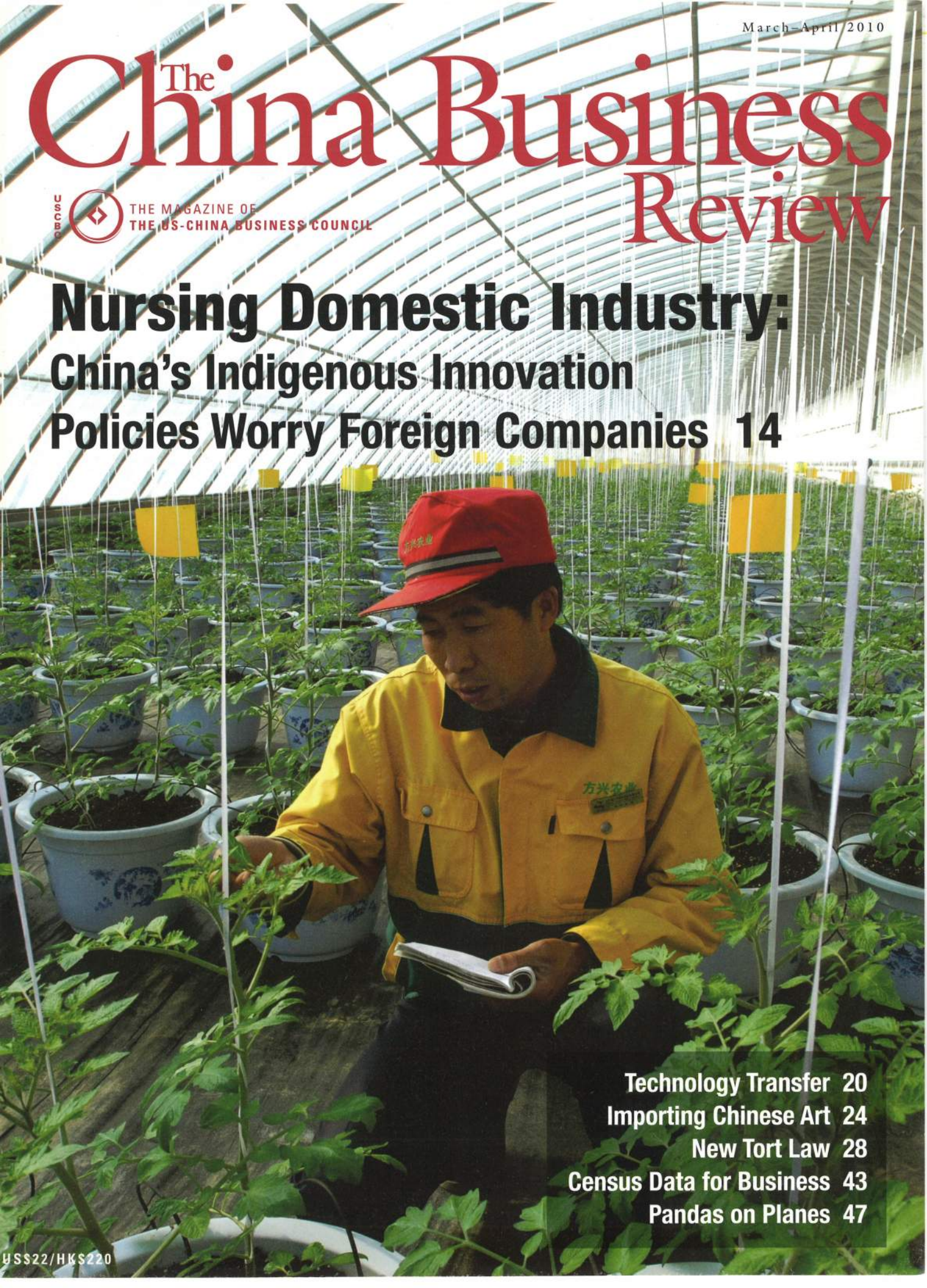
March–April 2010

The China Business Review

USCBC
THE MAGAZINE OF
THE US-CHINA BUSINESS COUNCIL

Nursing Domestic Industry:
China's Indigenous Innovation Policies Worry Foreign Companies 14



US$22/HK$220

China Foto Press

China's indigenous innovation policies offer procurement preferences for domestic companies operating in high-tech industries.

The China Business Review

USCBC THE US-CHINA BUSINESS COUNCIL 美中贸易全国委员会

Cover Story: Indigenous Innovation

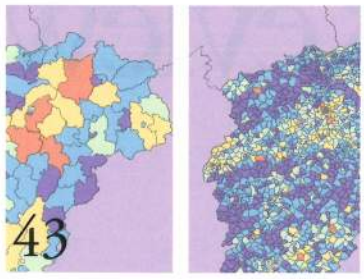
Features

ART

LEGAL ANALYSIS

BUSINESS DATA

Departments



Cover design by Paula M. Miller
Cover photo: China Foto Press

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The *China Business Review* (ISSN 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.

Annual Subscription Rates: $135 US/Canada and $177 international, print only; $156 US/Canada and $208 international, print and online; $105 online only. Single copy issues: $22, $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.

The 107th Canton Fair

Business opportunities are waiting for you. From April 15 to May 5, 2010, you will find solutions to all your business in the 107th session of China Import and Export Fair (Canton Fair). More Business opportunities will definitely bring you big return.

New Opportunities for Big Return

Phase 1 April 15-19

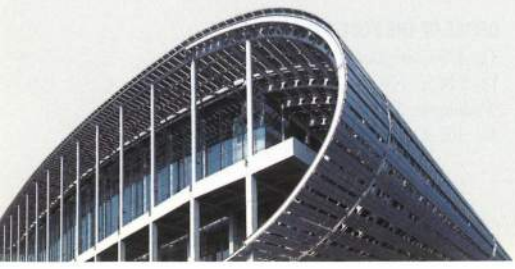
Electronics & Household Electrical Appliances; Lighting Equipment; Vehicles & Spare Parts; Machinery; Hardware & Tools; Building Materials; Chemical Products; International Pavilion

Phase 2 April 23-27

Consumer Goods; Gifts; Home Decorations

Phase 3 May 1-5

Textiles & Garments; Shoes; Office Supplies, Cases & Bags, Recreation Products; Medicines, Medical Devices, Health Products; Food & Native Produce



Venue: China Import and Export Fair Complex

Address: No.382, Yuejiang zhong Road, Guangzhou, China
Hosts: Ministry of Commerce, PRC; People's Government of Guangdong Province
Organizer: China Foreign Trade Centre (CFTC)
Contact: Foreign Liaison Department China Foreign Trade Centre
Tel: 86-20-26089999 **Fax:** 86-20-89138888 **Email:** info@cantonfair.org.cn

www.cantonfair.org.cn **www.cftc.org.cn**

中国进出口商品交易会
CHINA IMPORT AND EXPORT FAIR
A Road to Friendship & A Bridge to Trade

The China Business Review

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Online store: www.uschina.org/store

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Event Wrap Up

WASHINGTON, DC

January

Issues Briefing on 2010 Congressional and Administration Agendas

Brian Pomper, founding partner of Parven Pomper Strategies, and Timothy Keeler, counsel at Mayer Brown LLP, discussed China-related issues that the Obama administration and US Congress will likely face in 2010.

US-China Energy Briefing on Obama's China Trip Initiatives

The United States and China recently announced a package of initiatives to strengthen cooperation on clean energy. This briefing featured representatives from each of the US departments involved, including Jeff Miotke, deputy assistant secretary for Oceans, Environment, and Science at the Department of State; Geoff Jackson, director of Policy and Program and regional director for East Asia at the US Trade and Development Agency; Cheryl McQueen, senior advisor to the Office of Energy and Environmental Industries at the Department of Commerce; Mark Kasman, senior advisor for the Asia-Pacific Program in the Office of International Affairs, Environmental Protection Agency; and Matt Kallman and Rachel Tronstein, special assistants to the assistant secretary of Energy for Policy and International Affairs, Department of Energy.

Forecast 2010 Reception and Conference

See below

February

Debriefing on 2010 Strategic and Economic Dialogue (S&ED) Preparations

David Loevinger, executive secretary and senior coordinator for China and the S&ED at the US Department of Treasury, debriefed US-China Business Council (USCBC) member companies on the latest preparations for the 2010 S&ED, which will be held in China and led by representatives from the US departments of the State and Treasury.

Issues Luncheon on US Export Controls Reform

Featured Ed Rice, senior professional staff member at the House Foreign Affairs Committee; Bill Reinsch, president of the National Foreign Trade Council; and Larry Christensen, attorney at Miller Chevalier, LLP.

BEIJING

January

Luncheon Briefing on US Plans for the Joint Commission on Commerce and Trade (JCCT)

Featured Assistant US Trade Representative Timothy Stratford and Deputy Assistant Secretary of Commerce Ira Kasoff, who provided an update on plans for the JCCT in 2010 and on their meetings with PRC officials during their January China visit. Co-sponsored by USCBC, the American Chamber of Commerce in China, and the US Information Technology Office.

SHANGHAI

January

After Copenhagen: Climate Change Policies in the United States and China

Featured Jennifer Turner, director of the China Environment Forum at the Woodrow Wilson Center for International Scholars in Washington, DC.

Upcoming Events

SHANGHAI

Luncheon on the PRC State Administration of Taxation's 2010 Priorities

March 3, 2010

WASHINGTON, DC

37th Annual Membership Meeting

June 1, 2010

USCBC Board Meeting and Welcome Reception for Incoming Chair and New Directors

June 2, 2010

For more information on USCBC or its events, visit www.uschina.org.

Briefing on Shanghai Consulate's New Visa Application Procedures

Officers from the US Consulate General in Shanghai briefed USCBC member companies about the State Department's new non-immigrant visa online application form.

PRC Ambassador, US Secretary of Commerce Speak at USCBC's Forecast 2010

USCBC held its Forecast 2010 reception and conference in Washington, DC, in late January. Attended by leading US government officials, PRC government representatives, USCBC member company executives, conference speakers, and members of the think-tank and China-watching community, the evening reception honored PRC Ambassador to the United States Zhou Wenzhong and his wife, Mme. Xie Shumin. Zhou, who returned to Beijing in February after nearly five years of service as China's leading diplomat in Washington, DC, offered farewell remarks. Representatives Rick Larsen (D-WA) and Mark Kirk (R-IL), who head the House US-China Working Group, joined in offering brief tributes and thanks to Zhou for his close collaboration with the group.

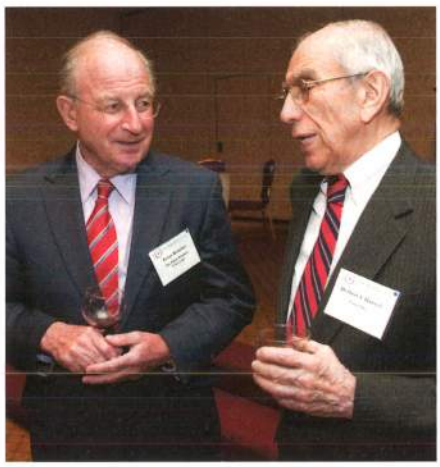
The next morning, USCBC President John Frisbie opened the Forecast conference, and Victor Shih, assistant professor at Northwestern University's Department of Political Science, presented on China's economy in 2010 and financial and regulatory trends in China's industrial policies. Bob Poole, USCBC vice president of China Operations, followed with a discussion of operational challenges in the year ahead.

Addressing political issues, Kevin Nealer, principal and partner at the Scowcroft Group, and Charles Freeman, Freeman chair in China Studies at the Center for Strategic and International Studies, discussed prospects for bilateral relations and the interplay with domestic politics in the United States and China. US Secretary of Commerce Gary Locke gave the luncheon address on US commercial engagement with China in 2010, announcing that he will lead the Obama administration's first trade mission—to China and India—this year. Locke then met with USCBC business executives and other guests.

Devry Boughner of Cargill, Inc. and Jennifer Walto of Chevron Corp. were among more than 150 guests who bid farewell to Ambassador Zhou Wenzhong during the Forecast reception.

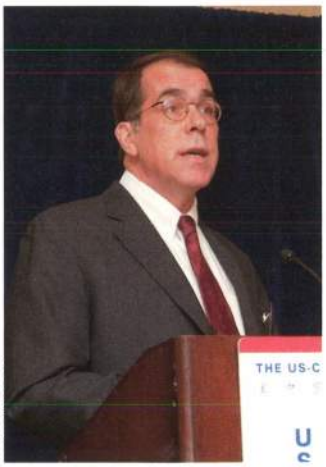
USCBC President John Frisbie toasted Zhou for his distinguished diplomatic career.

Reps. Rick Larsen and Mark Kirk offered brief tributes and thanks to Zhou for his collaboration with the US-China Working Group.



Pieter Bottelier of the Johns Hopkins University School of Advanced International Studies and Herbert Hansell of Jones Day

Victor Shih of Northwestern University kicked off the Forecast 2010 conference program with a discussion of China's economy.



sardari.com

USCBC Vice President Robert Poole offered the in-country view on challenges in the year ahead for US companies.

Kevin Nealer of the Scowcroft Group and Charles Freeman of the Center for Strategic and International Studies discussed US-China relations.

Frisbie moderated the question-and-answer session after Commerce Secretary Gary Locke's speech.

Is the Business Community Souring on China?

John Frisbie

We have been hearing a lot lately in Washington about how the business community is "souring on China." A closer look suggests that this characterization is exaggerated and needs a little context. By and large, companies are increasing their commitment to expanding their China business—and do not want to see the commercial relationship disrupted, even though important issues need to be addressed.

The "souring" assessment takes a lot of disparate events and puts them together—everything from Google's threat to pull out of China, to threatened retaliation against companies involved in US arms sales to Taiwan, to trade associations writing letters about China's procurement and domestic innovation policies, to the undervalued renminbi. Cementing it all are observers based in China who refer to "the worst business climate ever" and "angry and disillusioned" executives in Beijing.

All this gets attention, but the US-China Business Council (USCBC) is hearing a more balanced view from our members. Our membership is telling us clearly that the China market is important to their sales growth, overall company health, and, yes, US employment.

Indeed, there are problems, but executives tell us these issues need to be addressed specifically and with solutions, not with sanctions that would disrupt the bilateral relationship.

Context

USCBC's 2009 membership survey underscored this sentiment, especially because it was conducted in the midst of the economic downturn. The broadly based survey clearly showed that China is a bright spot for companies' global operations. Fifty-one percent said 2009 revenues in China would increase, when revenues were being severely challenged in most other markets around the globe. The five-year outlook for China business? Ninety-three percent of respondents were optimistic or somewhat optimistic.

I reached out to USCBC's board of directors in mid-February to see if this sentiment had changed. The answer from CEOs remained the same: China is an important market, and companies are increasing the resources they devote to expanding sales there, not pulling back. The issues—including the very real concerns about policy trends—need to be addressed with a targeted focus and through sustained engagement with the PRC government.

The trade numbers bear out this view. US exports to China were flat in 2009, coming in at about $70 billion for the year. In comparison, US exports to the rest of the world fell 19 percent in 2009. China outperformed in a down year.

US affiliates in China probably sell another $80 billion or more into the China market, based on the latest Commerce Department data. Though some of these sales no doubt include imports of components or inputs from the United States and therefore double-count the export total to some extent, these are sales that create US exports and that might not otherwise be made from operations in the United States. In short, China is one of the most important markets for American companies and needs to be a major part of the Obama administration's goals to boost US exports.

Bad indigenous policymaking

None of this is to suggest that doing business in China is trouble-free. USCBC's board and membership are concerned about China's industrial and other policies that could further tilt the playing field in favor of "national champions." The recent central-government indigenous innovation directive that threatens to effectively exclude many foreign companies operating in China from participating in the government procurement market falls into that category. Policies that promote import substitution fly in the face of China's commitment to rebalance growth and reduce the trade surplus and also need to be addressed.

China's leaders need to understand that these are important issues that undermine the relationship and will not go away until resolved. These issues should be raised at every opportunity by US government officials at all levels, just as USCBC is doing; failure to do so would be detrimental to US commercial interests.

Solutions, not sanctions

Why does the characterization of company views matter? Rumor has it that the Obama administration is reassessing its economic and commercial policy approach to China. Some administration officials reportedly believe that one year of "engagement" has produced few results. We hope the administration recognizes that *sustained* engagement with China is needed to address the issues. A reassessment based on the false assumption that the business community is souring on China could result in the wrong policy choices.

If focused engagement truly fails and we cannot get the progress needed on the issues, we may face harder choices down the road. But we are not at that point. For now, the business community is clear: Solutions, not sanctions. 完

John Frisbie is president of the US-China Business Council.

Short Takes

Trade

China's exports rose 21 percent year on year in January to $109.5 billion, and imports soared 85.5 percent to $95.3 billion, according to the PRC General Administration of Customs. This marks the second consecutive month that Chinese exports and imports grew at double-digit paces.

Rapid trade growth in December 2009 and January 2010 is in part the result of low global demand a year ago but suggests that China's export sector is recovering from the global downturn. If exports remain strong, analysts expect China to allow its currency to appreciate.

Quarterly US exports to China topped $20 billion for the first time ever in the fourth quarter of 2009. Data released by the US International Trade Commission in February revealed that exports to China jumped to $22.5 billion year on year in the fourth quarter. Total US exports fell 19 percent in 2009 but exports to China shrank only 2.6 percent to $69.6 billion. China's share of US exports grew from 5.5 percent in 2008 to 6.6 percent in 2009.

US imports from China fell 12.3 percent to $296.4 billion in 2009, despite surging 36.6 percent year on year in the fourth quarter.

Wage Trends

Several local-level governments in China have announced plans to raise, or have already raised, minimum wage levels in 2010. Minimum wages had stagnated in many areas, especially in the export-oriented manufacturing sector, during the economic downturn. In early February, Jiangsu raised its monthly minimum wage 13 percent to ¥960 ($140), and PRC press reports indicate that Beijing, Chongqing, and Dongguan, Guangdong, are all considering raising their minimum wages.

More than half of companies in Beijing gave year-end bonuses to their employees in 2009, according to the *China Daily*. This number represents a return to the pre-downturn 2007 levels. Bonuses in the banking, real estate, and auto sectors, which had been hit hard by the financial crisis, rose the most, with some employees receiving several hundred thousand yuan. The average bonus was ¥4,800 ($703).

Less than 16 percent of employees left their jobs voluntarily in 2009, a five-year low, according to a survey conducted in October–December 2009 by Shanghai-based 51job, Inc., a human resources consulting firm. In 2010, salaries are expected to increase 7.8 percent on average, compared with 5.1 percent last year, the survey found.

Up to 85 percent of China's information-technology employees are unsatisfied with their current jobs, according to the 51job survey. Of those who will search for new employment, half feel they have hit a developmental ceiling at their current positions, and 40 percent believe their salaries are too low.

Big Spenders

Chinese consumers are increasingly using bank cards to pay for goods. According to the People's Bank of China, Chinese shoppers spent $24.3 trillion using bank cards in 2009, up 30.5 percent from 2008. The number of transactions grew 18.1 percent to nearly 20 billion, while the number of new cards issued, 270 million, dropped 10.1 percent.

China's auto market, which surpassed that of the United States in 2009 to become the world's largest, is on pace for another double-digit growth year. In January, sales and output doubled year on year to 1.66 million units and 1.61 million units, respectively, according to the China Association of Automobile Manufacturers. Xinhua News Agency reports that passenger car sales in China jumped 84 percent in January, and the PRC Ministry of Commerce predicts that double-digit growth will continue through 2010, fueled by government stimulus measures.

Environment and Renewable Energy

The PRC State Council in January announced the long-awaited establishment of the National Energy Commission, a high-level body headed by Premier Wen Jiabao that will direct China's national energy strategy. This commission will oversee macro-level planning for the country's energy generation, including the development of renewable energy projects.

The PRC government plans to build a national renewable energy center to monitor the renewable energy market. Though details had not been released as *CBR* went to press, *China Daily* reported that the center will oversee renewable-energy policymaking, key project and program management, market operations, and information systems, including international exchange program coordination.

More than 30 million metric tons of waste poured into China's water supply in 2007, according to China's first pollution census, the results of which were released in February 2010. This amount was more than double the amount reported by the PRC National Bureau of Statistics for 2007. The increase appears to be because the census included more data on agricultural waste and landfill leaks. According to the census report, agricultural waste contributed 43.7 percent of the total. The report also announced that 63.7 trillion m^3 of waste gases were emitted into China's atmosphere in 2007.

