January–February 2010

The China Business Review

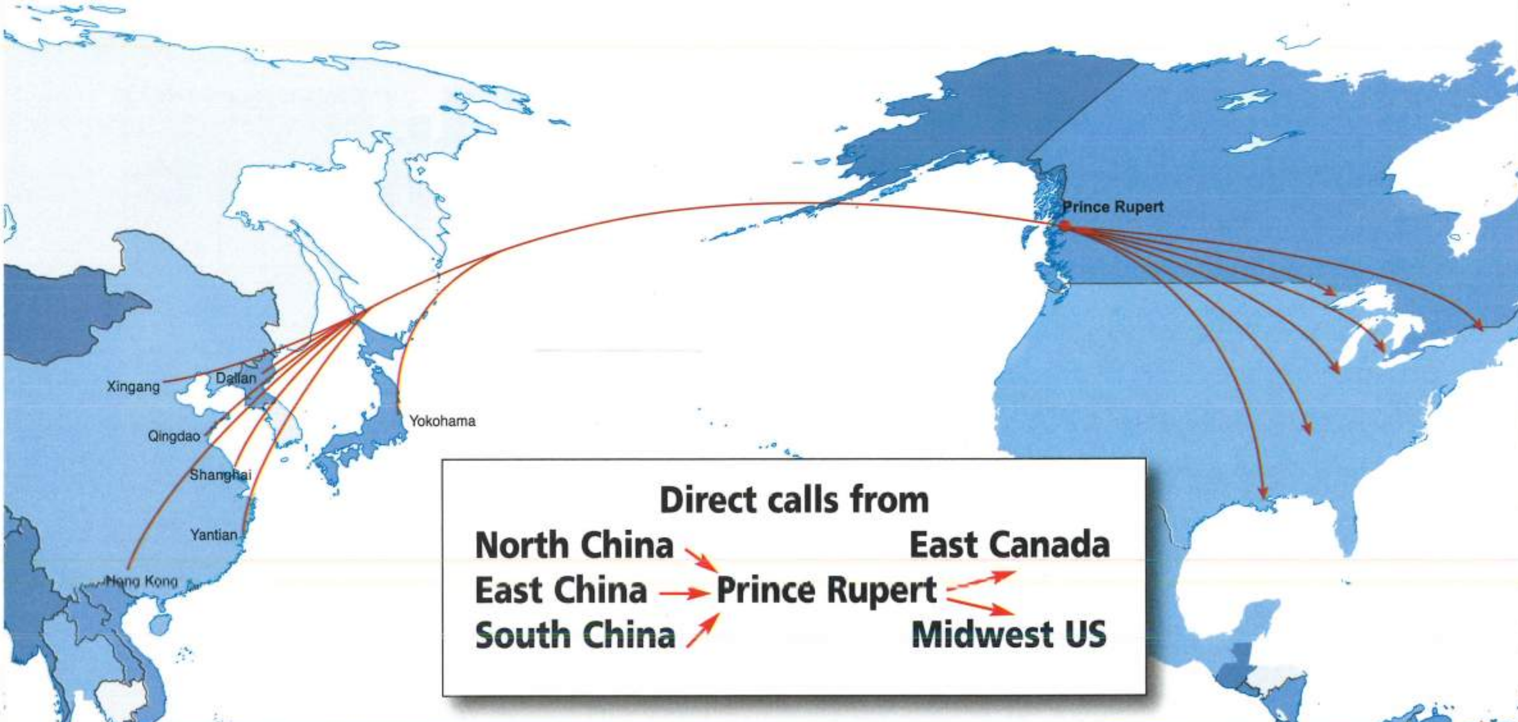
USCBC THE MAGAZINE OF THE US-CHINA BUSINESS COUNCIL

Breaking into Healthcare

US$22/HK$220

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.

Shorten your supply chain, reduce your overhead and experience the congestion-free port of Prince Rupert, **COSCO** and the CN Rail.

Timothy E. Marsh
Vice President North American Sales
tmarsh@cosco-usa.com

COSCO Container Lines Americas, Inc.
100 Lighting Way
Secaucus, NJ 07094
Tel: 800-242-7354
Fax: 201-422-8928
www.cosco-usa.com

SHIP WITH CONFIDENCE. SHIP WITH COSCO

China Foto Press

Focus: Healthcare

Cover design by JH Design
Photo by China Foto Press

Features

Departments

Web Exclusive: Product Safety

- **Summit Shows Cooperation is Key**
- **Overview of China's Product Safety Regime**
- **Product Safety Best Practices**

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

The *China Business Review* (ISSN 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.

