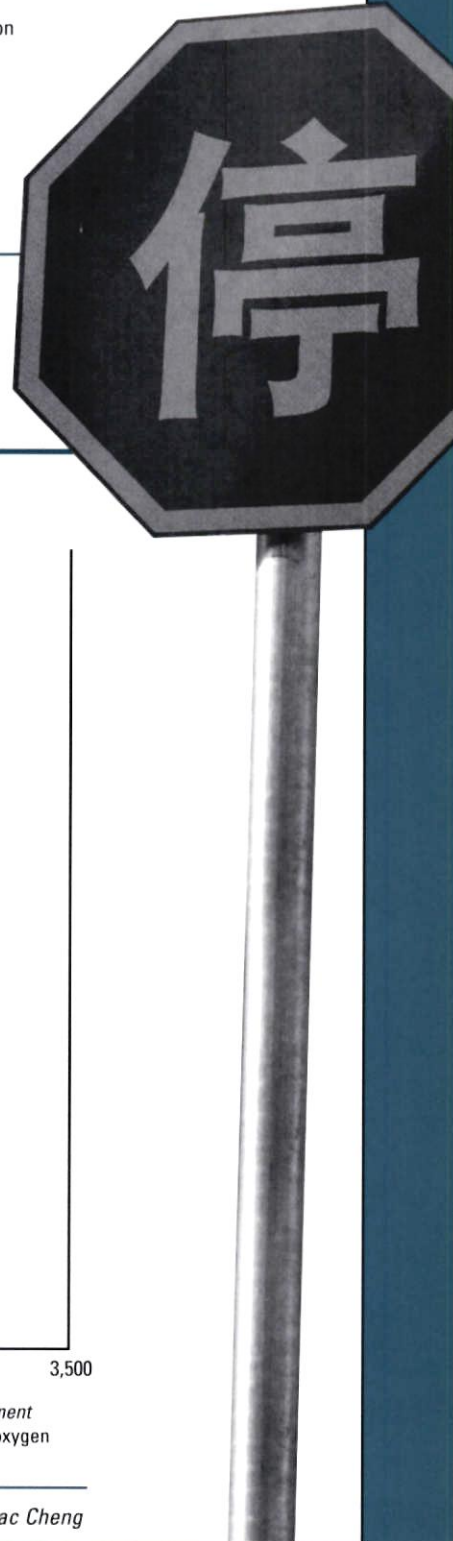
China is still on track to hit or surpass environmental targets set in its 10th Five-Year Plan (2001-05)

Figure 3: Emissions Levels for Various Pollutants in China, 2001-05 (10,000 tons)



Sources: SEPA, *The National 10th Five-Year Plan for Environmental Protection*; SEPA, *2002 Report on the State of the Environment*
Notes: *Industrial dust=particulate matter larger than 10 microns. #Organic water pollutants measured in terms of chemical oxygen demand.

—Isaac Cheng





GREEN *Ambitions*

Top 10 Questions on Environmental Projects

James Mayfield

China's environmental problems are severe. High rates of suspended particulate matter in the air, polluted water, and loss of old-growth forest cover that leads to desertification and flooding have left China with a shortage of safe and usable air, water, and land. The country's rapid economic growth and large population exacerbate these environmental problems.

The PRC government has estimated that to meet the environmental goals of its 10th Five-Year Plan (2001–05), it will need to spend roughly \$85 billion—1.3 percent of its total GDP for the period (see Figure, Table). Of this total, 11 percent will likely come from the central government; provincial and local governments are to supply around 35 percent. The central government seeks about \$4 billion from foreign

James Mayfield,

commercial officer, US Commercial Service, heads the Construction, Environmental, and Marine Technologies Team, US Consulate General, Shanghai.



Answers to the most frequently asked questions about China's environmental sector

governments and multilateral banks and hopes that private enterprises in China will provide the remaining funds.

These funding needs, together with China's World Trade Organization entry and preparations for the 2008 Olympic Games in Beijing, have presented and will present many environmental-sector opportunities for foreign businesses. Foreign companies considering these opportunities often seek out the US Commercial Service (CS) for answers to a range of questions about China's market for environment-related goods and services. The top-ten questions and answers follow.

Q: What environmental solutions does China need most?

A: Environmental needs vary from region to region in China, but water and wastewater treatment, flue gas desulfurization (used by coal-fired power plants to reduce sulfur dioxide emissions), and river basin management and flood control rank at the top of the list. Water reuse projects and sludge treatment and disposal are also high priorities for local planners.

Because environmental projects often lack funding, demand for market-based environmental solutions that allow investors to reap financial benefits is growing. Opportunities exist in the areas of environmental treatment, clean production, energy efficiency, and recycling and reuse technologies. Though local planners have shown an interest in industrial waste recycling and

municipal waste composting, the market for recycled products remains small, and quality standards for these products are lacking. Demand for remediation of industrial sites is also growing since factories must relocate to make way for residential areas, but local governments have limited resources available for cleanup.

Q: Which regions in China need which environmental projects most?

A: Though it would be convenient to attribute environmental problems to specific regions in China, the nature of air, land, and water pollution are such that environmental problems tend not to stay in one place for very long. Generally speaking, northern China suffers from soil erosion, desertification, and drought; southern China suffers from silting and acid rain; industrial cities choke from air pollution; urban areas lack proper sewage and water treatment; and many of China's rivers and lakes are seriously polluted.

Fortunately, environmental projects are sprouting up throughout China, from dust control in Inner Mongolia to wastewater treatment in Chongqing to hospital waste disposal in Shanghai. Beijing's hosting of the 2008 Olympics has cast a spotlight on the city's environmental protection effort, leading to a host of infrastructure, transportation, and conservation projects (see p.16). Shanghai's 2010 World Expo plans have spawned similar "green" projects such as clean mass transit, energy-efficient buildings, and auto emissions control. To prepare for the

expo, Shanghai launched a three-year (2003–05) environmental protection plan that focuses on water, air, solid waste, afforestation, industrial pollution, and agricultural contamination problems. Nearly 300 projects are planned, including several large sewage treatment plants along the Yangzi River and medium-scale plants on Hangzhou Bay.

Following the leads of Beijing and Shanghai, many cities and provinces have launched environmental protection campaigns to obtain funding from the central government or attract the attention of foreign investors. But many of these projects offer companies low returns on investment. Like much of China's development, many of the reliable and well-funded projects are located in the coastal regions, where competition is intense. The US CS can help direct US companies to specific projects and regional environmental officials.

Q: In what areas are US firms most competitive in China?

A: Air and water monitoring equipment and laboratory instrumentation are key growth areas in which US firms have an edge over local and foreign competitors in technical capability, reliability, and overall reputation. Most university laboratories in China are outfitted with American-made gas chromatography and other analytical equipment, for example. Industrial air filtration and wastewater treatment systems, clean transportation, and energy-efficient production methods offer additional opportunities.

In the last six months, the US CS has seen an increase in the demand for hospital waste-disposal technologies as well as soil remediation—areas in which US firms offer some of the most advanced solutions in the world.

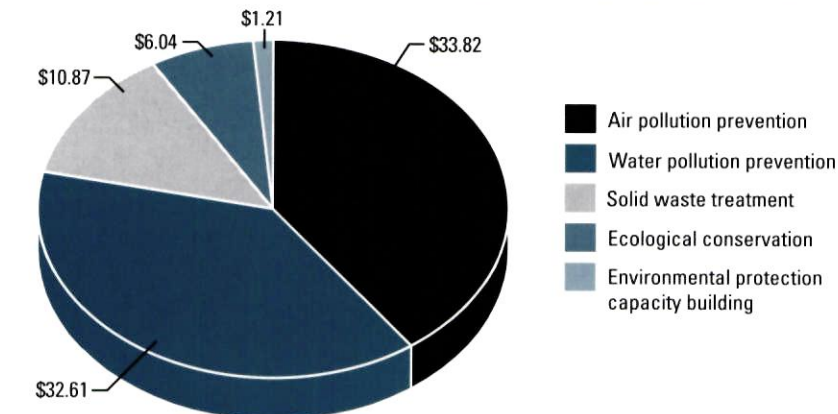
Q: Many projects in China are funded by concessionary financing or tied aid from foreign governments that require purchase of equipment from the donor country, making it difficult for US firms to compete. Does the United States offer similar tied aid to China?

A: There is much debate among countries about whether tied aid is an effective and fair practice, and the United States does not currently offer tied aid programs in China. Although Chinese project planners will rarely decline free or heavily subsidized equipment deals, many find the red tape and lack of flexibility in purchasing to be undesirable—especially if they prefer a different technology.

Q: How should my company approach World Bank- and Asian Development Bank-financed projects?

A: It is important to identify projects that are likely to receive World Bank (WB) or Asian Development Bank (ADB) funding early in the process by networking with local design institutes, government authorities, foreign engineering firms, and bank project officers. Equipment requirements and specifications for these projects are usually identified before the loan is finalized, well before the tender opportunity is made public. Having a local presence in the market, either through a sales office or a sales agent, helps companies learn about projects early, introduce their technologies, and follow

Figure: Distribution of Environmental Protection Investment in China's 10th Five-Year Plan (2002–05), \$ billion



Source: PRC State Environmental Protection Administration

up as the project unfolds. The US CS also has liaison offices at the ADB and WB to help US firms learn more about competing for these projects.

The Export-Import Bank of the United States (Ex-Im) offers loan guarantees and financing options for US equipment sales in China. And to introduce American technologies in energy, environment, transportation safety, and telecommunications, the US Trade and Development Agency (USTDA) offers grants to conduct feasibility studies, training packages, and study trips for Chinese project developers. USTDA grants offer an excellent platform from which to get involved in project planning in China (see <http://www.exim.gov/> and <http://www.tda.gov/>). Ex-Im and USTDA programs can offer incentives to persuade local planners who prefer US technologies to buy American.

Q: Is there much demand for environmental consulting services?

A: Although consultants have traditionally had difficulty selling their services in China, the opening of China's services market to foreign competition, improved environmental standards and compliance requirements, and the demand for sophisticated technologies have led to more consulting opportunities. Many European firms have been successful in bundling consulting services with turnkey design-and-build projects. Some equipment providers offer free consulting services up front to develop sales later in the project. WB and ADB projects usually include substantial consulting and technical assistance components that are open for bids from international firms.

Though it may be difficult to sell consulting services to China's state-owned enterprises, the steady stream of foreign investment into China has created a niche for consulting services that offer their expertise to foreign manufacturers throughout the country. Foreign consulting firms that sell environmental due diligence, environmental health and safety, or environmental impact study services to major corporations in the United States or elsewhere should consider

Table: Key Environmental Protection Engineering Projects under China's 10th Five-Year Plan (2001-05)

Type of Project	Number of Projects	Expected Investment (\$ billion)
Water pollution treatment, Huai River basin	88	1.12
Water pollution treatment, Hai River basin	119	2.05
Water pollution treatment, Liao River basin	16	0.47
Water pollution treatment, Tai Lake basin	18	0.63
Water pollution treatment, Dian Lake basin	2	0.42
Water pollution treatment, Chao Lake basin	9	0.11
Water pollution treatment, Three Gorges reservoir and upper reaches	98	1.76
Environmental treatment, Beijing (2002-07)	75	6.47
Comprehensive treatment, Bo Sea [Bohai]	11	0.19
Water pollution treatment, mid- and lower Yangzi River	70	3.43
Water pollution treatment, mid- and upper Yellow River	37	0.82
Water pollution treatment, Songhua River basin	19	0.63
Pearl River	27	1.10
Water pollution treatment, other river basins	17	0.50
Sulfur dioxide treatment, two [acid rain, SO ₂] control zones	130	5.11
Air pollution treatment, other control zones	27	0.90
Safe disposal of hazardous wastes	28	0.79
Treatment of urban domestic garbage	126	2.15
Ecological conservation	220	3.01
Total	1,137	31.64 [31.66]*

*NOTE: The PRC State Environmental Protection Administration (SEPA) expects its Green Project Plan (Phase II) investment to total \$31.64 billion, but the projects listed above total \$31.66 billion.

Source: SEPA (www.zhb.gov.cn/english/plan/tenth.htm)

offering these services to their clients' China operations, if they haven't already. Many environmental consulting firms target multinational corporations in China's burgeoning manufacturing, information technology, semiconductor, pharmaceutical, and petrochemical industries.

Q: Is it true that the PRC government plans to invest billions of dollars in wastewater treatment?

A: PRC government plans call for massive investment in this sector, but most projects are either financed in renminbi or lack financing altogether. Foreign companies that want to access a larger portion of this market must be willing to accept local currency, make equity investments in projects, or offer competitive financing terms on equipment and technology sales.

Although multilateral bank loans represent a drop in the bucket compared to China's investment needs, there are several multimillion dollar WB and ADB projects currently in the planning pipeline, including urban environmental plan-

ning, acid rain control, river basin management, and wastewater treatment in Anhui, Beijing, Jiangsu, Shanghai, Sichuan, and Zhejiang, to name a few projects. These projects usually offer international competitive bidding opportunities and payment in hard currency.

Q: Do build-operate-transfer (BOT) projects make sense for wastewater treatment projects?

A: BOTs are possible but there are few, if any, profitable BOT projects in China's wastewater sector. Because environmental projects perennially lack funding, local officials hope to attract foreign investment into this sector by offering 20–30 year operating concessions to foreign companies in return for building the facilities. Since the government commonly subsidizes domestic treatment plant operation, domestic project planners and their foreign counterparts often disagree on the technology and investment required to turn a profit. Low tariff rates, fragmented fee-collection systems, irregular accounting practices, and lack of payment guar-

US Commercial Service China Offices and Key Websites

US Commercial Service (CS), Beijing

31/F, North Tower, Beijing Kerry Center
1 Guanghai Road
Beijing 100020
Tel: 86-10-8529-6655
Fax: 86-10-8529-6558/9
E-mail: beijing.office.box@mail.doc.gov

US CS, Chengdu

4 Lingshiguan Road
Renmin Nanlu Section 4
Chengdu, Sichuan 610041
Tel: 86-28-8558-3992/9642
Fax: 86-28-8558-9221/3520
E-mail: chengdu.office.box@mail.doc.gov

US CS, Guangzhou

14/F, China Hotel Office Tower, Room 1461
Liu Hua Road
Guangzhou, Guangdong 510015
Tel: 86-20-8667-4011
Fax: 86-20-8666-6409
E-mail: guangzhou.office.box@mail.doc.gov

US CS, Hong Kong

26 Garden Road
Central, Hong Kong SAR
Tel: 852-2521-1467
Fax: 852-2845-9800
E-mail: hong.kong.office.box@mail.doc.gov

US CS, Shanghai

Shanghai Center, Suite 631
1376 Nanjing West Road
Shanghai 200040
Tel: 86-21-6279-7630
Fax: 86-21-6279-7639
E-mail: shanghai.office.box@mail.doc.gov

US CS, Shenyang

52 Shi Si Wei Road
Heping District
Shenyang, Liaoning 110003
Tel: 86-24-2322-1198
Fax: 86-24-2322-2206
E-mail: shenyang.office.box@mail.doc.gov

Key Department of Commerce websites

US Commercial Service
www.buyusa.gov/china/en
Environmental Technologies Industries
www.environment.ita.doc.gov/
US Government Export Portal
www.export.gov

—US Commercial Service

antees are key barriers to developing viable BOT projects. These projects make more sense in the water-supply sector where increasing demand, combined with gradually rising water tariffs in residential, commercial, and industrial sectors, make investment more attractive.

Q: Are there any good environmental trade shows in China?

A: There are a number of trade shows in China, but most of them are small and regional, and many are not well organized. The biannual China International Environmental Protection Industry Conference is the country's largest and will take place in Beijing December 15–18, 2003 (see www.chinaenvironment.com/ciepec2003/). The conference will cover a wide range of sectors including air pollution, water, wastewater, solid waste, recycling, green transportation, and energy conservation. The Fifth Guangzhou International Environmental Protection Exhibition, which will occur November 19–22 (see www.gdepi.com.cn), is also broad in scope. The China Environmental Protection Industry Association plans to organize a large show in Shanghai in October 2004. US firms should consider participating in technical seminars and conferences to network and learn the latest trends. Local government bureaus are often eager to co-organize workshops and technical seminars to introduce foreign technologies.

Q: What kind of assistance can the US CS provide my company?

A: The US CS, part of the US Department of Commerce, offers market research, advisory services, and introductions to key players in the market and has offices in Beijing, Hong Kong, and Shanghai, as well as in Chengdu, Sichuan; Guangzhou, Guangdong; and Shenyang, Liaoning (see p.14).

The Commercial Service in China publishes a weekly electronic newsletter, *US-China Environmental Business News*, that identifies key projects, market trends, and events throughout China and also offers US firms a chance to advertise in the Chinese-language *US Environmental Handbook*, published annually by CS China. For more information, see www.buyusa.gov/china/en.

A final word of advice: Take time to build a presence

China's environmental sector presents US environmental technology firms with a wide range of opportunities, though competition is intense and the US CS advises firms to select projects carefully, establish a local presence, and focus on well-funded projects. Firms should be prepared to build a sales network, market their technologies, and develop a well-planned business model—including taking the practical and legal steps necessary to protect intellectual property. All of these steps take time.

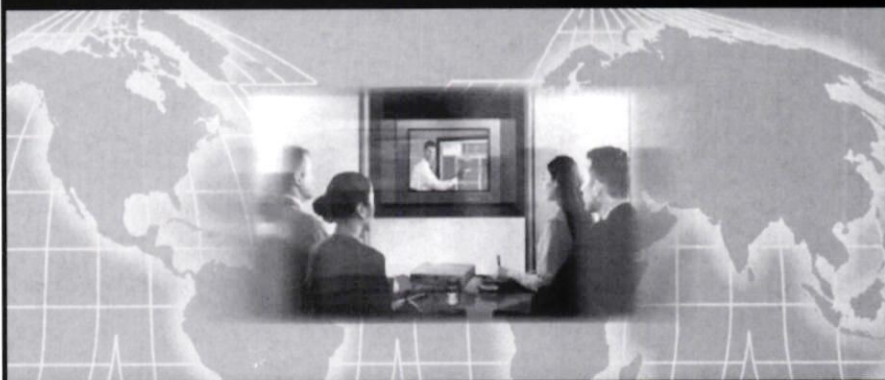
American equipment vendors may wish to strengthen partnerships with engineering firms and other equipment vendors that sell complementary product lines to offer turnkey solutions. Firms that have established alliances with consultants, contractors, suppliers, or manufacturers in the United States should consider extending those relationships to China to expand networks and improve their competitiveness. With changing market conditions, new environmental regulations, and intensifying, foreign and domestic competition, US firms need to use all available resources to penetrate and develop China's environmental market. The US CS can help along the way. 完

save travel

save time

save money

INTERNATIONAL VIDEOCONFERENCE



 POLYCOM™ **SONY**

- Sharp Image
- Audiophile-quality
- High Security
- Interactive

We specialize in providing the complete end-to-end deployment and multilingual technical support services among US, Japan and China. Please call us toll free at **1.888.615.9600**, or visit us at web **www.hitachisoftware.us**

HITACHI
Inspire the Next

 Hitachi Software Engineering America, Ltd.



GREEN *Ambitions*


Making Green in Beijing

Timothy Hildebrandt

When the International Olympic Committee (IOC) awarded the 2008 Summer Olympic Games to Beijing on July 13, 2001, Parisians wept; dreams of beach volleyball under the magnificent shadow of the Eiffel Tower would not come true. Meanwhile, many French multinational corporations (MNCs) quietly celebrated, planning to turn a blow to national pride into an economic windfall. A similar scene played out in boardrooms around the world. The eagerness with which the business community has greeted the first Olympics in the world's largest country is unsurprising given China's tremendous market potential. Another primary reason for business excitement, however, is quite extraordinary: the environment. Beijing has promised that the 2008 Olympics will be the most environmentally friendly Games ever. The environmental

Timothy Hildebrandt

is managing editor of the *China Environment Series* at the Woodrow Wilson International Center for Scholars in Washington, DC.



China's capital plans the most environmentally friendly Olympic Games the world has ever seen

upgrades needed for such a feat require investments so great that preparation for Beijing's "Green Games" will be incredibly lucrative.

The importance of being green

China's Green Games odyssey began in the wake of a national defeat. In the mid-1990s, with the country's economic reforms under way for almost 20 years and memories of the Tiananmen Square massacre beginning to fade, China was confident that its bid to host the 2000 Summer Games could beat the bid of Sydney, Australia, the favorite of the more-developed candidate cities. But Sydney held a trump card. Responding to an IOC declaration that the environment would join sport and culture as the third pillar of the Olympic movement, Australian planners made sustainable development and ecological concerns a major component of their bid. This devotion to the environmental pillar, in addition to lingering concerns over China's human rights record, tipped the IOC voting in favor of Sydney by two votes.

Olympic planners in Beijing did not skip a beat in recasting the city's bid to secure the next available Games in 2008. Learning from Sydney's success, China proposed to host the world's first truly environmentally friendly Olympics. More important, Beijing backed its rhetoric with a plan and a great amount of money. In what would be the winning bid—defeating Paris and other far more developed cities like Toronto—Beijing pledged a massive environmental overhaul over a relatively short

nine-year period, in time to host the summer games.

Though intended as a showcase for athletic achievement, the Olympics are also a chance for the host city to put on a grand global display. With this in mind, China has made sure that its efforts to green the games will be visible—and thus has devoted much energy to projects that "show well." One government official underscored the desire to look good, suggesting that Beijing is cleaning its environment "just as you might...clean the curtains before visitors arrive." Beijing officials promise that park area will account for more than 60 percent of the main Olympic venue and maintain that, by the time the Olympic torch arrives in China, 40 percent of Beijing will consist of parks and waterways. Though these areas will spruce up the city's appearance, they will not have a substantive positive environmental impact. Moreover, planting trees and laying sod is not among the greatest of business opportunities.