The Global Wind Energy Council recently reported that China's wind-energy manufacturing industry expanded rapidly again last year, doubling capacity from 12.1 GW in 2008 to 25.1 GW at the end of 2009 and becoming the world's leader in new wind-turbine installations. To reduce potential hazardous effects on the environment, the PRC government released regulations that require offshore wind-power projects to obtain local approval and rights to use sea or uninhabited land and report on their environmental impact.

China Conference Calendar

China-related events near you

March–June 2010

Please confirm dates and venues with the organizer prior to attending events. To suggest an entry for the next issue, send an announcement to Julia Zhao (jzhao@uschina.org). You can also post listings and view additional entries on the *China Business Review's* website at www.chinabusinessreview.com/conference-calendar.php.

R+T Asia

MARCH 23–25

Location: Shanghai New International Expo Center
Organizers: Messe Stuttgart International; VNU Exhibitions Asia
Contact: Mr. Fox Tang
Tel: 86-21-6247-7668 x925
rtasia@vnuexhibitions.com.cn
www.rtasia.org

Digital Future Symposium

MARCH 24

Location: Novotel Peace Beijing Hotel
Organizer: Center for Content Protection
Contact: Esther Peh
Tel: 65-6777-2854
esther_peh@contentprotection.net
www.contentprotection.net/index.php?option=com_content&task=view&id=139

International Footwear Expo

MARCH 26–28

Location: Guangdong: Guangzhou Pazhou Poly World Trade Center
Organizers: China Commerce Assn. for General Merchandise; Guangdong Donnor Exhibition Co., Ltd.
Contact: Ms. Chen
Tel: 86-577-8890-0601
shoes@donnor.com
www.donnor.com/china/cantonsf

China Clean Expo

MARCH 29–31

Location: Shanghai New International Expo Center
Organizer: Shanghai UBM Sinoexpo International Exhibition Co., Ltd.
Contact: Mark Nee
Tel: 86-21-6437-1178
marketing@cmpsinoexpo.com
www.ubmsinoexpo.com/clean

Dental South China International Expo

MARCH 29–APRIL 1

Location: Guangzhou, Guangdong: China Import & Export Fair Pazhou Complex
Organizer: Department of Science and Technology of Guangdong Province
Contact: Sunny Chen
Tel: 86-20-8354-7343
dentalvisit@ste.cn
www.dentalexpo.cn

Expo Build China

MARCH 29–APRIL 1

Location: Shanghai New International Expo Center
Organizer: Shanghai UBM Sinoexpo International Exhibition Co., Ltd.
Contact: Mark Nee
Tel: 86-21-6437-1178
marketing@cmpsinoexpo.com
www.expobuild.com

Hotelex Shanghai

MARCH 29–APRIL 1

Location: Shanghai New International Expo Center
Organizer: Shanghai UBM Sinoexpo International Exhibition Co., Ltd.
Contact: Mark Nee
Tel: 86-21-6437-1178
marketing@cmpsinoexpo.com
www.hotelex.cn

China Pharmaceutical R&D Summit

APRIL 5–8

Location: Shanghai: Grand Hyatt
Organizer: IBC Asia
Tel: 65-6514-3180
register@ibcasia.com.sg
www.ibclifesciences.com/china/overview.xml

Halter Financial Summit

APRIL 8–9

Location: Shanghai: Pudong Shangri-La
Organizer: Halter Financial Group
Contact: Chelsea Kindred
Tel: 1-972-233-0300
halter@halterfinancial.com
www.halterconferences.com

Wenzhou Auto Expo

APRIL 8–11

Location: Zhejiang: Wenzhou International Convention & Exhibition Center
Organizers: Donnor Exhibition Co., Ltd.; Wenzhou Automobile Dealers Assn.
Contact: Mr. Chi
Tel: 86-577-8890-2222/8627/8616
auto@donnor.com
www.donnor.com/china/car

China International Construction & Decoration Materials Exhibition

APRIL 9–12

Location: Liaoning: Dalian Star-Sea Convention & Exhibition Center
Organizer: Dalian Northern International Exhibition Co., Ltd.
Contact: Angela Luo
Tel: 86-411-8253-8690
angelaluo@dbfexhibition.com
www.sinoexhibition.com/jz

Hortiflorexpo China

APRIL 14–17

Location: Beijing Exhibition Center
Organizer: China Flower Assn.
Contact: Ms. Lily Gong, Mr. Wang Shuo
Tel: 86-10-8810-2248
gongyan@chgie.com
www.hortiflorexpo.com

China Import & Export Fair

APRIL 15-19 (Phase 1)
APRIL 23-27 (Phase 2)
MAY 1-5 (Phase 3)

Location: Guangzhou: China Import and Export Fair Complex
Organizer: China Foreign Trade Center
Tel: 86-20-2608-8888
webmaster@cantonfair.org.cn
www.cantonfair.org.cn

International Exhibition on Plastics & Rubber Industries

APRIL 19–22

Location: Shanghai New International Expo Center
Organizers: Adsale Exhibition Services Ltd.; Beijing Yazhan Exhibition Services Ltd.; China National Light Industry Council, China Plastics Processing Industry Assn.; China Plastic Machine Industry Assn.; International Trade Promotion Corp.; Messe Dusseldorf China Ltd.; Shanghai Society of Plastics Industry
Contact: Iris Ho
Tel: 852-2516-3374
publicity@adsale.com.hk
www.chinaplasonline.com

China Summit on Export Control Compliance

APRIL 20–21

Location: Beijing Marriot Hotel Northeast
Organizer: American Conference Institute
www.americanconference.com/trade_defense/ChinaExport.htm

NEPCON China

APRIL 20–22

Location: Shanghai Everbright Convention & Exhibition Center
Organizer: Reed Exhibitions
Contact: Mike Deng
Tel: 86-21-5153-5100

China Conference Calendar

mike.deng@reedexpo.com.cn
www.nepconchina.com/NepconChina2010/chn

Global Automotive Symposium

APRIL 22–23

Location: The Westin Beijing Chaoyang
Contact: Lei Xing
Tel: 86-10-8468-2019 x116
conference@cbuauto.com.cn
www.chinaautoreview.com/conference/Introduction.aspx?id=34

Anticorruption China Summit

APRIL 27–29

Location: Shanghai: The Westin Bund Center
Organizer: Ethical Beacon
Tel: 852-2219-0111
info@beaconevents.com
www.beaconevents.com/2010/AntiCorrutpionChina2010/en/Home/index.jsp

China (Shanghai) International Power & Generating Sets Exhibition

APRIL 27–29

Location: Shanghai New International Expo Center
Organizer: Shanghai Deray Exhibition Planning Co., Ltd.
Tel: 86-21-5197-8780/8781 x802
power@dr-expo.com.cn
www.powerchinashow.com

SNEC International Photovoltaic Power Generation Exhibition

MAY 5–7

Location: Shanghai New International Expo Center
Organizers: Shanghai Federation of Industrial Economics; Shanghai New Energy Industry Assn.; Shanghai Science and Technology Development and Exchange Center
Tel: 86-21-6427-6991
miyue@sneia.org
www.snec.org.cn

A&WMA International Specialty Conference

MAY 10–14

Location: Xi'an, Shaanxi: Grand Park Hotel
Organizer: Air & Waste Management Assn.
Contact: Judith C. Chow
Tel: 1-775-674-7050
awma_10@dri.edu
www.dri.edu/leapfrogging-opportunities-for-air-quality-improvement

China International Textile & Apparel Trade Fair

MAY 19–21

Location: Shanghaimart
Organizers: Dallas Market Center; Itochu Fashion System; Korea Federation of Textile Industries; Shanghai Textile Technology Service and Exhibition Center; Shanghaimart
Contact: Daniel Chong
Tel: 86-21-2325-5281
daniel.chong@shanghaimart.com.cn
http://shmart.pnxchina.com/2010_en

International Exhibition-Congress on Chemical Engineering & Biotechnology

JUNE 1–4

Location: Beijing: China National Convention Center
Organizer: DECHEMA and Chemical Industry and Engineering Society of China
Tel: 86-10-8437-2008
doehle@dechema.de
www.achemasia.de

CPhI & International Contract Services Expo

JUNE 2–4

Location: Shanghai New International Expo Center
Organizer: UBM Sinoexpo International Exhibition Co., Ltd.
Contact: Eunice Weng
Tel: 86-21-6437-1178
eunice.weng@ubmsinoexpo.com
www.cphi-china.com

Pharmaceutical Machinery & Equipment Convention

JUNE 2–4

Location: Shanghai New International Expo Center
Organizer: United Business Media plc
Contact: Eunice Weng
Tel: 86-21-6437-1178
euniceweng@cmpsinoexpo.com
www.pmec-china.com

World Dairy Expo & Summit

JUNE 8–10

Location: Shandong: Qingdao International Convention Center
Organizer: Dairy Assn. of China
Contact: Ms. Lily Gong, Ms. Yu Wen Hui
Tel: 86-10-8810-2248
gongyan@chgie.com
www.dairyexpo.com

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China Summit on Anticorruption

JUNE 15–16

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Organizer: American Conference Institute
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www.americanconference.com/AntiCorruptionChina2010.htm

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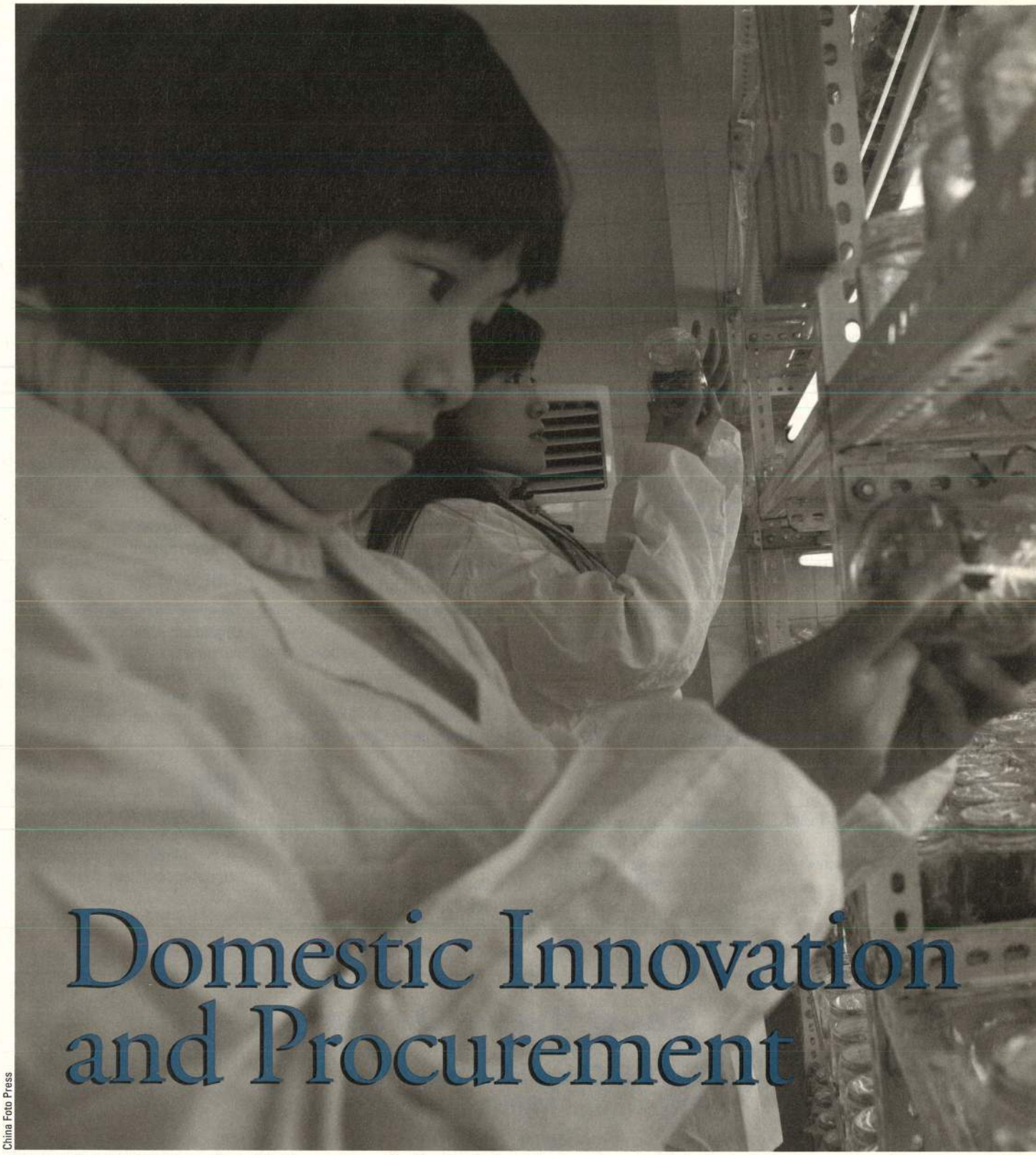


Domestic Innovation and Procurement

China Foto Press

New policies aim to boost innovation in China but may be marginalizing foreign-invested companies, especially in the country's procurement market.

Recent developments have raised concern among foreign-invested enterprises that want to tap the country's government procuremen

arket.

US-China Business Council staff

Some foreign companies in China have reported increasing difficulty in making sales to government entities in China—whether a government agency, school, hospital, or state-owned enterprise—in recent months. According to the US-China Business Council, some member companies attribute this difficulty to China's emphasis on promoting the products of indigenous innovation. "Indigenous innovation" refers to products, technologies, and brands developed and owned by Chinese companies—and the measures that central-government agencies have taken to promote Chinese entities, seemingly at the expense of overseas companies and foreign-invested entities in China. These measures include local indigenous innovation catalogues and "buy local" regulations.

Indigenous innovation nuts and bolts

Policy goals

Indigenous innovation is a policy concept that the PRC government developed to boost the creation and commercialization of proprietary ideas and technologies by Chinese companies. It has been a core component of China's economic development policy for several years. Central-government planners have often expressed their concern that the country's economy and production capacity rely heavily on foreign technology. In their view, it is developmentally risky to have foreign-owned patents underlie much of China's economic growth and to allow foreign brands to dominate the marketplace. As the country has advanced economically, some government planners have argued that Chinese-owned patents and trademarks should be the foundation of the country's development.

Quick Glance

- As part of China's indigenous innovation strategy, PRC government agencies have used preferential policies, product catalogues, and financing schemes to boost Chinese-owned technology and intellectual property.
- Some of these policies appear to restrict foreign companies' access to China's government procurement market.
- Foreign companies argue that China's indigenous innovation policies limit not just competition, but also the introduction of innovative products into China.

At the center of China's indigenous innovation drive is the Medium- and Long-Term National Plan for Science and Technology Development (2006–20) and a follow-up document on its supporting policies, both released by the State Council in 2006. The plan and its supporting policies formally introduced the concept of indigenous innovation into

China's national industrial policy and laid out several goals—chiefly, to develop a system to evaluate and qualify indigenous innovation products, establish a system to use government funds to buy such products, and give them preferential treatment in the government procurement process. The plan encouraged government agencies to work cooperatively to develop measures that would favor products that use Chinese-developed ideas and technology (see below). Since then, several central- and local-government agencies have implemented preferential policies, product catalogues, financing schemes, and other tools to ensure that the indigenous innovation strategy results in the development of Chinese-owned technology and intellectual property (IP).

What qualifies as indigenous innovation?

At the end of 2006, the PRC Ministry of Finance (MOF), Ministry of Science and Technology (MOST), and National Development and Reform Commission (NDRC) jointly released Trial Measures for the Administration of the Accreditation of National Indigenous Innovation Products, which define the kinds of products that can receive indigenous innovation status (see Table). To qualify as an indigenous innovation, a product must

- Have been produced by an enterprise that has full ownership of IP in China either via its own technological innovation activities or because the Chinese enterprise, work unit, or citizen has, by legal means, obtained the China IP rights;
- Have a trademark that is owned by a Chinese company and registered in China;
- Embody a high degree of creativity and innovation—for example, a product that masters core technologies or improves product functions by applying new technologies; and
- Offer a high degree of reliability and dependable quality, with certification from the China National Certification Administration or its provincial departmental branches.

Accredited products are eventually listed in product catalogues that governments at various levels use to guide their procurement decisions.

Over the past three years, a few provincial and municipal governments have developed their own product catalogues, which include lists of products accredited as indigenous innovation. To date, very few products made at a foreign-invested facility have received accreditation. Of the 523 products listed in the Shanghai catalogue, only two are made by foreign-invested enterprises (FIEs)—and those are from Chinese-foreign joint ventures with majority Chinese ownership. Of Beijing's 42 qualified products, just one comes from a foreign company. Moreover, some of these catalogues also restrict domestically made products from other provinces, though such restrictions may not be explicit. For example, Wuhan's catalogue is largely comprised of local products from Wuhan and surrounding Hubei Province, though the catalogue does not explicitly limit eligibility to local products. It is unclear whether localities will keep their separate catalogues, as MOST is working on a national-level catalogue.

Primary PRC Government Actors Managing Domestic Innovation

Several PRC government agencies are responsible for developing and implementing indigenous innovation policies.

- **The State Council Leading Group on Science, Technology, and Education** is comprised of representatives of major ministries and government offices, such as the ministries of Commerce, Finance (MOF), Industry and Information Technology (MIIT), and Science and Technology (MOST); the National Development and Reform Commission (NDRC); and the Chinese Academy of Social Sciences, among others. Led by PRC Premier Wen Jiabao, this group is responsible for discussing, reviewing, and approving major policies and strategies on science and technology (S&T) and coordinates relevant departments and localities to implement key tasks and projects. The group has been involved in formulating indigenous innovation policy since 2005 and is the principal venue for integrating indigenous innovation policy among the various agencies involved.
- **MOST** is responsible for leading the reform of China's S&T system and formulating S&T strategies, policies, and laws and regulations. Responsible for China's overall innovation strategy, MOST is tasked with accrediting indigenous innovation products and formulating and developing indigenous innovation product catalogues.
- **NDRC** is the PRC government's chief ministry-level macroeconomic planning body. NDRC sets China's long-term national economic development agenda, from which ministries derive and implement their own policies. Importantly, S&T and innovation are outgrowths of these long-term economic development policies.
- **MOF** oversees government procurement and sets procurement criteria for indigenous innovation products. Procurement is the lifeline of China's indigenous innovation strategy, because government purchases are a major source of funding for companies engaged in the research and development of innovative products.
- **MIIT** is built around the core functions of the former Ministry of Information Industry, including regulation of electronics and information product manufacturing. It is also responsible for crafting and implementing China's industrial policies, of which innovation is an essential component.

—US-China Business Council staff

Indigenous innovation label benefit: Preference in government procurement

The primary and most explicit benefit conferred upon products that receive indigenous innovation recognition is preference in government procurement. The size of China's government procurement market is difficult to calculate because schools, hospitals, museums, think tanks, state-owned enterprises, and other public entities are subject to varying degrees of influence from central and local governments. Even excluding these entities from the government procurement system, however, China's vast government bureaucracy at the central and local levels presents substantial commercial opportunities across a wide range of industry sectors.

In addition to granting priority in government procurement, Selected Supporting Policies for the 2006–20 Medium and Long-Term Science and Technology Development Plan (2006) favor indigenous innovation products in price-based bidding. Article 23 states that during the price-based bidding process, if the price of an indigenous innovation product is higher than the prices of others, the company making the product may reduce the price in its bid; if the price is not higher than those of other products, the government agency must procure the indigenous product. In addition, several articles of the 2007 Evaluation Measures on Indigenous Innovation Products for Government Procurement give indigenous innovation products special treatment:

- Indigenous innovation products shall be given preference at a margin of 5–10 percent in the event that price is the sole determining factor (Article 13);
- Indigenous innovation products may enjoy an additional 4–8 percent boost in their technical and price evaluations if comprehensive evaluation methods are used (Article 14); and
- A government system for initial purchasing and ordering that will encourage the commercialization of products with indigenous innovation accreditation should be established (Article 24).

> The biggest obstacle for foreign companies is the requirement that the applying China entity fully own the IP and first register the trademark in China.

Policy and Regulatory Framework Surrounding Indigenous Innovation

China's central government has released various policies and regulatory measures to implement its indigenous innovation policy. A list of some of these regulatory measures follows.