FOR A STRATEGIC LOCATION AND FANTASTIC SERVICE PACKAGE, CHECK OUT TIANFU SOFTWARE PARK

WHERE SMART INVESTORS GO

China's hub for IT and service outsourcing

Chengdu Tianfu Software Park (TSP) is one of the key state-level software parks in China, and is located in one of China's largest cities, Chengdu. With a population that exceeds 11 million, Chengdu is also the capital city of West China's Sichuan province.

Tianfu Software Park (TSP), situated at the core area of Chengdu Hi-tech Industrial Development Zone (Chengdu Hi-Tech Zone), is developed and constructed by Chengdu Hi-tech Investment Group Co., Ltd. TSP has a total built-up area of over one million square meters providing an office area capacity for over 50,000 people.

Reflecting features such as globalisation and openness, TSP has a good humanistic and modern working environment with excellent transportation access – located only a 20-minute drive from the city centre and 15 minutes from the international airport. In addition to being linked to the public transportation network, the software park offers a complimentary 24-hour shuttle bus service.

The complete service package

Aside from offering office space solutions, TSP provides a comprehensive service package to facilitate fast development of companies located in the park including HR recruitment, staff dispatching, outsourcing and training services.

Chengdu Software Talent Training Association, a function of TSP, has a training facility of 12,000 square metres providing customized courses including languages, IT, software and call-centre programmes. An E-learning platform incorporates over 1,000 courses available to companies operating in the park and surrounding universities.

Chengdu Hi-Tech Zone government (CHTZ) has been offering excellent support to the development of TSP and the local IT and service outsourcing industry, and spares no effort in creating a highly attractive investment environment by unveiling favourable policies such as incentives to retain talents, training and rent subsidies, corporate income tax breaks and export reward incentives.

Chengdu has enjoyed a rapid development in its IT and service outsourcing for the past few years thanks to a good combination of soft and hard attributes. Chengdu was rated number one in Oriental Outlook Weekly's 2009 evaluation of Chinese free-market cities where essential expatriate business expectations are measured such as cultural appeal, social harmony, ease of business transactions and access of quality resources. In real figures, that's 1.55 million total Chengdu technicians with an annual supply topped up by over 100,000 graduates from 42 local universities and more than 660 professional technology schools. According to DHL CFO, Deng Yanqi, "Chengdu is the best place for us and it has the people we need. The quality

and quantity of its local universities can provide us with a continuous stream of skilled staff."

Most importantly Chengdu offers an excellent business environment at low operation cost, with for instance average salary level at around 30% lower than Shanghai and Beijing, and office rental space going at 4 EUR per square metre per month.

The city has gained international recognition, with market presence of 134 Fortune 500 listed companies. In fact, over 50% of the companies based in TSP are foreign owned, this including the who's who of big service outsourcing names like IBM, Accenture and Wipro; software enterprises like SAP, Symantec, Nokia-Siemens, EMC, Ubisoft and NEC; as well as fast-growing European outsourcing enterprises like Tieto, Digia, Plenware; and domestic large players like Alibaba, Huawei and Tencent.

A word from the wise...

"So many of the world's best and most successful high-tech companies have chosen to set up R&D centers in Chengdu," says John W. Thomson, Board Chairman, Symantec Corporation, "which is why it was a correct decision for Symantec to come to Chengdu."

With a strategic location in West China, Chengdu is easily accessible by air with 31 international flight connections, including daily flights to Europe. Chengdu International airport is China's sixth largest aviation hub, with a volume of passengers exceeding 18 million. "Chengdu is West China's air transport and logistics centre, and its competitiveness lies in its lower labour costs and infrequent flow of personnel", says Pan Sigao, Head of Chengdu branch, European Union Chamber of Commerce in China.

For the final word on the infrastructure, service and opportunities awaiting in Chengdu, here are the thoughts of Haruaki Hoshino, General Manager of Sichuan FAW Toyota Motor Co., Ltd. "The Chengdu plant is Toyota's first joint venture that engages in finished automobile production in China. Toyota understands well Chengdu's advantageous status in terms of policies, resources and market in West China. The company's output and profit have surged for seven years in a row."

www.tfsp.cn

The China Business Review

Editor Virginia A. Hulme, vhulme@uschina.org
Associate Editor Paula M. Miller, pmiller@uschina.org
Assistant Editors Daniel Strouhal, dstrouhal@uschina.org; Julia Zhao, jzhao@uschina.org
Administrative Assistant Mattie Steward
Art Direction & Production Jon Howard/JHDesign, Inc.
Research Assistants Aliza Bach, Peggy Wu

Inquiries and Subscriptions: publications@uschina.org
Web: www.chinabusinessreview.com
Reprints: For bulk custom reprints (min. 100), call 1-800-960-1195
Online store: www.uschina.org/store

ADVERTISING
North America–Uhry & Associates
1117 East Putnam Avenue, PMB 306, Riverside, CT 06878

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

Northeast & Midwest: Ed Winslow
Tel: 203-838-7985 Fax: 203-838-9660
E-mail: ewinpub@gmail.com