Expanding Beijing's park area is only part of the plan, however. Over the last three years, billboards have cropped up throughout China carrying the simple phrase: "New Beijing, Great Olympics." More than just cleaning the curtains, Beijing is trying to reinvent the way in which citizens live and industries operate. Of the estimated \$25 billion devoted to the 2008 Olympics preparations, nearly half has been earmarked for environmental improvement projects. The Beijing Sustainable Development Plan, authored as part of the city's bid to host the games, calls for a total of \$12.2 billion to be spent on projects ranging from moving or retrofitting high-

polluting factories, and shifting from coal to gas for heating and energy production, to reducing auto emissions and solid waste (see below). Efforts on such a scale have forced Beijing to

By 2008, Cummins and other manufacturers of clean energy engines can expect to carve out an even larger piece of the market, as Beijing has resolved to turn 90 percent of all buses and 70 percent of taxis into clean-fuel vehicles.

turn to the private sector, which could help a growing domestic environmental protection industry. Government officials predict an annual green industry growth of 15 percent, reaching ¥200 billion (\$24.2 billion) in the next year.

Political and economic risks

The large number of projects and the vast amounts of money allocated for environmental improvements are just part of the story in

Beijing. To understand the seriousness of China's commitment to the Green Games—and the reason why businesses are particularly excited by these Olympic Games—it is important to look at the lengths to which the Chinese government has been willing to go to achieve sustainable development. For example, well before the 2001 Olympic decision, China began to open political space for domestic and international environmental nongovernmental organizations (NGOs). This departure from past policies banning such independent organizations was not, however, an indication of an increasingly liberal power structure in Beijing, nor was it done to release pent-up citizen discontent. More simply, the government was acknowledging its need for help in dealing with pressing environmental issues. The government, in effect, took a political risk to ensure that it could meet its environmental goals.

Similarly, the Chinese government has taken an economic risk to solve environmental problems. Beijing has increasingly put aside old protectionist policies to allow more foreign companies, with more experience in environmental businesses, to enter the market in preparation for the Olympics. Beijing's Vice Mayor Liu Jingmin pronounced last spring that "foreign enterprises...are welcomed to participate in [Olympics-related] construction, so as to gather the world's foremost experience and technology." Liu Qi, former Beijing mayor, reiterated the call to "guide foreign enterprises" to take part in the modernization drive, called for "top-rate" foreign construction planners and designers, and even went as far as to suggest that Beijing should encourage large MNCs to buy or invest

The Beijing Sustainable Development Plan

The Beijing Sustainable Development Plan, part of the Beijing Olympic Action Plan, parallels China's implementation of Agenda 21, a United Nations-developed strategy adopted by countries around the world to address the frequent conflicts between development and the environment. The plan for the 2008 Summer Olympics outlines specific environmental areas in which the city hopes to improve and it provides precise goals and deadlines. One area of particular concern is pollution control. In an effort to meet World Health Organization standards, the plan outlines strategies to:

- Reduce coal consumption almost 50 percent by 2007 and adopt strict Euro III auto emissions limits by 2005;
- Minimize industrial air, water, and noise pollution through stricter enforcement of laws and forced migration or closure of large polluters, particularly iron, steel, and cement producers;
- Protect drinking water sources by cleaning

Beijing's major reservoirs and increasing urban sewage treatment in Beijing to 90 percent coverage by 2008;

- Tighten control of solid waste with targets of 80 percent industrial waste reuse and 30 percent domestic waste reuse by 2005; and
- Expand adoption of ISO 14000 environment management certification and cleaner production systems.

Additionally, the plan seeks to encourage ecological development in Beijing by:

- Dismantling illegal buildings and installing greenery throughout Beijing with the goal of one park per 500-meter block;
- Preventing soil erosion in 70 percent of mountainous areas and 100 percent of sandy areas by 2008;
- Promoting water conservation through higher water prices, cuts in water consumption, and increase of water reuse rates to 50 percent by 2008;

- Setting aside 10 percent of the city's area as natural reserves;
- Shifting local agriculture from grain crops and husbandry to organic, high-value crops;
- Protecting biodiversity by establishing plant and wildlife monitoring systems by 2005, and a wildlife first-aid center by 2008; and
- Improving the ecological awareness of citizens through 24-hour complaint hotlines, expanded youth education programs, and increased government transparency in environmental decisions.

—Timothy Hildebrandt

Source: Beijing 2008, "Sustainable Development Strategy of Beijing," *Beijing Olympic Action Plan* (www1.beijing-2008.org/olympic_new/english/features/plan_8_01.html).

in state-owned enterprises. Officials have called particularly for international involvement in high-tech environmental industries, such as advanced energy efficient heating and cooling systems, recycling facilities, and processing centers for safe disposal of waste electronics. The emphasis on technology serves as another indication that Beijing is willing, and even quite eager, to look outside of China to foreign MNCs that possess superior methods and equipment.

One of Beijing's most ambitious environmental projects has been its effort to reduce auto emissions—a task made all the more difficult by a growing middle class eager to flaunt its economic independence behind the wheel of a private car. The Ministry of Science and Technology said it would invest \$106 million to speed up development of electric vehicles.

Answering the government's call for cleaner vehicles, US-based Cummins Corp. offered up its compressed natural gas (CNG) engines to green Beijing's massive fleet of public buses. Beijing has already purchased 2,000 Cummins CNG-powered buses and now has one of the world's largest natural-gas bus fleets. Needless to say, Cummins is benefiting greatly from China's new devotion to the environment.

By 2008, Cummins and other manufacturers of clean energy engines can expect to carve out an even larger piece of the market, as Beijing has resolved to turn 90 percent of all buses and 70 percent of taxis into clean-fuel vehicles. In total, analysts estimate that 48,000 clean energy vehicles will travel Beijing's ring roads in time for the Olympic Games—the vast majority of these vehicles have yet to be produced, and clearly the market is ripe for even more international involvement.

Another winner in the push to clean up Beijing is French utilities giant Veolia Water (formerly Vivendi Water), which recently signed a \$50 million contract to build and manage an

Beijing's extensive greening plan has some flaws. Moving polluting industries out of Beijing, for instance, may save the capital but threaten the environment of surrounding areas.

industrial wastewater treatment plant in Luguoqiao, a western suburb of Beijing. The plant is one of six that Beijing will build to ramp up wastewater reclamation prior to 2008. Veolia's successful bid also reveals the importance of coordination in Olympic bidding—both with the company's ongoing China expansion and with outside agencies. Veolia announced that it had won a waste-disposal contract in Shanghai at the same time that it announced the Beijing contract. The World Bank will fund the lion's share of the wastewater treatment plant's construction, reducing Veolia's required contribution to \$5.9 million.

US-China Bilateral Projects

One notable example of interagency government cooperation is the "Sustainable Agriculture and Water Activities for Green Beijing Olympics 2008." Initiated by the Department of Energy (DOE) and the Beijing municipal government, the project began with a joint US-China working group meeting in December 2002. Members of the US delegation—which included representatives from the Department of Commerce; DOE; the Environmental Protection Administration; the National Oceanic and Atmospheric Administration; the United States Department of Agriculture (USDA); and several national laboratories—worked with their Chinese counterparts to identify areas of mutual interest for cooperation.

During the meeting, USDA presented a summary of existing water projects in China

and proposed potential activities on water treatment, water quality monitoring and reuse, animal waste treatment, and forestry applications. The group has identified nine areas for potential cooperation; USDA will coordinate the water-related activities. To date, the US side has recommended specific water activities and DOE has provided the Beijing Olympic Science and Technology Committee with a comprehensive list of each US agency's current water activities in China and each agency's contact information. A second meeting to discuss follow-up actions is scheduled to take place in Beijing in the coming months.

US government projects in China have also begun to incorporate Olympic-related elements into preexisting initiatives. Since 1985, the United States Geological Survey has partnered with China's State Bureau of

Surveying and Mapping to develop map-based geographic information systems (GIS), apply remote sensing information, and facilitate exchange of US and Chinese experts. One current project scheduled to continue until 2006 will supply GIS support for the 2008 Beijing Olympic Games. Information from the innovative GIS technology will allow planners in Beijing to better address pressing issues such as desertification, water scarcity, and air pollution.

—Timothy Hildebrandt

Source: *China Environment Series* Issue 6, Woodrow Wilson Center (<http://www.wilsoncenter.org/cef>).

US companies: Overcoming obstacles, with government help

Despite the many opportunities for international businesses in Beijing, competition among multinationals is stiff, and the job of securing contracts is not equally easy for all foreign bidders. Congressional restrictions on US aid and assistance to China have handicapped American companies somewhat in their quest to break

Under the ideal scenario, by 2008 China's environment will have improved significantly, and US firms will boast increased profits and market presence as a result.

into the Chinese Olympic market. One representative from the US Department of Commerce (DOC) interviewed for this article shared the frustration of US companies, acknowledging that the playing field is not quite even. Unlike the US government, she explained, European and Japanese governments are free to offer soft loans and tied aid. Companies from these countries are consequently able to present more compelling bids than US companies, can more easily secure Olympic contracts, and eventually may make a bigger splash in the market. Not all hope is lost for American corporations, however. US products often carry a cachet not enjoyed by products from other countries; when

the Chinese want to show off, they buy American. In these instances, a more competitive financing package might play second fiddle to superior product quality and better name recognition.

More important to companies' prospects, however, may be the strenuous efforts of some US government agencies to help secure a piece of the Green Games pie for US-based firms. While the bulk of US government projects are intended to assist the Chinese in achieving their environmental goals, nearly all also seek to do so with the participation of US companies. For example, DOC alerts companies to opportunities in Beijing. DOC representatives in Beijing track Olympic-related projects and release a periodic "Olympic Hot Sheet" via e-mail updates on different bidding opportunities; representatives post similar information on the DOC website, www.buyusa.gov/china/en. The Advocacy Center within DOC also lobbies on behalf of bidding US companies to help secure more contracts.

Several government agencies—including the Export-Import Bank, Federal Transit Administration, US Trade and Development Agency, Department of Energy (DOE), and DOC—are working together on 2008 Olympic projects in a terrific example of bureaucratic cooperation. Building on years of US government work to strengthen energy efficiency standards and regulations, DOE has begun to answer China's call for energy industries to assist in its greening efforts. Though many of the projects are still in their infancy and were derailed temporarily by the outbreak of severe acute respiratory syndrome, DOE representatives are encouraged by the Chinese government's eagerness to absorb as much information as possible. DOE officials are also confident that US companies will be playing a significant role in project planning and implementation.

Under the ideal scenario, by 2008 China's environment will have improved significantly,

Sydney 2000: Epilogue

In preparation for the 2000 Olympic Games, the Olympic Environment Committee of Sydney, Australia, published the "Environmental Guidelines for the Summer Olympic Games" (www.o.ca.nsw.gov.au/resource/environment_guidelines.pdf) in September 1993 after consultation with various environmental experts and NGOs. The guidelines spelled out the threats of unchecked development and made specific suggestions on mitigating ecological effects from the Olympic Games. Topics familiar to Beijing planners today were broached by Sydney officials in the guidelines: energy and

water conservation, waste avoidance, and clean transportation. But unlike Beijing's rather comprehensive environmental plan, Sydney's was light on implementation details. Environmental spending estimates were not released with the guidelines, and at the games' conclusion, spending was estimated to have reached only \$80.8 million, the bulk of which was used to clean the main site for Olympic activities, Homebush Bay, which had been contaminated by years of industrial pollution.

NGOs tracked Sydney's progress avidly, setting up a watchdog organization and web-

site (www.nccnsw.org.au/member/ggw/) to hold Sydney to its word. In the end, they were disappointed with the results of the 2000 Olympics, noting that the games had a green luster but were not truly environmentally friendly. Notably, promises contained in the guidelines to use cooling systems and construction materials free of chlorofluorocarbons went unfulfilled; low-polluting automobiles were nonexistent; and the environmental industry that was expected to emerge after the games never materialized.

—Timothy Hildebrandt

and US firms will boast increased profits and market presence as a result.

Winners and losers

Clearly the business community is poised to participate in Beijing's massive effort to reconstruct the city in a greener image. What is not yet known, however, is whether the environment will actually benefit. Beijing's extensive greening plan has some flaws. Moving polluting industries out of Beijing, for instance, may save the capital but threaten the environment of surrounding areas. Ironically, a green look for the Olympics might also intensify existing environmental problems: Water-hungry lawns will exacerbate the severe water shortage in northern China, and using precious groundwater to plant trees will further deplete aquifers, weakening the region's already fragile ecosystem.

The increased role for business has also come at the expense of the original environmental champions in China: NGOs. Environmental activist organizations that the government previously included in the bidding process have effectively been squeezed out of substantive work for the Green Games. The government limits NGO involvement to tree-planting and other urban beautification efforts, while specification and consultation work on high-profile Olympic projects is reserved for "experts," defined more strictly as environmental consultants and large MNCs. Domestic NGOs will not be completely absent from the Green Games, however. Most have already begun public education campaigns in conjunction with the government's environmental plans. Environmentalists in China are a particularly pragmatic lot. Certainly they lament their diminished role in the process, but they also see the Olympics as an opportunity to make the environment of even greater concern to leaders.

The environmental boom: Will it last?

The 2008 Olympics offers China an opportunity to cement itself as an international leader in environmental protection. Beijing will make significant environmental improvements in time for the games—but will China continue down this path of sustainable development even after the last athlete leaves the Olympic Village? The government has made a public pledge to the

Beijing will make significant environmental improvements in time for the games—but will China continue down this path of sustainable development even after the last athlete leaves the Olympic Village?

international community, and it needs to follow through to maintain credibility and continue to cultivate an image as a responsible international player. At the very least, skeptics can rest assured that China's environmentally friendly policies will continue for several years after the games: China's performance on the world stage is continuing with the 2010 World Expo in Shanghai which, though relatively unnoticed by the international community, has been ballyhooed by the Chinese government as another international showcase for China.

Companies that venture into China in conjunction with these Green Games will surely forge a lasting presence in China. Foreign businesses will likely make great profits in the short term and can anticipate future cooperative work with a PRC government that relishing its role as the head of an environmentally responsible developing economy. Moreover, many corporations currently without a significant presence in China can use this opportunity to carve out niches in the world's fastest-growing economy. And all companies engaged in environmental work will likely improve their public image. In a world market that is increasingly aware of and concerned with ecological degradation, the Green Games will allow business leaders to recast their company as environmentally aware—while boosting the bottom line. 完



GREEN *Ambitions*

Cultivating Environmental NGO-Business Partnerships

Jennifer L. Turner

In industrialized countries, environmental nongovernmental organizations (NGOs) and the private sector tend to interact in one of two ways: NGOs gratefully accept funding from businesses or the two face off as enemies. But over the last 15 years, a few pioneers in both sectors have begun to move beyond these two options to share expertise and resources, with the goal of setting a common agenda for sustainable development.

NGOs and businesses intertwined

Successful environmental NGO-business partnerships are truly collaborative, with a jointly defined agenda that focuses on a clearly measurable goal. But such collaborations are often fragile. Corporations will sustain their participation only if it either benefits them financially or improves their credibility in environmental stewardship. NGOs working with businesses are often criticized even by supporters and accused

Jennifer L. Turner

coordinates the China Environment Forum and edits the *China Environment Series* at the Woodrow Wilson International Center for Scholars in Washington, DC.



Moving beyond simple philanthropy in the environment and the market

of being co-opted by “the enemy.” Thus, such partnerships must show concrete results to reassure stockholders and NGO members alike. Fortunately, these goals can be combined. Environmental NGOs can increase the impact of their work by helping corporations transition to cost-effective, environmental practices. Some environmental NGOs that have forged successful partnerships with the private sector include

- **TRAFFIC-Hong Kong**, one of the 22 offices of an NGO network that monitors wildlife trade globally. TRAFFIC-Hong Kong partnered with **Cathay Pacific Airways Ltd.** to improve the airline’s ability to stop the smuggling of rare plants and species on its planes. TRAFFIC trained baggage handlers to recognize signs of illegal flora and fauna in luggage and boxes. Halting illegal shipments helped Cathay Pacific avoid fines and strengthened the airline’s environmental reputation.
- **Environmental Defense (ED)**, a leading US-based environmental NGO, which is working with **Citigroup** to increase the recycled content in copy paper used by Citigroup, reduce the company’s paper use, and develop environmental evaluation criteria for its paper suppliers;
- **Fairtrade Foundation**, a British NGO, which launched a pilot project in 1997 to work with companies in the United Kingdom to develop codes of conduct for purchasing from suppliers in developing countries; and,
- **World Wide Fund for Nature (WWF)**, which helped set up a new global system for endorsing products from properly managed forests—the Forest Stewardship Certification

(FSC) scheme. Instead of waiting for governments to impose regulation, WWF and a coalition of NGOs and corporations spearheaded the creation of the FSC, which has helped move the timber industry toward more sustainable forestry practices.

A young generation of Chinese NGOs

Such examples are much more difficult to find in China, where environmental NGOs are a relatively new phenomenon. NGOs emerged only in the mid-1990s after the central government clarified regulations granting such social groups legal status. The NGO registration processes are still complex, and many green activists opt to take the easier route of registering their NGOs as for-profit business enterprises, even though these enterprises must pay tax. Many registered and unregistered environmental groups in China depend on funding from international sources, such as the Rockefeller Brothers Fund, Blue Moon Fund (formerly W. Alton Jones Foundation), Global Greengrants Fund, Blacksmith Institute, Energy Foundation, and the Canadian International Development Agency.

Green NGOs in China likewise depend on government goodwill for media coverage and political support. Thus, most Chinese NGOs focus on environmental education and hew closely to the government’s environmental agenda. A handful of China’s environmental NGOs push the envelope by providing policy recommendations to the government, empowering pollution victims in the courts, and working

with local governments to give rural communities more voice in protecting natural resources.

Difficult but fruitful collaboration

In short, despite the growing dynamism of Chinese NGOs, few have developed the technical or management capacity to monitor or partner with industry. One rare example is Friends of Nature, China's first legally registered NGO, which began discussions in 2000 with Beijing hotels to gather input on creating a green hotel certification program in preparation for the 2008 Olympics. Another exceptional NGO is the Yunnan Entomological Society, which advised tea plantations in Yunnan on developing non-toxic pest control methods. Teaming up allowed the plantations to gain entry into European markets, which have banned many pesticide-heavy tea products from China.

Collaboration between Chinese NGOs and businesses more often occurs within bilateral or international NGO initiatives. Though also few in number, these NGO-business collaborations are groundbreaking because they build the capacity of Chinese NGOs to work with businesses to improve manufacturing processes and set business practices and standards. Chinese NGOs can play a crucial role in building better communication between businesses and local communities. Businesses thus benefit from improved production processes and better relations with local communities. These international initiatives are also building cooperation among governments, NGOs, and industries in China, which should help to increase acceptance of NGOs in China's environmental sector. Notable international NGO initiatives working with industry in China include

- **Natural Resources Defense Council (NRDC)**, a well-established, US-based NGO, whose China Clean Energy Program brings government, business, and NGOs together to improve energy efficiency. In its Initiative for Taipei-Shanghai Cooperation on Fuel Cell Vehicles and Sustainable Transportation, NRDC worked with the South-North Institute for Sustainable Development (a Beijing-based NGO) and the Taiwan Institute for Economic Research to bring together business partners and representatives from the Taipei and Shanghai municipal governments to set up joint technology and market research for fuel-cell powered scooters.

NRDC has built similarly diverse partnerships in its efficient buildings projects. NRDC has been working with the PRC Ministry of Science and Technology, the Ministry of Construction, and the California-based Lawrence Berkeley National Laboratory to set

energy-saving building code standards that will reduce energy consumption in Chinese buildings. In Chongqing, NRDC not only assisted the municipal government in revising its clean building codes, but also succeeded in pulling Chinese private sector participants (such as developers of construction materials and equipment manufacturers) into the standard-setting process.

- **ED**, which is working with the Beijing Environment and Development Institute (BEDI), a Chinese NGO focused on energy and economics, to help the two medium-sized cities of Nantong, Jiangsu, and Benxi, Liaoning, develop sulfur dioxide emissions-trading pilot projects. In partnership with the city governments and local industries, ED and BEDI are applying market mechanisms to help industries reduce pollution emissions. China's State Environmental Protection Administration and industrial ministries are studying the success of these projects for possible replication.

- **The Institute for Environment and Development (IED)** is a nine-year-old Beijing-based Chinese NGO that aims to help raise public awareness of environment and development issues through public education, information dissemination, research, and community involvement in sustainable development projects. With its strong network of environmental experts and experience in community education, IED was a natural partner for the United Kingdom's Department for International Development (DFID), which started a three-year project in 2000 to improve production processes within small and medium-sized enterprises (SMEs) in Liaoning and Sichuan. IED acted as a liaison to help SMEs understand the concept of corporate responsibility and help the DFID consultants and the SME managers develop plans for industry communication with local communities.

An industry-wide approach

While NRDC, ED, and IED focused on NGO-business partnerships in certain cities, the International Institute for Energy Conservation (IIEC) undertook a project to change the standards setting process in an entire industry.

IIEC worked from 2000 to 2002 with the Chinese motor industry, the Ministry of Finance, and central agencies responsible for motor production as well as other industrial sectors to create energy efficiency standards for the Chinese motor industry. Since the project's completion, other industries in China have requested IIEC's assistance with the development of energy efficiency standards for their own technologies. IIEC's success in the motor industry

initiative provided an important example of how an international NGO can help Chinese businesses improve their energy efficiency and save money. IIEC's Beijing office succeeded in creating this unique NGO-business-government collaboration by interviewing government and industry stakeholders early in the project about their opinions on priority sectors for promoting energy efficiency technology in China. These discussions revealed that government regulators and industrial participants believed the motor sector had a need that foreign NGO expertise could fill. This local interest in the project, even before it formally began, helped its chances for success.