Regulation	Issuing agency	Importance
PRC Government Procurement Law (2002)	National People's Congress	Establishes the foundation for government procurement, noting that PRC government agencies at all levels should purchase domestic goods and services unless the required items cannot be obtained within China or under "reasonable commercial circumstances"
Medium- and Long-Term National Plan for Science and Technology Development, 2006–20 (2006)	State Council	Introduces the concept of indigenous innovation into China's national industrial policy and lays out key principles that government agencies should follow when implementing indigenous innovation policies
Selected Supporting Policies for the 2006–20 Medium and Long-Term Science and Technology Development Plan (2006)	State Council	Further describe how the principles of indigenous innovation should be implemented and entrust the Ministry of Finance (MOF) and other agencies with defining a "domestic product"
Trial Measures for the Administration of the Accreditation of National Indigenous Innovation Products (2006)	MOF, Ministry of Science and Technology (MOST), and National Development and Reform Commission (NDRC)	Set the certification criteria for evaluating and certifying indigenous innovation products, including ownership of core intellectual property and trademarks by the applying China-based company
Evaluation Measures on Indigenous Innovative Products for Government Procurement (2007)	MOF	Lay out the advantages that accredited products enjoy in the government procurement process, including price deduction and extra consideration in technology and quality evaluations
Administrative Measures for the Government to Initially and Selectively Purchase Indigenous Innovation Products (2007)	MOF	Require government agencies to make initial purchases of newly developed products by domestic companies that are not currently competitive in the marketplace. Products are designated in the Catalogue of Indigenous Innovation Products, and government agencies are required to purchase those products, which will eventually be used in government-funded investment projects
Notice on the Launch of National Indigenous Innovation Product Accreditation Work for 2009	MOF, MOST, and NDRC	Details the application and review process for products applying for indigenous innovation status

Source: The US-China Business Council

Potential problems and concerns for foreign companies

The biggest obstacle for foreign companies is the requirement that the applying China entity fully own the IP and first register the trademark in China. The primary concern of foreign companies is that they will be excluded from China's government procurement market simply because they have developed IP and owned trademarks in other jurisdictions. Though many countries have government procurement policies that require a certain amount of local content, the current international norms for government procurement do not include IP ownership requirements.

Some companies are concerned about IP protection in China, but the bigger issue is structural: To remain competitive, companies must be able to sell their products and services globally rather than be restricted to selling only products that are based on IP developed in a particular market.

Many foreign companies have invested in China to serve the China market. In many cases, the parent company has licensed certain technology to its China subsidiaries to expand upon or develop new product for China, thereby bringing innovative products to China's market, even if the patent or trademark itself is owned in another jurisdiction. New indigenous innovation regulations could therefore limit or slow the introduction of innovative products into China.

Recent developments

In late 2009, a series of PRC government agencies released two sets of documents related to indigenous innovation, raising questions and concerns from FIEs and prompting a response from foreign industry.

New rules for central-level indigenous innovation catalogue

MOF, MOST, and NDRC released two circulars in November 2009: application procedures and a notice that lays out provincial responsibilities for the new central-level indigenous innovation catalogue. The documents included a December 10, 2009 deadline for companies to submit applications for indigenous innovation status and a December 30, 2009 deadline for provinces to make recommendations to the central government for the scope of the catalogue.

Four of the six areas identified for inclusion in the indigenous innovation catalogue are information-technology related: computer and application devices, communication products (believed to include mobile phones), modern office equipment (such as digital copiers and cameras), and software. The remaining two are related to new-energy equipment and energy-efficient products. Foreign-company concerns center on Section IV of the application procedures, which reiterates seven conditions, including the patent and trademark restrictions that will likely exclude foreign companies' products.

Catalogue lists industrial equipment products targeted for development

Several PRC agencies jointly released on December 29, 2009 a catalogue of industrial equipment products that they want domestic companies to develop to boost China's equipment manufacturing industry. In addition to offering the usual mix of tax and financing incentives to assist domestic producers, the catalogue gives manufacturers of the listed equipment types priority in accrediting their products as national indigenous innovation products. The catalogue covers 240 types of equipment in 18 broad categories (see below).

Industrial Equipment Products Targeted for Domestic Development, December 2009

According to the Catalogue Guiding Indigenous Innovation in Major Technology Equipment—released by the PRC ministries of Finance, Industry and Information Technology, and Science and Technology, and the State Asset Supervision and Administration Commission in December 2009—domestic companies are encouraged to develop and commercialize products in the following categories:

- Clean and efficient power-generating facilities;
- Ultra- and extra-high voltage (UHV/EHV) power transmission and transformation equipment;
- Large petroleum and chemical equipment;
- Large coal-chemical equipment in complete sets;
- Large high-precision metallurgical equipment in complete sets;
- Large coal and open-pit mining facilities;
- Railroad transportation equipment;
- Large environmental protection and resource management facilities;
- Large construction machinery;
- New textile machinery;
- New and large horsepower agricultural equipment;
- High-tech electronic, biology, and medical facilities;
- High-tech shipbuilding and oceanography engineering facilities;
- High-end numerical control lathes;
- Civilian aircraft;
- High-end printing equipment;
- Basic components and heavy castings and forgings for large industrial products; and
- Airport equipment and port machinery.

—US-China Business Council staff

Listed equipment types will eventually be incorporated into the yet-to-be-released national-level Catalogue for Government Procurement of Indigenous Innovation Products. They can also receive preferential financing for product commercialization and be included in government-related research and development plans for science and technology products. Many of the types of equipment listed in the catalogue are being imported or developed by FIEs in China. Though the equipment catalogue does not explicitly exclude FIE products from receiving indigenous innovation accreditation, its references to indigenous innovation product catalogues and to recently issued qualification criteria for a national catalogue that effectively exclude FIEs raise concerns.

In addition, the catalogue specifies an objective of import substitution, which is directed at replacing equipment imports from overseas suppliers with domestic products.

Draft implementing regulations for PRC Government Procurement Law

The State Council's Legislative Affairs Office released on January 11, 2010 long-awaited draft Implementing Regulations on the Government Procurement Law—rules that outline the scope, responsibility, conditions, format, procedures, and requirements for government procurement in China. Notably, the draft defines domestic products, projects, and services in a way that appears to include FIEs.

Specifically, Article 10 of the draft implementing regulations defines a "domestic product" as one "made within China's borders and for which domestic manufacturing costs exceed a certain percentage of the final price." This definition should allow FIE products that pass a local content threshold—which apparently will be equally applied to Chinese-owned companies—to qualify as domestic for the purpose of government procurement. Though the draft is silent on the percentage of domestic content required to qualify as domestic, temporary measures released by MOF in 1999 stated that products with less than 50 percent of their value produced domestically were classified as imports. It is unclear whether these measures are still in effect.

Article 10 also states that government procurement for projects and services will apply to Chinese nationals, Chinese legal persons, or other Chinese organizations. Because FIEs have legal-person status under existing PRC laws, this definition indicates that projects and services provided by these FIEs should be treated as "domestic" for government procurement.

In addition, these regulations provide a threshold for the price preference to be given to domestic products and services. Many countries allow or require government entities to procure domestically produced items preferentially unless they are "unreasonably" expensive compared to a competing import. The draft regulations define "unreasonable commercial terms" to mean that the price of domestic goods, projects, or services is at least 20 percent higher than those of non-domestic competition. If a domestic offering meets this definition, it should not receive preference in procurement. (For reference, the US Buy American Provision in the American Recovery and Reinvestment Act has a threshold of 25 percent for manufactured goods, iron, or steel purchased under the act, and the United States has a 6 percent threshold for procured goods in general.)

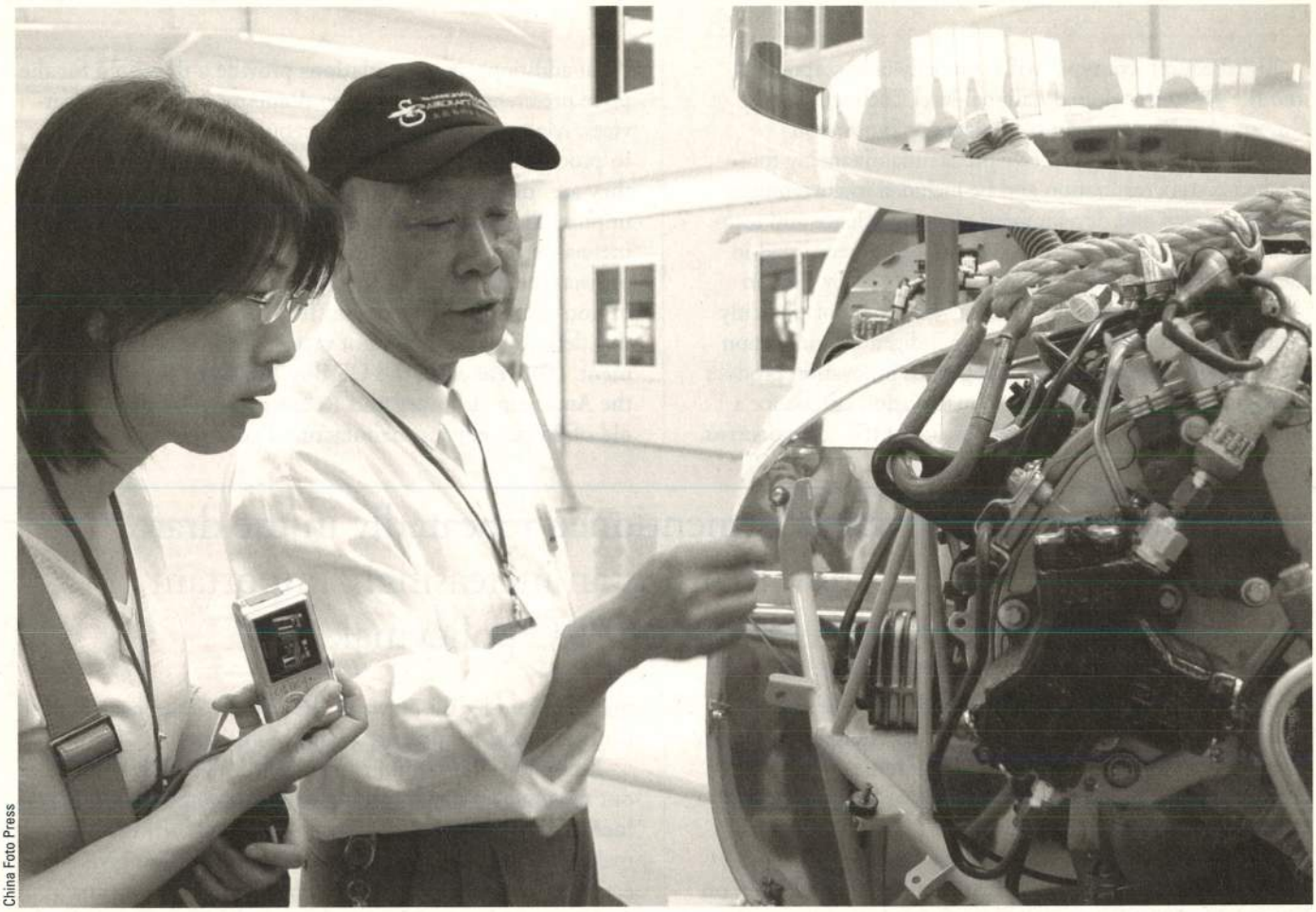
Indigenous innovation is mentioned repeatedly in the draft, reinforcing the notion that it is an increasingly important concept in the minds of PRC policymakers.

Indigenous innovation is mentioned repeatedly throughout the draft regulations, reinforcing the notion that it is an increasingly important concept in the minds of PRC policymakers. Article 9 of the implementing regulations gives preference in government procurement to energy-saving and environmental-protection products, indigenous innovation products, products made by small and medium-sized enterprises, and products made in minority ethnic areas (such as Xinjiang). The article is significant because it states that qualifying products should either be given priority or mandatory purchase preferences, without further clarification. This article reinforces current concerns from foreign companies about criteria for qualification of indigenous innovation products that effectively exclude FIE participation.

Industry response

On December 10, 2009, 34 trade associations from Canada, Europe, Japan, South Korea, and the United States asked the PRC ministries to delay implementation of the November circulars and engage with industry on how to advance China's science and technology goals and promote innovation through a fair and transparent selection process. The US government has also raised concern about the policy with the PRC government, with hopes that future policies and catalogues will reflect foreign-company concerns. 完

This article is adapted from the US-China Business Council (USCBC) issues brief, New Developments in China's Domestic Innovation and Procurement Policies. *USCBC, publisher of the* China Business Review, *provides extensive China-focused information, advisory and advocacy services, and events to more than 200 US corporations operating within the United States and throughout Asia. For the full report, see www.uschina.org/public/documents/2010/domestic_innovation_policies.pdf.*



China Foto Press

To satisfy China's demand for technology transfer, some companies offer skills training that supplements their core competencies.

Transferring Technology to Transform China—Is It Worth It?

Business opportunities and PRC government programs encourage foreign companies to transfer technology to China, but doing so may pose significant long-term risks.

Kenneth Jarrett and Amy Wendholt

Technology transfer has been a focus of China's growth plans for decades. This focus became prominent when former leader Deng Xiaoping, inspired by the advanced technology he witnessed during trips abroad, enacted policies in the 1980s that allowed foreign firms to access China's market in exchange for advanced technology.

Over the past 30 years, PRC leaders have adopted numerous policies to encourage technology transfer. Leveraging foreign interest in its huge market, China's leaders expected companies to provide access to high-tech products and systems as evidence of their commitment to China's growth and development. As concerns about climate change and global warming have mounted, China's technology targets have

increasingly focused on advanced technology that could help reduce the country's carbon emissions. This has added a new dimension—and new arguments made by PRC leaders—to China's pursuit of foreign technology: Developed countries have a moral obligation to share environmental technology if the world is to avert the threat of catastrophic and irreversible climate change. Such arguments have increased pressure on foreign companies to share advanced environmental technology with China's domestic industry.

Cost of China's carbon reductions

Given the high costs associated with reducing China's carbon emissions, the country's leaders are eager to secure support from the international community. In September 2009, China's State Council Development Research Center, a research organization under the National Development and Reform Commission's (NDRC) Energy Research Institute, and Tsinghua University released a joint study that found that for China's absolute carbon emissions to peak by 2030 while still meeting the nation's energy demands, the country would need to invest ¥2 trillion ($293 billion) from 2005 to 2020 in renewable energy. Other organizations provide different estimates—for example, the International Energy Agency estimates that China must invest nearly $400 billion between 2010 and 2020 for emissions to peak by 2020—but the consensus is that the costs will be significant. This is, in part, what drives PRC leaders to pursue technology at the lowest possible cost.

The role that developed nations should play in supporting their less-developed neighbors was a core component of December 2009's Copenhagen climate change negotiations and was included in the statement of intent that emerged from the talks. Developed countries collectively pledged to provide $30 billion from 2010 to 2012—including $11 billion from Japan, $10.6 billion from the European Union, and $3.6 billion from the United States—to help the developing world cope with the effects of climate change and take advantage of low-carbon technologies. In addition, developed countries vowed to mobilize $100 billion annually by 2020 to help developing countries reduce carbon emissions.

High stakes for companies transferring technology

Despite the global call to action to address climate change, companies must weigh the benefits and risks when considering whether to transfer technology to China. Environmental technology transfer is no exception.

The benefits for Chinese companies are easy to identify: They obtain advanced technology with relatively little capital expenditure, which expedites the process of achieving organic growth, increasing market share, and enhancing profit margins.

Quick Glance

- PRC leaders seek technology transfer to supplement China's development strategy.
- Significant incentives exist for companies that transfer technology to China, but these incentives should be weighed against long-term risks.
- Companies may be able to comply with tech-transfer policies by offering skills training that supplements rather than competes with their core competencies.
- Companies should also work with business organizations and the US government to convey their concerns to the PRC government.

Benefits for foreign companies

There are also potential benefits for foreign companies that choose to transfer technology. These include:

- **Financial incentives** Foreign companies may enjoy direct financial benefits and indirect soft benefits. The financial benefits, which can be significant, flow from access to China's immense marketplace. Companies can enhance these benefits by taking advantage of PRC government incentives that encourage foreign firms to transfer technology. When transferring technologies listed in the "encouraged" category of the Catalogue Guiding Foreign Investment in Industry, foreign companies can enjoy numerous central-level tax exemptions or reductions and preferential financing options for large capital expenditures. Companies that qualify as high- and new-technology enterprises, as well as those located in high-tech zones, can obtain additional incentives from the central and local governments (see p.22).
- **Reputational advantages** Foreign companies can also use technology transfer to demonstrate their commitment to China and alignment with PRC government priorities. Tech-transfer projects often garner significant attention from central- and local-government stakeholders, raising awareness of the company and elevating overall corporate reputation within China. This is especially true for companies within "encouraged" industry sectors—for example, those that manufacture recycling equipment, equipment for large nuclear power plants, and solar air-conditioning, heating, and dryer systems.

Risks

Despite these benefits, foreign companies face significant risks when they transfer technology to China.

- **Intellectual property rights (IPR)** Inadequate IPR protection is at the top of the list and continues to plague companies doing business in China. Intellectual property can fall into the hands of a rival company, or a local partner could appropriate the intellectual property and set up a rival business. Weak IPR enforcement is regularly cited as a major problem for companies operating in China and as a barrier that restricts the types of activities companies are willing to undertake. According to the most recent US-China Business Council member survey, nearly one-third of businesses reported that China's level of IPR enforcement affects their co-manufacturing and licensing decisions and their interest in conducting research and development in China (see the *CBR*, November–December 2009, p.60).

■ **Market access** Many foreign companies fear that once their technology has been successfully transferred to a domestic firm, they will find themselves permanently shut out of the China market. It is difficult to quantify the severity of this problem, but some PRC policies appear aimed at increasing domestic industry's share of the high-tech market, especially within the environmental technology sector. China's drive for indigenous innovation, a major policy initiative that aims to spur domestic innovation to transform China from a low-tech, manufacturing-based economy to an innovation- and knowledge-based economy, calls for Chinese companies to adopt and improve upon imported technologies (see p.23).

■ **Legal effectiveness** Firms deciding whether to transfer technology to China must consider the effectiveness of China's legal institutions. The fair, even, and predictable implementation of rules, regulations, contracts, and standards is a necessary condition for firms to conduct business effectively. The absence of effective legal institutions is frequently raised as a challenge for firms operating in China. The World Bank's Worldwide Governance Indicators project has consistently ranked China in the forty-fifth percentile with respect to rule of law, and as the following case studies will demonstrate, this weak legal environment affects foreign business operations.

Technology transfer in action: Two case studies

Two recent tech-transfer projects and their outcomes provide insight into the potential risks and rewards for conducting technology transfer in China.

Beijing-Tianjin high-speed railway

In 2005, Siemens AG and China CNR Corp. Ltd. (CNR) were jointly awarded a contract to construct 60 passenger trains for the high-speed railway that links Beijing and Tianjin. The new railway, roughly 115 km long, provides a fast and efficient connection, cutting travel time between the two cities to about 30 minutes.

CNR invited Siemens to bid on the contract jointly, with the condition that Siemens transfer key technology to CNR during the project. Siemens and CNR won the joint contract, estimated to be worth $919 million, for the provision of 60 units of its wide-body passenger trains capable of seating 600 passengers and traveling 300 km per hour. Construction of the first three trains began in Siemens' German plant, with the remaining 57 made in China at CNR's Tangshan Locomotive and Rolling Stock Works in Hebei. Siemens also provided technical training for more than 1,000 of CNR's technical staff at its German facilities.

The project was completed successfully and went into operation before the 2008 Beijing Olympics, receiving widespread media coverage and government support: PRC President Hu Jintao rode the train as part of an "inspection tour" in June 2008 and called the project a "milestone in the history of China's railway development." PRC Vice Premier Zhang Dejiang, Minister of Railways Liu Zhijun, and the Chinese Communist Party secretaries of Beijing and Tianjin attended the opening ceremony on August 1, 2008 and praised the venture.

Following the project's completion, Siemens' market penetration in China increased tremendously. In 2008, the company won concessionary bidding projects from Beijing International Airport to provide its baggage handling system and was selected to provide trains for three new subway projects the same year. The company's total China sales reached ¥57.0 billion ($8.3 billion) in fiscal 2008, up 19 percent over the previous year. In 2008, China was listed as the "most significant growth market for Siemens."

Despite these successes, however, Siemens faced significant challenges competing with domestic players for later government rail projects. In March 2009, Siemens announced that it had been awarded a $1 billion contract to provide 100 high-speed trains for China's Beijing-Shanghai high-speed railway. Following the announcement, China's Ministry of Railways denied the existence of the deal and insisted that

Key Incentives for High- and New-Technology Enterprises

Enterprises that qualify for high- and new-technology enterprise (HNTE) status are entitled to a preferential enterprise income tax (EIT) rate of 15 percent—10 percent lower than the normal EIT rate. To qualify, an enterprise must have acquired intellectual property critical to its products or services through independent research, transfer, donation, or acquisition within the last three years. In addition, at least 60 percent of the enterprise's revenue must come from high- and new-technology products and services, as defined by a product list released by the PRC State Administration of Taxation. Other provisions place restrictions on the number of non-technical staff at the enterprise, the portion of staff engaged in research and development (R&D), and R&D spending.