Southeast & Mid-Atlantic: Ned Frey
Tel: 757-259-5907 Fax: 757-259-6804
E-mail: nfrey@cox.net

West & Southwest: John McCarthy
Tel: 818-706-8066 Fax: 818-706-8326
E-mail: johnmccarthy1@sbcglobal.net

China–Publicitas China
Beijing: Nancy Sun
Rm 1108, Derun Tower, No. 3 Yong'an Dongli
Jianwai Avenue, Chaoyang District
Beijing 100022 China
Tel: 86-10-5879-5885 Fax: 86-10-5879-3884
E-mail: nancy.sun@publicitas.com.cn

Shanghai: Isabella Hou
Room 701, Wise Logic International Center, No. 66
Shanxi Road North
Shanghai 200041 China
Tel: 86-21-5116-8877 Fax: 86-21-5116-0678
E-mail: isabella.hou@publicitas.com.cn

South China: Sherry Yuan
Rm 1108, Derun Tower, No. 3 Yong'an Dongli
Jianwai Avenue, Chaoyang District
Beijing 100022 China
Tel: 86-10-5879-5885 Fax: 86-10-5879-3884
E-mail: sherry.yuan@publicitas.com.cn

Hong Kong–Publicitas Hong Kong Ltd.
Rana Rizvi
25/F & 26/F, Two Chinachem Exchange Square
338 King's Road
North Point, Hong Kong
Tel: 852-2516-1516 Fax: 852-2528-3260
E-mail: rana.rizvi@publicitas.com

OFFICE OF THE PUBLISHER
The US-China Business Council
1818 N St., NW, Suite 200
Washington, DC 20036
Tel: 202-429-0340 Fax: 202-833-9027

China Conference Calendar

China-related events near you

January–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.

China Intellectual Property Law

JANUARY 26–27

Location: Shanghai: JW Marriott Hotel
Organizer: American Conference Institute
Tel: 1-888-224-2480
registrations@c5-online.com
www.c5-online.com/ChinaIP.htm

The Development & Agency Finance Asia Pacific Conference

FEBRUARY 3–4

Location: Hong Kong: Renaissance Harbor View Hotel
Organizer: Euromoney Seminars
Contact: Winnie Louie
Tel: 852-2842-6995
registrations@euromoneyasia.com
www.euromoneyseminars.com/dafasia10

Mergers & Acquisitions in China

FEBRUARY 24–25

Location: New York: The Carlton on Madison
Organizer: American Conference Institute
Tel: 1-888-224-2480
www.americanconference.com/MandAChina.htm

Learning World

FEBRUARY 25–26

Location: Hong Kong: The Langham Hotel
Organizer: Universal Network Intelligence Strategic Pte Ltd.
Contact: Willy Kwan
Tel: 65-6852-9674
willy.k@unistrategic.com
www.unistrategic.com/index.php/events.html

East China Fair

MARCH 1–5

Location: Shanghai New International Expo Center
Organizers: Anhui Bureau of Commerce; Foreign Trade & Economic Cooperation (FTEC) departments of Fujian, Jiangsu, Jiangxi, Shandong, and Zhejiang; Nanjing and Ningbo FTEC bureaus; Shanghai Municipal Commission of Commerce
Contact: Joyce Huang
Tel: 86-21-6353-9977 x1222
info@ecf.gov.cn
www.ecf.gov.cn

China International Scientific Instrument & Laboratory Equipment Exhibition

MARCH 8–APRIL 10

Location: Beijing Exhibition Center
Organizers: Beijing Lamp Exhibition Co., Ltd.; China Instrument Manufacturers Association
Tel: 86-10-8839-5128/5125
chenwei@cisile.com.cn
www.cisile.com.cn

China International Exhibition on Packaging Machinery & Materials

MARCH 9–11

Location: Guangzhou, Guangdong: China Import & Export Fair Pazhou Complex
Organizers: Adsale Exhibition Services Ltd.; China Foreign Trade Center (Group)
Contact: Helen Chan
Tel: 852-2516-3395
publicity@adsale.com.hk
www.2456.com/sino-pack

Aluminum Windoor & Curtain-Wall Expo

MARCH 10–12

Location: Guangdong: Guangzhou Pazhou Poly World Trade Center
Organizer: Aluminum Window, Door, and Curtain-Wall Committee of China Construction Metal Structure Association
Tel: 86-20-3831-9428
info@windoorexpo.com
www.windoorexpo.com

Suzhou International Diecasting Industry Fair

MARCH 11–13

Location: Jiangsu: Suzhou International Expo Center
Organizer: Suzhou Die-casting Industry Association
Tel: 86-512-6280-4362/5056
gbhcnc@126.com
www.siie.com.cn/eng3.asp