The above examples illustrate how domestic and international NGOs are helping to train and encourage government and industry stakeholders to improve energy efficiency and green production. Such initiatives are still limited in China because Chinese NGOs have insufficient capacity, most international donors and NGOs do not consider NGO-business partnerships a priority, and local governments and industries are unwilling to institute green production processes.

In fact, many Chinese local governments tend to shield companies in their jurisdictions from environmental regulations to protect their revenue base. To counter this tendency, for the past three years, the US-based NGO World Resources Institute (WRI) has been carrying out an extensive effort to infuse environmental concepts into Chinese business school programs with the goal of training future business leaders to run more sustainable enterprises.

Tending a stronger environmental corporate culture in China

International businesses operating in China already have engaged the Chinese environmental NGO sector for several years by giving grants or awards. Since the early 1990s, some multinational corporations (MNCs) or their foundations have been supporting environmental projects in China. For example, Shell Foundation has given grants to Global Village Beijing, a Chinese NGO, to create environmental education materials for children and environment-focused films for Chinese television. Shell Foundation has also helped farmers in Yunnan construct biogas greenhouses to protect forestry resources. Shell Foundation and Ford Motor Co. have been giving annual awards to Chinese environmental activists, NGOs, and university student green groups, which not only gives these organizations a short-term financial boost, but also raises their prestige among the general public. Intel Corp., Johnson & Johnson, and IKEA A/S also have begun some environ-

mental assistance or award programs in recent years.

MNCs could also support the domestic and international organizations that specifically focus on expanding the capacity of Chinese NGOs. Support could take many forms:

- Direct support of key Chinese NGO-building groups (such as PACT China, the NPO Network, and IED) particularly through bilateral programs (such as those with Canada, the United Kingdom, and the Netherlands) that have included NGOs in project implementation or have created training programs;
- Sponsorship of Chinese environmentalists working and training in international environmental NGOs; or
- Aid to groups such as Pacific Environment, ECOLOGIA, and Global Greengrants that distribute seed grants to small grassroots groups to help promote green activism.

International businesses working in China, particularly those in joint ventures, could also play a role in strengthening environmental corporate responsibility by seeking opportunities to create partnerships with international or Chinese NGOs. As the above NRDC example illustrated, such partnerships can offer businesses local connections and knowledge, and also unite them with local government and research communities to develop and market environmental technology products. International companies can also promote environmental corporate culture in their joint ventures with Chinese partners by supporting initiatives akin to the DFID-IED partnership with small businesses.

Chinese environmental NGOs possess considerable freedom of operation, but currently lack the skills to expand their range of activities to work with businesses in China. Continued international partnerships with Chinese NGOs and training of environmental activists could play an important role in strengthening the capacity of Chinese green groups to shape a stronger environmental corporate culture in China. 完

Web of NGO Work in China

- ECOLOGIA
www.ecologia.org/about/programs/china.html
- Friends of Nature
www.fon.org.cn/english/
- Global Greengrants Fund
www.greengrants.org/greengrants-cgi-bin/grants.cgi
- Global Village Beijing
www.gvbchina.org
- Institute for Environment and Development
www.ied.ac.cn (Chinese) or contact IED Director Li Lailai (lill@ied.org.cn)
- NPO Network China
www.npo.com.cn
- PACT China
www.pactworld.org/programs/country/china/index_china.htm
- TRAFFIC-East Asia
www.traffic.org/25/network2.htm
- WRI China BELL Project
www.chinaeol.net/bell/english.asp

—Jennifer Turner



GREEN *Ambitions*

COMMENTARY

The Green Olympics and CSR

Marc Brody and Craig Zachlod

As part of China's preparations for the 2008 Olympic Games, the nation is making an unprecedented financial and societal commitment to improve its environment. The PRC government aims to present a modern, progressive, environmentally friendly, and socially responsible image to the world through massive public relations campaigns and international media coverage in the lead up to the Games.

Beijing's "Green Olympics" effort has thus become the catalyst for Chinese government agencies, MNCs, and environmental nongovernmental organizations (NGOs) to work together. The PRC government has estimated that \$85 billion will be needed for environmental improvement projects during China's 10th Five-Year Plan (2001-05). For MNCs, the opportunity to be supportive partners in national and community efforts associated with the Olympics could help build secure, long-term market positions in China (see p.16).

Marc Brody

has worked in China for 20 years and is the founder and president of the US-China Environmental Fund (USCEF).

Craig Zachlod

has worked with multinational companies and NGOs in Asia since 1975 and has managed projects in China since 1981. Zachlod is a consultant and USCEF's director of development.

As the 2008 Olympics approaches, companies in China can raise their profiles through corporate responsibility projects

MNCs must find out which aspects of China's goals match their own. A few basic strategies can prove useful to MNCs evaluating possible avenues of participation.

Visibility that endures

Some MNCs are finding that support for preservation of icons of China's cultural and natural heritage, protection of endangered species, and promotion of environmental education have longer shelf-lives and more beneficial public relations effects than short-lived and expensive sponsorships of sporting events. Such support differentiates a company and its brand in China.

ConocoPhillips Co. is one company that has taken this approach. From 1998 through 2003, the petroleum company invested more than \$1.2 million in two projects—the Badaling International Friendship Forest and “Search for Solutions.” The International Friendship Forest is a model park—designed to balance tourism development with conservation planning and thereby help protect the Great Wall's natural and cultural resources—at the Badaling entrance to the Great Wall. Search for Solutions is an initiative that helps China's youth become better environmental citizens through three major program activities: new publications on

local environmental conditions, field trips, and a theater program that empowers youth to promote environmental awareness through the performance arts (see *The CBR*, July–August 2003, p.37).

Another company that regards its social environmental work as a best business practice is Ford Motor (China) Ltd., a subsidiary of the Ford Motor Co. Each year Ford provides ¥1 million (\$120,773) in China for conservation and environmental grants. The company has awarded more than \$300,000 to date to nearly 50 individuals and organizations in China as part of the program.

Link brands to target audiences

Many environmental projects for the 2008 Olympics are enormous—the Chinese government alone will invest more than \$12 billion. Accordingly, corporations that line up behind government public works projects for reforestation, water resources, solid waste management, clean energy, and air pollution control will be challenged to find opportunities to differentiate themselves. Even million-dollar contributions will not guarantee a company lasting recognition or solidify a brand's identity. MNCs will likely achieve greater success by collaborating with NGOs that can develop and manage part-

nerships with Chinese agencies and communities that make a clear and measurable difference (see p.22).

Successful branding requires a specific, tangible target to focus the energies and aspirations of a community and to inspire citizens to become good stewards of valuable natural and cultural resources. Such work requires corporations to invest in human resources that will encourage employee participation in carefully chosen community-based programs. Successful programs also require a commitment to build multidisciplinary teams of talented Chinese and foreign individuals to design, implement, and subsequently maintain activities. The long-lasting ties developed in this process become a strong asset for the company, building enduring bonds with a major public resource or strategic government partner.

Companies thinking of participating in corporate social responsibility (CSR) opportunities as China prepares for the 2008 Olympics should consider strategies to build relations with Chinese organizations at different levels:

● National level

Examples of such projects include the US-China Environmental Fund's new visitor education programs at Sichuan's Wolong Nature

Continued on page 45

USCEF's 2008 Olympics Corporate Social Responsibility Programs

The US-China Environmental Fund (USCEF), a 10-year-old nongovernmental organization with offices in Beijing and the United States, strengthens stewardship and promotes conservation of China's natural and cultural resources by building and supporting partnerships between the US and Chinese environmental communities. USCEF is developing a number of corporate social responsibility programs for the 2008 Olympics—including two programs in coordination with the Beijing Organizing Committee for the

Games of the XXIX Olympiad.

Honoring Beijing's Cultural Legacy will create new site plans, interpretation or visitor education programs, and “friends groups” for a range of Beijing parks including the Beijing Zoo, Botanical Gardens, Fragrant Hills, Summer Palace, and Temple of Heaven.

Art is for the Spirit, the Olympic Spirit is a large public arts project that will create and exhibit fine art prints by 30 prominent US and international artists on humanitarian and

environmental themes to enrich the cultural programs of the Beijing 2008 Olympics. In summer 2008, identical exhibitions of fine art prints will take place concurrently around Beijing's Olympic venues, in major Chinese cities, and in cosmopolitan cities throughout the world.

For more information about USCEF and its 2008 Olympics initiatives, see www.uscef.org.

—Marc Brody and Craig Zachlod

The Fight for China's Handset Market

Chinese handset makers are chasing foreign firms—both at home and abroad

Ted Dean

Diamond-studded mobile phones and a marketing blitz featuring a South Korean pop star helped China's TCL Corp. climb from its roots as a maker of white goods and consumer electronics to its current position as one of the largest mobile phone handset makers in China. Now the company and a host of other Chinese handset makers are hoping to take their show on the road and expand overseas.

As they fight for market share at home and begin to target overseas markets, Chinese handset makers are not only relying on China's lower labor costs. Instead they hope new investments in research and development (R&D) will help cut costs and power them into global expansion.

It will be an uphill battle. Chinese handset makers have much less R&D muscle than their global competitors, Nokia Corp., Motorola Inc., Samsung Electronics Co. Ltd., Siemens AG, and others. They still lack much of the core technology around which mobile phones are built and thus may stumble when the transition to third-generation mobile technology requires substantial new R&D investments from handset vendors.

Still, even modest gains in R&D could help Chinese handset makers lower their costs, improve their products, and put added pressure on foreign handset makers. The new emphasis on R&D could also mark a turning point for Chinese handset makers and for other Chinese technology firms seeking to expand overseas. Chinese firms have already proven that they can manufacture cheaply and sacrifice margins to win market share. But a successful push in R&D could transform TCL and other Chinese companies from industry spoilers forcing margins down to profitable industry players still able to win market share. R&D successes will also separate the stronger, more viable domestic manufacturers from their weaker counterparts.

Wired for success

Though domestic handset vendors are investing more in R&D today, their rise from also-ran status to market leaders in China was made possible by, until recently, ignoring technology in favor of marketing.

Not long ago, Chinese handset makers trailed far behind the global heavyweights—Motorola, Nokia, LM Ericsson AB—that have dominated the PRC market. Domestic companies lacked the technological expertise to build a competitive handset. As a result, even while most foreign makers were moving manufacturing to China, proving that China had an advantage as a low-cost production base, domestic companies could not gain ground.

This situation contrasted sharply with what was happening in the personal computer (PC) industry, where domestic maker Legend Group Ltd. beat out Dell Inc., Hewlett-Packard Co.,

Ted Dean

(ted.dean@bdachina.com) is managing director at BDA (China) Ltd., a telecom and technology market research and consulting firm based in Beijing.

and IBM Corp. for first place in the PRC market in the 1990s. Legend succeeded because it could buy the same Intel chips and install the same Microsoft operating system as foreign makers. But Chinese handset makers did not have that opportunity, as the technology required to build a handset remained within the global handset original equipment manufacturers (OEMs) such as Motorola. Only when independent technology vendors began to sell the building blocks of a handset could domestic players purchase the technology they needed to compete.

French handset module supplier Wavcom SA is one of the companies that unlocked the door to wireless technology for domestic PRC handset makers. Wavcom developed the handset module, a thin card-shaped product that integrates all of the chips, circuitry, and software that makes a handset work. A handset maker without the technical know-how to develop a handset or integrate these components on its own can buy a Wavcom module and assemble it with less technology-intensive components, including the casing and screen, to produce a competitive handset.

Products like Wavcom's module enabled Chinese companies that had previously produced consumer electronics and white goods to move easily into the handset business. This gradual disintegration of the wireless handset value chain, and the increasing commoditization of wireless technology, allowed Chinese companies to focus on their strengths: marketing, distribution, and product design for Chinese consumers.

In marketing and distribution, however, domestic handset makers were forced to adopt different tactics from those used by foreign handset makers in China. Traditional handset channels favored the foreign brands, which had much larger monthly turnover and thus generated more revenue for distributors and sales agents than less-popular Chinese brands. To compete, domestic brands paid higher commissions to distributors, pushed into less-developed cities, and experimented with a wide range of new channels and promotions.

For Ningbo Bird Co. Ltd., another leading Chinese handset maker, this meant opening sales branches in almost every province in China. Other domestic vendors took advantage of their role as consumer electronics makers to push products through electronics retailers that foreign vendors had once ignored. This aggressive marketing and distribution, combined with flashy product designs that have included everything from phones covered with fish skin (admittedly a less-successful model from Hangzhou-based Eastern Communications Co. Ltd.) to diamond-studded phone casings (the tremendously successful series of models launched by TCL), has powered domestic makers to the top.

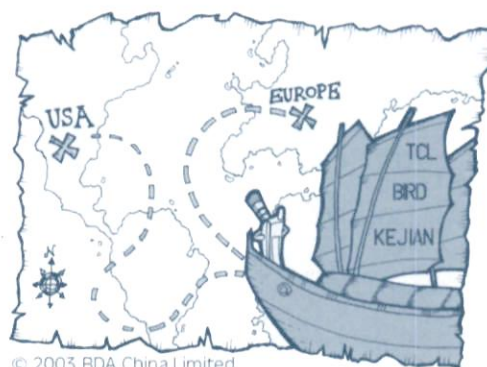
There is no question that companies like TCL, Bird, and Amoi are winning market share from foreign makers.

Data released earlier this year by China's telecom regulator, the Ministry of Information Industry (MII), showed domestic handset makers already holding more than 50 percent of the market in the first half of this year. These numbers likely overstate domestic makers' success, in part because they measure production rather than sales to consumers, but there is no question that companies like TCL, Bird, and Xiamen Amoi Electronics Co. Ltd. are winning market share from foreign makers. BDA believes that by December 2003 sales by domestic makers will have broken through the 50 percent barrier.

To the victor go the spoils—and more spoils

The rapid fall of technical barriers to entry has unleashed a torrent of competition in the industry—37 companies are now licensed to make GSM or CDMA handsets in China. Even as growth in the overall handset market slows, domestic companies continue to expand production rapidly. TCL has said that it plans to expand production from its current 12 million handsets to 42 million in the next three years. In Guangzhou, although Jinpeng Mobile Communication System Ltd. has not yet even been licensed by MII, it has already broken ground on a new handset production facility.

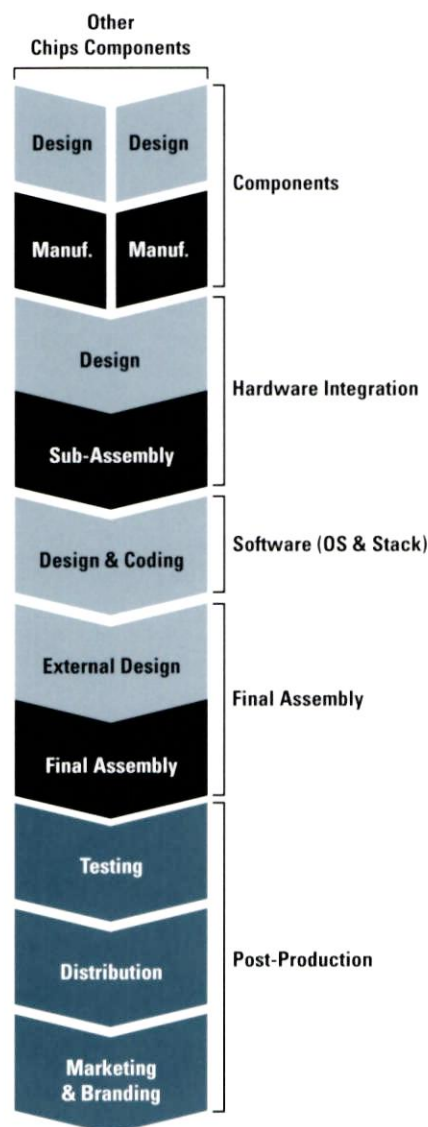
Unsurprisingly, this hyper-competition has led to huge increases in inventory (an estimated 20 million handsets are gathering dust in China), falling average sales prices, and depressed margins throughout the industry. According to information recently released by TCL, gross margins in its



© 2003 BDA China Limited

By working with non-branded technology suppliers and beefing up their own R&D, Chinese makers are taking control of their own product development.

Handset Value Chain



Source: BDA (China) Ltd.

handset business fell 6 percent from the second half of 2002 to the first half of 2003. But even these numbers may paint an overly rosy picture of the industry—many domestic handset vendors are believed to be losing money.

With the industry under pressure, the largest domestic handset vendors are turning to domestic R&D and overseas expansion. Purchasing modules and designs from overseas made sense when Chinese handset makers were new entrants, but complete outsourcing of product development left domestic handset makers with little control over their own costs. New investments in R&D should allow Chinese companies to purchase basic components that they integrate themselves.

TCL, for example, the second-largest handset maker in China after Ningbo Bird, now has the scale to make these investments. Its sales revenue has enabled TCL to set in motion plans to double the size of its R&D staff to 1,000 people. As a result of increased R&D, it has cut the number of modules it buys from Wavecom and is relying more heavily on chipsets, purchased from Motorola and Texas Instruments Inc., that it integrates itself. Foreign vendors including Analog Devices Inc., Agere Systems Inc., and Texas Instruments also provide the chipsets that TCL, Bird, and other large handset makers use.

Some domestic companies are supporting their new R&D through partnerships with foreign technology vendors. TCL, for example, announced a broad partnership with UK-based design firm TTP Communications plc., and Bird has a 50-50 joint venture with French handset maker Sagem SA. Many other Chinese companies are purchasing designs from South Korean and Taiwan original design manufacturers (ODMs) such as Sewon Telecom Co. Ltd. Companies with less sophisticated R&D capabilities or that still seek to expand their product portfolio without designing new models on their own may simply import handsets designed and manufactured by ODMs overseas.

It is no accident that these foreign companies are not household names. By working with these non-branded technology suppliers and beefing up their own R&D, Chinese makers are taking control of their own product development. Chinese companies once only participated in the handset market as joint venture partners to foreign manufacturers. Now able to develop products based on their own R&D, and buy technology from a diverse list of vendors, Chinese firms are winning market share for their own branded products.

International expansion

With competition so intense in China and inventory piling up, domestic makers have little choice but to look more seriously at international expansion.

It is not yet clear that the bulk of China's handset makers will end up being much more than industry spoilers.

TCL has taken a step-by-step approach to tap the overseas market. In 2002, TCL exported 196,000 handsets, mainly to Southeast Asian countries such as Vietnam and the Philippines. In June this year, TCL announced it would start selling handsets in Thailand in the near future, and India, Singapore, and Taiwan are next on its list. Next year, TCL expects to export to the European and North American markets. In preparation, the company acquired bankrupt German television maker Schneider Electronics AG in 2002 to give it a recognizable brand in Europe.

Bird has set up overseas operations and a joint venture in its efforts to expand overseas. In June, the company set up Bird International in Hong Kong as the launchpad for its overseas operations. Bird plans to expand first in Hong Kong and then enter Southeast Asian markets including Thailand, the Philippines, Malaysia, Indonesia, and Singapore. Other firms like Shenzhen-based China Kejian Corp. Ltd., Nanjing Panda Electronics Co. Ltd., and Xiamen-based Amoi have also set their sights overseas.

Leaving the nest

Of course, early sales into developing countries don't mean Chinese companies are poised to come roaring into the juicier markets in Europe and North America. Winning the trust of telecom operators that purchase handsets in these markets and building after-sales service networks there will take time.

But it may not take as long as many think. Foreign telecom operators that are focused on cutting costs on their handset purchases have reason to look to Chinese suppliers as a new source of handsets. As Chinese handset makers expand, they will be able to invest more in R&D in order to build better products.

Chinese handset makers are also benefiting from government support. In the past, Chinese banks have offered easy credit to state-backed enterprises, allowing them to invest in new capacity cheaply. Now the government is beginning to focus on the mobile phone industry's balance of trade and whether competition in the industry is out of hand. Earlier this summer, the Ministry of Commerce and MII convened a meeting of Chinese handset makers in Xiamen, Fujian, to encourage handset makers to export more.

Aside from more general support for exports, MII is considering restricting ODM imports. If implemented, this could push out weaker players who rely completely on the resale of imported handsets. The government hopes that this

move would help the top domestic handset makers consolidate their gains by lessening competition from smaller players. (Of course, the exit of small domestic makers would also be good news for leading foreign manufacturers.)

But the government is unlikely to follow through aggressively. Faced with the hard choice between bankruptcy-driven layoffs and debt defaults on one hand, and allowing imports from ODMs to continue on the other, the government may lose its will. The widespread sale of smuggled handsets already shows the limits of MII's power to regulate the industry. In addition, many ODMs are moving to neutralize the balance-of-trade argument by shifting production to China. In June, South Korean ODM Pantech finalized a joint venture in Dalian, Liaoning, and in August, Telson, another South Korean ODM, announced an investment in a production joint venture in Shandong. If ODMs can find ways to stay in the market, sourcing their handsets from ODMs will allow small Chinese players to survive a bit longer.

R&D vs. consolidation

If Chinese handset makers can maintain their momentum, the pressure on foreign players will build. Losing share to domestic handset makers in China and facing increased competition at home may be more than many second-tier foreign handset producers can take, and inefficient players are likely to be forced out of the handset market. Global handset makers that manage to stay in business will need to create super-efficient operations such as Dell's PC business model to maintain margins in the face of new competition. Agile component suppliers will, meanwhile, find new markets supplying rapidly expanding Chinese companies.