Other incentives include

- Subsidized loans from the PRC Ministry of Science and Technology for HNTEs' initial public offerings, the construction of national high- and new-technology parks, and Chinese companies "going abroad";
- More than ¥370 billion ($54.1 billion) in economic stimulus allocated for investment in HNTEs;
- An exemption of the first ¥5 million ($732,000) in tech-transfer revenue from EIT, and a discounted rate for any additional revenue;
- A deduction of 150 percent of R&D expenses from EIT tax liabilities; and
- Additional tax incentives for industries that the PRC government has targeted for development—such as software and integrated-circuit production.

—Kenneth Jarrett and Amy Wendholt

Chinese technology would be used in the project. The ministry claimed that the deal was awarded to CNR and insisted that any deal reached with Siemens originated from Chinese companies. Ultimately, CNR was awarded the contract valued at ¥39.2 billion ($5.7 billion), but Siemens will likely provide components worth $1 billion.

Despite the seemingly positive outcome, this case illustrates the PRC government's preference for domestic technology and the hurdles that foreign companies may face when sharing their technology. It also suggests that a jump in sales that seems to follow an accommodating approach toward technology transfer may be short-lived. At the same time, the transfer of technology helped Chinese manufacturers compete internationally: Siemens now competes with China South Locomotive and Rolling Stock Corp. to provide electric locomotives to Poland.

Goldwind wind-turbine manufacturing

Xinjiang Goldwind Science and Technology Co. (Goldwind), one of China's largest domestic wind-turbine manufacturers, began as a research institution. After undergoing a complete restructuring to become a wind-power company, it now accounts for roughly 20 percent of the domestic market and ranks tenth-largest in the world.

Goldwind's transformation into a global wind powerhouse has relied on financial and technological support from foreign and domestic governments and industry players. In 1989, Bonus Energy A/S, a Danish wind-turbine manufacturer, partnered with Goldwind and transferred the technology to construct 150 kW wind turbines. In 1996, the German government provided financing to develop 600 kW wind-driven power-generating sets and Germany-based Jacobs Energie GmbH licensed its 600 kW wind-turbine technology to Goldwind, transferring the technology as part of China's National Key Technology and Research Program in 1997. In 2001, Repower Systems AG, another German wind-turbine manufacturer, licensed its 750 kW wind-turbine technology to Goldwind.

Goldwind and the other domestic wind-turbine manufacturers also owe much of their success to supportive PRC government policies. In addition to providing financial support, over the past several years, the PRC government has enacted policies that give preferential treatment to domestic wind-turbine manufacturers. A 2005 NDRC policy required 70 percent of the content of the turbines to be produced domestically for a company to be considered for concessionary bidding. To maintain their eligibility, foreign firms began manufacturing in China.

The effects of this policy have been noteworthy. According to the European Chamber of Commerce's European Business in China 2009–10 Position Paper, "the world's most competitive wind-turbine producers continue to be excluded from national concession bidding projects," and no foreign wind-turbine manufacturer has won a concession tender since 2005. In 2004, foreign-made wind turbines accounted for 75 percent of the Chinese wind-turbine market, according to the Global Wind Energy Council, Greenpeace, and Chinese Renewable Energy Industry Association. By the end of 2008, China's top three domestic wind-turbine suppliers—Sinovel Wind Co. Ltd., Goldwind, and Dongfang Electric Corp.—alone accounted for nearly 60 percent of the market, according to China International Capital Corp. estimates. Though China recently eliminated the 70 percent requirement as part of an agreement it made during the July 2009 US-China Joint Commission on Commerce and Trade meetings, much of the damage has been done.

Goldwind's story illustrates how technology transfer and capital support from foreign parties may not open doors to the China market. Goldwind's meteoric rise, leveraging all possible resources to evolve from a research organization into a dominant domestic player, was made possible through its partnerships with foreign corporations and governments. Despite the supportive role they provided, these foreign partners have been rewarded with substantially decreased market share and restricted access to domestic projects. The foreign companies that supported Goldwind have almost no presence in China now. Though it is nearly impossible to quantify the effect of these policies on market share, or whether other factors—such as improvements within Chinese companies themselves—played a role, it seems likely that these policies have benefited Chinese companies at the expense of their foreign counterparts in the China market.

Recommendations for foreign companies considering technology transfers

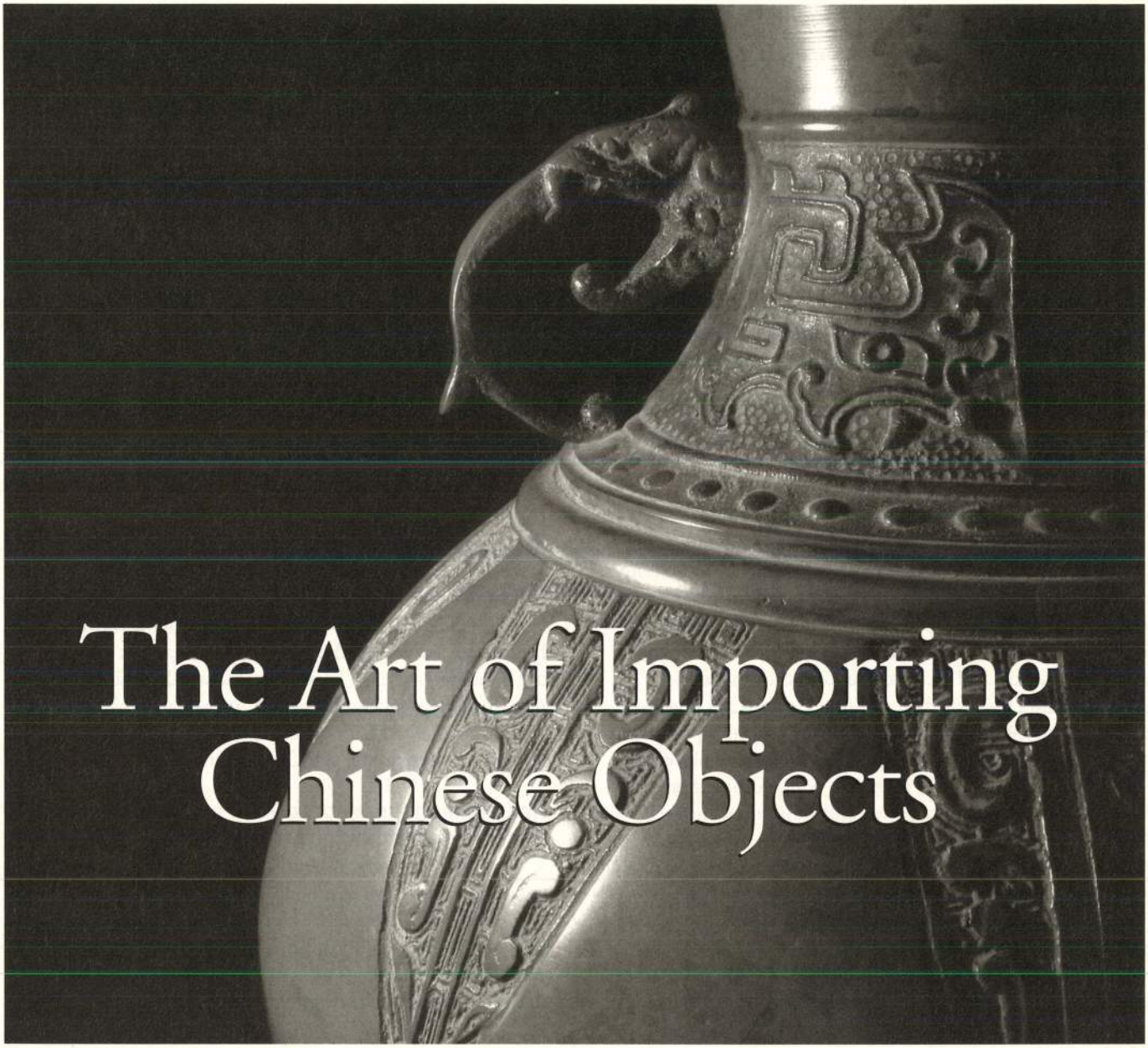
Foreign companies operating within industries prioritized by the PRC government, including the environmental sector, generally view technology transfer as the price of entry rather than as an option. Companies should therefore carefully evaluate the potential risks and rewards before deciding to transfer technology.

Continued on page 35

Drive for Indigenous Innovation

China's efforts to advance its domestic technological expertise and redefine the country's role in the global economy center on its "Drive for Indigenous Innovation" program, which includes numerous policies to stimulate domestic innovation. According to the program, indigenous innovation contains three components: "original innovation" (*yuanshi chuangxin*) through organic technological development; "integrated innovation" (*jicheng chuangxin*) by combining existing technologies in new ways; and "re-innovation" (*yinjin xiaohua xishou zaichuangxin*), which involves the adoption and improvement of imported technologies. (For more information on China's indigenous innovation policies, see p.14.)

—Kenneth Jarrett and Amy Wendholt



The Art of Importing Chinese Objects

Recent legal measures make it more difficult to import Chinese cultural relics into the United States.

Nancy M. Murphy

Many US residents who spend time in China acquire Chinese art, with some becoming serious collectors. A small but important segment of the US art industry—comprised of museums, art schools, professional dealers, auction houses, and art lovers—is also one of the most important participants in the global field of Chinese art. A recent agreement between China and the United States, however, has made it more difficult to bring some of these artworks into the United States. As most importers of Chinese art into the United States are US citizens, the agreement also raises concerns about restrictions on Americans' access to the Chinese art market. One potential result of this agreement is that the market for Chinese art could wither in the United States and move to other countries that do not have such restrictions.

China and the United States in January 2009 signed a memorandum of understanding (MOU) on imports of certain art and other objects from China. The MOU calls for the United States to restrict imports of objects designated "archeological material" and produced in China before 907

AD, the last year of the Tang Dynasty, as well as sculpture and "wall art" that are at least 250 years old. As a result of the MOU, the US Customs and Border Protection (CBP) agency of the Department of Homeland Security amended its regulations to impose import restrictions on a wide range of items, including those on its Designated List of Archeological Material. The amended CBP regulations altered US Customs import restrictions but did not affect the legal status of Chinese art that was inside the United States on January 16, 2009.

Art industry specialists are concerned that the revised CBP regulations are unclear at best and could harm the healthy trade and non-commercial exchange of Chinese art by US residents. One result of the MOU and the revised CBP restrictions has been to cast a chill over commerce in all Chinese objects that could be designated archeological material. The MOU and the CBP designated materials list define archeological material broadly and unclearly, making it difficult for potential importers of Chinese art—from tourists and museums to dealers and collectors—to know what objects are permissible and how to ensure that purchases or loan objects can be imported into the United States. Much of this uncertainty can be dispelled by taking a closer look at the relevant US and PRC regulations.

Quick Glance

- A US-China memorandum of understanding (MOU) signed last year requires importers of Chinese art into the United States to present documentation verifying that the art was not exported from China illegally.
- Because the required export permit is issued in triplicate, and those copies usually remain with PRC entities, US importers have difficulty obtaining the required document to present to US Customs.

Overview of China's cultural relics policy

The PRC Ministry of Culture (MOC) is the highest governmental organ tasked with supervision and administration of Chinese art. The PRC State Administration of Cultural Heritage (SACH), which MOC oversees directly and foreigners sometimes refer to as the Cultural Relics Bureau, is responsible for all of China's cultural relics policy. SACH has subordinate divisions at the provincial and municipal levels. Although SACH technically has sub-ministerial ranking, it has unusually broad powers and a high degree of independence, allowing it to function virtually as a ministry.

Laws related to art and to objects designated as "cultural relics" are principally drafted and revised by SACH and MOC and passed by the PRC National People's Congress. The PRC legal framework for art, cultural relics, cultural heritage, and the protection of non-Han minority cultures in China is still developing. China issued its first national law on cultural relics, the PRC Cultural Relics Protection Law (Cultural Relics Law), in 1982, and the latest amendment to the law was made in 2007. Beginning in 2002, China issued a series of new laws and regulations on cultural relics, including the 2003 Cultural Relics Protection Regulations, the 2007 Administrative Measures for the Entry-Exit Examination and Verification of Cultural Relics, and the 2007 Standards for the Entry-Exit Examination and Verification of Cultural Relics. The express purpose of the new regulations was to advance two increasingly important policy aims. The first was to extend legal protection to a wider range of objects by broadening the definition of "cultural relic." This was achieved by resetting the operative date of production or manufacture, before which an object would be deemed a cultural relic, from 1795 to 1949 for most objects. (The operative date for objects produced by non-Han cultures is 1966.) The second policy aim was to strengthen government control over the export of objects designated as cultural relics by redefining the role of SACH's cultural relics entry-exit examination and approval agencies.

Understanding the revised US regulations

To implement the MOU, the United States has to reflect the terms of the agreement in its own laws and regulations. In the case of the import of Chinese art or other objects that may be considered archeological items into the United States, the binding law is found in the revised CBP regulations, which set forth guidelines and restrictions that apply to imports of Chinese archeological materials, as defined by the regulations and the designated materials list. US Customs requires importers of such material to provide any *one* of the following three documents:

- An official PRC document that certifies that the export did not violate PRC laws;
- Satisfactory evidence that the object was exported from China at least 10 years prior to the date of import into the United States; or
- Satisfactory evidence that the object was outside of China—sometimes referred to as being "in free circulation"—on or before January 16, 2009.

Though the last two categories will not be different unless the import restrictions continue past January 17, 2019, they require exporters to provide different evidence. To support the assertion that the object was exported from China at least 10 years prior to the date of import into the United States, the importer must declare this fact under oath. The importer must also state that he or she did not contract for or acquire an interest in the object more than one year before the date of entry. Finally, the importer must provide a statement from the consignor, or the person who sold the object to the importer, verifying the date the object was exported from China. If the date of export is unknown, the consignor or seller must state his or her belief that the export date was 10 years before the date of import into the

United States and the reasons for that belief. To support the assertion that the object was outside China on or before January 16, 2009, the importer must state under oath that, to the best of his or her knowledge, the material was exported from China prior to January 16, 2009 and provide a statement from the consignor or person who sold the material to the importer verifying this date. If the date of export is unknown, the consignor or seller must state his or her belief that the export date was on or before January 16, 2009 and the reasons for that belief.

Experienced importers of art and antiques into the United States are likely to be familiar with these requirements and with the typical form of such declarations and statements. US Customs officials have had similar requirements for imports from other countries for many years. The MOU and revised CBP regulations raise a new issue, however: Objects exported from China after January 16, 2009 require documentation certifying that such objects were not exported in violation of PRC law. To understand precisely what constitutes "legal export" from China, importers and exporters must look to PRC laws and regulations.

Temporary Import and Export of Chinese Art

Different procedures and documents are required for the temporary import of art objects into China and the re-export of those objects. If an individual wishes to bring an object into China temporarily—for example, to put into auction—that person must complete a Temporary Import Registration Form (*linshi jinjing wenwu dengjibiao*). This form is used only for objects that are brought into China by hand and not for objects that are shipped. Temporary Import Registration is valid for six months and, in principle, objects that remain in China for longer than six months require normal import permits, though the PRC State Administration of Cultural Heritage (SACH) may grant extensions for temporary import certificates on a case-by-case basis. Experienced PRC buyers and other importers, such as auction houses, recommend that overseas sellers personally carry in the objects they would like to sell in China and handle the import paperwork on the ground once they have arrived—a solution that is not particularly helpful to sellers of large or heavy objects or to non-Chinese speakers. The Temporary Import Registration Form must be provided to SACH when applying for an export permit when the object—whether or not it is sold at auction—is re-exported.

—Nancy M. Murphy

The twists and turns of PRC export procedures

Article 50 of China's Cultural Relics Law permits a foreign citizen to *obtain* Chinese art through many channels, such as inheritance, receipt as a gift, purchase from a cultural-relics store or auction house, and mutual exchange or transfer between individual citizens. The Cultural Relics Law imposes strict restrictions on the *export* of Chinese art, however, and enforces these restrictions through the export permit system. Under this system, any work of art leaving China must be accompanied by an export permit issued by a SACH entry-exit agency. At present, agencies in 14 cities and provinces are qualified to examine and approve the export of cultural relics from China: Anhui, Beijing, Fujian, Guangdong, Hebei, Henan, Hubei, Jiangsu, Shaanxi, Shandong, Shanghai, Tianjin, Yunnan, and Zhejiang. For an exporter to obtain permission for export, objects must be examined by one of these agencies or one of the agencies' qualified examiners.

China's Cultural Relics Law permits a foreign citizen to *obtain* Chinese art through many channels...but imposes strict restrictions on the *export* of Chinese art.

A copy of the export permit constitutes "satisfactory evidence" that the object was legally exported from China. Because PRC law requires no other documentation for the legal export of an art object (excluding contemporary art), US Customs cannot require any other document from the importer to show legal export, according to the language of the MOU and the revised CBP regulations.

Buyers of contemporary art, however, should be aware of a new set of PRC regulations issued in August 2009 that imposes different procedures and documentation requirements for the export of contemporary art. The Interim Provisions on the Management of the Import and Export of Fine Art require prior MOC approval for import and export of contemporary artwork, including paintings, photographs, and sculptures but excluding mass-produced art. Buyers can obtain such approval by following the application procedures outlined in the interim provisions, which establish regulatory procedures at the provincial level of MOC rather than SACH.

Export permits: The elusive third copy

Before the 2009 MOU, US Customs did not require the presentation of export permits to import most Chinese art into the United States, so buyers did not request—and shippers did not usually provide—copies of the export permit. Instead, foreign buyers of Chinese art typically relied on a shipping invoice printed on a PRC shipping company's letterhead or a wax seal from SACH as evidence of legal export. Under PRC law, SACH must

issue an export permit before objects designated as archeological materials and cultural relics may be exported legally. Now, according to the revised CBP regulations, the importer may provide a copy of that permit to US Customs as proof of legal export. The permit is issued in triplicate: One copy remains with the SACH entry-exit agency; another goes to the exporter; and one is given to PRC Customs at the time of export.

Single-item export permit—a possible solution?

The MOU and revised CBP regulations raise several issues of concern for US-based importers. Because China has not signed similar agreements with other major Chinese-art importing countries—such as Japan, Singapore, Taiwan, or any European countries—Americans who wish to purchase and bring Chinese art into the United States are at a disadvantage relative to buyers from those countries. In addition, buyers who want to bring Chinese art into the United States (either directly from China or via another country) may be put off by the complexity of the new regulations or the uncertainty about what documentation will assure legal and problem-free export and import.

Though PRC shipping companies still follow the historical standard practices for export permit applications, some shipping companies may be willing to apply for single-item export permits at the exporter's request. Given that SACH has not yet established a system for US buyers who are not also the direct exporters to obtain a copy of the export permit for US Customs, buyers should work directly with their shippers to obtain a copy of a single-item export permit that clearly identifies the object being exported whenever possible. 完

Buyers should work directly with their shippers to obtain a copy of a single-item export permit that clearly identifies the object being exported.

Because most foreign buyers use a PRC shipping company to handle the logistics of freight forwarding, shipping, and customs clearance when exporting art, the shipping company—rather than the individual buyer—is regarded as the legal exporter of the object under PRC Customs and SACH regulations. The shipping company therefore *must* retain the third copy of the export permit for presentation to PRC customs, making it almost impossible for the foreign buyer to obtain a copy of the permit to present to US Customs.

Buyers cannot request a fourth copy of the export permit from SACH, as no fourth copy exists, and in practice will likely find it difficult to obtain a copy of the permit from the PRC shipping company. Shipping companies usually apply for export permits on a bulk, crate, or container basis, and most shipping companies lack computerized systems that enable them to collate a single object with a specific export permit. As a result, even if shipping companies were willing to provide an additional copy of the permit to the buyer, the provided document would not reference a specific brushpot, oil painting, or ceramic vase.

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The Asterisk Paradox

In most PRC auction catalogues an asterisk normally indicates that the marked lot may not be exported out of China. Lack of an asterisk, however, does not necessarily indicate that an object *may* be exported. The asterisk is applied on the basis of a per-auction review by the PRC State Administration of Cultural Heritage (SACH). SACH's realization that sellers were buying objects and profiting based on the asterisk system, which provided a *de facto* appraisal of the artwork by SACH, is the explanation for this inconsistent practice.