Suzhou International Machine & Mold Exhibition

MARCH 11–13

Location: Jiangsu: Suzhou International Expo Center
Organizers: Suzhou International Exhibition Center Co. Ltd.; Suzhou Lianchuang Exhibition Co. Ltd.; Suzhou Municipal Government
Tel: 86-512-6280-5165
gbhcnc@126.com
www.siie.com.cn/eng1.asp

China International Machine Tool & Plastics Industry Exhibition

MARCH 12–14

Location: Zhejiang: Wenzhou International Convention & Exhibition Center
Organizers: China National Machine Tool Corp.; Donnor Exhibition Co., Ltd.; Wenzhou Municipal Government
Contact: Mr. Shi
Tel: 86-577-8895-8601/8606/8607
donnor2@donnor.com
www.donnor.com/china/mould

China International Building Materials Expo

MARCH 15–18

Location: Beijing: China New International Exhibition Center
Organizers: China B&D Exhibition Co., Ltd.; China International Exhibition Center Group
Tel: 86-10-8449-4460
luojun37@163.com
www.expoxx.cn/english

International Converting Exhibition Asia

MARCH 17–19

Location: Shanghai Expo Mart
Organizer: Mack-Brooks Exhibitions Ltd.
Contact: Thomas Ho
Tel: 44-1727-814-400
tom.ho@mackbrooks.co.uk
www.ice-x.com

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

International Footwear Expo

MARCH 26–28

Location: Guangdong: Guangzhou Pazhou Poly World Trade Center
Organizers: China Commerce Association for General Merchandise; Guangdong Donnor Exhibition Co., Ltd.
Contact: Ms. Chen
Tel: 86-577-8890-0601

China Conference Calendar

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: Guangzhou Department of Science and Technology
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

Concrete China

MARCH 31–APRIL 2

Location: Beijing: China National Convention Center
Organizers: China Aerated Concrete Association; China Building Material Machinery Association; China Building Materials Federation, Concrete Admixture and Glass Fiber Enhancement Cement branches; China Concrete and Cement Products Association; China Construction Units Association; China Council for the Promotion of Internationnal Trade (CCPIT), Building Materials Sub-Council; China Sand and Stone Association
Contact: Anna Wang
Tel: 86-10-6830-8786
wangl@ccpitbm.org
www.concretechina.org

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

China International Stone Processing Machinery, Equipment & Products Exhibition

APRIL 6–9

Location: Shanghai New International Expo Center
Organizers: CCPIT, Building Materials Sub-Council; China Stone Material Industry Association; CIEC Exhibition Co., Ltd.
Contact: Sheri Jiao
Tel: 86-10-6836-2774
sheri@ccpitbm.org
www.stonetechfair.com/e-stonetech

China (Shanghai) International Boat Show

APRIL 7–10

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

Wenzhou Auto Expo

APRIL 8–11

Location: Zhejiang: Wenzhou International Convention & Exhibition Center
Organizers: Donnor Exhibition Co., Ltd.; Wenzhou Automobile Dealers Association
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/index_e.asp

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 Association; China Plastic Machine Industry Association; International Trade Promotion Corp.; Messe Düsseldorf China Ltd.; Shanghai Society of Plastics Industry
Contact: Iris Ho
Tel: 852-2516-3374
publicity@adsale.com.hk
www.chinaplasonline.com

Export Controls Compliance in China

APRIL 20–21

Location: Beijing: TBA
Organizer: American Conference Institute
www.americanconference.com/regulatory_compliance.htm

NEPCON China

APRIL 20–22

Location: Shanghai Everbright Convention & Exhibition Center
Organizer: Reed Exhibitions
Contact: Mike Deng
Tel: 86-21-5153-5100
mike.deng@reedexpo.com.cn
www.nepconchina.com/NepconChina2010/chn/index.htm

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

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

China Conference Calendar

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 Association; 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 Association
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: Dochema
Tel: 86-10-8437-2008
doehle@dechema.de
www.achemasia.de

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

Aluminium China

JUNE 9–11

Location: Shanghai New International Expo Center
Organizer: Reed Exhibitions
Contact: Lanny Zhang
Tel: 86-10-5933-9369
lanny.zhang@reedexpo.com.cn
www.aluminiumchina.com

China Summit on Anticorruption

JUNE 15–16

Location: Shanghai: TBA
Organizer: American Conference Institute
Tel: 1-888-224-2480
www.americanconference.com/AntiCorruptionChina2010.htm

China International Environmental Protection Fair

JUNE 24–26

Location: Liaoning: Dalian Star-Sea Convention & Exhibition Center
Organizers: Dalian Environmental Protection Bureau; Dalian Northern International Exhibition Co. Ltd.
Contact: Cindy Pei
Tel: 86-411-8253-8628
cindypei@dbfexhibition.com
www.sinoexhibition.com

CBR subscribers with online access can now search China Deal Database listings from 2000 to the present at www.chinabusinessreview.com.