At the same time, it is not yet clear that the bulk of China's handset makers will end up being much more than industry spoilers. The push to improve R&D is an important step up the value chain, but unless the government allows much-needed industry consolidation to take place, these efforts may be for naught. R&D will not help cool the hyper-competition created by the smaller, unprofitable Chinese firms, which are keeping margins unsustainably lean. Only mergers, acquisitions, and bankruptcies can reduce the number of players in the market. If China wants to create a global champion in the handset business with the brand and R&D muscle to back it up, it will need to convince its banks to let its unprofitable handset makers fold. 完

Focus on China Optics

Though small, China's optics industry packs a punch

Rebecca Weiner and Xie Yu

By many measures, the industry of optics—the science of images, vision, and light—in China is small. In 1998 (the most recent year with full statistics available), China's optical instrument manufacturers generated a total output of ¥5.99 billion (\$721 million), less than 0.08 percent of the PRC's GDP that year of nearly \$1 trillion. The Chinese Optical Society, the industry's domestic association, lists 127 key optical instrument makers. In contrast, the Ceramic Manufacturer's Association boasts more than 1,000 key firms. But the industry is growing rapidly. In 2000 in Shanghai alone, some 100 small and medium-sized optics manufacturers exported products worth more than \$10 billion, up more than 150 percent from 1999.

A surprising range of industries throughout the world rely, in part, on optics: microscopes and telescopes for scientists, cameras for film and other visual media, sensors in oil wells, road-surveying equipment, supermarket scanners, photocopiers, and photodiodes in every TV remote. In a high-tech, information age, capturing, storing, analyzing,

Rebecca Weiner

is cofounder of Strebessana Resources, LLC, an optics sourcing firm based in Rochester, NY, which together with Shanghai Xuhua makes up the ImportOptics.com partnership.

Xie Yu

is cofounder of Shanghai Xuhua Optics, Ltd., a privately owned optical manufacturing and quality control facility based in Pudong, Shanghai.

and manipulating light-based images is vital across the economy.

Yet pervasive as optical technologies are, optical physics and engineering remain highly specialized fields. This is perhaps not surprising in an industry where tolerances are regularly measured in nanometers and orders are increasingly common for "diffraction-limited" systems whose precision is limited only by the wavelengths of light. Given the precision required of optics producers, most firms that don't specialize in optical systems outsource the design and manufacture of optical components. All of which means that a tiny optics tail is helping to wag a very big economic dog.

Reviewing China's evolving optics field helps bring into focus at least three trends in China business: increasing technology content in China's manufacturing sector, emerging research and development (R&D) capabilities, and the growing power of private industry.

Optical manufacturing in China

Pervasive global demand for optics creates enormous pressure for cost-effective pricing, so that optical components don't make the systems they support unaffordable. But for all its technological sophistication, optics is a labor intensive field, heavily dependent on old-fashioned craftsmanship in its most fundamental activity: making the lenses, prisms, and reticles (plates coated by networks of fine lines, used in the focal plane of optical instruments to allow accurate observation) that focus and measure light. Today's lens-making process remains surprisingly similar to that of Galileo's time: glass is rough-cut, then ground using molds of increasing preci-

Today, the world's mid-range optics are made mostly in India, Pakistan, Russia, or, increasingly, China.

China's optical instrument exports increased 250 times between 1985 and 2000, nearly doubling from 1995 to 2000 alone.

sion, polished, perhaps coated, and cemented into assemblies. It is a hands-on process, requiring time and skill.

Robotic systems for fully automated manufacture are cost effective for large manufacturing runs with relatively simple tolerances—of eye-glass or ordinary camera lenses, for instance. Firms in South Korea, Taiwan, and Japan dominate this segment. Very small runs of prototype, or extremely complex lenses, are usually made in the United States or Germany. Average-sized runs of roughly 50 to 150,000 pieces require precision but are not large enough to justify robotic support and also lack a pricing structure that would allow manufacturing in the West. Such lenses supply medical arthroscopes and laparoscopes that make minimally invasive surgery possible, charge couple device (CCD)

The Story of Optics in China

China has a history of precision lens-making dating back to the 1500s, if not earlier, when Jesuit astronomer Matteo Ricci advised the imperial court. In the 1950s, when Mao Zedong's government sought to ensure that the fledgling People's Republic had all the technology it needed, three state-owned enterprise (SOE) optical instrument factories were formed, in Changchun, Jilin; Kunming, Yunnan; and Shanghai. As part of Mao's "Third Line" policy of moving key industries inland in case of war, these SOEs formed branches in remote parts of Sichuan and Guizhou.

Conditions, particularly at the inland SOEs, could be primitive, with sporadic electricity and water supply. Yet lenses were still ground, polished, and engineered with a remarkable degree of precision. And the old cradle-to-

grave "employment assignment" system, for all its faults, had the advantage of keeping teams of talented workers learning together for decades.

By the mid-1960s, even as the disaster of the Cultural Revolution loomed, Chinese SOE optics makers were exporting both military and civilian products and designing everything from China's early missile guidance systems to cheap, durable eye-testing machines for use by village "barefoot doctors." By the early 1990s, when the authors guided engineers from global optical leaders such as Eastman Kodak Co. and Xerox Corp. to review possible investments at inland Chinese locations, Western optical engineers were uniformly shocked, both at the poor infrastructure with which their SOE counterparts contended and at the precision the

SOEs achieved despite the less-than-ideal working conditions.

More recently, optics SOEs have had some success. Set up for low-intensity manufacturing of precision lenses and instruments that were stockpiled in case of need, SOEs still excel at meeting continuous demand for simple eye-testing machines or industrial projectors that require few design changes.

Perhaps the very fact that optics SOEs, like SOEs in other industries, "clustered" their educational, industrial, and labor resources helped China achieve a critical mass of skills in these industries. In their day, many of these now-backward SOEs were the training grounds for a skilled and specialized labor force now helping to fuel China's boom.

—Rebecca Weiner and Xie Yu

The Little Optics Shop that Could: Xuhua

After 20 years in a state-owned enterprise (SOE) where they gained technical experience but were at times frustrated by their employer's poor market response, entrepreneur Xie Yu and his partner, senior optical engineer Xu Hanming, left the SOE to form a private firm. Starting out in a defunct dance hall, the founders of Shanghai Xuhua Optics Ltd. bought used equipment and lured experienced workers from their former employer.

Running Xuhua with the best of traditional technology, modern manufacturing process controls, and a customer-centered ethic, the partners developed a strong track record for on-time delivery of precise reticles, prisms, and traditional flat and spherical lenses used in everything from medical equipment to virtual reality helmets.

Now located in refurbished factory space in Pudong, Xuhua today boasts an array of 20 high-speed polishers, 5 reticle machines, coaters, and other equipment; employs 20 people; and has annual output topping \$300,000. Xuhua exports globally via www.importoptics.com.

—Rebecca Weiner and Xie Yu

projectors for multimedia presentations, and photoelectric sensors used in process controllers that enable precision manufacturing of everything from jellybeans to jumbo jets. Today, the world's mid-range optics are made mostly in India, Pakistan, Russia, or, increasingly, China.

China's optical instrument exports increased 250 times between 1985 and 2000, nearly doubling from 1995 to 2000 alone (see Figure). China's opto-electronics producers (which make optically based electronics, such as scanners and photocopiers) produced goods worth \$180 billion in 2002, a figure projected to rise sharply through 2012, with major exports to the United States, the European Union, and Japan, among others.

"We scour the planet for the best optical component sources," says Rick Plympton, CEO of Rochester, New York-based Optimax Systems, Inc. (www.optimaxsi.com), "and we're increas-

ingly working with China. They have an inexhaustible workforce, and their quality and metrology is improving. China is poised for a leading position in optics."

From shop floor to laboratory and beyond

To get beyond lenses and simple instruments, China needed to beef up optics R&D. The central government has risen to that challenge, establishing major optics/photonics research centers not only in Beijing and Shanghai, but also in Changchun, Jilin; Chengdu, Sichuan; and Hangzhou, Zhejiang. Smaller centers have been set up in Guangzhou, Guangdong; Kunming, Yunnan; Suzhou, Jiangsu; and Wuhan, Hubei. Optical engineering departments at Nanjing University, Beijing Polytechnic University, Huazhong University of Science and Technology, China Institute of Sciences and Technology, Shanghai Industrial University, and Changchun Institute of Optics are issuing hundreds of new bachelor's, master's, and doctoral degrees each year in optics-related fields. Many R&D centers and educational facilities are located near major state-owned optics enterprises that absorb graduates and offer consulting jobs to researchers.

Some of these groupings are starting to advertise themselves as "clusters," defined by Professor Michael Porter of Harvard University as "a geographic concentration of competing and cooperating companies, suppliers, service providers and associated institutions." These "clusters with Chinese characteristics" retain more state involvement than their Western counterparts; most firms are still state-owned enterprises (SOEs), and many projects they pursue are government funded through pipelines

Table: Key PRC Optical Instrument Makers, 1998 Reported Income

Company	Ownership	RMB million	\$ million
Jiangxi Phoenix Optical Instruments Group, Ltd.	SOE	300.00	36.29
Zhejiang Sunny Group Co., Ltd.	Private	241.13	29.17
Nanjing Jiangnan Opto-Electronics (Group) Services, Ltd.	SOE	100.04	12.10
Xiamen Motic Group Co., Ltd.	Private	94.54	11.44
Shanghai Analytical Instruments	SOE	75.03	9.08
Beijing Optical Instruments	SOE	71.00	8.59
Kunming Jinghua Optics, Ltd.	Private	54.55	6.60
Suzhou #1 Optical Instruments	SOE	53.04	6.42
Chongqing Opto-Electrical Instruments	SOE	44.26	5.35
Guangzhou Optical Instruments	SOE	35.14	4.25

Note: SOE = state-owned enterprise

Source: Shanghai Optical Instruments Institute

like the much-touted Project 863, a government effort to develop high technology for China. Though hardly true market-based research, the clusters are at least claiming some success. For instance, Optics Valley of China, located in Wuhan, advertises access to 100,000 skilled technicians and optical engineers, a concentration it says allowed the 143 companies in the cluster to reach \$750 million in revenues by 1999. A photoelectronics park opened in Changchun in June 2000, advertising \$54 million in planned infrastructure. Potential investors should of course exercise strict due diligence on all such claims, but some interesting opportunities do exist. Industry insiders say the Changchun project, for instance, has strong support at senior levels in Beijing.

China also actively seeks global integration in optics, among other technologies, and boasts a growing roster of conferences and seminars. China's largest optics-related conferences (Photonics China, Optics Expo, Opto-Electronics and Communications, and the Asia-Pacific Photonic Telecommunications Forum) all welcome international speakers and exhibitors. The International Society of Optical Engineers, which has several Chinese experts on its board, has co-sponsored several such conferences.

The enormous supply of talented overseas Chinese participating in optics and photonics research abroad drives much of this integration. Based on conversations with staff at the Photonics Society for Chinese Americans, the authors estimate that optical experts among overseas Chinese living in the United States, Europe, and elsewhere hold thousands of patents and have published tens of thousands of papers. These experts support China's global integration informally and formally, through

Small Firm, Global Reach: Zibra Optics

The scenic byways of Westport, Massachusetts, feature more marinas and shoreline grills than high technology. But Zibra Corp. (www.zibracorp.com), with its optics lab, shop floor, and advanced computing systems tucked into a shopping plaza, is creating some amazing technology. A "fiberscope" made of hundreds of flexible optical fibers several meters long, fused with coated prisms the size of grains of sand, lets workers inspect the insides of chemical storage tanks or turbines while standing safely on the outside. And the company's Milliscope™, half a millimeter in diameter, allows surgery inside the human eye.

Zibra founder Art McKinley, a cyclist and windsurfer, describes working in Westport as a "lifestyle choice" and is proud to have "built a company that offers great jobs in a great area, making world-class products." McKinley's industry-leading designs and the talented Westport team make the products. Selling these products at competitive prices is possible, in part, because Zibra purchases lenses and other components from China.

"There's always a learning process when importing components," McKinley says, "but we're very satisfied with the supply we have today. We see China sourcing as a continued part of future growth."

—Rebecca Weiner and Xie Yu

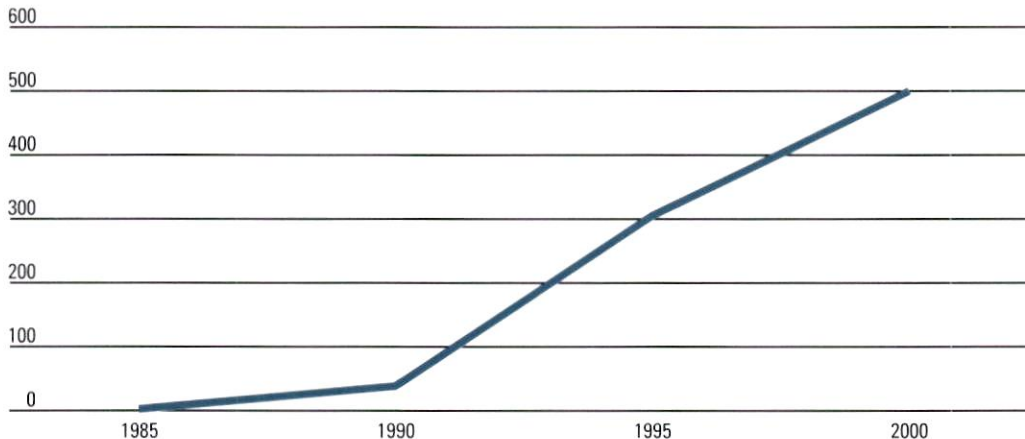
groups like the Photonics Society for Chinese Americans (www.psc-sc.org).

Global investors are actively exploring new opportunities, coming to China not just with manufacturing orders but with R&D funding and ideas. Eastman Kodak Co., Xerox Corp., Edmund Industrial Optics, and many others have built facilities in China that manufacture lenses, masks, fiber optics, and other tools of the photonics revolution. Some of these plants also perform quality control checks on products sourced from Chinese-owned plants.

China is not yet a cutting-edge leader in photonics research. But the country is already an increasingly important supplier to the photonics

Continued on page 41

Figure: PRC Optical Instrument Exports, ¥ Million



Source: Shanghai Optical Instruments Institute

China's Credit Rating Agencies Struggle for Relevance

Scott Kennedy

Retail securities outlets are ubiquitous in urban China. Investors crowd around the outlets' huge trading boards flashing the latest prices for stocks and bonds, waiting until just the right moment to buy low and sell high. When asked about whether a recently issued corporate bond excited them because of its spotless AAA rating, these unvarnished speculators looked at the stranger in contempt. "Such ratings are of little value," one lectured. Though elitists might scoff at the musings of the masses, their simple judgment about the state of China's credit rating industry is right on the money.

Creating an industry

This conclusion might shock the typical Western investor. Credit rating agencies (CRAs)—such as Moody's Investors Service, Standard & Poor's Corp. (S&P), and Fitch Ratings—issue ratings on the general financial health and specific debt issues of governments and corporations around the globe. Debt ratings, of which these firms provide thousands each year, are not judgments about the quality of bond issues but about the likelihood that the issuers will meet their obligations fully and on time. Western investors take for granted that ratings affect the interest rates of bonds, alternatively lowering or raising the costs to issuers, often by millions of dollars.

Looking to set a foundation for its own corporate bond market, in 1987 the People's Bank of China (PBOC) created credit-rating departments in its own branches around the country. In 1992 many of these became formally independent companies, and other rating firms arose in subsequent years. In late 1997, in an effort to bring some order to the industry, PBOC authorized nine of the 50 CRAs that existed at the time to rate publicly issued corporate bonds.

Over the past few years, corporate bond business has gravitated to four of them: China Chengxin International Credit Rating (CCXI), a joint venture between China Chengxin Rating, Fitch, the World Bank's International Finance Corp., and the daily *China Business Times*; Lianhe Credit Rating, jointly owned by several Beijing- and Tianjin-based companies and individual investors; the privately owned Dagong Rating Co.; and Shanghai Far East (SFE), which was born out of the Shanghai Academy of Social Sciences and is now primarily owned and run by the Hong Kong-based Xinhua Financial Network. Each of these firms has sought the expertise of global CRAs, adopting their rating methodologies and scales (Dagong had a formal technical cooperation agreement with Moody's until 2001).

Scott Kennedy

is an assistant professor at Indiana University. His forthcoming book, *The Business of Lobbying in China* (Harvard University Press, 2004) examines the growing policy influence of Chinese and foreign businesses in the PRC.

Though Chinese CRAs may appear, at first glance, like mini-S&Ps, they have none of that firm's influence. CRAs in China so far have had no noticeable effect on the decisions of buyers of Chinese corporate bonds. Investors seem to give these ratings the same weight as quotations from the late Chairman Mao.

What bond market?

The primary reason for the impotence of the CRAs is government domination of the corporate bond market. In the early 1990s, corporate bonds were issued in record numbers. But by the mid-1990s, when bonds began maturing, issuers across the country balked at paying off the principal and interest. The problem was most acute in Liaoning and Jilin, where more than half of bonds went into default. Estimates put total defaults at somewhere between ¥3 billion (\$362 million) and ¥8 billion (\$966 million). To keep investors' anger from boiling over, PBOC, local governments, and underwriters stepped in to pay off creditors. As a result of massive defaults, and of the Asian financial crisis and the collapse of Guangdong International Trust and Investment Corp. (GITIC), Beijing decided to rein in the bond market.

Since late 1999, to issue a corporate bond, a company must receive the approval of the National Development and Reform Commission (NDRC), the recently crafted successor to the State Development Planning Commission. Locally registered enterprises first apply at the provincial level and their applications are subsequently forwarded to Beijing. Nationally affiliated firms apply directly to NDRC. Approval depends heavily on whether an issuer's plans for the bond fit with national investment priorities. NDRC then forwards its list to the State Council, which makes the final cut. Survivors go next to PBOC, which sets the bond's interest rate, which by law cannot be more than 40 percent above the savings deposit rate of the same maturity. To eliminate risk, issuers are also required to have a guarantor, typically a state bank, which is obliged to pay creditors in the event the issuer cannot. Finally, companies that want their bonds traded on the Shanghai or Shenzhen exchanges must get approval from the China Securities Regulatory Commission (CSRC).

This process makes bond ratings in China superfluous. Because of the government's fears of default, very few applications have been approved in the past few years. The government has approved only large, state-owned entities. Whereas corporate debt issues in the United States surpass the entire US GDP, in China they account for less than 1 percent of GDP.

In fact, in China bonds are rated only *after* NDRC and the State Council approve the issue.

In China bonds are rated only after NDRC and the State Council approve the issue. Since the state has given its stamp of approval and the bonds have guarantors, all but three bond issues in the last three years have garnered AAA ratings.

Since the state has given its stamp of approval and the bonds have guarantors, all but three bond issues in the last three years have garnered AAA ratings. Although the interest rate the PBOC sets for bonds appropriately rises as their maturities lengthen, ratings have little weight in PBOC's decisions. This can be seen by comparing the credit spread for each bond, that is, the difference between the interest rates of corporate and Treasury bonds of the same maturity issued at around the same time (*see* Table). In developed bond markets, the credit spreads for equally rated bonds of the same maturity are quite close, and the credit spreads grow as the maturities lengthen. In China, as the table shows, the credit spreads of AAA bonds with similar maturities vary widely, and the credit spreads of 10-year bonds are not significantly higher than those of three-year bonds.

As one astute observer put it, ratings in China are the equivalent of musicians running across the stage banging gongs and drums at the beginning of a Peking Opera. They are a standard ritual but are unrelated to the actual opera performance. The only difference with ratings is that no one pays them any attention.

Consequently, in contrast to global firms, China CRAs have tiny revenue streams and presumably no profits. A typical rating earns between ¥20,000 (\$2,415) and ¥80,000 (\$9,662), depending on the issue amount. In 2001, CCXI, which dominated the market, rated only six companies planning issues. To add to their woes, none of the CRAs has sold subscriptions of their more detailed bond rating reports to investors.

The rating agencies have been forced to depend on other sources of income to survive. The most common are annual loan certificate ratings. In several cities, including Shanghai, companies that plan to take out a loan of more than ¥50 million (\$6.04 million) must pass

China's Domestic Corporate Bond Market, January 2001 – August 2003

Company	Issue Date	Amount (¥ billion)	Maturity (years)	Credit Rating	Rating Company	Initial Interest Rate (%)	Comparable Treasury Bond Rate (%)	Credit Spread (basis points)
2001								
Jiangsu Highway Group	5/8/01	0.3	3	AA+	Lianhe	3.78	2.88	90
Guangdong Mobile Communication Co., Ltd.	6/18/01	5.0	10	AAA	Chengxin	4.00	2.82	118
Baotou Iron & Steel Co.	7/18/01	0.4	10	AAA	Dagong	3.78	2.95	83
Three Gorges Dam Co.	11/8/01	2.0	10	AAA	Chengxin	4.00	2.77	12
	11/8/01	3.0	15	AAA	Chengxin	5.21	4.69	52
Guangdong Mobile Communication Co., Ltd.	12/11/01	2.5	7	AAA	Chengxin	4.12	3.00	112
Ministry of Railways	12/26/01	1.5	15	AAA	Lianhe	5.10	4.69	41
2002								
China Jinmao Group Co., Ltd.	4/28/02	1.0	10	AAA	Chengxin	4.22	2.54	168
Beijing Capital Road Development Co.	5/29/02	1.5	10	AAA	Chengxin	4.32	2.54	178
China Aeronautical Technology Import/Export Co.	6/17/02	0.5	3	AAA	Lianhe	3.50	1.90	160
	6/17/02	0.5	5	AAA	Lianhe	4.05	2.29	176
State Electric Co.	6/19/02	0.5	3	AAA	Dagong	3.50	1.90	160
	6/19/02	3.5	15	AAA	Dagong	4.86	2.60	226
Shenhua Group Corp. Ltd.	7/23/02	1.0	3	AAA	Dagong	3.51	1.90	161
China Ocean Shipping (Group) Co.	8/29/02	2.0	15	AAA	Lianhe	4.58	2.60	198
Three Gorges Dam Co.	9/20/02	5.0	20	AAA	Chengxin	4.76	3.40	136
Guangdong Mobile Communication Co., Ltd.	10/14/02	3.0	5	AAA	Chengxin, Dagong	3.50	2.65	85
	10/14/02	5.0	15	AA	Chengxin, Dagong	4.50	2.60	130
Wuhan Iron & Steel (Group) Co.	11/1/02	2.0	7	AAA	Lianhe	4.02	2.93	109
Guangdong Nuclear Power Group Co. Ltd.	11/11/02	4.0	15	AAA	Chengxin	4.50	2.6	190
Chongqing Urban Construction Investment Corp.	12/9/02	1.5	10	AAA	Lianhe	4.32	2.8	152
Jiangsu Communications Holding Co., Ltd.	12/12/02	1.5	15	AAA	Lianhe	4.51	2.6	191
2003								
Shanghai Pudong Development (Group) Co., Ltd.	1/13/03	1.5	10	AAA	Dagong	4.29	2.8	149
Zhejiang Expressway Co., Ltd.	1/24/03	1.0	10	AAA	Lianhe	4.29	2.8	149
Shanghai Guidao Communications	2/19/03	4.0	15	AAA	Dagong	4.51	2.6	191
Suzhou Industrial Park Land Management. Co.	7/18/03	1.0	10	AAA	Dagong	4.30	2.8	150
China High-tech Industry Development Zone Association (12 companies)	7/24/03	0.8	3	AA	Chengxin, Lianhe	3.52	2.32	120
Three Gorges Dam Co.	8/1/03	3.0	30	AAA	Chengxin	4.86	NA	NA
Ministry of Railways	8/25/03	3.0	18	AAA	Lianhe, Dagong	4.63	NA	NA

SOURCES: Scott Kennedy; compiled with the assistance of Lianhe Credit Rating Co. and CITIC Securities.