Attempts by a potential buyer to clarify, prior to auction, whether a non-asterisked lot is eligible for an export permit have proven futile. One auction house informed a would-be buyer that the bureaucrats who vet the sale and decide which lots to mark with an asterisk are different from the bureaucrats responsible for issuing export permits, and there is no channel through which to obtain official advice on an export permit until an object is presented to the SACH entry-exit agency with a formal application for export. Auction houses will not—and probably cannot—submit a request for such advice before the lot in question has been sold.

An object imported for auction under a Temporary Import Certificate that is unsold can be exported within six months—or longer if an extension is granted—of the date that the Temporary Import Certificate was issued (see p.26). Objects that do not have a Temporary Import Certificate must follow normal export procedures. In such cases, there is always a risk that SACH will not grant export permission for the object.

—Nancy M. Murphy

China Foto Press

Recalls may become more common under China's new Tort Law.

China's New Tort Law: Dawn of the Product Liability Era

China's new Tort Law expands company liabilities and adds punitive damages for unsafe and defective products.

Peter Neumann and Calvin Ding

The new PRC Tort Liability Law, which finally passed in December 2009 after four revisions, covers a range of topics that have increasingly captured Chinese and international headlines, including product and medical liability, environmental pollution, motor vehicle accidents, and hazardous work. In fact, several recent safety scandals, such as the 2008 melamine-tainted milk scandal, may have hurried the passage of the law, which was first proposed in 2002 and is slated to take effect July 1, 2010.

Prior to the Tort Law, legal rules that addressed and provided for civil remedies in rights infringement cases were spread among several PRC laws, including the General Principles of the Civil Law, the Law on Protection of Consumer Rights and Interests (Consumer Rights

Protection Law), the Product Quality Law, and the Food Safety Law. As pressure to provide more effective means of redress through civil courts grew, the need for a unified tort-law framework that clearly defined tort-based causes of action became increasingly urgent. Though the new Tort Law does not supersede tort-related provisions contained in other laws, it consolidates and integrates the basic legal concepts into a single piece of legislation.

Product liability clarified

The apparent expanded protection against defective products and the introduction of punitive damages are key features of the new Tort Law. Their inclusion may in large part be viewed as a response to product scares in recent years. For example, the Sanlu tainted-milk incident—which reportedly left at least six infants dead, roughly 300,000 others suffering from lingering health problems, and a wave of discontent in its wake—prompted government officials and the public to openly demand stronger governmental oversight, harsher punishment for wrongdoers, and swifter, more effective mechanisms to limit the potential harm caused by dangerous products (see the *CBR*, May–June 2009, p.38).

Quick Glance

- China's new Tort Law, which takes effect July 1, integrates the basic legal concepts of tort-related provisions in other PRC laws into a single piece of legislation.
- The new law also appears to expand protection against defective products and authorizes injured parties to seek punitive damages.
- Companies should monitor legislative and judicial developments for hints about how the new law—and punitive damages, in particular—will be applied.

New liabilities for producers and sellers of defective products

Until the Tort Law takes effect, the Product Quality Law remains the main source of principles to be applied in cases involving defective products. The Product Quality Law recognizes two types of product deficiencies, "flaws" and "defects," which are subject to different liability rules. The term product "flaws" (*xia ci*) generally refers to minor nonconformities, such as a product's failure to function as it should or when a product's quality does not conform to the standards specified on the product or its packaging. Where product flaws cause injury to the consumer, the seller is liable for compensating the consumer's losses. If the flaw is the fault of the manufacturer, the seller is entitled to recover its losses from the manufacturer after compensating the consumer. A product contains a "defect" (*que xian*) if there is an unreasonable danger inherent in the product that threatens the health or safety of persons or property, or if the product does not conform to applicable national or industry health and safety standards. In cases involving product defects that cause personal injury, death, or property damage (other than to the product itself), the Product Quality Law requires the manufacturer to assume compensation obligations.

Though the new Tort Law does not use the term "flaw," it appears to expand the scope of parties from whom a plaintiff may seek damages in cases where injury is caused by a product defect. Under the new law, a plaintiff may seek damages from either the producer or seller of a product that contains a defect, regardless of who caused the defect. In cases where a seller can show that the product contained a preexisting defect, the seller has the right to seek contribution from the producer, assuming that the producer can be identified. ("Contribution" refers to what the defendant has a right to collect from others who are responsible for the harm caused.) Third parties in the product distribution chain may also be held liable: The Tort Law states that if injury to other persons is caused by defects resulting from third-party transportation or storage services, the producer and seller of the defective product have the right to seek contribution from the responsible third party.

Punitive damages

Punitive damages were generally unavailable under PRC law prior to the passage of the Tort Law. The Consumer Rights Protection and Food Safety laws contain provisions regarding payment of compensation equal to specified multiples of the value paid by the consumer in cases of fraud. The Product Quality Law uses a similar approach when dangerous products are manufactured or sold in violation of applicable national or industry standards, but without any need to establish fraud. Article 47 of the Tort Law, however, provides that where a party knowingly produced or sold defective products that caused injury to life or health, the injured party has the right to claim punitive damages. Unlike previous laws that restricted compensation, recovery of punitive damages is not stated as a fixed multiple of the amount paid for the defective product, nor does the Tort Law place a limit on damages.

Given that the Tort Law has not yet taken effect and that China does not follow case precedent, it will be particularly important to monitor legislative and judicial developments, especially PRC Supreme People's Court Judicial Interpretations. Of particular concern are guidelines for punitive damage awards and whether—for purposes of granting punitive damages—constructive knowledge can be imputed to a manufacturer or seller based on press reports, searchable information available on the Internet, or other public sources.

Mandatory product recalls in private tort actions?

Before the introduction of the Tort Law, product recall rules and regulations were generally confined to industry- or sector-specific enactments such as the Food Safety Law and the Administrative Measures on Defective Auto-Product Recalls. The Food Safety Law requires recalls when

the product in question fails to meet food-safety standards—for example, when it exceeds permissible limits on pathogenic microorganisms or fails to meet requirements on the types, scope of use, and amount of food additives.

Unlike these previous rules and regulations, the Tort Law is phrased in an open-ended fashion and therefore applies to a wide range of products. Under Article 45, injured parties have the right to require the producer or seller to eliminate the danger or remove impediments where defects in the product endanger the safety of persons or property. The wording of Article 45 also suggests that any party whose rights have been infringed—regardless of the injury actually sustained—may demand that a manufacturer or seller eliminate the hazard. The plaintiff could therefore ask the court to mandate a product recall that is much more expensive than the compensation payable to the plaintiff. Even if courts, without further judicial guidance, are reluctant to order product recalls instead of less expensive remedies such as safety warnings, the threat of punitive damages under Article 47 may provide sufficient motivation to recall defective products.

What companies can do

Provisions in the Tort Law that relate to product liability will likely benefit consumers. They will also likely increase the costs of conducting business, especially for multinational companies, which tend to be scrutinized more closely when a product defect is identified. By clarifying that an injured party may seek damages from either the producer or seller of a defective product, the Tort Law makes it more important than ever for companies to not only maintain effective quality-control systems, but also ensure that upstream and downstream business partners have equally effective systems in place. At the most basic level, manufacturers should aim to establish an effective quality-control system and a product-recall plan. These measures should enable manufacturers to identify potential issues before they become liabilities and take appropriate preemptive action when necessary.

Though the PRC Contract Law generally permits contracting parties to allocate risk among themselves, mandatory provisions in laws and administrative regulations invalidate contract provisions that violate those mandatory provisions. Thus, general liability waivers may offer inadequate protection if they are at odds with mandatory provisions of the Tort Law. Companies should therefore revisit their contract-based waivers and liability-shifting mechanisms. Companies may find it prudent to incorporate into their contracts provisions on emergency recall measures and information management processes that allow for open communication channels with all parties in the product distribution chain. Companies, particularly those that may not have product liability insurance, should pay special attention to their insurance coverage, which may need to be expanded to protect against new liabilities under the Tort Law.

The Tort Law makes it more important than ever for companies to not only maintain effective quality-control systems, but also ensure that upstream and downstream business partners have equally effective systems.

More details on the way

The Tort Law is a significant step forward for China's product liability legal framework in that it clearly articulates basic legal concepts that would be considered fundamental in mature legal jurisdictions, such as the United States, but which may be poorly understood by PRC courts. Among these are rules that govern punitive damages and product recalls. In addition, propelled by great changes and tensions in Chinese society brought about by rapid economic development, the Tort Law may reflect a significant expansion of the scope of individual rights protected under PRC law. But the effectiveness of the law will remain subject to the realities of access to the courts, procedural rights, and implementation of remedies through the PRC legal system, which remains a work in progress. Key tests for the new law and the integrity of the courts include cases in which private individuals without financial resources or government connections take action against powerful state-owned enterprises or in which a large award could bankrupt a defendant company that is a significant employer.

Given the general nature of the Tort Law and the breadth of issues that it covers, China will likely issue further guidance to fill in the details and guide calculations of damages awards before the law takes effect July 1. Meanwhile, companies active in the China market should implement effective quality-control systems, develop product-recall plans, review their current contracts and relationships with business partners, and revisit insurance policies and other risk-management measures. 完

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Dow Chemical Co.

The PRC government has recognized Dow's site in Zhangjiagang, Jiangsu, as an environmentally friendly enterprise.

Dow Chemical: Environmental Practices in China

The Dow Chemical Co. first entered China in the 1930s. To date, it has invested $900 million in Greater China, which covers mainland China, Hong Kong, and Taiwan. Dow's 2009 revenue in Greater China was $3.7 billion, and the region is now Dow's second-largest market after the United States.

Dow operates 5 business centers and 20 manufacturing sites across Greater China with 3,900 employees total. On the mainland, it has a regional headquarters in Shanghai, business centers in Beijing; Guangzhou, Guangdong; and Shanghai, and manufacturing sites in Beijing; Huzhou, Zhejiang; Nantong and Zhangjiagang, Jiangsu; Shanghai; Weihai, Shandong; Wuhan, Hubei; and Zhongshan, Sanshui, and Dongguan, Guangdong. It also has research and development (R&D) facilities in Ningbo, Zhejiang; Shanghai; and Zhongshan.

Dow Chemical delivers a broad range of products and services to customers in more than 160 countries and aims to connect chemistry and innovation with the principles of sustainability. The company provides chemical, plastic, and agricultural products as well as advanced materials and solutions in electronics, coating, water purification, and building insulation in China. Dow Technical Licensing also serves the China market by developing and licensing proprietary technologies and providing licensing services for the petrochemical industry.

***Andrew N. Liveris**, chairman and chief executive officer of Dow and chair of the US-China Business Council's board of directors, recently discussed the company's China operations and its environmental initiatives there with* CBR *Assistant Editor Julia Zhao. (The US-China Business Council is the publisher of the* CBR.)

In what ways have environmental issues evolved since Dow established its first office in China in 1979, and how has the company adapted to these changes?

We have witnessed several important and positive changes over the three decades that we have been engaged in trade and business in China. Chief among those changes is a widespread realization—across business, government, industry, and society as a whole—that cooperating and collaborating together to improve our collective environmental footprint is good for all of us. I have been pleased that awareness about the importance of reducing greenhouse gases in China has dramatically increased, for example, and that it has embraced principles such as sustainability and sustainable growth as core values of the domestic agenda and corporate strategies. In major cities—such as Beijing, Guangzhou, and Shanghai—sustainability has even become a popular lifestyle choice among the younger generation.

Andrew N. Liveris

China's growing commitment to sustainability coincides with Dow's own philosophy. We have implemented rigorous sustainability goals, which benefit our bottom line and the environment. Between 1995 and 2005, Dow invested $1 billion to improve our energy efficiency—reducing our emissions below Kyoto targets and, most important, returning $5 billion in cost savings and energy improvements. Through the end of 2009, that savings reached $8.6 billion. These results encourage other companies to commit to improving their operations in similar ways.

We brought our 2015 sustainability goals and best practices to China and have been extremely pleased at the reception they received. In the past three decades, Dow has increased our local participation from a business partner to a solutions provider and leader in the area of sustainability.

What are the biggest environment-related challenges that foreign companies face in China? What strategies does Dow use to manage these issues?

Foreign companies face the same challenges as domestic companies in China: How can we improve what we do? How can we create sustainable solutions to the world's challenges while developing and growing our business? We understand that we have only one planet and limited resources. Living like we have been simply is not an option.

The answer is two-fold. We are constantly improving our own manufacturing practices by implementing state of the art practices and technologies, with a view toward achieving a better, more sustainable footprint. But just as important, we also view every environmental issue as an opportunity to do what we do best, which is to harness our deep reservoir of science and chemistry to develop real, tangible, and practical solutions to environmental problems.

We have engaged in several successful partnerships in China that have yielded fruitful results. We are partnering with the Ministry of Environmental Protection (MEP) [and partnered with its predecessor the State Environmental Protection Administration (SEPA)], the Ministry of Health, and the Ministry of Housing and Urban-Rural Development [formerly the Ministry of Construction] to help elevate China's capabilities in managing sustainability challenges. Dow's partnership with the United Nations Environmental Program (UNEP) and MEP is a good example of how we are promoting safer production, chemical safety, and emergency preparedness in China's chemical sector. Since establishing the partnership in September 2008, Dow has committed $580,000 for the two-year project and has developed training materials for the chemical industry. We also hosted the community-based pilot project from our Zhangjiagang site in China and a Chinese delegation at our Freeport, Texas, site in February 2010 as part of this collaboration.

In addition, Dow and SEPA launched a project in 2005 to promote and streamline cleaner production practices in small and medium-sized enterprises in chemical and related industries. Dow delivered its "best practice" training course as well as ¥8 million ($1.2 million) to the project. This partnership lasted until April 2009 and has already yielded returns of ¥93 million ($13.3 million) for 68 enterprises that participated in the program and implemented improved clean production practices that helped save water and energy, as well as reduce waste and emissions.

Dow also has a multiyear partnership with the PRC State Administration of Work Safety to promote safe production in Chinese chemical enterprises, including by increasing safety awareness and promoting safety standardization—areas of significant strength for Dow.

Achieving environmental sustainability will require the development of new and innovative products and processes. What is Dow doing in these areas in China?

This is truly an exciting area for Dow. Our company is applying our global technologies to solve local challenges in China. Dow Building Solutions Styrofoam insulation board, for example, reduces the energy footprint of the Chinese construction industry. Omex, a key business within Dow Water & Process Solutions, applies our combined talent and technology to solving China's water challenges.

Terminal 3 of the Beijing Capital International Airport uses Dow's water purification technology and systems. Dow's water treatment projects greatly increased the reutilization rate of water at the 2008 Beijing Olympics, and the Athletes Village in the Beijing Olympics Park used Dow's styrofoam insulation board. These and other Dow products and systems are also being used in earthquake reconstruction efforts in Sichuan, helping increase the amount of high-quality and sustainable construction there. Using opportunities like these makes good business sense, and it makes good environmental sense too. It enables customer success, improves efficiency, lowers operating costs, positions us for growth, and creates green jobs.

Dow also collaborates with Peking University, which houses our Sustainability Student Innovation Challenge Award. This award fosters interdisciplinary collaboration within Peking University to harness the best ideas and innovations that address world challenges. Organizing and elevating the best talent around the world to bring attention to environmental challenges is another example of the collaboration it will take to accelerate progress.

R&D is key to Dow's innovative efforts. Our new R&D center in Shanghai plays a critical role in leveraging the talent and innovative spirit of our Chinese scientists and engineers to develop new approaches to address our planet's most significant challenges. The center is just one way we can harness the interests of the young Chinese who are pursuing science and engineering futures.

Why did Dow decide to create the new Shanghai Dow Center that opened in 2009? What does the company hope to achieve through this center?

The Shanghai center brings our corporate R&D expertise and our growing market-focused application development capabilities together under one roof. It is also a key hub in the integrated research network that harnesses the innovation and creativity of our people around the world. Powered by 700 leading scientists and engineers working in over 80 integrated laboratories, these capabilities enable us to address the needs of our local customers, while drawing upon and contributing to Dow's proven global expertise. In Shanghai, our R&D team is developing innovative solutions for many markets vital to human progress. We make buildings more energy efficient, improve the comfort and fuel consumption of automobiles, ensure access to clean water, and contribute to the newest breakthroughs in electronics and appliances. From construction and transportation to water, electronics, and personal care, the product development activities in our Shanghai Dow Center are improving people's lives in the region and around the world.

Dow has high expectations for our Shanghai Dow Center. It is an R&D hub in China, for China and for the world. First, we hope it will help us adapt our 114-year history of global technologies and practices to domestic use in China. Ultimately, this center will help Dow complete its transformation to a high-performance science and technology company. To achieve this goal, we must invest in innovation and emerging markets.

The Shanghai Dow Center provides closer access to our customers in the Asia Pacific, bringing our best-in-class technology to this market and further developing local talent. The facility's Customer Innovation Center also ushers in an era of new collaboration, where Dow combines forces with customers to create new breakthrough solutions for China and the rest of the world. On January 22, 2010, Dow won the "2009 Haier Best Strategic Supplier Award," demonstrating Dow's commitment to leading-edge technology and innovative solutions. It also showcases how the company connects its broad R&D and business expertise with customers' needs and knowledge to enable Dow's customers to provide the consumer market with more high-quality products.

Dow's sustainability goals for 2015 include commitments to energy efficiency, clean water, and addressing climate change. What steps will the company take to meet these commitments in China?

Though Dow's sustainability goals are global, the way we implement them makes a huge impact on the local communities where we do business. Each Dow site in China has its own goals that are tied directly to our 2015 global road map. We look for ways to contribute to community success while adhering to the principles of sustainability. For example, in September 2008, Dow cooperated with the local government to plant elm trees around our production facilities in Yulin Sandlot Forestry Scientific & Industrial Park. To ensure that the trees survive, we used saplings best suited to the local climate and advanced forestry technology such as infiltrative membrane and water-saving drip irrigation.

Another great partnership worth highlighting is our collaboration with the Chinese Energy Research Institute (ERI) and Lawrence Berkeley National Laboratory (LBNL). The project allows leading companies like Dow to share their best practices with Chinese peer companies interested in improving their energy efficiencies. This is a long process, but we are committed to China and have chosen to invest strategically in our key partnerships there.

A major accomplishment to date has been the development and initial release of a state-of-the-art benchmarking and evaluation tool developed for China's cement industry to identify energy-efficient technologies and measures that will help achieve national energy-efficiency goals. It was developed by LBNL and ERI in collaboration with the China Building Materials Association, China Cement Association, and others.

Dow is an official sponsor of the USA Pavilion at the 2010 Shanghai World Expo. How does this fit in with the company's strategy to promote sustainable development?

The USA Pavilion is built upon a theme of sustainability and innovation, and we are honored to play a key role by providing building insulation, carpet, and wall-coating technologies. We look forward to promoting the spirit of the expo by bringing together the best and the brightest to work cooperatively on the world's challenges. Visitors to the pavilion can see how Dow's products reduced the pavilion's energy footprint.

You are just wrapping up two years as chair of the board of the US-China Business Council (USCBC). As chair, you have led several USCBC board delegations to China, where you have met with some of the country's top leaders. What is your impression of US-China commercial relations today, and what can we expect in 2010?

The commercial relationship between China and the United States is closely integrated across a multitude of fronts—from trade and finance to environment and energy issues. This mutually beneficial relationship is not new but is becoming increasingly complex. I am heartened that political leaders from both sides recognize this and are trying very hard to keep in place a balanced, cohesive, and positive approach to what are some difficult issues.

In 2010, we can expect pressures from both sides to maintain this open and candid dialogue. I urge everyone involved to do so—the US-China relationship is the defining relationship of this century. 完

TECHNOLOGY TRANSFER

Transferring Technology to Transform China—Is It Worth It?

Continued from page 23

First, companies must understand the PRC government's short-term priorities and long-term industry goals. Government priorities can be a double-edged sword: They create business opportunities for foreign companies, especially in areas where China lacks desired technology, but also flag areas where China hopes to develop its own national champions. China's government has a proven track record of meeting its long-term objectives, and companies must bear this in mind as they develop their own business plans and strategic objectives.