Modern Life

Nearly 88 million Internet users in China bought goods online in the first half of 2009, up 38.9 percent year on year, according to a December 2009 report by the China Internet Network Information Center (CNNIC), which tracks China's Internet-use. Most of these shoppers were white-collar workers and students aged 18 to 30. Interestingly, more women bought goods online than men, but more men purchased large-ticket items. Almost 90 percent of online sales in the first half of 2009 came from consumer-to-consumer websites, such as Taobao.com, and CNNIC predicted that 2009 online shopping sales would reach roughly ¥250 billion ($36.6 billion) by the end of the year.

According to a Regus Group survey, the stress level of Chinese workers in corporations is much higher than in other parts of the world. Eighty-six percent of Chinese respondents reported that their stress levels were "higher" or "much higher" than in 2007, with 24–30 year olds working for foreign companies seemingly the most affected. This compares with about 64 percent in Belgium and Mexico, the countries with the second- and third-highest stress levels, respectively. More than 40 percent of Chinese respondents who reported elevated stress levels blamed an "increased focus on profitability"—perhaps unsurprising given the economic downturn.

US-China Relations

US President Barack Obama visited China for the first time in November 2009, as part of a nine-day tour of Asia. In Beijing and Shanghai, Obama met with high-level PRC officials, attended a formal state dinner, and held a question-and-answer session with local students. Rather than pursue concrete deliverables, the inaugural visit aimed to underscore the importance of the US-China relationship and lay the foundations for cooperation between the new US administration and PRC leadership.

A Thomson Reuters/Ipsos poll of 1,077 Americans two weeks before the visit highlighted the importance of Sino-American ties. According to Reuters, 34 percent—a plurality of respondents—said that "the most important bilateral relationship the United States should have" is with China. The next most important bilateral relationship was with Great Britain, which received 23 percent of the responses. Reflecting the complexity of the relationship, most respondents (56 percent) characterized China as an "adversary," while only 33 percent characterized the country as an "ally." Two percent said China is both an ally and an adversary.

Thinking Green

In the run-up to the December 2009 United Nations Climate Change Conference in Copenhagen, Denmark, China pledged to reduce its carbon intensity per unit of gross domestic product to 40–45 percent of 2005 levels by 2020. The pledge included commitments to increase the share of China's energy derived by non-fossil energy, increase forest cover, and improve energy efficiency and use of clean-coal and renewable energies. In the statement, however, Beijing reiterated China's long-standing position that, as a developing nation, it has "common but differentiated responsibilities."

Chinese citizens also acknowledge that more needs to be done to combat climate change, and they are taking the initiative. According to a survey conducted in the fall of 2009 by the Program on International Public Opinion Attitudes and published on the World Bank's website, more than three-quarters of respondents said that climate change was a "very serious" or "somewhat serious" problem. Moreover, 78 percent said that "climate change should be given priority, even if it causes slower economic growth and some loss of jobs."

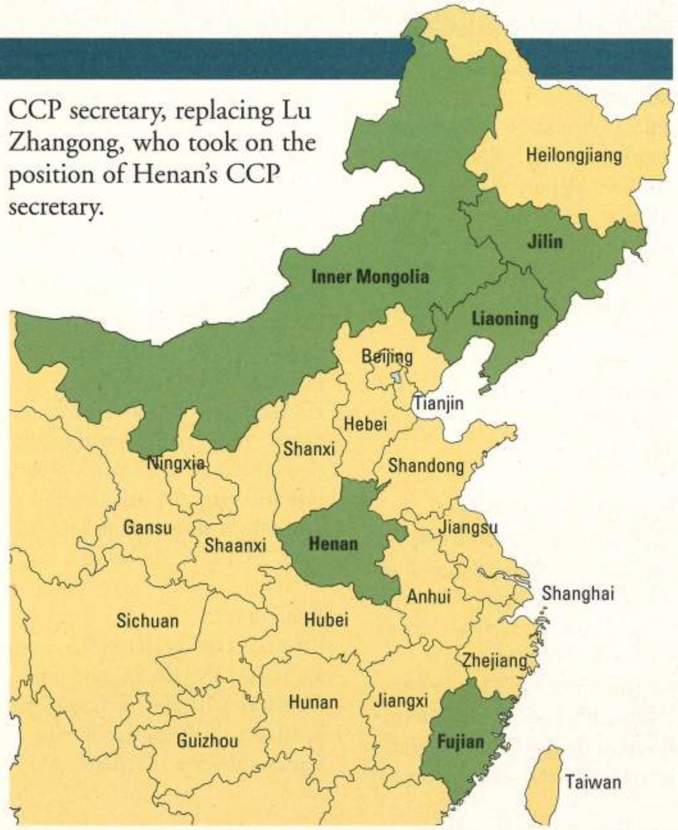
Consumer trends appear to reflect popular sentiment for green thinking. A recent RSA Group report found that 45 percent of Chinese consumers were willing to pay a 5–10 percent premium for eco-friendly products, while 30 percent would pay a 1–5 percent premium. In contrast, consumers in Western countries "were generally willing to pay only a 1–5 percent premium for a greener product or service." In addition, *China Daily* recently reported that China's shoppers have taken to using cloth and canvas shopping bags since the central government banned vendors from giving their customers free plastic bags in June 2008. The use of plastic bags in Chinese supermarkets has dropped an estimated 66 percent since the ban took effect, saving 1.6 million tons of petroleum.