NOTES: NA = Not available.

The table does not include convertible bonds. The Treasury bond (T-bond) rate is the initial interest rate of the T-bond of the same maturity issued at about the same time as the corporate bond. Because T-bonds in China are issued relatively infrequently, sometimes there is a gap of several months between the time of a corporate bond and a T-bond issue of the same maturity. Since there have been no 18- or 30-year T-bonds issued, it is impossible to determine the credit spreads for the August 2003 Three Gorges Dam Co. and Railway Ministry bonds.

Chengxin = China Chengxin International Credit Rating Co.; Dagong = Dagong Rating Co.; Lianhe = Lianhe Credit Rating Co.

through this perfunctory regulatory hoop each year. As with bonds, loan certificate ratings have no effect on borrowers' chances of obtaining a loan or its interest rate. Some CRAs also rate the overall loan portfolio of local bank branches, likewise with no consequences for the banks' operations. And finally, SFE began in early 2002 to issue quality ratings of firms listed on the Shanghai, Shenzhen, and Hong Kong stock exchanges. By summer 2003, SFE had rated 168 listed companies. Though SFE is offering a potentially useful service, only a few international institutional investors have subscribed to its reports.

Credibility gap

Even if the government were to permit a genuine corporate bond market, CRAs in China face daunting obstacles about the credibility of their ratings. First, CRAs have the same difficulty as anyone else in China in obtaining reliable financial information from issuers of debt and equity. Though CSRC, among other agencies, has issued a stream of regulations requiring better corporate governance by companies and accounting firms alike, fraud is still rampant. A recent Ministry of Finance study found that more than 50 percent of the companies it surveyed had significantly doctored their profit-and-loss statements. Since CRAs rely heavily on publicly available financial reports, their ratings may be as suspect as the underlying data.

Moreover, there are reasonable doubts about CRAs' ability to provide competent and objective analyses. The major domestic CRAs have borrowed extensively from practices abroad, but their staffs are small and young, and thus, typically have limited rating experience. (Turnover is a problem in the ratings industry globally.) Most of the bond issues so far in China have had simple structures, but China's CRAs are untested at rating riskier firms or bonds connected to more complex types of instruments, such as derivatives.

Just as worrisome is the pressure CRAs face from issuers (and potentially their government supporters) to issue higher ratings than are deserved. Though recent bond issues may merit high ratings because of the firms' economic performance and strong government backing, many in the Chinese investment community have the impression that Chinese CRAs have handed out AAA ratings indiscriminately because they are so desperate for business. Though this may be the case for some of the bond ratings, SFE's stock ratings reflect a stronger backbone. Only 3 of the 168 rated firms were given AAA ratings, and 38 percent were given ratings below BBB, the equivalent minimum rating for investment-grade bonds. Nevertheless, China's CRAs still have yet to gain the trust of either investors or regulators.

A recent Ministry of Finance study found that more than 50 percent of the companies it surveyed had significantly doctored their profit-and-loss statements. Since CRAs rely heavily on publicly available financial reports, their ratings may be as suspect as the underlying data.

Some bright spots...

Several recent and upcoming policy changes could improve this bleak situation:

- First, NDRC is revising China's corporate bond regulations, which will probably streamline the application process and lead to an increase in the number of issues approved each year. CSRC has also begun to approve more convertible bond issues. Though not required, 80 percent of convertible bonds (which can be exchanged for company stock) have received ratings. And in late August, CSRC announced that beginning in October 2003 it would permit domestic securities firms to issue bonds that have been rated. Several securities firms had already sought ratings before the measure was even announced.
- Aside from the prospect of more bonds, new regulations permit institutional investors to buy bonds only above a certain rating. In January 2003, the National Council for Social Security Fund, China's equivalent of the US Social Security Administration, began allowing six investment firms to manage a portion of the fund. The firms are not only allowed to buy stock but may also buy investment-grade corporate bonds. And in June 2003, the China Insurance Regulatory Commission announced rules allowing insurance companies to invest only in corporate bonds rated AA or better by CRAs it deems qualified to provide ratings (CCXI, Dagong, Lianhe, and SFE). These steps should increase demand for ratings.
- Third, a formal accreditation process for CRAs is emerging. CSRC has drafted the

If the government genuinely opens the door to all sorts of bond issuers and allows the market to set interest rates, CRAs in China will go from having no influence to being all-powerful gatekeepers.

Measure on Regulating the Securities Credit Rating Business. Under this regulation, scheduled for release by the end of the year, CSRC will accredit CRAs using multiple criteria. Specifically, the measure will require CRAs to meet minimum assets requirements, have accumulated significant rating experience, establish a formal rating system with internal checks, and include certain information in their ratings reports. The regulation also sets out a list of prohibited activities, including engaging in price wars, and a graduated list of punishments if CSRC discovers violations. Any company listed on a domestic stock exchange hoping to issue a bond, or any company that wants its bond traded on one of the exchanges, will have to have their bonds rated by a CSRC-accredited rating agency. In addition, the China Securities Industry Association issued rules in July 2003 requiring that employees in the securities industry, including staff in CRAs, pass association-administered exams.

The CSRC rule also permits global CRAs with substantial experience rating overseas Chinese bond issues to compete in the domestic China market—independently. In anticipation of these changes, Moody's established the Moody's Risk Information Technology Service Corp. in Beijing earlier this year, and S&P is opening a representative office in Beijing. And because of difficulties in its joint venture, Fitch may also soon go it alone.

...but more clouds

Despite these signs of change, there is good reason for caution. It is unclear when the new corporate bond regulations will be finalized; and once they are released, it is still unlikely that companies with significant credit risk will gain access to the bond market because of the government's fear of defaults. And even if the bond issue pie expands significantly, six to eight rating

agencies (half domestic and half foreign) will be fighting for relatively thin slices.

In addition, regulatory authority over securities continues to be fragmented and ambiguous, a situation which is of concern to issuers, investors, and rating agencies alike. NDRC, through the revised corporate bond regulations or some other measure, may attempt to regulate CRAs as well, potentially putting it at loggerheads with CSRC.

More broadly, those interested in China's financial health have reason to worry about the direction in which the country is moving. China is in the process of replicating the two hallmarks of the American model: accrediting CRAs and requiring institutional investors—such as pension funds and insurance companies—to buy bonds rated above a certain grade by specific companies. Though such a system is intended to ensure that only quality CRAs can operate and that investors do not take unwarranted risks, a couple of unintended consequences are possible. First, implementing strict accreditation procedures may block new firms from entering, squelching healthy competition among CRAs. Second, setting a bar for institutional investors turns CRAs into surrogate regulators, and drives issuers and investors to focus on clearing the regulatory hurdle rather than on evaluating the more complicated credit risk.

Thanks to the new CSRC measure, lack of competition among CRAs is unlikely to be a problem initially. But if the government genuinely opens the door to all sorts of bond issuers and allows the market to set interest rates, CRAs in China will go from having no influence to being all-powerful gatekeepers. Although the global rating agencies are generally viewed as objective and well-intentioned, they have made some highly publicized mistakes, including not seeing the Asian financial crisis coming until too late. In addition, their required ratings have increased costs incurred by both issuers and investors.

Given their newly discovered powers, it is reasonable to ask whether Chinese CRAs would serve the public's need for greater market information and transparency or whether they would succumb to the pressures and opportunities of their vaunted position. Besides engaging in widespread ratings inflation, they conceivably could practice discrimination, assisting certain favored issuers with high ratings and saddling their competitors with low ones. The privatization of regulatory authority is appealing in theory—and would be revolutionary in China—but CSRC will have to remain vigilant and strengthen its own monitoring capabilities to ensure the new system operates as intended. Otherwise, China's investors, professional and retail alike, could shift from dismissing ratings as irrelevant to ruining their importance. 完

Focus on China Optics

Continued from page 35

field, and Chinese researchers overseas are already crucial to global R&D. This is the second China business trend illustrated by optics: China's nascent emergence as a center of high-tech research and increasing integration with global R&D. "China," Plympton says, "has the potential to make Japan look like a blip on the radar screen."

What does this mean for the firms supplying China with technology? Will China leapfrog and take over their markets overseas? "That's the trillion-dollar question, and not just in optics," says Dean Faklis, a senior optical consultant, noting that some global firms have backed away from intensive technology transfer; Kodak, for instance, has reportedly closed some China optics facilities. "But the truth is," Faklis said, "that while China's growth is here to stay, so is the growth of photonics. There's room for many players. Ultimately, the market will reward the best innovators, wherever they're from."

Going private

The innovation-oriented market is gradually forcing China beyond the SOE model, for despite past successes, familiar problems plague SOEs in the optics industry. Not set up for just-in-time manufacturing, SOEs typically struggle with fast-turnaround, small-volume orders, and with the multiple design changes typical in rapidly evolving markets. Though their precision may be superb for such tried-and-true products as eye-testers, it falls away rapidly in less-familiar technologies like multilayer coatings, organic crystals, and photo-emulsion.

An exploding number of private and collectively owned optical manufacturing houses, spinoffs led by frustrated employees of slow-moving SOEs, is beginning to fill the gap. In Shanghai, for instance, some 100 small and medium-sized optics manufacturers, most founded within the last five years, are leading Chinese exports of optics equipment. Of China's reported \$101 million in optical component exports in 2000, the authors estimate some 60 percent came from these smaller, private firms in Jiangsu, Shanghai, and Zhejiang. Xuhua

Optics provides a good case study of the industry's growth (see p.34).

The third China business trend that optics reveals is the departure of top SOE workers to form dynamic new enterprises. Many of these private firms are highly specialized, having bought from ailing SOEs whole production lines dedicated to, for instance, CCD or digital video disc lenses. Many also collaborate with specialized optics houses overseas—creating "virtual

Of China's reported \$101 million in optical component exports in 2000, the authors estimate some 60 percent came from smaller, private firms in Jiangsu, Shanghai, and Zhejiang.

clusters" in which cost-effective, skilled labor in China supports cutting-edge R&D and manufacturing capacities in the West. Increasingly, these optics SMEs are coming to resemble the specialized entrepreneurial startups that make optics clusters so dynamic in the West.

Will China's growing private optics firms hollow out the SOEs, leaving them warehouses for unproductive employees? Or will new competition stimulate SOEs to reach their potential as clusters of excellence? Will China's growing R&D expertise mean more opportunities for the global optics firms that trade with the country? Those are just a few of the burning questions shaping China's economic future. Keeping an eye on optics will offer an early view of the answers. 完

China's Film Industry Steps Out of the Shadows

China's WTO commitments are opening up the film industry—and not just to foreign investment

William Brent

In 1994, *The Fugitive* starring Harrison Ford made history by becoming the first Hollywood blockbuster to be released in the PRC on a revenue-sharing basis. In the film, Ford's character, Dr. Richard Kimble, is convicted of his wife's murder. He proclaims his innocence, escapes, and embarks on his own investigation to find the real killer—an elusive one-armed man with a metal-hook prosthesis.

Unlike Dr. Kimble, however, the Chinese government has only its own clumsy iron fist to blame for the pounding the Chinese film industry has taken in the last 10 years. Yet a miraculous recovery seems imminent, in large part because the government is finally relaxing its tight grip on the industry.

When I started working in the Chinese film industry a decade ago, it was a time of optimism. The government was actively discussing reforms, and a more open film market seemed just around the corner. But as so many businesses in China have discovered, around one corner lies another, and then another, until one day you find yourself trapped in a Hitchcockian maze. Ever the optimist, at the end of each year I would turn to whoever would listen and say, "It can't get any worse." Each year I was wrong. Piracy worsened, box office receipts declined, and private investment in production or distribution companies remained forbidden. But a wise man once told me that if you spend 23 hours saying, "The sun is going to rise," eventually on the 24th hour, the sun does rise. Starting in 2002, the sun finally rose over the Chinese film industry.

Dawn breaks

Among the most onerous of the longstanding restrictions on the PRC film industry was the requirement that all foreign films destined for theatrical release be sold to China Film Group—a state-owned enterprise. China Film bought all foreign films for very low flat fees, and the foreign studios did not share in the box office revenue. Only 10 foreign films were distributed on a revenue-sharing basis per year in China before it joined the World Trade Organization (WTO). Before China's WTO entry, foreign companies were forbidden to invest in movie theaters.

After years of hemming and hawing, Beijing announced that beginning in February 2002, it would allow private Chinese companies to produce and distribute movies independently. With the June 2003 announcement of the end of the 50-year state monopoly on the import of foreign films, as well as the emergence of more mature capital markets and a new generation of savvy producers, the pieces of a twenty-first century film powerhouse have begun to fall into place.

These developments do not herald the first age of Chinese film. Shanghai was the center of a vibrant private film industry prior to the communist takeover in 1949. After the revolution, the

William Brent

is managing director of Cinezoic Film and Television Corp., a private Shanghai film studio, which will release the film *Bamboo Shoot* in 2004.

heart of the industry was moved to Beijing, where it has remained under the watchful eye of conservative propaganda censors. The world caught a glimpse of the global potential of Chinese film in the late 1980s and early 1990s, when films by Zhang Yimou and Chen Kaige found an international audience, but international interest quickly faded except for a loyal art house following.

But now, with the overall market shift that China's entry into the WTO requires, China's film industry is also reaping benefits. According to China's WTO commitments, upon entry in 2001, the country had to allow foreign investment of up to 49 percent in the construction and renovation of movie theaters and joint venture distribution of video and sound recordings (excluding motion pictures). In addition, China must allow 20 foreign film imports a year on a percentage rental (i.e., revenue sharing) basis, up from the previous 10. The commitment to allow foreign investment in the industry, which the government has largely honored, has ironically given Chinese domestic companies greater leeway to acquire the knowledge and capital needed to compete with the Hollywood juggernaut.

One of the first steps the government took to open up the domestic film industry was to end the production monopoly of the large state-owned studios in 2002. Licensed private Chinese film companies may now apply directly to the government for approval to produce and distribute a movie. In the past, private producers were forced to buy a permit from one of three dozen state-owned studios, which received a fixed quota of permits from the government each year. Since state control was lifted, the government has approved a select number of private Chinese production companies, including my company, Cinezoic Film and Television Corp.

The decision to break state control reflects government recognition that the old system had failed. Even as the heavily subsidized state-owned studios struggle to stay afloat, the reforms are finally attracting the attention of domestic investors. And like China's TV industry, which was quickly transformed from a propaganda tool into a true industry during the 1990s—when the money involved got everyone's attention (including the tax-hungry government)—the film industry is about to exit political purgatory and become a full-fledged market.

Several developments offer a clear vision of this future:

- The success of Zhang Yimou's *Hero*, a martial arts epic made in 2001 at a cost of \$30 million, according to the producers, and released in 2002, is the clearest indication yet that China will have a large market for homegrown blockbusters. *Hero* broke box office records in China for domestic films, bringing in about ¥240 million (\$29 mil-

lion). The major Hollywood studios all realize the potential signaled by *Hero*, and Columbia-Tristar Motion Picture Group, Warner Brothers Entertainment Inc., and Miramax Film Corp. are leading the way in localization by cofinancing, marketing, and sometimes distributing Chinese films abroad. (Foreign companies still may not distribute films in China.)

- With the launch of the 24-hour Chinese-language Celestial Movie channel broadcast out of Hong Kong, the growing strength of China Central Television's Movie Channel, and the planned creation of other national Chinese movie channels, movie producers can now treat TV sales as a legitimate revenue source.

- New policies allowing private Chinese equity in theatrical distribution, which took effect in June, paved the way for the creation of Huaxia Film Distribution Co.—the new distribution company that started to compete against erstwhile monopoly movie importer China Film Group in August with the release of *Terminator 3*.

Private distribution companies targeting domestic movies have also been popping up. Seven companies, such as Beijing Bona Culture Co. and Huayi Brothers, have been approved by the State Administration of Radio, Film, and Television (SARFT) to enter the fray, some of them with backing from major Chinese conglomerates.

- Because private capital has been permitted to enter video distribution, many of the video pirates who made a fortune selling illegal copies of Hollywood films are now turning semi-legitimate. This is crucial, since the Motion Picture Association (MPA) estimates that more than 90 percent of film titles sold in China are pirated. One sign of this shift toward legitimacy was the video rights purchase price for *Hero*, which was bought at auction by Guangdong Weikai Audio and Video Production Co. for nearly ¥18 million (\$2.12 million), a previously unheard-of sum.

- The Chinese courts are starting to enforce China's laws against piracy, supporting the efforts of the MPA, whose members are the top seven US studios. A court in Shanghai recently awarded damages to Twentieth Century Fox Film Corp., The Walt Disney Co., and Universal Studios Inc. after finding retailers guilty of selling pirated videos. The MPA plans to press its point by filing more lawsuits in the coming months. Domestic producers are also increasingly litigious in protecting their copyright.

- Companies such as Poly Group Corp. and Stellar Megamedia Group Co. Ltd., which are investing in local distribution companies, are also moving aggressively to enter the exhibition market by acquiring existing cinema chains. Such moves signal a future in which a handful of large companies will control both exhibition and distribution. The major Hollywood studios



Dazzling, released in late 2003, was Cinezoic's first film.

Photos courtesy of Cinezoic Film and Television Corp.



are following suit. Earlier this year in Shanghai Warner Brothers opened its first Chinese multiplex, which is already the top cinema in terms of revenue in the city, and has selected locations nationwide to open 10 more. Warner Brothers's strategy is simple: first build a chain of cinemas, and then wait for restrictions on foreign investment in distribution to be lifted, something that is widely expected within the next five years. In addition, China Film is installing digital screening systems in 100 screens nationwide, which if successful, could significantly reduce the cost of producing and distributing film prints.

- SARFT plans to introduce a movie rating system for the first time in China next year. The long-debated decision should help reduce the role of censorship by turning what were once highly subjective standards into more objective guidelines that leave less room for political interference. Moreover, there has been some discussion within SARFT about devolving censorship to local governments, but just how that plays out remains to be seen.

- Besides letting Hollywood release more of its films under the WTO agreement—60 films total within three years of China's WTO entry in late 2001—the government has also exempted Hong Kong films from the quota limiting foreign film imports, instead treating Hong Kong movies as domestic films.

An infant industry

Despite these positive signs, the Chinese film industry is miniscule when compared to Hollywood. A wide-release film in the United States, for instance, requires around 3,000 prints. In China a wide-release film such as *Hero* required just 300 prints. Moreover, Hollywood generated box office revenue of nearly \$10 billion in 2002, according to the MPA. In comparison, Chinese distribution executives estimate

that China's box office revenue in 2002 was roughly ¥1.2 billion (\$145 million), or 1.4 percent that of Hollywood. That's a humbling figure, especially since Hollywood films account for more than half of box office revenue in China, but it is also an exciting one. Because the film industry has only just started to gain access to capital markets and foreign investment, there is lots of room for growth.

Merchandising is one example of a largely untapped market for China's film industry. Another is marketing, which is weak. Distribution systems, too, are immature. Despite the growing number of comfortable, high-end multiplexes in China, the exhibition market remains underdeveloped, with only one screen for every 122,000 people compared to 8,600 screens per person in the United States, according to the MPA. And the government remains responsible for the continued incentive to pirate by limiting the number of video titles allowed into the country each year. It is also failing to stamp out growing broadband piracy. All of these issues, while potential obstacles, are also great opportunities for foreign and domestic film companies to stake a claim in China's film industry.

The continuing decline of the film business in Hong Kong and Taiwan, and a growing awareness among Chinese film audiences of Japanese and South Korean movie and television stars, has meant that many in the Asian film community are starting to turn to China, with pan-Asian cofinancing becoming more commonplace for mainland productions. Foreign investment in Chinese productions has always been allowed on a project basis (as opposed to taking equity in a Chinese production company, which is still technically prohibited). Sino-foreign coproductions must undergo a special approval process and pay a management fee to the China film coproduction bureaucracy.