Second, foreign companies should begin with a thorough evaluation of the long-term risks and opportunities that technology transfer could pose to their business. This includes possible theft of intellectual property and emergent domestic competition. Many companies have sought to comply with such policies by offering skills training and capacity building that supplement rather than compete with their core competencies. Such tech-transfer arrangements meet the demands of the PRC government while building, rather than reducing, market opportunities. But in industries where the government is the primary customer, including rail and energy infrastructure, government decisionmakers may consider such secondary tech-transfer plans inadequate. Companies operating in those industries are left with few options other than continual innovation to stay one step ahead of Chinese capabilities. For foreign companies confident that they can innovate more rapidly than their Chinese partners, a strategic alliance with a Chinese company may be a viable option.

Lastly, companies should let the PRC government know that its current policies do not create a sustainable model for innovation. Technology transfer may address China's short-term gaps, but until China creates the right business environment for innovation, its high-tech industries will lag behind those of developed countries. Expanding special protections for domestic companies might appear to be an attractive option for Beijing, but such policies will only disadvantage China in the long term.

Conveying such views while protecting one's commercial interests is no simple matter, but it is possible. Industry coalitions provide a degree of protective cover and underscore that a specific concern is widely felt. Companies can also work via the US government. A recent example is the letter sent by 19 business associations to five US cabinet members on China's indigenous innovation policies on January 26, 2010. Making the US government aware of the business community's views is an essential first step if US government officials are to make effective use of existing bilateral channels, such as the Strategic and Economic Dialogue and the Joint Commission on Commerce and Trade. 完

Kenneth Jarrett *(kjarrett@apcoworldwide.com) is vice chair of APCO Worldwide Inc.'s greater China region and is based in Shanghai.* ***Amy Wendholt*** *(awendholt@apcoworldwide.com) is associate director in APCO Worldwide's Beijing office.*

China Deals

Sales and Investment

January 2010

The following listings contain information from 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*. 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 (publications@uschina.org). *CBR* subscribers with online access and members of the US-China Business Council can access complete China Deal Database listings from 2000 to present at www.chinabusinessreview.com.

Compiled by Aliza Bach

Automotive

INVESTMENTS IN CHINA

Michelin Shenyang Tire Co., Ltd., a subsidiary of the Michelin Group (France)
Will build tire plant in Shenyang, Liaoning. $1.5 billion.

Aviation/Aerospace

CHINA'S EXPORTS

Commercial Aircraft Corp. of China, Ltd. (Shanghai)
Signed contract to sell two ARJ21-700 aircraft to Lao Airlines.

Harbin Hafei Airbus Composite Manufacturing Center Co., Ltd., a JV between Airbus China, a subsidiary of Airbus SAS (France), Harbin Aircraft Industry Group Corp. Ltd., Hafei Aviation Industry Co. Ltd., AviChina Industry & Technology Co. Ltd., and Harbin Development Zone Infrastructure Development Co. Ltd. (Heilongjiang)
Signed contract to become the sole supplier of A350 XWB elevators to Spain-based Aernnova Aerospace SA.

INVESTMENTS IN CHINA

MTU Aero Engines Holding AG (Germany)/Commercial Aircraft Engine Co., a subsidiary of AVIC (Beijing)
Signed MOU to research and develop jumbo-jet engines in China.

OTHER

Airbus SAS, a subsidiary of the European Aeronautic Defence and Space Co. NV (France)/CDB Leasing Co., Ltd. (CLC), a subsidiary of CDB (Beijing)
Signed MOU for CLC to provide aircraft delivery financing solutions to global airlines in exchange for Airbus aircraft. $4 billion.

Government of the Philippines/ Guangxi Zhuang Autonomous Region Government
Signed MOU to establish sister agreement and open direct flights from Guilin and Nanning, Guangxi, to Cebu.

Waterfront Air Ltd. (Hong Kong)/ Shenzhen Airport Ferry Terminal Services Co. Ltd. (Guangdong)
Signed MOU to operate seaplane services from Shenzhen's airport ferry pier to destinations in the Greater Pearl River Delta.

Banking & Finance

CHINA'S INVESTMENTS ABROAD

Government of Ecuador/The Export-Import Bank of China (Beijing)
Signed MOU for China to underwrite 85% of the construction of Coca-Codo-Sinclaire hydroelectric dam in Ecuador. $2 billion.

INVESTMENTS IN CHINA

MoneyGram International (US)
Will offer money-transfer services in 10,000 BOC branches.

NTT Data Corp. (Japan)/Yucheng Technologies Ltd. (Beijing)
Will form JV to develop Yucheng's E-Banking Application Service Provider for the China market. (Japan:51%-PRC:49%).

The Carlyle Group, LLC (US)/ Beijing Municipal Government
Signed MOU to create RMB-denominated fund that will allow Carlyle to make RMB investments in China.

OTHER

Government of Hong Kong SAR/ Shanghai Municipal Government
Signed MOU to jointly develop and cooperate on financial services.

Government of Malta/ Government of the PRC
Signed MOU to enhance exchange and cooperation on securities regulation and financial services.

Chemicals, Petrochemicals & Related Equipment

INVESTMENTS IN CHINA

INEOS Group Ltd. (UK)/Sinopec (Beijing)
Signed letter of intent to form JV to build and operate a phenol, acetone, and cumene production facility in Nanjing, Jiangsu.

Lummus Technology, a wholly owned subsidiary of Chicago Bridge & Iron Co. NV (the Netherlands)
Won contract from Jilin Petrochemical Co., a subsidiary of Beijing-based Petrochina, for the license and process design of a styrene monomer chemical plant in Jilin with annual capacity of 320,000 metric tons.

Abbreviations used throughout text: 3G: third generation; ABC: Agricultural Bank of China; ADB: Asian Development Bank; ASEAN: Association of Southeast Asian Nations; ATM: automated teller machine; AVIC I and II: China Aviation Industry Corp. I and II; BOC: Bank of China; CAAC: Civil Aviation Administration of China; CATV: cable television; CBRC: China Banking Regulatory Commision; 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 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; GPS: global positioning system: ICBC: Industrial and Commercial Bank of China; IP: Internet protocol; IT: information technology; JV: joint venture; LCD: liquid crystal display; LNG: liquefied natural gas; LOI: Letter of intent; MIIT: Ministry of Industry and Information Technology; MOFCOM: Ministry of Commerce; MOU: memorandum of understanding; NA: not available; NDRC: National Development and Reform Commission; NORINCO: China North Industries Corp.; PV: photovoltaic; PAS: personal access system; PBOC: People's Bank of China; PetroChina: PetroChina Co., Ltd.; RMB: renminbi; R&D: research and development; SARFT: State Administration of Radio, Film, and Television; SASAC: State Assets Supervision and Administration Commission; SEZ: special economic zone; Sinopec: China Petroleum & Chemical Corp.; SINOTRANS: China National Foreign Trade Transportation Corp.; UNDP: United Nations Development Program; SME: small and medium-sized enterprise; Wi-Fi: wireless fidelity; WFOE: wholly foreign-owned enterprise.

China Deals

Distribution, Logistics & Related Services

INVESTMENTS IN CHINA

Grand Power Logistics Development Co. Ltd., a subsidiary of Grand Power Logistics Group Inc. (Canada)/ Shengsi County Government (Zhejiang)
Signed MOU to jointly develop Yangshan International Container Transit Logistics Park in Zhejiang.

Education

OTHER

College of Human Medicine, Michigan State University (US)/ Zhejiang University
Signed agreement to encourage faculty and student exchange and to collaborate on research.

Electronics, Hardware & Software

CHINA'S EXPORTS

Government of Yemen/ Government of the PRC
Signed MOU for China to supply television and computer equipment to Yemen.

INVESTMENTS IN CHINA

Octopus China Investments Ltd., a wholly owned subsidiary of Octopus Holdings Ltd. (Hong Kong)/Digital China Software Ltd., a subsidiary of Digital China Holdings Ltd. (Beijing)
Will create JV, Digital China Octopus Holdings Ltd., to develop application systems for multifunctional smart cards that could be used for identification, data storage, and payments in China. (Hong Kong:51%-PRC:49%). $17.6 million.

Yuan Shan Shi Dai Technology Development Co., a wholly owned subsidiary of China Wi-Max Communications, Inc. (US)
Will buy 150 km of fiber-optic lines in Shanghai.

OTHER

Copperhead Industries, LLC (US)/ Fushi Copperweld, Inc. (Liaoning)
Signed five-year agreement that gives Copperhead exclusive rights to purchase, promote, and sell Fushi Copperweld's wire products in the United States and Canada.

Energy & Electric Power

OTHER

League of Arab States/ Government of the PRC
Signed MOU to cooperate on petroleum, natural gas, electrical power, renewable energy, and nuclear energy development.

Environmental Equipment & Technology

CHINA'S EXPORTS

CNPV Dongying Photovoltaic Power Co. Ltd. (Shandong)
Will supply Belgium-based Futech BvBa with 60 MW of PV modules from 2010-12.

CNPV Dongying Photovoltaic Power Co. Ltd. (Shandong)
Will supply Germany-based Galip Solar GmbH with 60 MW of PV modules from 2010-12.

CNPV Dongying Photovoltaic Power Co. Ltd. (Shandong)
Will supply Switzerland-based Edisun Power Europe AG with 60 MW of PV modules from 2010-12.

COU Solar, a subsidiary of Oneworld Energy Inc. (Canada)/ LDK Solar Co., Ltd. (Jiangxi)
Signed contract for LDK Solar to supply 30 MW of solar modules to COU Solar in 2010.

CHINA'S INVESTMENTS ABROAD

TM Montante Development LLC (US)/Shanghai New Energy Industry Association
Signed MOU to use Chinese renewable energy technology at the Riverview Solar Technology Park in New York.

INVESTMENTS IN CHINA

Esolar Inc. (US)/China Shaanxi Yulin Huayang New Energy Co., China Shandong Penglai Electric Power Equipment Manufacturing Co.
Signed agreement to transfer technology and manage construction of solar thermal power plants with total capacity of 2,000 MW in China.

Keppel Seghers Belgium NV, a subsidiary of Keppel Corp. Ltd. (Singapore)
Won contract from Beijing-based China Energy Conservation Investment Corp. to build waste-to-energy plant to treat 1,800 tons of waste per day in Chengdu, Sichuan.

Keppel Seghers Belgium NV, a subsidiary of Keppel Corp. Ltd. (Singapore)
Won contract from Guangdong-based Shenzhen Energy Environmental Engineering Co. Ltd. to expand capacity of existing waste-to-energy solution plant in Guangdong from 1,200 to 4,200 metric tons of waste per day.

OTHER

Business Institute of Sustainable Development, Korea Chamber of Commerce and Industry (South Korea)/All-China Federation of Industry and Commerce (Beijing)
Signed MOU to create R&D and human-capital platforms related to renewable energy and to exchange information with both countries' governments.

Keppel Corp. Ltd. (Singapore)/ Shenzhen Energy Group Co. Ltd. (Guangdong)
Signed MOU to explore strategic partnerships related to environmental protection.

Food & Food Processing

CHINA'S IMPORTS

American Lorain Corp. (US)
Will supply chestnut and snack food products to Shanghai Jiadeli Supermarket Group.

American Lorain Corp. (US)
Will supply Sweetheart Chestnut candies and chestnut kernels to Hong Kong-based AS Watson Group's stores in China.

Internet/E-Commerce

CHINA'S IMPORTS

Dell Inc. (US)/Beijing Infobird Software Co., Ltd.
Signed MOU to provide cloud computing-based Internet communication platform services in China.

INVESTMENTS IN CHINA

Rakuten, Inc. (Japan)/ Baidu.com, Inc. (Beijing)
Will jointly develop online shopping mall in China over three years. (Japan:51%-PRC:49%). $50 million.

OTHER

Institute for a Broadband-Enabled Society, University of Melbourne (Australia)/Huawei Technologies Australia, a wholly owned subsidiary of Huawei Technologies Co., Ltd. (Guangdong)
Signed MOU to collaborate on research in broadband technologies, services, and applications in Victoria, Australia.

Media, Publishing & Entertainment

INVESTMENTS IN CHINA

Aegis Group plc (UK)
Will buy 17.7% stake in Beijing-based Charm Communications Inc.

OTHER

Aegis Group plc (UK)/Charm Communications Inc. (Beijing)
Will create JV, Vizeum China, to give China access to Aegis' media networks.

Medical Equipment & Devices

INVESTMENTS IN CHINA

BioMerieux SA (France)
Acquired Meikang Biotech (Shanghai) Co., Ltd.

Essilor International SA (France)
Acquired Jiangsu-based Danyang ILT Optics Co., Ltd.

QIAGEN NV (the Netherlands)
Will use the Shanghai laboratory of WuXi AppTec Co., Ltd., a subsidiary of WuXi PharmaTech (Cayman) Inc., to develop molecular biomarkers and other products.

Metals, Minerals & Mining

CHINA'S IMPORTS

KGHM Polska Miedz SA (Poland)/China Minmetals Nonferrous Metals Co., Ltd., a wholly owned subsidiary of China Minmetals Corp. (Beijing)
Signed agreement for KGHM to sell 40,000 metric tons of copper cathodes to China Minmetals in 2010 as part of an existing five-year agreement. $400 million.

CHINA'S INVESTMENTS ABROAD

Bauxite Resources Ltd. (Australia)/Yankuan Group Co. Ltd. (Yunnan)
Signed MOU to jointly develop alumina refinery in Western Australia. (Australia:50%-PRC:50%).

Government of Malaysia/China State Grid Corp. (Beijing)
Signed deal to jointly construct two large projects in Borneo, Malaysia.

Yanzhou Coal Mining Co. Ltd. (Shandong)
Acquired Australia-based Felix Resources Ltd. $3 billion.

INVESTMENTS IN CHINA

Korea Development Bank (South Korea)/Government of the PRC
Signed contract to jointly set up private equity fund to invest in high-tech coal mines in Heilongjiang. (South Korea:50%-PRC:50%). $106.8 million.

OTHER

KGHM Polska Miedz SA (Poland)/ENN Group Co., Ltd. (Hebei)
Signed MOU on coal gasification.

Packaging & Labeling

INVESTMENTS IN CHINA

Uni Core Holdings Corp. (Hong Kong)
Will acquire Guangdong-based APT Paper Group.

Petroleum, Natural Gas & Related Equipment

CHINA'S INVESTMENTS ABROAD

Shaanxi Yanchang Petroleum (Group) Co., Ltd.
Will acquire 15% stake in Hong Kong-based Sino Union Energy Investment Group Ltd.

Total Exploration and Production Co., South Oil Co. (Iraq), Petroliam Nasional Berhad (Malaysia)/Petrochina (Beijing)
Won contract to jointly own and operate Iraq's Halfaya Oilfield for 20 years. (Iraq:43.75%-Malaysia:18.75%-PRC:37.5%).

Pharmaceuticals

INVESTMENTS IN CHINA

Burdica Biomed Ltd. (UK)
Will outsource PRC regulatory compliance process and distribution of its products to Beijing-based China National Pharmaceutical Group Corp.

Ports & Shipping

OTHER

Deutsche Post DHL (Germany)
Launched direct shipping services from Shanghai to Buenos Aires, Argentina, and Valparaiso, Chile.

Rail

CHINA'S IMPORTS

Siemens AG (Germany)
Won contract to supply Jiangsu-based Nanjing SR Puzhen Rail Transport Co., Ltd. with train components for a 2,000 km track in the Pearl River Delta. $634 million.

CHINA'S INVESTMENTS ABROAD

Ethiopian Railway Corp., Overseas Investment Alliance (India)/China Communication Construction Co. Ltd., China Railway Group Ltd. (Beijing)
Signed MOU to launch study for construction of a new railway line between Ethiopia and Djibouti.

Retail/Wholesale

OTHER

Korea Trade-Investment Promotion Agency (South Korea)/Alibaba.com Ltd. (Zhejiang)
Signed MOU for Alibaba.com to open an exclusive section of its online store for Korean goods.

Telecommunications

CHINA'S EXPORTS

Huawei Technologies Co., Ltd. (Guangdong)
Won contract from Oman Telecommunications Co. to extend Oman's telecom coverage. $26 million.

CHINA'S IMPORTS

Nokia Siemens Networks BV (Finland)
Will provide TD-SCDMA radio and core network platforms and related services to improve Beijing Mobile Communications Co.'s 3G coverage.

CHINA'S INVESTMENTS ABROAD

Tinet Srl (Italy)/China Telecom (Europe) Ltd., a subsidiary of China Telecom (Beijing)
Will provide international ethernet private-line service to customers in metropolitan cities worldwide.

INVESTMENTS IN CHINA

SK C&C Co., Ltd. (South Korea)/Heilongjiang Provincial Government
Will create joint IT service business in Heilongjiang.

OTHER

Deutsche Telekom AG, T-Mobile Deutschland GmbH (Germany)/Huawei Technologies Deutschland GmbH, a subsidiary of Huawei Co. Ltd. (Guangdong)
Signed MOU to jointly develop and market mobile machine communication technologies.

Green Packet Berhad (Malaysia)/ZTE Corp. (Guangdong)
Signed agreement for ZTE to provide vendor financing package to support Green Packet's WiMax networks in Malaysia, Singapore, and other markets.

Orange Brand Services Ltd., a member of France Telecom Group/BesTV, a JV between Shanghai Media Group and Tsing Hua Tong Fang Corp. (Beijing)
Signed agreement to cooperate on research, new media, and investment projects and to broadcast Shanghai World Expo 2010 content.

Textiles & Apparel

CHINA'S IMPORTS

Fulida Group Holding Co., Ltd. (Zhejiang)
Agreed to buy minority stake in Canada-based Neucel Specialty Cellulose Ltd. and entered a long-term supply agreement to buy Neucel's chemical cellulose products.

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China Issues New Rules Governing Representative Offices

The PRC government recently announced new rules and policy changes that affect the registration and operation of foreign representative (rep) offices in China. The new rules, issued jointly by the State Administration of Industry and Commerce (SAIC) and the Ministry of Public Security, could significantly affect how foreign companies structure their rep offices in China and may create human resources challenges for existing rep offices.

Staffing restrictions

Released on January 4 and effective immediately, the Notice on Strengthening the Administration of Foreign Enterprise Representative Office Registration changes a few requirements for rep offices in China. The new notice states that rep offices may employ up to four foreign representatives, including the chief representative. Previously, there were no limits on foreign representatives. The notice does not clarify whether rep offices that currently employ more than four foreign employees must reduce the number. Anecdotal reports, however, suggest that rep offices may not have to cut foreign employees immediately. But if a rep office that has more than four representatives releases one of its representatives and wants to recruit a replacement, it will likely be unable to do so.

The notice also requires that the overseas headquarters be established in its home market for at least two years before setting up a rep office in China. (There were no minimum time requirements under the old rules.) In addition, the notice reduces the validity periods of rep office registration certificates from three years to one year.

Greater administrative hurdles?

Previously, rep office licenses were valid for up to three years. The new rules require rep offices to renew their registration certificates annually, which places added cost and administrative burdens on companies. Existing SAIC regulations require rep offices to produce attested incorporation documents that verify their overseas headquarters' existence each time these offices apply to renew their registration certificates in China. These documents must also be notarized by the PRC embassy or consulate general that has authority over the headquarters' jurisdiction of incorporation. In addition, the financial institution that handles the headquarters' corporate banking in the company's home country must submit a statement that confirms the company's financial soundness. All of these documents must be translated into written Chinese by a SAIC-appointed translation company before they are submitted to a local administration of industry and commerce (AIC) branch.

According to the new notice, SAIC will honor all registration certificates (even those whose validity periods exceed one year) that were issued prior to the notice's January release. Subsequent registration certificate renewals will be valid for only one year.

The new rules require rep offices to renew their registration certificates annually, which places added cost and administrative burdens on companies.