Provincial Appointments

Two 46-year-old officials were recently appointed China's youngest provincial-level Chinese Communist Party (CCP) chiefs, filling vacancies left by officials who had turned 65 years old—the standard retirement age for minister-level officials—or who had been reappointed to replace higher-level retirees. Former Hebei Governor Hu Chunhua became Inner Mongolia's CCP secretary, while former Minister of Agriculture Sun Zhengcai took over as Jilin CCP secretary, replacing Wang Min, who was appointed Liaoning's CCP secretary.

Some China experts observed that the appointment of such young leaders is rare. Hu's promotion is especially noteworthy and may indicate that he has been earmarked a front-runner of China's sixth-generation leadership. According to Xinhua News Agency, Hu previously studied at Beijing University, worked in Tibet, and served as the first secretary of the Secretariat of the Central Committee of the Communist Youth League, an organization that is also seen as PRC President Hu Jintao's base of support.

In addition to these appointments, 59-year-old Sun Chunlan became Fujian's CCP secretary, replacing Lu Zhangong, who took on the position of Henan's CCP secretary.



Event Wrap Up

WASHINGTON, DC

November

Joint Commission on Commerce and Trade (JCCT) Debriefing
Featured Deputy Assistant Secretary of Commerce for East Asia Ira Kasoff, who discussed the results of the October 2009 JCCT session held in Hangzhou, Zhejiang.

December

Gala 2009
See p.13

Roundtable on China and Technical Barriers to Trade
Featured Jeff Weiss, senior director of technical barriers to trade at the US Trade Representative's Office of World Trade Organization and Multilateral Affairs; Bryan O'Byrne, international trade specialist for regulatory and technical trade barriers in the US Department of Commerce's Trade Compliance Center; and Jenny May, international trade specialist at Commerce's Office of the Chinese Economic Area.

BEIJING

November

Reception with US-China Business Council (USCBC) President John Frisbie
Frisbie briefed member companies on the USCBC board delegation's meetings in China, USCBC priorities, and the latest intelligence from Washington, DC, on the US-China relationship.

Briefing with Under Secretary Hormats
Co-hosted by USCBC and the American Chamber of Commerce in China, the breakfast briefing featured the State Department's new Under Secretary for Economic, Energy, and Agricultural Affairs Robert Hormats, who shared his thoughts on the US-China economic relationship and the November 2009 Asia-Pacific Economic Cooperation summit.

December

Industrial Policy Briefing
Featured Xin Renzhou, deputy director general of the PRC Ministry of Industry and Information Technology's (MIIT) Industrial Policy Department, who shared MIIT's priorities for 2010. Thierry Delmarcelle, partner and managing director of Monitor Group (China), discussed sustainability for industrial development in China.

Upcoming Events

WASHINGTON, DC

Forecast 2010
Reception and Conference
January 27–28, 2010
For more information, see p.17

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

Policy Briefing on Indigenous Innovation
Co-hosted by USCBC and the US Information Technology Office (USITO), the briefing featured USITO President John Chiang and USCBC China Operations Vice President Robert Poole.

SHANGHAI

November

China 2010 Business Climate Projections
See below

China 2010 Business Climate Projections

A delegation of the US-China Business Council's (USCBC) board of directors visited Beijing for meetings with the PRC government on November 4–5. USCBC Chair Andrew Liveris of the Dow Chemical Co. led the delegation, which included 10 other board directors and USCBC President John Frisbie.

The delegation met with top leaders, including PRC Vice Premier Wang Qishan, National Development and Reform Commission Chair Zhang Ping, Minister of Industry and Information Technology Li Yizhong, Minister of Foreign Affairs Yang Jiechi, Vice Minister of Commerce Ma Xiuhong, and China Council for the Promotion of International Trade Chair Wan Jifei. US Ambassador to China Jon Huntsman and top US embassy officials for trade, economic, and financial affairs briefed the delegation on the bilateral relationship before the meetings.


Xinhua News Agency

Frisbie and Liveris met with Wang, Wan, and Ma in Beijing.