But some things have changed. For example, coproductions are now allowed to print two versions of a film, one for domestic release, the other for foreign release. Content control on the foreign release prints is less strict. As for domestic financing, in the last decade money often came from real estate developers, who used loopholes in Chinese law to write off film investments as a corporate marketing expense. Now more investment is coming from institutional investors that make strategic decisions, as opposed to opportunistic ones.

The changes in China's film industry should eventually create a virtuous cycle in which producers can find investors willing to put up money for bigger budget films, which will be marketed and distributed without the threat of rampant piracy. This, in turn, will allow brand new multiplexes to earn greater box office receipts and the post-theatrical market, including video and TV sales, to flourish. 完

China's Top 10 at the Box Office, 2002

Title	Place of Origin	Box Office Revenue
1. Hero	PRC, USA	¥245 million
2. The Lord of the Rings: The Two Towers	USA	¥60 million
3. Harry Potter and the Chamber of Secrets	USA	¥50 million
4. Star Wars: Episode II - Attack of the Clones	USA	¥40 million
5. The Touch	PRC, HK	¥27 million
6. The Lion Roars	HK	¥23 million
7. Chinese Odyssey 2002	PRC, HK	¥22 million
8. Ghosts	PRC	¥17 million
9. Together	PRC	¥14 million
10. Mighty Baby	HK	¥10 million
Total		¥508 million

Source: Cinezoic Film and Television Corp.



FORECAST 2004

SAVE THE DATES!

The St. Regis, Washington, DC

Wednesday, January 28

Washington Reception

6:00 - 8:30 pm

Thursday, January 29

Conference

8:30 - 4:00 pm

Company Strategy Sessions

4:00 - 5:30 pm

A members-only annual conference offering in-depth analysis of China's political and economic macro-trends. Field experts will discuss *China and the global economic climate; Chinese trade associations and interest groups; Key issues in China's foreign relations in 2004 and implications for US-China engagement; Prospects for trade and investment in 2004*. The keynote address will focus on *China, commercial priorities, political pressures and the presidential elections*.

For more details, fees, lodging and registration information see:
www.uschina.org

The Green Olympics and CSR

Continued from page 27

Reserve, China's main nature reserve for giant pandas, and at the Summer Palace, the country's best preserved and largest imperial gardens, located in the northwest suburbs of Beijing.

● Local level

With the help of an NGO partner, firms that want to focus on building a presence in a specific geographic area can develop activities either with local schools and youth groups or with a local cultural or natural landmark. Examples could include sponsorship of environmental guidebooks or summer camp programs for youth groups in a certain city.

● Government relations

Companies wishing to strengthen relations with officials of a particular government entity can consider supporting schools that serve the children of these entities.

● Local communities

Firms wishing to support the communities in which they operate may want to consider an

NGO partnership that will help train and engage their employees in community service activities for local schools, youth groups, and parks.

Seize the day

US companies devoted \$9 billion to social causes in 2001 according to Harvard Business School, but few connected their contributions with their brand promotion goals. Companies that committed talent and knowledge to selected social needs, and then publicized the causes and their dedication to serving them, brought benefits to their companies and causes.

The door is wide open to MNC involvement in environmental, educational, and cultural projects in China. Since the 2008 Olympics present MNCs many opportunities to make a difference, companies must evaluate the scale and focus of their CSR support. With careful selection, the companies can help China—and their brand identity in China—well beyond 2008. 完

Human Resources and ISO 9000 in China

Standardizing human resources procedures can help improve employee and organizational performance

William M. Hickey

All countries want a domestic workforce versatile enough to keep pace with economic expansion. This goal is especially pertinent in China, where multinational corporations' (MNCs) headquarters often direct their China operations to find Chinese (as opposed to expatriate) managers. But Chinese cultural, political, and procedural barriers are hard to surmount, and MNCs in China often complain that Chinese employees have difficulty carrying out basic tasks. Yet many MNCs do not clearly convey to local employees what actually needs to be done and why. Part of the problem lies in the absence of standardized, transparent human resources (HR) procedures in many MNC operations in China.

A sound understanding of corporate strategy is necessary to make sure HR practices are suitable for a particular set of employees. In general, the goal of the HR department is to improve performance of, retain, and motivate employees. As far back as 1984, MNCs in China recognized that

William M. Hickey

is currently a Fulbright Fellow for Asia human resources (HR) development in Almaty, Kazakhstan. In China, he has worked as an expatriate corporate trainer, HR consultant, and training designer for several multinational corporations, and as an HR adviser and consultant with the Tianjin and Shanghai labor bureaus.

This article is dedicated to Dr. Yu Zhanghai, 1962-2003.

their HR departments were having difficulty ensuring adequate employee performance. Much of the problem stemmed from the fact that HR management itself is often a local function. These locally staffed HR departments have long filled important HR positions with Chinese managers, many of whom do not fully understand the company or Western HR methods. In China, foreign companies have often created HR managers by moving managers horizontally from other departments.

Human resource development and ISO 9000

Many Western MNCs in China today could benefit from using the human resource development (HRD) system—a system that encompasses skills transfer, instructional design, needs assessment, organization development, succession planning, and career development projects. Though HRD does not identify compensation, it is beginning to link overall competence to reward. The HRD system can be used to enhance the strategy, structure, and efficiency of any organization or group, regardless of size. In short, HRD recommends specific interventions (both instructional and non-instructional) to solve human performance problems. Instructional interventions include training, classes, and consulting; non-instructional interventions include succession planning, organization development, and career development. HRD draws from the fields of management, education, and industrial psychology and is best used in environments in which considerable organizational or social change is occurring rapidly. To use HRD effectively, companies must clearly understand HRD and communicate their goals to their staffs.

ISO 9000 is an organization documentation procedure based on integrity and compliance

Because companies must submit a written plan to get ISO 9000 certification, the system forces managers to sit down, think about their HRD strategy, and clearly define what they want their people to be able to do and demonstrate.

standards that are globally certified and accepted. ISO 9000 promotes continuous improvement through corrective action. ISO 9000 can help an HRD effort in China by documenting accountability.

ISO 9000 is *not* quality control (QC) or total quality management (TQM), though many companies in China market it as such. ISO 9000 only demonstrates to customers and vendors that the organization follows a documented procedure that has been independently audited for international compliance. ISO 9000 can fit well within a TQM process, but it only verifies procedures by way of files and paperwork. ISO 9000's overall objective is to be a "fitness for purpose" test. A company can be ISO 9000 compliant and still have shoddy products. Conversely, a company producing high-quality products may not possess an ISO 9000 certificate (though this is rare).

ISO 9000 cannot offer any insights into the "quality" of an organization's training and HRD

Original ISO 9000 series

The ISO 9000:2000 series, introduced in 2000, will replace the ISO 9000:1994 series on December 15, 2003. Companies have had three years in which to bring their processes up to the new standards. Many large companies are giving their vendors and suppliers extra time to comply with the new standards. Shanghai GM, for instance, is allowing some of its smaller vendors several more years to comply, according to human resources development department Deputy Manager Lu Jianmin. And since the old standards are still widely advertised and used in China, it is worth taking a closer look at them.

ISO 9001 is the "comprehensive" certification process. It includes documentation

and certification from all processes in the organization from initial development to final product. Companies with the 9001 certificate comply with all ISO procedures. Not every company in China needs ISO 9001 certification, because many companies are not actively developing products in China but are making products from existing blueprints.

ISO 9002 certification covers the production and dissemination of finished products. Since most manufacturing and high-tech companies in China are interested in producing and selling *existing* products in China, this certification should be sufficient. ISO 9002 is what most manufacturing companies in China advertise.

ISO 9003 certification only covers procedures for marketing and moving finished products. This is the lowest level of certification. It has some value for imported products and perhaps for companies that mass produce labor-intensive, low value-added products, since this certification is the easiest to comply with and a Chinese company does not have to bare its production processes to auditors. Though this higher number sounds better, and is gaudily advertised as a higher accomplishment, it really demonstrates the lowest level of ISO compliance.

—William M. Hickey

The most successful training programs blend home office competencies with the cultural, political, and socioeconomic values of the foreign subsidiary's home country.

programs, but it does offer a way to document and organize a company's training and HR compliance. ISO is most useful for mapping people's competence, awareness, and training.

Bringing ISO 9000 to China HR

Since HR is the local implementation of a corporate strategy, the incorporation of both national and corporate culture is paramount. The ISO 9000 documentation process is the key, because it forces companies to state their objectives and expectations clearly. This is also the core of career development theory: aligning people's needs with organizational strategy.

Because companies must submit a written plan to get ISO 9000 certification, the system forces managers to sit down, think about their HRD strategy, and clearly define what they want their people to be able to do and demonstrate. Only the company can decide how "good" its HR plan needs to be, but it is worth incorporating as much detail as possible. The objective in China is to promote training stability and compliance, which will push many organizations to their goal of total localization much more quickly.

More important, many MNCs now operating in China require their vendors and clients to be ISO 9000 certified. But they must be certified by December 15, 2003, when the old ISO 9001, 9002, and 9003 standards will expire (*see p.47*). Many smaller companies, especially local

Chinese vendors, are not taking this deadline seriously. This lack of readiness is a serious matter for several reasons. ISO compliance cannot be acquired overnight; it requires a thorough systematic and strategic plan. And many Chinese companies and some joint ventures have no discernible HR department, let alone a plan.

Companies currently invested in China with well-established HRD systems, such as Motorola Inc., 3M Co., Nestlé SA, and General Electric Co. would probably benefit little from an ISO 9000 initiative for HR because they already have their own documented procedures for measuring employee performance. Small and medium-sized companies would benefit the most from ISO 9000 certification.

ISO 9000:2000— A template for HR success

Many foreign ventures now entering the country have no idea where to start developing a training/HRD program for local personnel. Training and development plans brought over from the home country and installed in China are often ethnocentric and thus must be adapted for China. Nonetheless, many MNCs attempting to save money and cut costs make this mistake—with disappointing results. The most successful training programs blend home office competencies with the cultural, political, and socioeconomic values of the foreign subsidiary's home country.

For HR certification, the most important parts of the ISO system are the 9001 certification level for complete (design to finished product) overview, and inside that, Section 6, which is a small but powerful section regarding HR. Another important part of the ISO system in terms of HR is ISO 9000:2000 Section 6, which tests an organization's ability to define the HR standards that it wants to incorporate. The essence of ISO 9000:2000 Section 6 is:

- Describe what you do. [Position documentation on file]
- Do what you say. [Employee documentation on file]

Compliance in China

Foreign companies doing business in China should be aware that many Chinese companies have attained ISO certification without demonstrating full compliance. Many foreign businesspeople and ISO consultants consider certification by Chinese auditors weaker than certification by European auditors because they believe that Chinese auditors have "looser" definitions of compliance. The number of deficiencies that constitute noncompliance—usually three, with loss of certifi-

cation, or failure to obtain it in the first place—is left up to the auditor which also has the authority to issue an innocuous "need for corrective action." Many smaller ISO-certified companies in China may have even bought their certification from a local auditor that did not inspect them thoroughly. All of the large multinational corporations in China have European certification and have demonstrated compliance.

—William M. Hickey

- Record what you did. [Management documentation on file]
- Check on the results. [Analysis undertaken of the measurement]
- Act on the difference. [Corrective action noted and on file]

ISO 9000:2000 details “resource management” under Section 6.2 and requires detailed HRD documentation under Section 6.2.1—where management must ensure a demonstrated commitment to human resources for achieving and identifying corporate objectives—and Section 6.2.2—for competence, awareness, and training. ISO 9004:2000 expands the 9001 certification in human resources with specific documentation for verifying that such a plan really exists. In short, ISO 9001:2000 gets the user to compliance and certification, while ISO 9004:2000 takes the organization beyond compliance and can be used to enhance and build a quality program. This is particularly important in China, where HR has historically been exemplary at meeting (and only meeting) requirements in order to put people to work.

Certification in the area of Section 6.2.2 means that management has analyzed the performance gap between “what is” and “what should be” in the organization (*see* Table). Management is also willing to provide skills training to complement the individual’s current experience and increase his or her overall competence. This skills training should also highlight the importance of satisfying customer and vendor needs and include the consequences to the company and the individual of failing to meet these needs.

Invest time now for good HR later

“Documentation” is written verification of all of the above processes and methods. Nothing is left to chance. The premise is that a company cannot accomplish anything without a system, and ISO 9000:2000 makes management write

One criticism of ISO is that it may stymie initiative or change, but whether an organization stagnates in this area depends largely on the ability of HR departments to incorporate change by updating policy. Every system needs to be re-audited and reviewed regularly.

everything down for reference, policy, and precedent. Management, employees, and auditors can readily access the system. Shoddiness in documentation or failure to incorporate changes into the documentation promptly represents non-compliance. One criticism of ISO is that it may stymie initiative or change, but whether an organization stagnates in this area depends largely on the ability of HR departments to incorporate change by updating policy. Every system needs to be re-audited and reviewed regularly.

The initial work required to set up this system is time consuming, and changes must also be noted and incorporated as soon as possible. Failure to incorporate systems and objective changes sets off “red flags” with auditors, who, at their discretion, may withhold or revoke certification or grant temporary certification subject to revision. But the results of using the system, in improved employee performance and motivation, will be noticeable: Employees will know what they are doing, how to do it, and why they are doing it. 完

Operator Training for Foreign Invested Enterprises in China (Human Resource Development for ISO 9001:2000 Section 6)

Objective	Ensure that <i>all operators</i> have initial competence in a specific production operation.
Indicator	Operations examination and follow up.
Principle	<ul style="list-style-type: none"> ● Operators cannot work independently without training and qualifications for their particular positions. ● The human resources department is ultimately responsible for instructing, supervising, and auditing training. ● The production department is responsible for administering and facilitating training.
Scope	All operators in the workshop, without exceptions.
Summary	<ul style="list-style-type: none"> ● Training Processes (ISO 9001:2000, 6.2.2) ● Training Resources (ISO 9001:2000, 6.1)
Related Documents	Usually linked to related quality assurance or quality control files or similar ISO initiatives.

Source: William M. Hickey

The following tables contain recent press reports of business contracts and negotiations exclusive of those listed in previous issues. For the most part, the accuracy of these reports is not independently confirmed by *The CBR*. Contracts denominated in foreign currencies are converted into US dollars at the most recent monthly rate quoted in the International Monetary Fund's International Financial Statistics.

Firms whose sales and other business arrangements with China do not normally appear in press reports may have them published in *The CBR* by sending the information to the attention of the editor.

Advertising, Marketing, & Public Relations

CHINA'S IMPORTS

URI (US)

Selected by China National Tourism Administration's southern California office to handle creative media promotions and media relations in the wake of severe acute respiratory syndrome. 07/03.

Agriculture

OTHER

Canpotex Ltd. (Canada)

Signed agreement to supply SINOCEM with at least 1.5 million tons of potash fertilizer over three years. 08/03.

Phosphate Chemicals Export Association Inc. (US)

Signed agreement to supply China National Agricultural Means of Production Group Corp. with diammonium phosphate through 2005. 08/03.

Architecture, Construction, & Engineering

CHINA'S IMPORTS

ABB Lummus Global Inc., a unit of ABB Ltd. (Switzerland)

Won contract from Shanghai SECCO Petrochemical Co. Ltd. to design and supervise construction of a polystyrene/ethylbenzene factory. \$123 million. 07/03.

AMEC plc (UK)

Won contract from China Worldbest Group to engineer and construct a carbon fiber plant in Bengbu, Anhui. \$25 million. 07/03.

Inventa-Fischer, a unit of EMS-CHEMIE Holding AG (Switzerland)

Won contract from Jiangsu Godsheep Chemical Fiber Co. Ltd. to design and supervise construction of a polyester chip plant in Wuxi. \$14.6 million. 07/03.

OTHER

Bregman & Hamann Architects (Canada)/Hanfeng Evergreen (Liaoning)

Signed letter of intent to cooperate on all bids for China landscaping contracts. 08/03.

Automotive

INVESTMENTS IN CHINA

DaimlerChrysler AG (Germany)/Beijing Automotive Industry Holding Co. (BAIH)

Signed agreement to expand partnership in Beijing Jeep Corp. Ltd. and Beiqi Futian Automobile, units of BAIH, to produce Mercedes sedans and trucks. \$1.1 billion. 09/03.

Asahi Tec Corp. (Japan)/Wheelhorse Aluminum Casting Co. (Guangdong), Dicastal Wheel Manufacturing Co. (Hebei)

Formed joint venture, Dicastal Asahi Aluminum Co., to manufacture and sell aluminum wheels. (Japan:25%-PRC:75%). \$5.3 million. 08/03.

DENSO (China) Investment Co. Ltd., a subsidiary of DENSO Corp. (Japan)/Shanghai Pudong "EV" Fuel Injection Co. Ltd., Shanghai Dongsong International Trading Co.

Will form joint venture, Shanghai Denso Fuel Pump Co., to produce fuel injection pumps for diesel vehicles. (Japan:34%-PRC:66%). \$13.6 million. 08/03.

Honda Motor Co. (Japan)/Dongfeng Motor Corp. (Hubei)

Formed joint venture, Dongfeng Honda Automobile (Wuhan) Co., to produce Honda motor vehicles in Wuhan, Hubei. (Japan:50%-PRC:50%). \$28 million. 08/03.

Meridian Technologies (US)/Shanghai Cosmopolitan Automobile Accessory Co. Ltd., a subsidiary of Shanghai Automotive Industry Corp.

Signed joint venture agreement to manufacture automotive die castings in Shanghai. (US:60%-PRC:40%). \$20 million. 08/03.

Abbreviations used throughout text: ABC: Agricultural Bank of China; ADB: Asian Development Bank; ASEAN: Association of Southeast Asian Nations; AVIC I and II: China Aviation Industry Corp. I and II; BOC: Bank of China; CAAC: General Administration of Civil Aviation of China; CATV: cable television; CCB: China Construction Bank; CCTV: China Central Television; CDB: China Development Bank; CDMA: code division multiple access; CEIEC: China National Electronics Import and Export Corp.; China Mobile: China Mobile Communications Corp.; China Netcom: China Netcom Corp. Ltd.; China Railcom: China Railway Communications Co., Ltd.; China Telecom: China Telecommunications Group Corp.; China Unicom: China United Telecommunications Corp.; CIRC: China Insurance Regulatory Commission; CITIC: China International Trust and Investment Corp.; CITS: China International Travel Service; CNOOC: China National Offshore Oil Corp.; CNPC: China National Petroleum & Gas Corp.; COFCO: China National Cereals, Oils, and Foodstuffs Import and Export Corp.; COSCO: China Ocean Shipping Co.; CSRC: China Securities Regulatory Commission; DSL: Digital Subscriber Line; ETDZ: economic and technological development zone; GSM: Global System for Mobile Communication; ICBC: Industrial and Commercial Bank of China; IT: information technology; LNG: liquefied natural gas; MII: Ministry of Information Industry; MOFTEC: Ministry of Foreign Trade and Economic Cooperation; MOU: memorandum of understanding; NA: not available; NORINCO: China North Industries Corp.; PAS: personal access system; PBOC: People's Bank of China; PetroChina: PetroChina Co., Ltd.; RMB: renminbi; SARFT: State Administration of Radio, Film, and Television; SEZ: Special Economic Zone; SINOCEM: China National Chemicals Import-Export Corp.; SINOPEC: China National Petrochemical Corp.; SINOTRANS: China National Foreign Trade Transportation Corp.; UNDP: United Nations Development Program; SME: small and medium-sized enterprise; WFOE: wholly foreign-owned enterprise

Toyota Group (Japan)/First Automotive Works Group (Jilin)

Formed sales joint venture, FAW Toyota Sales Co., to handle general sales in China for Toyota vehicles. 08/03.

DuPont Performance Coatings and Polymers (US)/Beijing Red Lion Coatings Co. Ltd.

Formed two joint ventures, both named Dupont Red Lion, to produce automotive coatings in Beijing and in Changchun, Jilin. (US:60%-PRC:40%). 07/03.

Mitsubishi Heavy Industries Ltd., Mitsui & Co. (Japan)

Formed joint venture, MHI Automotive Climate Control (Shanghai) Co., to make automotive air conditioners. \$2 million. 07/03.

OTHER**Shanghai Volkswagen Automotive Co. Ltd., a joint venture between Volkswagen AG (Germany) and Shanghai Automotive Industry Corp./Beijing Contemporary New Concept Sales Corp.**

Signed long-term car delivery agreement for Shanghai Volkswagen to provide new models for car rentals. 08/03.

Aviation/Aerospace**CHINA'S IMPORTS****The Boeing Co. (US)**

Won contract from Shanghai Airlines for five Boeing 757-200s. \$410 million. 09/03.

Rockwell Collins Inc. (US)

Won contract from AVIC I Commercial Aircraft Co. to supply aviation electronics systems for China's ARJ21 regional jet. \$230 million. 09/03.

INVESTMENTS IN CHINA**Fraport AG Frankfurt Airport Services Worldwide (Germany)/Shanghai Airport (Group) Co. Ltd.**

Signed MOU to form airport management joint venture in Shanghai. (Germany:50%-PRC:50%). \$228,000. 08/03.

Keppel Integrated Engineering Ltd., a subsidiary of Keppel Corp. Ltd. (Singapore)/Guangzhou Baiyun International Ground Handling Service Company Ltd. (Guangdong)

Formed airport maintenance joint venture for a 15-year, \$57.3 million maintenance contract with new Guangzhou Baiyun International Airport. (Singapore:25%-PRC:75%). \$3.2 million. 08/03.

OTHER**KLM Royal Dutch Airlines (the Netherlands)/China Southern Airlines Co. Ltd. (Guangdong)**

Agreed to run joint long-haul 747 freighter services between Amsterdam and Shanghai four times weekly. 09/03.