Increased scrutiny

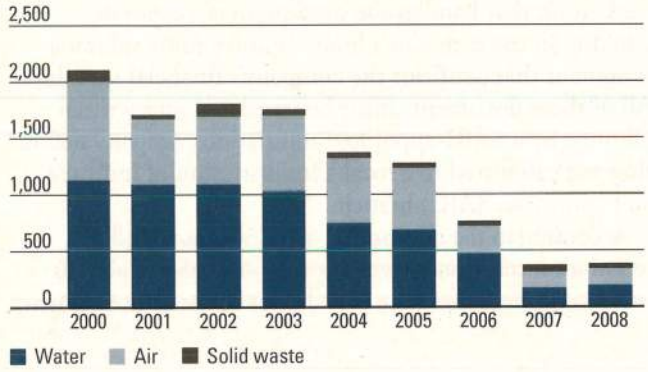
Current SAIC regulations forbid rep offices to conduct profit-making business activities, such as sales, in China and generally limit them to conducting market research and sourcing functions and facilitating market entry on behalf of their corporate headquarters. To ensure compliance, the new notice authorizes AICs to inspect rep offices within three months of receiving their registration certificates. If AIC inspections discover that a rep office has engaged in direct business operations outside the scope of PRC law, the office may be subject to administrative fines. Moreover, if an AIC finds that a rep office has moved without updating its registered business address or has not followed the legal requirements governing rep office registration, its transgression may be placed into the "enterprise credit classification and supervision system," which SAIC created in 2003 to track the credit information of enterprises across China. 完

This article is adapted from a report that first appeared in China Market Intelligence, *the US-China Business Council's (USCBC) members-only newsletter. To find out more about USCBC member company benefits, see www.uschina.org/benefits.html.*

China Attempts to Reduce

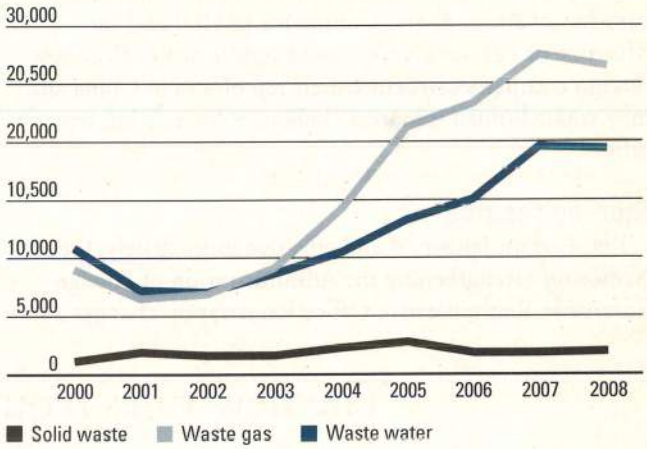
From 2000 to 2008, the reported number of accidents causing water and air pollution has steadily fallen.

Environmental Pollution Accidents by Type, 2000–08



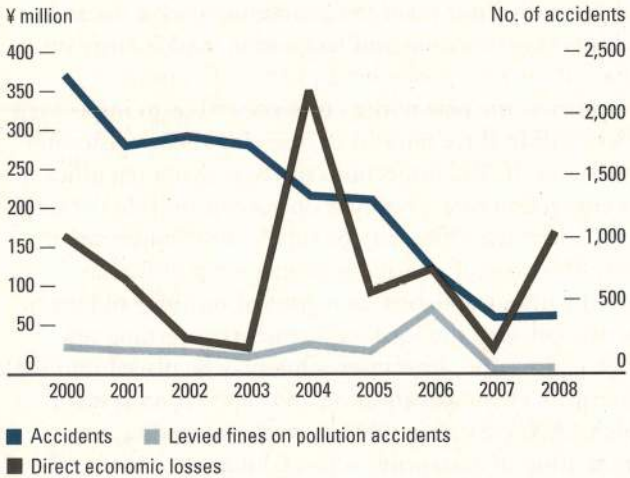
The amount spent on the treatment of emissions nearly tripled between 2000 and 2008.

Investment in Treatment of Industrial Pollution, 2000–08 (¥ million)



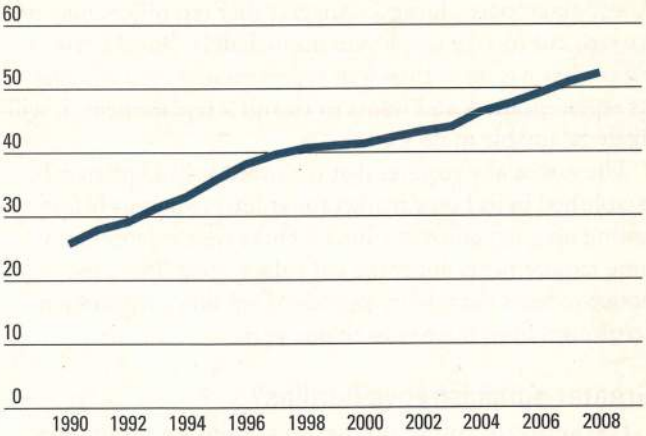
Despite a decrease in the number of accidents, economic losses from pollution accidents remain high.

Economic Costs of Pollution Accidents, 2000–08



Chemical fertilizer use has nearly doubled since 1990, contributing to water and soil pollution.

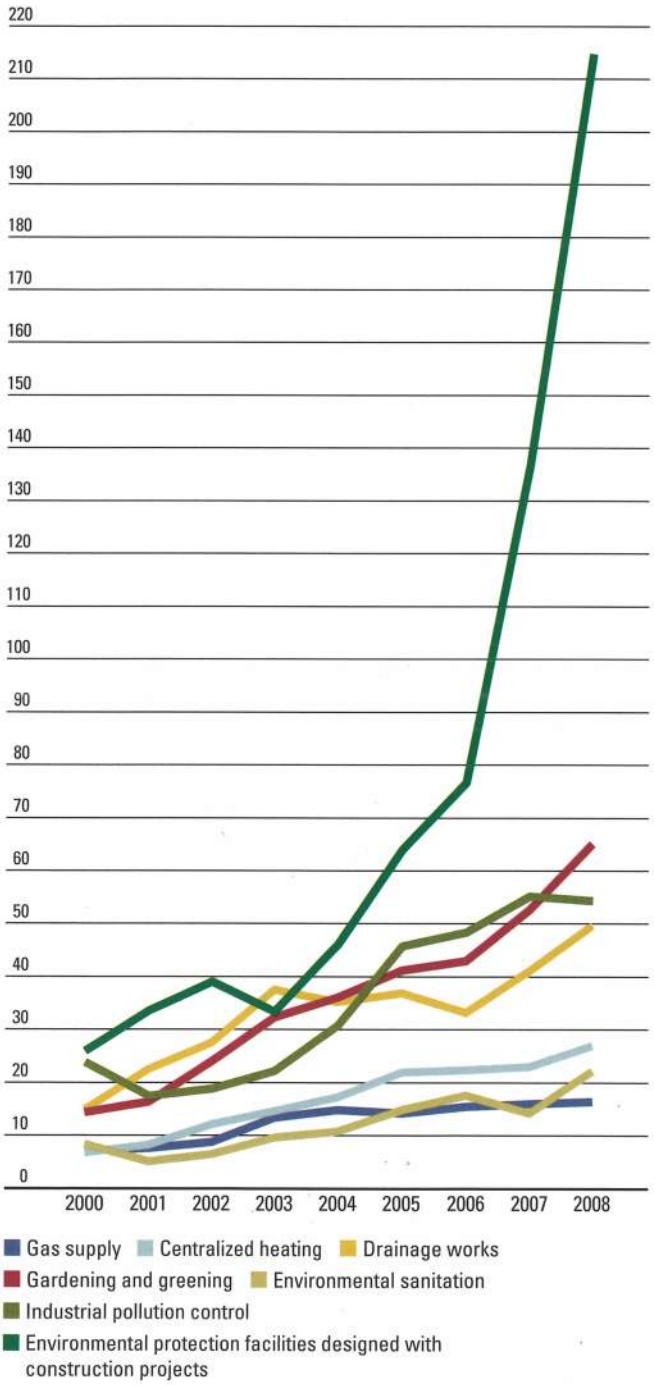
Chemical Fertilizer Use, 1990–2008 (million tons)



Environmental Pollution

Investment in pollution control quadrupled between 2000 and 2008, with a notable focus on construction projects.

Investment in Pollution Control, 2000–08 (¥ billion)



Air quality in most of China's major cities has improved over the last five years.

Ambient Air Quality in Major Cities, 2003, 2008

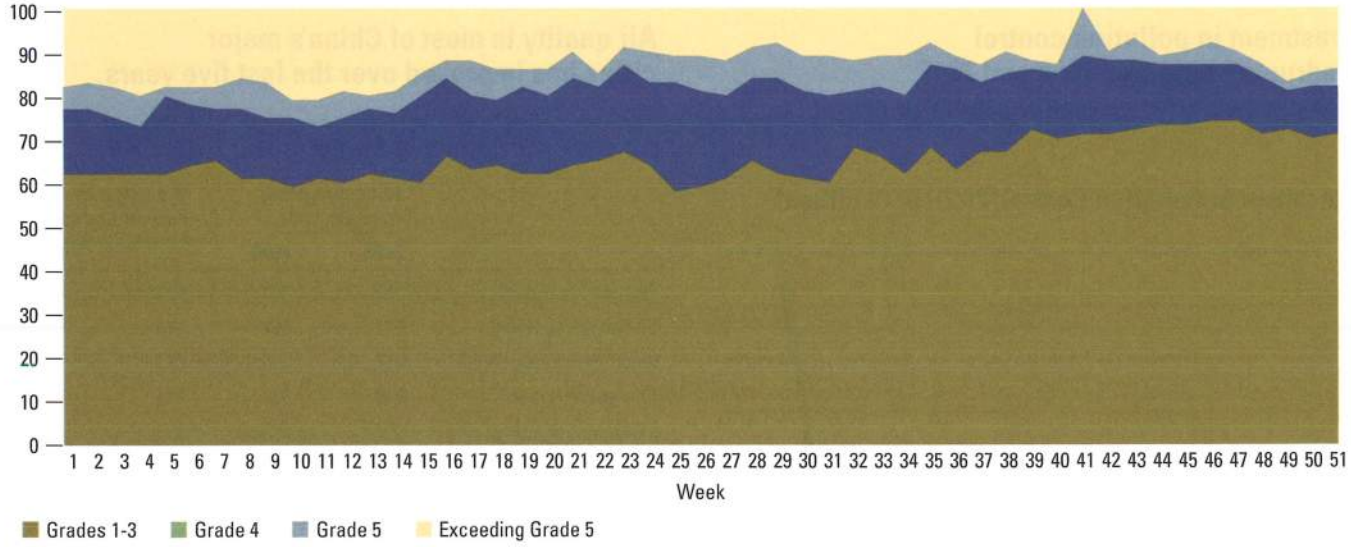
	Good air quality days per year		% change in number of good air quality days
	2003	2008	
Taiyuan, Shanxi	181	303	67.4
Shijiazhuang, Hebei	211	301	42.7
Jinan, Shandong	214	295	37.9
Changsha, Hunan	245	329	34.3
Lanzhou, Gansu	207	268	29.5
Chongqing	237	297	25.3
Beijing	224	274	22.3
Tianjin	264	322	22.0
Wuhan, Hubei	246	294	19.5
Xi'an, Shaanxi	252	301	19.4
Hohhot, Inner Mongolia	286	340	18.9
Yinchuan, Ningxia	291	330	13.4
Xining, Qinghai	261	296	13.4
Guangzhou, Guangdong	314	345	9.9
Nanchang, Jiangxi	315	344	9.2
Shenyang, Liaoning	298	323	8.4
Nanjing, Jiangsu	297	322	8.4
Zhengzhou, Henan	308	325	5.5
Harbin, Heilongjiang	297	308	3.7
Fuzhou, Fujian	344	354	2.9
Hangzhou, Zhejiang	293	301	2.7
Chengdu, Sichuan	312	319	2.2
Nanning, Guangxi	348	352	1.1
Shanghai	325	328	0.9
Kunming, Yunnan	363	366	0.8
Haikou, Hainan	365	366	0.3
Lhasa, Tibet	353	353	0.0
Hefei, Anhui	287	257	-10.5
Urumqi, Xinjiang	282	261	-7.4
Guiyang, Guizhou	351	347	-1.1
Changchun, Jilin	NA	342	NA

Notes: Good air quality days are defined as days with a pollution rating of Grade II or above. Grade II refers to air that is mildly polluted and is considered acceptable for residential and mixed-use areas. 2008 was a leap year.

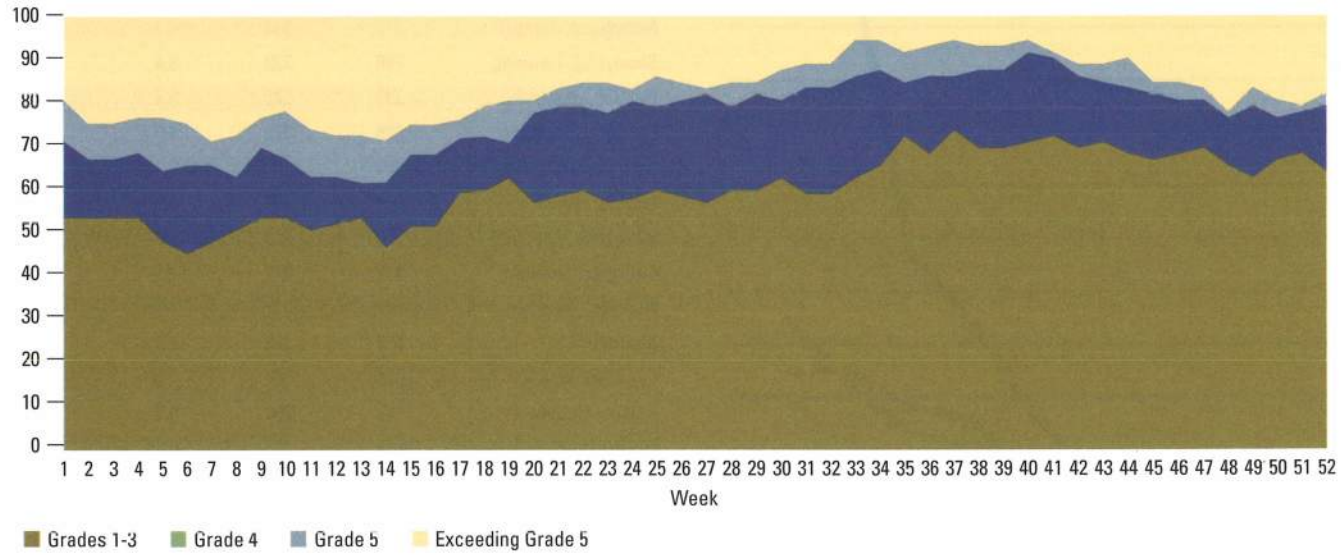
Sources: National Bureau of Statistics, *China Statistical Yearbook*, 2009

China's water quality has not improved much over the last five years.

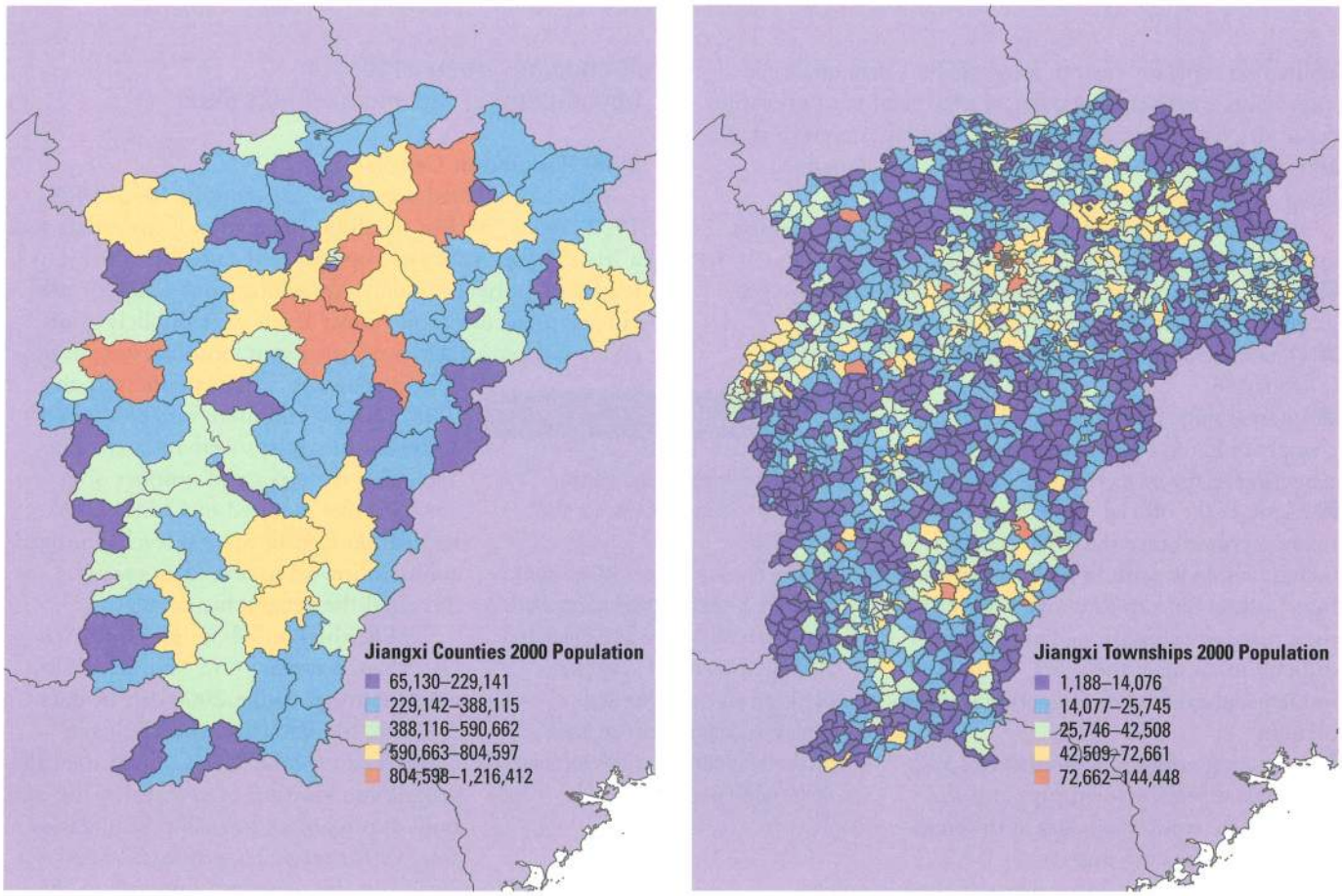
Surface Water Quality, 2009 (%)



Surface Water Quality, 2004 (%)



Notes: Grades 1–3: suitable for natural reserves, aquaculture, human consumption, and swimming; Grade 4: suitable for general industrial use and water recreation that involves indirect human contact; Grade 5: suitable for agricultural use and general city landscapes. The PRC Ministry of Environmental Protection reports water quality weekly. In 2004, data were unavailable for weeks 3, 16, 32, and 39.
Source: PRC Ministry of Environmental Protection website (http://datacenter.mep.gov.cn/)



2000 census population by county and township in Jiangxi. Source: China Data Center

New Data Draw a Clearer Picture

New analyses of Chinese census data give businesses more information when choosing locations for their China operations.

Susan Haynie and Shuming Bao

China's more than 1.3 billion people—nearly one-fifth of the world's population—are a major source of potential new consumers for multinational retailers and manufacturers. Because information about China's rapidly changing market, particularly local data about micro markets, can be difficult and costly to obtain, business leaders must often make expansion and marketing decisions with less-than-optimal information. New sources of geo-based demographic and business data are emerging, however, providing companies with more reliable, up-to-date information.

Census data improves—but slowly

In the past, detailed Chinese census data have been difficult to study for a number of reasons: the language barrier; the method of data storage (typically as hundreds of hard-copies); and the fact that data were based on standard administrative units without spatial location information or

estimation tools for custom areas. China's data quality is improving, however. The country now conducts population censuses every 10 years and business censuses every 5 years, and its 1990 and 2000 population censuses contained much richer data than earlier censuses.

Acquiring data on China at a level needed for business applications has been difficult because

- Data are typically available only for relatively large geographic areas such as cities or counties;
- Data often lack spatial-reference or digital-boundary information;
- Internal migration is causing rapid changes in China's population distribution, rendering relatively recent data obsolete;
- Many of the official population estimates reported since the 2000 census include residents with household registration (*hukou*) but not those who live outside their place of registration. This makes it difficult to estimate the actual number of residents, given China's large migrant population;
- Changing geographic boundaries and locations, especially townships and zip codes, make comparing data at different time points difficult; and
- Data availability is inconsistent across provinces.

Recently, several new data resources for small geographic areas have become available: the 2000 Population Census at provincial, county, and township levels; the 2000 population estimates at the 1 km^2 level; and the 2007 and 2010 population estimates with annual demographic updates at the township level. In addition, China's 2004 Economic Census data measured down to the zip-code level.

Quick Glance

- PRC township-level census data is publicly available for the first time.
- The conversion of PRC census data into a geographic information systems format allows companies to analyze the data in new ways.
- Using the new data and analyses, companies can make better-informed decisions for their China operations.