USCBC held a fall conference on China business climate projections in Shanghai in November. At the event, industry and government speakers shared their insights on development trends that affect Shanghai's business community, including the future of China's economy, labor market, regulatory landscape, and Foreign Corrupt Practices Act (FCPA) compliance.


Julie Walton

Poole discussing US-China trade issues.

Robert Poole, USCBC vice president of China Operations, opened the conference by discussing perspectives on US-China trade and investment relations. Robin Bordie, an economist at BHP Billiton, discussed China's economic outlook for 2010. She noted that domestic savings-led investment, rather than external demand, has fueled China's economic recovery and predicted that global trade will resume recognizable patterns by the third quarter of 2010. Ron Cai, a managing partner at Davis Wright Tremaine LLP, gave an update on the implementation of the PRC Labor Contract Law. Chris Watkins, country manager

USCBC Hosts Gala 2009, Honors PRC Ambassador Zhou Wenzhong

The US-China Business Council (USCBC) held its Gala 2009 in Washington, DC, in early December. Attended by nearly 450 guests from the business, government, diplomatic, and think-tank communities, the event honored PRC Ambassador to the United States Zhou Wenzhong for his lengthy career fostering US-China relations. USCBC Chair and Dow Chemical Co. Chairman and CEO Andrew N. Liveris discussed USCBC's work over the last year and reviewed Zhou's diplomatic career. In his address, Zhou discussed China's recent economic and trade trends and praised improvements in US-China diplomatic and commercial relations, noting that many companies in the room had helped boost bilateral commercial relations. At the end of the dinner, USCBC President John Frisbie presented Zhou with a series of photographs from Zhou's career. Spanning 30 years, the photos traced Zhou's diplomatic career fostering US-China cooperation.

USCBC would like to thank its members for their support. The generous response from many member companies will help support USCBC's work, leadership, and achievements; it also helped raise money for the China Education Initiative, a China-based rural education organization that works to eliminate educational inequity.

sardari.com

USCBC board members Barbara Hackman Franklin (Barbara Franklin Enterprises), Dan Brutto (UPS), Bob McDonald (Procter & Gamble Co.), and Andrew Liveris (Dow Chemical Co.) greet Ambassador Zhou Wenzhong.

Gala 2009 honoree Ambassador Zhou addressing guests.

Zhou received a warm standing ovation from guests following his address.

Frisbie, Liveris, Zhou, and Xie following the presentation of photos depicting the ambassador's diplomatic career.

at MRI China Group, discussed the impact of the current economic downturn on the PRC labor market, future trends in companies' talent management strategies, long-term global and regional trends that affect talent supply and demand, and the benefits and challenges of hiring locally.

In the late morning, John Leary, a managing partner at White & Case LLP, discussed future developments in China's regulatory framework and the potential impact on corporate structure. Lesli Ligorner, a partner at Paul Hastings LLP, followed with a presentation on the key concepts and emerging issues in the enforcement of the FCPA. The luncheon speaker, Shanghai Municipal Commission of Commerce Chair Sha Hailin, provided USCBC member companies with Shanghai's economic outlook for 2010. Sha spoke broadly about Shanghai's economic development agenda and its main goal of becoming an international financial center by 2020. He reiterated existing municipal plans to encourage foreign-invested enterprises to establish their regional headquarters in Shanghai and discussed the city's efforts to accelerate the movement of goods through its ports.

Cai discussing China's Labor Contract Law.

China Sets Economic Path for 2010

Top PRC leaders set a cautiously optimistic tone for China's 2010 economic development at the December 2009 Central Economic Work Conference, the most authoritative annual conference on China's economy. The conference gathered China's top central- and local-government leaders to discuss the past year and plan broad macroeconomic policies for 2010. As expected, the December meetings focused on policies to cope with the global financial crisis and promote economic recovery. Government leaders decided to maintain current macroeconomic policies, continue bank lending and public investment, and keep a "relatively loose" monetary policy to ensure economic growth of more than 8 percent.

Government spending will continue

The leaders emphasized "continuity and stability" at the December conference and indicated that government investment will continue, at least in the short term. Analysts are concerned that continued stimulus measures will result in excess liquidity and rising inflation in the near future, but PRC leaders said that flexible policies will allow them to address such problems quickly. To stave off a liquidity glut and lessen the negative impact of overcapacity, China plans to redirect stimulus spending away from fixed-asset investment and into social services such as healthcare and education.

Efforts to boost domestic consumption

The conference stressed the importance of transforming development patterns so that China's economic growth relies less on foreign trade and investment and more on domestic consumption. To boost consumption, the government plans to increase pensions for retirees and raise the earnings of China's low- and middle-income population.