United Airlines (US)/Air China (Beijing)

Signed marketing agreement to cooperate on codesharing flights and frequent flyer programs, and to share airport lounges, among other terms. 08/03.

Banking & Finance**CHINA'S IMPORTS****Morgan Stanley**

Was appointed by China Eastern Air Group to advise on the absorption of China Northwest Airlines and Yunnan Airlines by its subsidiary, China Eastern Airlines Corp. 08/03.

OTHER**Mizuho Corporate Bank (Japan)/City of Nantong**

Signed agreement to share investment information and to encourage Japanese investment in Nantong, Jiangsu. 09/03.

Fortis Bank SA (Belgium)/Industrial and Commercial Bank (Asia) Ltd., an affiliate of ICBC

Signed nonbinding MOU for transfer of Fortis's Hong Kong commercial and banking business in exchange for a maximum 10% share of Industrial and Commercial Bank (Asia). 08/03.

Korean Exchange Bank (South Korea), Sumitomo Mitsui Banking Corp. (Japan)/BOC (Beijing)

Signed agreement to cooperate in foreign exchange settlement and e-trading systems. 08/03.

Standard & Poor's Corp., a division of the McGraw-Hill Cos., Inc. (US)/Shihua International Financial Information Co. Ltd., a unit of Sino-i Technology Ltd. (Hong Kong)

Signed an agreement to offer Standard & Poor's equity research to Shihua's clients in mainland China. 08/03.

Chemicals, Petrochemicals, & Related Equipment**INVESTMENTS IN CHINA****PTM Engineering Plastics (Nantong) Co. Ltd., a joint venture of Mitsubishi Gas Chemical Co. Inc. (Japan), Korea Engineering Plastics Co. Ltd. (South Korea), and Ticona, a subsidiary of Celanese AG (Germany).**

Will build an acetyl copolymer plant in Jiangsu. \$140 million. 09/03.

DuPont China Ltd. (US)/Wuxi Xingda Nylon Co. Ltd. (Jiangsu)

Will form three polymer joint ventures in the United States, the Netherlands, and China to produce monofilament for toothbrushes, oil-paint brushes, and other brushes. (US:70%-PRC:30%). 08/03.

Interkhiprom (Russia)

Purchased a 26% share of Juhua Fluorochemical in Guangdong. \$7 million. 08/03.

Global Bio-chem Technology Group Co. Ltd. and Changchun Dacheng Bio-chem Engineering Development Co. Ltd., subsidiaries of Global Bio-chem Technology Group Co. Ltd. (Hong Kong)/Changchun Dacheng Industrial Group Co. Ltd. (Jilin)

Signed agreement to form joint venture, Changchun Baocheng Bio-chem Development Co. Ltd., to produce and sell protein lysines and compound amino acids. (Hong Kong:75%-PRC:25%). \$18.2 million. 07/03.

Zeon Corp., Toyota Tsusho Corp., a unit of Toyota Group, and Tokyo Zairyo Co. Ltd. (Japan)

Will form joint venture, Zeon Polymix (Guangzhou) Co. Ltd., to produce and sell carbon masterbatch for the production of rubber auto parts. \$3 million. 07/03.

Distribution, Logistics, & Related Services

CHINA'S IMPORTS

Anji-TNT Automotive Logistics Co. Ltd., a joint venture of Shanghai Automotive Industry Corp. and TPG NV (the Netherlands)

Won five-year logistics contract from Shanghai Volkswagen to deliver automobile parts to assembly plants. \$112.7 million. 07/03.

INVESTMENTS IN CHINA

P&O Nedlloyd Container Line Ltd., a joint venture of Royal Nedlloyd NV (the Netherlands) and P&O (UK)/LOG-NET Inc. (Shanghai)

Will form joint venture, LOG-NET Shanghai Data Service Co., to provide Chinese logistics information to international distributors. 09/03.

Yellow Hat Ltd., Itochu Corp. (Japan)

Will form joint venture to distribute auto parts and accessories in Shanghai. \$40 million. 09/03.

Sagawa Express Co. (Japan)/China Poly Group Corp.

Formed distribution joint venture, Poly-Sagawa Logistics Co., to offer services throughout China. (Japan:50%-PRC:50%). \$10.8 million. 07/03.

Sumitomo Corp. (Japan)/Wuxi Hi-Tech Logistics Center (Jiangsu)

Formed joint venture, Wuxi Sumisho Hi-Tech Logistics Co., to provide comprehensive services for goods distribution. (Japan:50%-PRC:50%). \$5 million. 07/03.

OTHER

Digital China Holdings Ltd. (Hong Kong)

Signed agreement to distribute application life-cycle management software for Borland Software Corp. (US) in China. 08/03.

China National Medicine Group Shanghai Chemical Reagent Co.

Signed agreement to distribute research chemicals for Lancaster Synthesis (UK) in China. 07/03.

Education

INVESTMENTS IN CHINA

Blackboard Inc. (US)/CERNET Corp., a unit of China's Ministry of Education.

Signed agreement to form a joint venture, CERNET-Blackboard Information Technology Co. Ltd., to accelerate the implementation of online education in China. 09/03.

Electronics, Hardware, & Software

CHINA'S IMPORTS

Agilent Technologies, Inc. (US)

Signed agreement to provide semiconductor testing platforms to the Shanghai Research Center for Integrated Circuit Design. 08/03.

Diebold Inc. (US)

Was selected to provide four walk-up video banking units to ICBC's Guangdong network. 08/03.

CHINA'S INVESTMENTS ABROAD

CDC Software, a subsidiary of Chinadotcom Corp.

Bought enterprise software maker Ross Systems Inc. (US) for cash and stock. \$68.9 million. 09/03.

INVESTMENTS IN CHINA

National Semiconductor Corp. (Taiwan)/Zhejiang University

Opened a joint analog and mixed-signal integrated circuit (IC) laboratory in Hangzhou, Zhejiang. 09/03.

Agilent Technologies Inc. (US)

Built a SOC (system-on-chip) test center in Beijing to offer IC design analysis services. 08/03.

China Resources Logic Ltd., a unit of China Resources (Holding) Co. Ltd. (Hong Kong)/Central Semiconductor Manufacturing Corp. (Jiangsu)

Formed publicly held joint venture, CSMC Technologies Corp., with outside investors, to produce ICs. (Hong Kong:32.9%-PRC:27.3%-Other:39.8%). \$67 million. 08/03.

Monash (India)/Nanjing Fuzhong Information Industry Group (Jiangsu)

Signed agreement to form application software joint venture, Sino-India Fumeng System International Co. Ltd., to set up Sino-India Fuzhong Software Park in Nanjing. \$5 million. 08/03.

Infineon Technologies AG (Germany)/China-Singapore Suzhou Industrial Park Venture Co.

Will form joint venture, Infineon Technologies Suzhou Co., to build and operate a semiconductor chip factory. (Germany:72.5%-PRC:27.5%). \$333 million. 07/03.

Thomson SA (France)

Purchased three Chinese color picture-tube production lines, electron gun manufacturing equipment, and related assets from Dongguan Xinyuan Highway Co. Ltd. 07/03.

OTHER

Chartered Semiconductor Manufacturing Ltd. (Singapore)

Signed agreement to provide 6-inch chip-making equipment and manufacturing technology to CSMC-Tech's fabrication facility in Wuxi, Jiangsu, in exchange for cash and equity. 08/03.

Hewlett-Packard China, a unit of Hewlett-Packard Co. (US)/Beijing Zhongke Redflag Software

Will cooperate in the Linux market in fields of technology and product certification, sales and marketing, R&D, staff training, and technical support. 08/03.

Teradyne Inc. (US)

Was selected by C* Core Technology Co., a processor-design collaboration between MII and Motorola Inc., to supply embedded processor device testers. 08/03.

VeriFone Inc. (US)

Was selected as a payment-terminal provider by Chinese bankcard consortium China UnionPay Co. Ltd. 07/03.

Environmental Equipment & Technology

CHINA'S IMPORTS

Cummins Westport, a joint venture of Cummins, Inc. (US) and Westport Innovations (Canada)

Won order from Beijing Public Transportation Corp. for 75 liquefied natural gas bus engines for transit service in Beijing. 08/03.

Food & Food Processing

INVESTMENTS IN CHINA

Interbrew SA (Belgium)

Will purchase 50% stake in Lion Diversified Holdings Bhd and assume management control of its China brewing operations, with 12-month option to purchase the remaining equity. \$131.5 million. 09/03.

Forestry, Timber, & Paper

CHINA'S IMPORTS

Metso Paper, Inc. (Finland)

Will supply large fine-paper production line to UPM-Kymmene (Changshu) Paper Industry Co. Ltd. in Jiangsu. \$114.2 million. 09/03.

Metso Paper, Inc. (Finland)

Will supply complete recycled-fiber newsprint production line to Hebei Pan-Asia Long-Teng Paper Co. Ltd. in Hebei. 09/03.

INVESTMENTS IN CHINA

Pan-Asia Paper Co. Pte. Ltd. (Singapore), a joint venture between Norske Skogindustrier ASA (Norway) and Abitibi-Consolidated Inc. (Canada)/Hebei Long-Teng Paper Corp.

Formed a joint venture, Hebei Pan-Asia Long-Teng Paper Co. Ltd., to build and operate a newsprint mill in Hebei. (Singapore:65%-PRC:35%). \$300 million. 09/03.

Insurance

OTHER

Nipponkoa Insurance Co. (Japan)/American International Group, Inc. (AIG) (US)

Signed agreement to offer casualty insurance jointly through AIG's offices in China. 07/03.

Internet/E-Commerce

CHINA'S IMPORTS

NCR Corp. (US)

Won contract from White Horse Bus Co. in Guangzhou to install and oversee its internal IT network. 08/03.

WatchData Technologies Pte. Ltd. (Singapore)

Selected by BOC to provide security authentication software for online transactions. 08/03.

INVESTMENTS IN CHINA

Hitachi Ltd. (Japan)/Beijing University of Technology

Signed agreement to set up joint venture, Hitachi Beijing Tech Information Systems Co., to develop and provide systems for online government administration in China. (Japan:60%-PRC:40%). \$870,000. 09/03.

Metal One Corp., NC Network, Mitsubishi Corp. (Japan)

Formed joint venture, NC Network China Inc., to provide an online information service in partnership with Chinadotcom Corp. for manufacturers and purchasers in China. 08/03.

OTHER

Trend Micro Inc. (Japan)/Legend Group Ltd. (Hong Kong)

Will cooperate to develop security products and services for the Chinese software market. 08/03.

Fortis Haitong Investment Management Co. Ltd., a joint venture between Fortis Investment Management (Belgium) and Haitong Securities Co. Ltd. (Shanghai)/China UnionPay Co. Ltd.

Will cooperate to provide online fund transaction services in China. 07/03.

Light Industry & Manufacturing

INVESTMENTS IN CHINA

Electrolux AB (Sweden)

Will set up global purchasing center in Shanghai. 07/03.

Machinery & Machine Tools

INVESTMENTS IN CHINA

Kobelco Construction Machinery Co. and Toyota Tsusho, a unit of Toyota Group (Japan)

Will form joint venture, Kobelco Toyota Tsusho Construction Machinery Asia, to make construction machinery in Hangzhou, Zhejiang. 09/03.

UMW Petropipe (Labuan) Ltd., a unit of UMW Holdings Bhd (Malaysia)

Purchased 40% stake in Shanghai Tube-Cote Petroleum Pipe Coating Co., which manufactures internal plastic coating for drill pipes. \$5.3 million. 09/03.

Yamaha Motor Corp. (Japan)/Jiangsu Linhai Power Machinery Group Corp.

Will form joint venture, Yamaha Motor Taizhou OPE Co. Ltd., to produce multipurpose engines. (Japan:60%-PRC:40%). \$3.2 million. 08/03.

Metals, Minerals, & Mining

CHINA'S IMPORTS

ABB Ltd. (Switzerland)

Won two contracts from Ningbo Baoxin Stainless Steel Co. to provide equipment and specialized technology to its stainless-steel processing and rolling plant in Ningbo, Zhejiang. \$21 million. 08/03.

Nucor Corp. (US)

Agreed to license metal production technology to Laiwu Steel Group Ltd. in Shandong in exchange for royalties. 08/03.

Sumitomo Metal Industries Ltd. (Japan)

Received order from China Yangtze Three Gorges Project Development Corp. for high-tensile steel plate for use in sluice gates in dam construction. 08/03.

INVESTMENTS IN CHINA

Aluminium Pechiney (France)/Baotou Aluminium Co. (Inner Mongolia)

Signed agreement to form aluminum joint venture in Baotou, Inner Mongolia, for production of high purity aluminum for electronic components and capacitors. (France:51%-PRC:49%). \$13 million. 08/03.

Blackwatch Resources Ltd., a subsidiary of Caledon Resources plc (UK)/Guangxi Tianlin Gaolong Gold Mine Co. Ltd.

Signed joint venture agreement to explore gold resources in Badu and Gaolong, Guangxi. (UK:81%-PRC:19%). \$1.2 million. 08/03.

Lachlan Gold Inc., a subsidiary of SKN Resources Ltd. (Canada)/Kunming Gold Exploration Engineering Co. Ltd. (Yunnan)

Will form joint venture to explore gold resources in Yunnan. (Canada:80%-PRC:20%). 08/03.

POSCO (South Korea)/Benxi Iron and Steel Group (Liaoning)

Signed agreement to form steel joint venture to produce cold-rolled steel sheets. (South Korea:10%-PRC:90%). \$660 million. 08/03.

Nippon Steel Corp. (Japan)/Shanghai Baoshan Iron & Steel Co.

Signed agreement to form steel joint venture to produce cold-rolled and galvanized steel sheet for automobiles. (Japan:50%-PRC:50%). \$786.2 million. 07/03.

OTHER

Sumitomo Metal Mining Co. (Japan)

Will liquidate Chinese subsidiary, Sumitomo Metal Mining Electronics Parts Suzhou Co. 09/03.

Petroleum, Natural Gas, & Related Equipment

CHINA'S EXPORTS

China Petroleum Engineering Construction Corp., a subsidiary of CNPC

Won contract for Adrar/Sbaa basin integrated upstream-downstream project in Algeria. 08/03.

CHINA'S INVESTMENTS ABROAD

CNPC

Bought remaining 65% stake of North Buzachi oil field in western Kazakhstan from Chevron Texaco to become sole owner. 09/03.

CNOOC

Bought two remaining 24.5% stakes in the Liuhua 11-1 oil field in the South China Sea from BP plc and Kerr-McGee China Petroleum Ltd. to become sole owner. \$40 million. 07/03.

CNOOC

Bought a 24.5% stake from BP plc in Qinhuangdao, Hebei, raising its stake to 75.5%. \$150 million. 07/03.

INVESTMENTS IN CHINA

Fortune Oil plc (UK)/CNPC

Will form joint venture to own and operate four distribution pipelines near Beijing. (UK:80%-PRC:20%). \$6.2 million. 09/03.

Hong Kong & China Gas Co. (Hong Kong)/Weifang Gas General Co. (Shandong)

Formed piped gas joint venture to build and operate gas network in Weifang, Shandong, for 50 years. (Hong Kong:50%-PRC:50%). \$14.5 million. 09/03.

Hong Kong & China Gas Co. (Hong Kong)/Jinan Pipeline Gas Co. (Shandong)

Formed joint venture to build and operate gas network in Ji'nan, Shandong, for 50 years. (Hong Kong:60%-PRC:40%). \$30.2 million. 09/03.

Hong Kong & China Gas Co. (Hong Kong)/Weihai Gasworks General Co. (Shandong)

Formed joint venture to build and operate gas network in Weihai, Shandong, for 50 years. (Hong Kong:50%-PRC:50%). \$30.2 million. 09/03.

Royal Dutch/Shell Group (the Netherlands), Unocal Corp. (US)/SINOPEC and CNOOC

Signed joint venture agreement to explore offshore oil and gas fields near Shanghai. (the Netherlands:20%-US:20%-PRC:60%). \$1 billion. 08/03.

OTHER

Yueyang SINOPEC, Shell Coal Gasification Co. (US)/Sinopec Lanzhou Design Institute (Gansu)

Signed an engineering, procurement, and construction contract for the development of a coal gasification project in Yueyang, Hunan. \$136 million. 06/03.

Pharmaceuticals

OTHER

China Resources (Holding) Co. Ltd. (Hong Kong)

Signed agreement to purchase 51% stake in Dong-e E-jiao Group, which produces and sells Chinese traditional medicine, health supplements, and medical equipment in Shandong. \$36.3 million. 09/03.

Guangdong Medicine Group Corp.

Signed agreement to organize clinical trials, marketing, sales, and distribution in China for the hepatitis C and HIV drugs of Hemispherx Biopharma Inc. of the United States. 09/03.

Ports & Shipping

CHINA'S EXPORTS

Dalian New Shipbuilding Ltd. (Liaoning)

Won order from A/S Dampskibsselskabet Torm of Denmark for two new 105,000 deadweight-ton product tankers. 08/03.

Kouan Shipbuilding Industry Co. (Jiangsu)

Won order from the Restis Group of Greece for four ultra-handymax bulk carriers. 08/03.

CHINA'S INVESTMENTS ABROAD

COSCO Pacific, a unit of China Ocean Shipping Group Co.

Signed agreement with Singapore's Ports and Services Authority to control two berths at the Pansir Panjang terminal and purchase a 49% stake of the terminal. 07/03.

INVESTMENTS IN CHINA

United Yield International (US)

Signed contract to purchase 51% stake in Lianyungang Port's Xugou project in Jiangsu. 08/03.

Rail

CHINA'S IMPORTS

Bombardier Sifang Power (Qingdao) Transportation Ltd., a joint venture of Power Corp. (Canada), Bombardier Transportation (Canada), and China South Locomotive and Rolling Stock Industry (Group) Corp. (Beijing)

Won order for 38 intercity passenger rail cars from the Ministry of Railways. \$40 million. 08/03.

Real Estate & Land

INVESTMENTS IN CHINA

CapitaLand Ltd. (Singapore)

Will purchase land-use rights in Beijing from Hong Kong-listed Beijing North Star Co. Ltd. for residential development. \$66.6 million. 09/03.

Chengdu Century Development Co. Ltd., a joint venture of Keppel Land Ltd., Housing and Development Board Corp., and Quivivet Pte. Ltd. (Singapore)

Purchased land-use rights for a 42-hectare site in Chengdu, Sichuan, for residential development. \$52.8 million. 09/03.

CapitaLand China Holdings (Commercial) Pte. Ltd., a subsidiary of CapitaLand Ltd. (Singapore)

Will purchase the remaining 25% stake in Huteng Investment (Shanghai) Pte. Ltd., giving CapitaLand ownership of the Pidemco Tower office building in Shanghai. 08/03.

Shui On Group (Hong Kong)

Signed agreement to invest in \$1.21-billion residential development project in Chongqing. 08/03.

Telecommunications

CHINA'S EXPORTS

Huawei Technologies Co. Ltd.

Won sales contract from TelMOS to construct a next-generation data network for the Moscow region. 09/03.

Huawei Technologies Co. Ltd.

Won contract from Jabatan Telekom Brunei in Brunei to upgrade its next-generation data network. \$23.5 million. 09/03.

Alcatel Shanghai Bell, a joint venture between Compagnie Financière Alcatel SA (France) and MII

Won contract from Ghana Telecom Ltd. to provide 250,000 switching lines, expand its GSM network, and optimize its optical network. \$80 million. 08/03.

Huawei Technologies Co. Ltd.

Won contract from Starcomms Ltd. in Nigeria to construct its CDMA network in Kano and Lagos. \$9 million. 08/03.

ZTE Corp.

Won contract to build Algeria's national CDMA network. 08/03.

Sollectron Corp. (Jiangsu)

Signed agreement with NEC Corp. (Japan) to source all third-generation handsets destined for non-Japan markets and to offer related supply-chain services. 07/03.

ZTE Corp.

Won contract from POSTelecom in Romania to build Romania's national data network. 07/03.

ZTE Corp.

Won contract from Vietnam ETC to provide equipment for expansion of its CDMA network in Ho Chi Minh City and Dong Na province. 07/03.

ZTE Corp.

Was selected by PT Indonesian Satellite Corp. to set up a trial CDMA network in Jakarta and Surabaya. 07/03.

CHINA'S IMPORTS

LM Ericsson AB (Sweden)

Won contract from China Mobile to expand its GSM/GPRS network in Heilongjiang. \$29 million. 09/03.

Motorola Inc. (US)

Won contract from China Unicom Ltd. to provide equipment, network support, and optimization for GPS services on CDMA. \$10 million. 09/03.

UT Starcom, Inc. (US)

Won contract from China Telecom to expand its PAS network in Jiangsu and provide 500,000 handset units. \$80 million. 09/03.

Alcatel Shanghai Bell, a joint venture between Compagnie Financière Alcatel (France) and MII

Won contract from China Netcom to provide 400,000 DSL lines in 10 areas in northern China, including Beijing, Liaoning, and Shandong. 08/03.

LM Ericsson AB (Sweden)

Signed agreement with China Mobile to expand its GSM network in Guangdong. \$600 million. 08/03.

LM Ericsson AB (Sweden)

Won contract with China Mobile to expand its GPRS network in Guangdong. \$32 million. 08/03.

Lucent Technologies (US)

Won contract from China Netcom to expand its value-added cordless phone system network in Shandong. \$50 million. 08/03.

Nokia Corp. (Japan)

Won contract from China Mobile for expansion of its GSM network in Jiangxi. \$65 million. 08/03.

Nokia Corp. (Japan)

Won contract from China Telecom to provide 100,000 DSL lines in Fujian, Guangdong, Hunan, and Jiangsu. 08/03.

Nortel Networks Ltd. (Canada)

Won contract from China Netcom to provide equipment for its next-generation network in Shandong. 08/03.