Technology opens doors to new demographic and business data

2000 Population Census

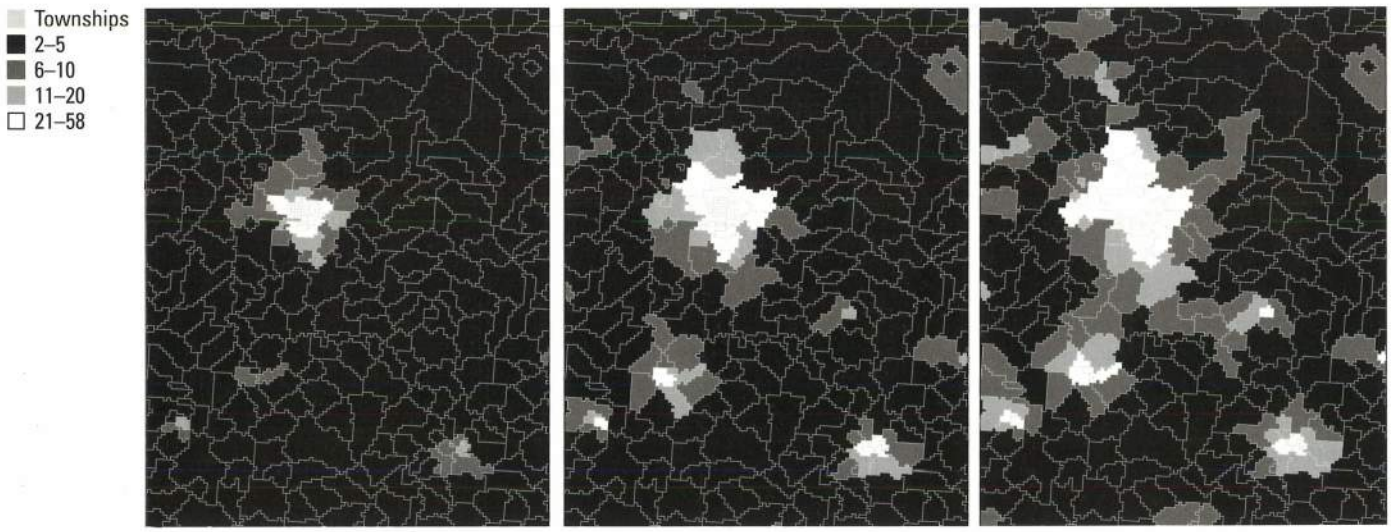
China conducted population censuses in 1953, 1964, 1982, and 1990. But the 2000 Population Census data was a "first" in several ways: Population data for the township level were publicly available (previously only data for provincial, prefecture, and county levels were publicly available); and census data with township locations were available in geographic information systems (GIS) format, and more variables (about 2,000) of the census were released. The Table lists the types and number of geographic units reported in China's 2000 Population Census at each level. The availability of township-level data greatly increased the geographic detail.

Unlike the United States, China has not released official GIS boundary files corresponding to the 2000 census data. In 2007, the University of Michigan China Data Center (CDC) identified the geographic location of each township and built approximate township boundaries suitable for reference purposes. This groundbreaking work laid the necessary foundation for converting China's township-level census data into GIS format. CDC's provision of geographically oriented township-level data is a huge step forward in gaining a more detailed understanding of the spatial distribution of China's population.

The extensive 2000 Population Census also included

- Total population, agricultural population, and family size;
- Age by gender;

Figure 1: Average Nighttime Light Intensity by Township in Nanchang, Jiangxi, 2000, 2005, and 2007



Sources: China Data Center and Demographic Consulting, Inc.

- Births and deaths;
- Occupation and industry;
- Education and literacy rates;
- Housing characteristics, including purchase price, rent, and facilities such as running water and types of cooking fuel;
- Registered population;
- Race and ethnicity;
- Migration status; and
- Marital status.

2000 population estimates

CDC and the Chinese Academy of Sciences have developed population estimates at the 1 km^2 level for 7.4 million grids throughout China for the year 2000. The estimates are modeled based on 2000 data for township population, administrative area size, elevation, and other geographic reference information. Understanding the population distribution within townships improves population estimates for custom areas such as the trade area around a prospective retail location.

2007 and 2010 population estimates

Extensive migration and urbanization have led to rapid changes in China's population, and the 2000 census is already out-of-date for many areas of the country. Current information about the population—usually available only for select cities or large geographic areas—is limited or difficult to acquire. To address these challenges, Demographic Consulting, Inc., in collaboration with CDC and All China Marketing Research, has developed a way to track population changes in townships throughout China.

The population-estimating approach supplements official data, such as the 2000 Population Census and the 2005 Population Sample, with remote-sensing data and analysis. This method uses satellite imagery analysis and measures of nighttime light intensity (provided by the US National Oceanographic and Atmospheric Administration) to update a population's geographic distribution and identify changes in urbanization levels. For example, on three maps of townships in Nanchang, Jiangxi, the average nighttime light intensity increased between 2000 and 2007 in some townships (see Figure 1). This increase tends to indicate denser population or new urbanization. To date, Demographic Consulting has used 2000 census data, 2007 official regional population estimates, remote-sensing data, and analysis to update selected census data, including total population, total households, and age by gender in China's townships. The resulting population estimates can help identify areas of population growth and new markets.

2004 Economic Census

China's first economic census, conducted in 2004, collected and tabulated data for more than 5.1 million businesses (defined as economic units with legal status). The aim of the census was to track developments of manufacturing and services industries in terms of size, structure, and profitability and to provide broader information for policymaking and economic planning. Available data from this census included

- Industry classification (863 classifications);
- Number of employees (10 categories);
- Revenue range (in renminbi, 15 categories); and
- Ownership status (23 categories).

CDC compiled the economic census data at various geographic levels, from province to postal code. (Nearly 32,000 postal codes were included in the census.) CDC also facilitated the acquisition of spatial reference data for the postal codes, allowing for display in GIS format (see Figure 2).

Business data from the economic census can provide valuable insight into

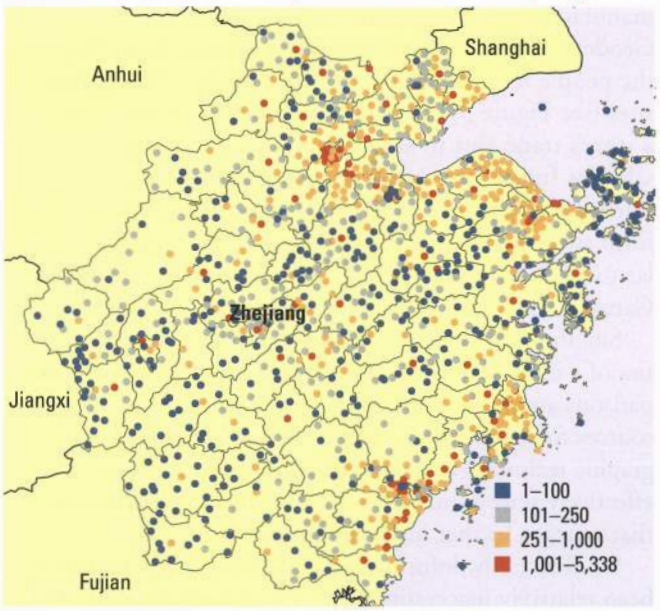
- Level of competition: How many competitors exist in a trade area?
- Availability of services: Is there convenient access to an office supply store or shipping and transportation services?

Geographies in China's 2000 Population Census

Geographic level	Number of geographies
Province	31
Prefecture	345
County	2,873
Township	50,500

Note: Province-level geographies include autonomous regions and municipalities with provincial-level status.
Source: China Data Center

Figure 2: Number of Businesses by Postal Code in Zhejiang, 2004



Source: China Data Center

■ Total employment in an area: Because people sometimes shop where they work rather than where they live, daytime population in a store's trade area can be an important source of customers.
■ Local availability of employees with specific experience.

Geospatial analysis: Changing the way businesses use data

Geodemography, the linkage of geographic and demographic information, is a powerful and useful tool for many applications. Businesses can use information about people and local economic activity to learn where their high-potential customers are, understand the characteristics of their best operating sites, find locations for new facilities, and help formulate effective advertising strategies. Geospatial analysis can also be used to assess the environmental impacts of the population and the human and economic costs of natural disasters, determine educational and health-facility locations that best meet the needs of the population, and evaluate needs for housing, transportation, and other services.

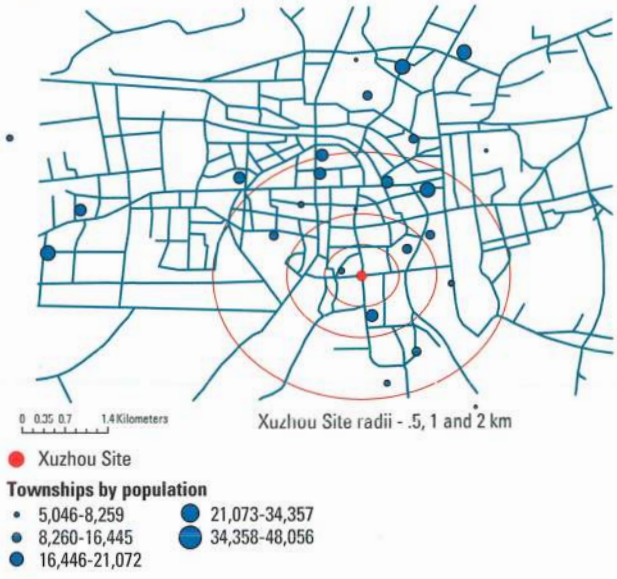
Official census reports are typically limited to standard administrative units such as cities or counties, but combining China's geodemographic information with geospatial analysis can create new, diverse data for specific locations. For instance, geospatial analysis can retrieve data for custom geographic areas such as a 2 km radius around a store or a buffer along a transportation corridor. In this era of electronic data, geospatial tools have removed the limitations of printed reports and standard administrative boundaries. The result is a fundamental change in how China's census and other geographic data can be used.

For instance, businesses can use geospatial analysis to choose a site for a facility. Choosing a good location is pivotal for the success of nearly every business—whether manufacturing, restaurant, retail, or services. Geodemographic analysis can increase understanding of the people residing near established and proposed business sites (see Figure 3). Linking demographic characteristics of a store's trade area to sales performance can help predict sales for future stores in that area. Using the micro-market information compiled for China, researchers can now perform site location analysis throughout the country—similar to analyses widely conducted in the United States, Canada, and Europe.

Site location analysis can also summarize the characteristics of a total trade area, allowing for more objective comparisons among multiple sites. Now that available data sources for China are packaged with efficient geodemographic technology, companies can quickly and cost-effectively screen multiple potential sites to identify those that warrant further investigation (see Figure 4).

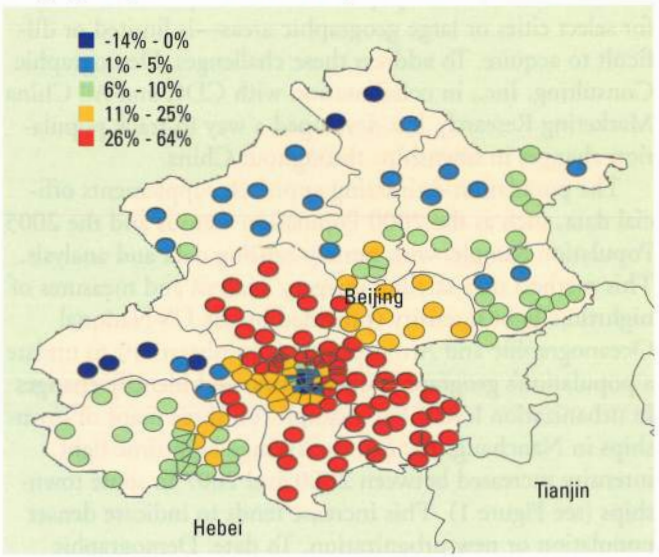
Until recently, information on China's smaller areas has been relatively inaccessible, but new geodemographic and spatial analyses have produced information at an unprecedented micro-geographic level. Businesses can use these new, nationwide data sources to better analyze China's market and choose locations for their China operations. 完

Figure 3:
Hypothetical Potential New Site in Xuzhou, Jiangsu



Note: Figure shows a potential new site at the intersection of Heping and Jiefang roads and the population of surrounding townships, according to 2000 census data.
Source: China Data Center

Figure 4:
Beijing Population Growth by Trade Area, 2000–07



Sources: China Data Center, Demographic Consulting, Inc., and SRC, LLC

Susan Haynie *(shaynie@geodemo.com) is president of Demographic Consulting, Inc. and is based in Santa Ana, California.* ***Shuming Bao*** *(sbao@umich.edu) is senior research coordinator for China Initiatives at the University of Michigan China Data Center and is based in Ann Arbor, Michigan.*

Flying on the Panda Express

Paula M. Miller

Washington, DC, experienced a big event in February, even before the record-breaking snow storms hit—the departure of the city's beloved panda, Tai Shan, who was born at the Smithsonian's National Zoo in July 2005. Like his parents Mei Xiang and Tian Tian, Tai Shan had been on loan from China as part of a panda conservation program. The National Zoo was able to extend Tai Shan's contract twice, which lengthened his stay in Washington by two-and-a-half years. But on February 4, Tai Shan and Mei Lan, a three-year-old female panda born at Zoo Atlanta under a similar program, journeyed to China.

FedEx Express

Nicole Meese with Tai Shan as he was loaded onto the FedEx Panda Express

Tai Shan and Mei Lan left Washington on a FedEx Express 777 Freighter (777F), the world's largest twin-engine cargo aircraft. FedEx Express, a subsidiary of FedEx Corp., donated transportation services for the trip—including ground and logistical support in Washington and Atlanta and domestic and international air transport. The 777F, named the "FedEx Panda Express" because of the custom panda decals on the plane's fuselage, flew nonstop from Washington to Chengdu, Sichuan, in 14.5 hours. (In December 2000, FedEx brought Tai Shan's parents to Washington on a 17-hour trans-Pacific journey aboard an MD-11, which stopped in Anchorage, Alaska, for refueling.)

In addition to the pandas and their "luggage," three animal care experts—two from the National Zoo and one from Zoo Atlanta—accompanied the pandas on the flight. A special FedEx crewmember, known as the loadmaster, also traveled with the pandas to ensure that the best conditions were maintained in the cargo section of the aircraft. Tai Shan and Mei Lan each had separate, large travel containers filled with 75 kg of bamboo, water, and fruit. FedEx funded the two custom-built travel crates for the pandas. Weighing more than 1,300 lbs, each steel crate had thick plexiglass sides that allowed the pandas to see outside the crate. The crates also had interior and exterior doors at each end that slid up and down, which allowed caretakers to feed the pandas during the flight.

FedEx Express Chief Operating Officer and US-China Business Council Board Director Mike Ducker, who watched as Mei Lan departed on her trip to China, said "I'm incredibly proud that FedEx Express was entrusted with transporting this precious cargo as part of the global effort to preserve an endangered species. FedEx started operations in China more than 25 years ago, and we look forward to having many more milestones there as we continue to facilitate US-China trade."

According to the National Zoo, Tai Shan did exceptionally well on the trip. Karin Korpowski-Gallo, senior public affairs specialist at the National Zoo, explained that the zoo's panda-care staff had been preparing Tai Shan for his departure since the day he was born:

They exposed him to a variety of sounds, people, small spaces, and experiences that made Tai Shan a very confident and easygoing bear. This training paid off with the ease of his transition to China. He was happy and calm throughout the entire trip and was eating well in his new home. Seeing Tai Shan so at ease helped Nicole Meese, the animal keeper who was with Tai Shan for the trip to China, know he was going to continue to thrive as he has done in his years with the National Zoo. Of course it was sad to see him go, and there were tears here from many staff, but everyone who has worked with Tai Shan over the years in DC was very proud of the wonderful job they did raising him to be healthy, independent, and confident.

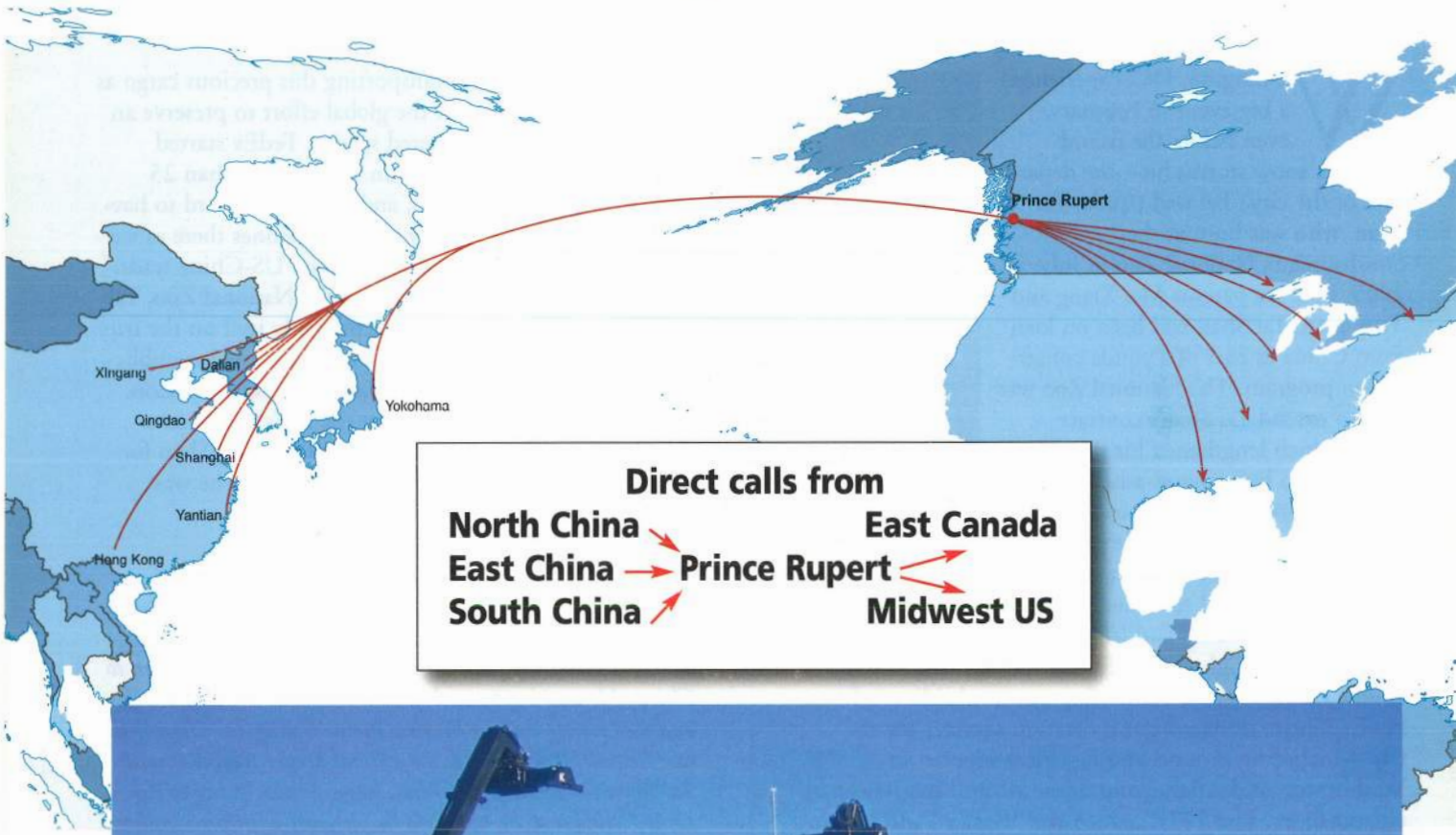
After an arrival ceremony in Chengdu, the China Wildlife Conservation Association received Tai Shan, who will live at the China Conservation and Research Center's Wolong Bifengxia Base in Ya'an, Sichuan. The Chinese Association of Zoological Gardens took Mei Lan, who will live at the Chengdu Research Base of Giant Panda Breeding.

Meanwhile, the National Zoo's 10-year loan agreement with China for Mei Xiang and Tian Tian expires in December. The National Zoo says that negotiations to extend the pandas' stay will not begin until late spring or early summer. But the zoo is "honored and happy to work in partnership with the Chinese on panda conservation and is confident that giant pandas will remain at the National Zoo for years to come," Korpowski-Gallo said. 完

Paula M. Miller *is associate editor of the* China Business Review.

COSCO Delivers

2 Weekly Sailings to Prince Rupert



COSCO is the first carrier to provide two sailings weekly from China and Yokohama to Prince Rupert. **COSCO** has listened to the market feedback and based on the success of one weekly service, **COSCO** has introduced a second weekly service. **COSCO** will now ship Hong Kong, South China, East China and North China cargoes, including Yokohama to North America via Prince Rupert.

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