Polycom, Inc. (US)

Was selected by ICBC to provide equipment for its national video-conferencing network. 08/03.

Shanghai Siemens Mobile Communication, a joint venture of Siemens AG (Germany), Shanghai Video and Audio Corp., China Mobile, and MII

Won 7 contracts from China Mobile and China Unicom to expand their GSM networks, including national expansion of China Mobile's Tandem project; GSM expansion of China Mobile's networks in Anhui, Inner Mongolia, and Xinjiang; equipment for China Mobile's Anhui network; GSM expansion of China Unicom's networks in Hebei, Hubei, and Shanghai; and upgrade of China Unicom's Shanghai system. \$144.8 million. 08/03.

UT Starcom, Inc. (US)

Won contract from China Netcom to expand its PAS network in Shandong. \$30 million. 08/03.

UT Starcom, Inc. (US)

Won contract from China Netcom Corp. to provide 200,000 DSL lines in Heilongjiang, Tianjin, Hebei, Shandong, and Shanxi. 08/03.

Lucent Technologies (US)

Won contracts from Guangdong Eastern Fibernet Co. to expand its fixed-line networks in Guangdong. 07/03.

Nortel Networks Ltd. (Canada)

Won contract from China Telecom to expand its broadband internet protocol networks in Zhejiang and Hubei. 07/03.

UT Starcom, Inc. (US)

Won contract from China Telecom to expand its PAS network in Guangdong. \$40 million. 07/03.

INVESTMENTS IN CHINA**Alcatel Shanghai Bell, a joint venture of Compagnie Financière Alcatel (France) and MII**

Constructed an optical networking integration center in Shanghai to test integration of various Alcatel network elements. 07/03.

OTHER**Infineon Technologies AG (Germany)/Huawei Technologies Co. Ltd.**

Will jointly invest to develop low-cost WCDMA third-generation mobile phones. \$22.8 million. 09/03.

Lightpointe Communications Inc. (US)/Huawei Technologies Co. Ltd.

Signed agreement to manufacture free-space optics equipment for distribution and sale in China under Huawei's brand. 09/03.

Siemens AG (Germany)/Huawei Technologies Co. Ltd.

Will form joint venture in Beijing to explore development of TD-SCDMA, China's domestic third-generation standard. (Germany:51%-PRC:49%). \$100 million. 09/03.

Beijing International Switching System Corp.

Formed OEM partnership with Alvarion Ltd. (Israel) to market its fixed wireless technology in China. 08/03.

IBM China Co. Ltd., a unit of IBM Corp. (US)/ZTE Corp.

Signed MOU to cooperate in business, technology, product development, process reengineering, and overseas markets. 08/03.

ITI Ltd. (India)

Signed license agreement with ZTE Corp. of China to use its CDMA 2000 1X technology for a fee and 5% royalties. \$1 million. 08/03.

Singapore Telecommunications Ltd. (Singapore)/China Telecom

Will cooperate to offer end-to-end data services between China and international business areas. 08/03.

Textiles & Apparel**INVESTMENTS IN CHINA****Unifi, Inc. (US)/Kaiping Polyester Enterprises Group Co. (Guangdong)**

Signed letter of intent to form textile filament joint venture to produce and sell polyester and nylon products. (US:75%-PRC:25%). 07/03.

Yue Yuen Industrial (Holdings) Ltd. (Hong Kong)/Hua Jian Holdings Co. Ltd. (Guangdong)

Will form joint venture, Hua Jian Industrial Holdings, to produce ladies' shoes in Jiangxi. \$27.2 million. 07/03.

OTHER

Gianni Versace SpA (Italy)/Joyce Distribution Ltd., a subsidiary of Joyce Boutique Holdings Ltd. (Hong Kong)

Signed agreement for Joyce to distribute Versace Accessories, Versus, Versace Classic, Versace Sport, and Versace Jeans Couture collections in China.

Tourism & Hotels

INVESTMENTS IN CHINA

TUI AG (Germany)/China Travel Service, MB China Investor Ltd.

Will form first foreign-majority travel joint venture, TUI China Travel Corp., for domestic travel services and China-bound foreign travel. (Germany:51%-PRC:49%). \$6.1 million. 09/03.

OTHER

Business Travel International (UK)/Shanghai Jin Jiang International Group

Signed letter of intent to form joint venture to explore China's potential travel market. 09/03.

Advertisers in this Issue:

Caterpillar	4
Hitachi Software	15
Maersk Sealand	64
Shangri-La Hotel & Resort, Asia Pacific	2

U
S
C
B
C



THE US-CHINA BUSINESS COUNCIL

美 中 贸 易 全 国 委 员 会

SAVE THE DATES!

Biennial Gala & Annual Membership Meeting

June 3 and 4

The Fairmont
Washington, DC

The Council's festive biennial celebration, with distinguished American and Chinese guests.
Members-only conference to discuss pressing operational issues in the China market.

More details forthcoming: www.uschina.org

Foreign Trade and Investment Quiz

**Think you're a real China hand?
Take this quiz to see how you measure up.**

Multiple choice

- Which Chinese province accounted for the largest percentage of PRC exports in 2002?
a. Fujian b. Guangdong c. Hebei d. Zhejiang
- Which province or municipality received the largest share of foreign direct investment in China in 2002?
a. Beijing b. Guangdong c. Shanghai d. Sichuan
- In 2002, Guangdong was home to
a. China's highest GDP b. More than one-third of China's foreign trade
c. Roughly one-quarter of China's foreign-invested enterprises d. All of the above
- Of China's provinces, in 2002 Jiangsu had the
a. Highest population density b. Second-highest GDP c. Highest beer consumption d. Both a and b
- Which region of China has been described by residents as possessing "forest in the East, iron in the West, farming in the South, animal husbandry in the North, and coal everywhere?"
a. Heilongjiang b. Inner Mongolia c. Jilin d. Shanxi
- According to PRC statistics, what percentage of China's exports went to the United States in 2002 (not including items shipped from Hong Kong)?
a. 11.6% b. 15.8% c. 21.5% d. 34.1%
- How many vehicles did China import in 2002?
a. 72,854 b. 95,420 c. 127,393 d. 1,432,071
- In what year did foreign investors first sign more wholly foreign-owned enterprise contracts than equity joint venture contracts?
a. 1997 b. 1998 c. 1999 d. 2000
- Which foreign investment structure in China allows the listing of A and B shares on PRC stock exchanges?
a. Equity joint venture b. Contractual joint venture c. Foreign-invested company limited by shares
d. Wholly foreign-owned enterprise
- Which industry is *not* in the 2002 PRC Catalogue Guiding Foreign Investment in Industry's "restricted" category?
a. Distribution services b. Telecom services c. Construction and management of heating and sewage systems in certain cities
d. Design and manufacture of railways



11. In what sector(s) is foreign investment still prohibited?
a. Genetically modified seed production b. Green tea processing c. Weapons and ammunition manufacturing
d. All of the above
12. In which industries are foreign companies prohibited from setting up wholly foreign-owned enterprises?
a. Press, publications, broadcasting, television, and movies b. Futures trading
c. Post and telecommunications d. All of the above
13. The Ministry of Commerce was formed from which of the following now-defunct bodies? (Name all that apply)
a. Ministry of Finance b. Ministry of Foreign Trade and Economic Cooperation c. Ministry of Trade and Commerce
d. State Economic and Trade Commission
14. Which PRC ministry handles port planning and construction?
a. Ministry of Commerce b. Ministry of Communications c. Ministry of Construction
d. National Development and Reform Commission
15. In what year did China join the World Trade Organization?
a. 1999 b. 2000 c. 2001 d. 2002

Answers: 1. b, 2. b, 3. d, 4. d, 5. b, 6. c, 7. c, 8. a, 9. c, 10. d, 11. d, 12. d, 13. b&d, 14. b, 15. c

How did you score?

15 correct answers: Congratulations, you are clearly a China expert—now stop using the *China Statistical Yearbook* and China's WTO accession documents as bedtime reading.

10-14 correct answers: You must be an avid reader of *The China Business Review*.

5-9 correct answers: Hmm, you must not have been reading your *CBR* much lately.

0-4 correct answers: "China is a large, populous nation in Asia..."

Sources: The US-China Business Council; PRC General Administration of Customs, *China's Customs Statistics*, December 2002; State Development Planning Commission, State Economic and Trade Commission, and Ministry of Foreign Trade and Economic Cooperation, *Catalogue Guiding Foreign Investment in Industry*, 2002; Ministry of Commerce.

—Paula M. Miller

**UPCOMING EVENTS****November Issues Luncheon**

Washington, DC
November 20, 2003

Featuring Deputy US Trade Representative Josette Shiner

December Issues Luncheon

Washington, DC
December 11, 2003

Forecast 2004

Washington, DC
Evening Reception: January 28, 2004
Conference: January 29, 2004
For more information, see p.45

Dinner Honoring the National People's Congress (NPC) Delegation to the US-China Interparliamentary Exchange
Featured NPC Foreign Affairs Committee Chair Jiang Enzhu and USCBC President Robert A. Kapp

October

Issues Luncheon: Some Cool-Eyed Reflections on the US Economy, the Chinese Economy, Manufacturing, Currency Movements, and American Politics Featured Edward Gresser, director, Trade and Global Markets Project, Progressive Policy Institute

New York**September**

Meeting and Reception with Tianjin Mayor Dai Xianglong
Featured Mayor Dai and other Tianjin officials; sponsored by Motorola Inc.

Beijing**September**

Luncheon with Stephen Green, head of the Asian Programme, Royal Institute of International Affairs, London

October

USCBC 30th Anniversary Reception and Dinner Featured PRC government dignitaries and US visitors including the USCBC Board of Directors

Shanghai**October**

USCBC 30th Anniversary Reception Featured the USCBC Board of Directors

China Operations (CHOPS) 2003 Conference The all-day conference included discussions on China's business climate, US-China relations, and unwinding bad joint ventures, as well as panels on human resources, intellectual property rights protection, and China's trade agreements

Xiamen, Fujian**September**

Seventh China International Fair for Investment and Trade
At the personal invitation of Ministry of Commerce Vice Minister Ma Xiuhong, USCBC President Robert A. Kapp delivered remarks to the Investment Seminar that opened the Xiamen fair and joined USCBC Director of China Operations Patrick Powers in leading a group of 25 member-company representatives to Xiamen. The Council delegation met with Vice Premier Wu Yi and Ma Xiuhong

EVENT WRAP-UP**Washington****September**

The Trade and Investment Climate in Sichuan and Chongqing Featured incoming Consul General Jeffrey Moon, US Consulate General, Chengdu, Sichuan

Meeting with Guizhou Delegation

Featured Deputy Director-General of the Trade Cooperation Department, Guizhou, Liu Xiaodong, and a delegation of officials and business executives from Guizhou

Financial Services Group Strategy Roundtable

Meeting with All China Federation of Industry and Commerce (ACFIC) Featured ACFIC Vice President Wang Yiming

Briefing and Reception with US Ambassador to China Clark T. Randt, Jr., US ambassador to China since 2001

Luncheon Honoring H.E. Li Zhaoxing, PRC Minister of Foreign Affairs Featured Minister of Foreign Affairs Li Zhaoxing, high-ranking PRC ministry and embassy officials, former US Secretary of Commerce and USCBC Vice Chair the Honorable Barbara Hackman Franklin, and USCBC President Robert A. Kapp. USCBC members may view Li's speech at www.uschina.org/members/documents/2003/09/lizhaoxingspeech.pdf

USCBC Events



US Ambassador to China Clark T. Randt, Jr. addresses USCBC members in Washington, DC.



PRC Minister of Foreign Affairs Li Zhaoxing speaking to USCBC members in Washington, DC.



State Council Vice Premier Wu Yi and USCBC President Robert A. Kapp at the Seventh China International Fair for Investment and Trade in Xiamen, Fujian.

第七届中国投资贸易洽谈会 THE SEVENTH CHINA INTERNATIONAL FAIR FOR INVESTMENT & TRADE



开馆式

OPENING CEREMONY

中国·厦门 XIAMEN·CHINA

2003.9.8



Vice Premier Wu Yi opens the Seventh China International Fair for Investment and Trade in Xiamen, Fujian; USCBC President Robert A. Kapp far right.

EMBASSY

Ambassador: Clark Randt Jr.
 Deputy Chief of Mission: Michael W. Marine
 Counselor for Economic Affairs: Bob Wang
 Agricultural Counselor: Larry Senger
 Commercial Counselor: Craig Allen
 3 Xiushui Beijie
 Beijing 100600
 Tel: 8610-6532-3831
 Economic Section Fax: 8610-6532-6422
 Commercial Tel: 8610-8529-6655
 Commercial Fax: 8610-8529-6558/6559
 Visa Tel: 8610-6532-3431
 Visa Fax: 8610-6532-3178
 Website: www.usembassy-china.org.cn
 Commercial Office: 31st Floor, North Tower, Beijing Kerry Center, Beijing 100020
 E-mail: beijing.office.box@mail.doc.gov

CHENGDU CONSULATE GENERAL

Consul General: Jeffrey A. Moon
 Economic Officer: G. A. Donovan
 Political Officer: Brook Hefright
 Commercial Officer: Helen Peterson
 4 Lingshiguan Lu
 Chengdu, Sichuan 610041
 Tel: 8628-8558-3992
 Fax: 8628-8558-3520
 Website: www.usembassy-china.org.cn/chengdu/

EMBASSY

Ambassador: Yang Jiechi
 Minister Counselor for Commercial Affairs:
 Dai Yunlou
 2300 Connecticut Avenue, NW
 Washington, DC 20008
 Tel: 202-625-3350
 Fax: 202-337-5848
 Website: www.china-embassy.org
 Visa Office
 2201 Wisconsin Avenue, NW, Room 110
 Washington, DC 20007
 Visa Tel: 202-338-6688
 Fax: 202-588-9760
 E-mail: chnvisa@bellatlantic.net
 Office of Commercial Affairs
 2133 Wisconsin Avenue, NW
 Washington, DC 20007
 Tel: 202-625-3380
 Fax: 202-337-5864/5845
 E-mail: china.com@erols.com

CHICAGO CONSULATE GENERAL

Consul General: Xu Jinzhong
 Economic/Commercial Consul: Tian Deyou
 100 W. Erie Street
 Chicago, IL 60610
 Tel: 312-803-0109
 Fax: 312-803-0105
 Commercial Tel: 312-803-0123/0115, 312-873-0649
 Commercial Fax: 312-803-0114
 Visa Tel: 312-573-3070
 Visa Fax: 312-803-0122
 Website: www.chinaconsulatechicago.org

HOUSTON CONSULATE GENERAL

Consul General: Hu Yeshun
 Economic/Commercial Consul: Chen Jianping
 3417 Montrose Boulevard

GUANGZHOU CONSULATE GENERAL

Consul General: Edward K. H. Dong
 Economic/Political Section Chief: Harvey Somers
 Agricultural Director: Keith D. Schneller
 Principal Commercial Officer: Eric Zheng
 1 Shamian Nanjie
 Guangzhou, Guangdong 510133
 Tel: 8620-8121-8000
 Fax: 8620-8121-9001
 Website: www.usembassy-china.org.cn/guangzhou
 Agricultural/Commercial Office:
 China Hotel Office Tower, Suites 1262-64
 Guangzhou, Guangdong Province 510015
 Commercial Tel: 8620-8667-4011
 Commercial Fax: 8620-8666-6409
 Agricultural Tel: 8620-8667-7553
 Agricultural Fax: 8620-8666-0703

SHANGHAI CONSULATE GENERAL

Consul General: Douglas Spelman
 Political/Economic Officer: John Hoover
 1469 Huaihai Zhong Lu
 Shanghai 200031
 Tel: 8621-6433-6880
 Fax: 8621-6415-2584
 Website: www.usembassy-china.org.cn/shanghai
 Agricultural Director: Ross Kreamer
 Agricultural Trade Office: Shanghai Center,
 Suite 331 E
 Principal Commercial Officer: Catherine Houghton
 Commercial Office:
 Shanghai Center, Suite 631 E
 Shanghai 200040

EMBASSY

Houston, TX 77006
 Tel: 713-524-0780/0778
 Fax: 713-524-7656
 Website: www.chinahouston.org
 Commercial Tel: 713-524-4064
 Commercial Fax: 713-524-3547
 Visa Tel: 713-524-4311
 Visa Fax: 713-524-8466
 E-mail: voffice@msn.com

LOS ANGELES CONSULATE GENERAL

Consul General: Zhong Jianhua
 Economic/Commercial Consul: Yu Hua
 443 Shatto Place
 Los Angeles, CA 90020
 Tel: 213-807-8028
 Fax: 213-380-1961
 Website: www.chinaconsulatela.org
 Commercial Tel: 213-807-8016/8026
 Visa Tel: 213-807-8006
 E-mail: visachina@aol.com

NEW YORK CONSULATE GENERAL

Consul General: Biwei Liu
 Economic/Commercial Consul: Zhanling Yuan
 520 12th Avenue
 New York, NY 10036
 Tel: 212-244-9392 ext 9001
 Fax: 212-564-9373
 Website: www.nyconsulate.prchina.org
 Commercial Tel: 212-244-9392,
 ext. 1703/04/05/06/07
 Commercial Fax: 212-502-0248
 Visa Tel: 212-868-2078
 Visa Fax: 212-465-1708

Commercial Tel: 8621-6279-7630
 Commercial Fax: 8621-6279-7639
 Commercial E-mail: shanghai.office.box@mail.doc.gov
 Agricultural Tel: 8621-6279-8622
 Agricultural Fax: 8621-6279-8336
 Agricultural E-mail: atos@public.sta.net.cn

SHENYANG CONSULATE GENERAL

Consul General: Mark R. Kennon
 Economic Officer: Bruce Hudspeth
 Principal Commercial Officer: Erin Sullivan
 52 Shisiwei Lu
 Heping Qu
 Shenyang, Liaoning 110003
 Tel: 8624-2322-1198
 Fax: 8624-2322-2374
 Commercial Fax: 8624-2322-2206
 Website: www.buyusa.gov/china/en/

HONG KONG CONSULATE GENERAL

Consul General: James Keith
 Deputy Consul General: Kenneth Jarrett
 Economic/Political Section Chief: Simon Schuchat
 Foreign Agricultural Affairs Chief: Lloyd Harbert
 Chief Commercial Consul: Barry Friedman
 26 Garden Road
 Hong Kong
 Tel: 852-2523-9011
 Fax: 852-2845-1598
 Website: www.hongkong.usconsulate.gov
 Commercial Tel: 852-2521-1467
 Commercial Fax: 852-2845-9800

SAN FRANCISCO CONSULATE GENERAL

Consul General: Wang Yunxiang
 Economic/Commercial Consul: Wang Yongpu
 1450 Laguna Street
 San Francisco, CA 94115
 Tel: 415-674-2913
 Fax: 415-563-0494
 Website: www.chinaconsulatesf.org
 Commercial Tel: 415-674-2950
 Commercial Fax: 415-563-0131
 Visa Tel: 415-674-2940
 Visa Fax: 415-563-4861

HONG KONG ECONOMIC AND TRADE OFFICE WASHINGTON, DC

Commissioner: Jacqueline Willis
 Director General: Edward Yau
 1520 18th Street, NW
 Washington, DC 20036
 Tel: 202-331-8947
 Fax: 202-331-8958
 Website: www.hongkong.org

NEW YORK

Director: Sarah P.C. Wu
 115 East 54th Street
 New York, NY 10022
 Tel: 212-752-3320
 Fax: 212-752-3395
 Website: www.hongkong.org

SAN FRANCISCO

Director: Annie Tang
 130 Montgomery Street
 San Francisco, CA 94104
 Tel: 415-835-9300
 Fax: 415-421-0646
 Website: www.hongkong.org

VISIT THE NEW www.chinabusinessreview.com

The screenshot shows the website's homepage with a navigation menu at the top: Home | About | Join Our Team | For Writers | Contact Us | Help. The main content area features a 'CURRENT ISSUE' section for 'Distribution and Logistics in Today's China' with a sub-headline 'Cover: The Supply Chain'. Below this is a 'SUBSCRIBE TO THE CHINA BUSINESS REVIEW' section with a list of benefits: 'An in-depth picture of the China market', 'Comprehensive coverage of key industries', 'Authoritative reviews and insider analysis', and 'New China deals and investment info'. The 'Manage Your Subscription' section includes links for 'Subscribe', 'Renew', 'Login', and 'Online Store'. The 'ARTICLES IN THE CURRENT ISSUE' section lists 'Business Travel: China's Hotel Boom' and 'Commentary: Corporate Governance with Chinese Characteristics'. On the right side, there is a 'SIGN IN' section with fields for 'USERNAME' and 'PASSWORD', and a 'USCBC ONLINE STORE' section with links for 'USCBC Reports', 'CBR Special Reports', 'CBR Subscriptions', and 'CBR Back Issues'. The left sidebar contains a 'SEARCH CBR' box, a 'CBR by Email' sign-up box, and an 'Online Store' section.

**CHOOSE FROM OUR
RANGE OF
PUBLICATIONS**

**LOG IN FOR
INSTANT ACCESS**

**FIND
INFORMATION
QUICKLY**

**NAVIGATE
WITH EASE**

**SIGN UP FOR ISSUE
UPDATES**

SPECIAL OFFER:

**SUBSCRIBE TO THE CBR ONLINE FOR ONLY \$89*
Access CBR issues as far back as 1997**

*Special offer expires December 31, 2003.

www.chinabusinessreview.com/subscribe



Opening Your Business to the World™

In China, relationships are everything.

Since 1924, we have been serving the China market – and today we are the largest foreign operator in China offering shipping services, logistics and container terminal services to importers and exporters worldwide.

Call us today to see how we can expand your China business.

1-800-321-8807
maersksealand.com



MAERSK SEALAND