China will also continue to implement the following eight policies in 2010:

- **Home appliances replacement** In June 2009, China began offering subsidies of up to 10 percent on purchases of new televisions, computers, refrigerators, air conditioners, and washing machines in nine pilot cities. China will increase the number of participating cities in 2010.
- **"Home appliances to the countryside"** Farmers will receive a 13 percent subsidy on purchases of certain home appliances such as television sets, refrigerators, washing machines, handsets, computers, and water heaters. Higher-priced products will be added to the list.
- **Subsidy for agricultural machinery purchases** The central government will subsidize the purchase of products listed in the 2009 Catalogue of National General Agriculture Machinery Supported by Purchase Subsidies. The current subsidy ranges from ¥50,000 to ¥120,000 ($7,322–$17,572) per unit, depending on the product. The government will raise the subsidy amount in 2010.
- **Preferential tax rate for vehicle purchases** China will extend a 7.5 percent preferential purchase tax rate for the purchase of vehicles with engines smaller than 1.6L and increase the subsidy amount from ¥5,000 to ¥18,000 ($732–$2,636) for replacing old vehicles.
- **"Vehicles to the countryside"** China will extend its rural subsidy programs to the end of 2010 for vehicle purchases and until January 31, 2013 for motorcycle purchases.
- **Energy-saving product promotion** China will promote and subsidize the purchase of energy-saving products, including lighting products and new-energy vehicles.
- **Business tax exemption for personal real-estate transfer** China will allow a five-year business tax exemption for individual real-estate transfers.
- **Delayed payment for social pension and reduced social insurance rates** China will allow delayed, reduced, or flexible payments for social pensions and insurance fees for individuals and enterprises experiencing financial difficulties in 2010. This policy applies to foreign-invested enterprises operating in China.

Developing urban and rural areas

China's leaders also emphasized the need to speed up urbanization to further boost domestic consumption and drive sustainable economic growth. They pledged to relax China's urban residency restrictions to foster a greater demand for property in second- and third-tier cities and spur more construction projects in 2010.

To develop rural areas, the PRC government will continue subsidies and tax support for agricultural programs. It will also promote the construction of agricultural infrastructure, water resource projects, energy-grid upgrades, roads, and public service infrastructure in rural areas.

A shift to more sustainable growth

China's leaders highlighted government support for developing "new strategic industries." This will likely mean more investment in areas such as advanced machinery, science and technology, energy conservation, and environmental protection. By developing these emerging industries, China hopes to create more jobs, retrain workers in industries suffering from overcapacity, and lessen pressure on raw materials, commodities, and energy inputs.

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.*

James R. Lilley

James R. Lilley, US ambassador to China during the Tiananmen protests and aftermath, passed away in Washington, DC, on November 12, 2009 at the age of 81.

Born in Qingdao, Shandong, in 1928, Lilley spent his early years in China and spoke fluent Mandarin. His father worked for the Standard Oil Co., while his mother was a teacher. The family later moved to Tianjin and then Shanghai before relocating back to the United States in 1940.

Lilley's childhood in China and his fluency in Mandarin helped set the path of his adult life. After graduating with a Bachelor of Arts from Yale University and a master's degree in International Relations from George Washington University, he studied classical Chinese at Columbia and Hong Kong universities.

In 1951, Lilley joined the Central Intelligence Agency (CIA), beginning a career in intelligence and espionage that would span decades and take him to Cambodia, Hong Kong, Japan, Laos, Taiwan, Thailand, and the Philippines. In the early 1970s, he was CIA station chief in Beijing, and by 1975, he had been appointed national intelligence officer for China. In the early 1980s, he held a position on President Ronald Reagan's National Security Council.

By the 1980s, Lilley's career had turned to diplomacy. From 1981 to 1984, he served as the director of the American Institute in Taiwan, making him the *de facto* ambassador to Taiwan in the absence of diplomatic relations. While in Taiwan, he successfully argued against US State Department plans to halt arms sales to the island. To this day, Lilley is the only person to have served as the highest US emissary to Taiwan and to the People's Republic of China. In 1986, Lilley was appointed US ambassador to South Korea.

In 1989, President George H. W. Bush, who had known Lilley from his days as chief of the US liaison office in Beijing in the early 1970s, appointed him US ambassador to China. Lilley arrived in Beijing in May, at the height of the student demonstrations. According to his memoir, he and his staff took to cycling around Beijing to see for himself what was happening. Despite his dispatches warning of a worsening situation, the White House seemed surprised by the events of June 3–4, 1989. It turned out that many of Lilley's dispatches were stuck at lower levels of the US government bureaucracy and had not reached the president.

In the tense aftermath of Tiananmen, Lilley harbored Chinese astrophysicist and dissident Fang Lizhi and his wife for over a year in the US embassy in Bejing. Despite his criticism of the PRC government's actions, Lilley argued that Washington should remain engaged with China, believing that this would give the United States greater influence than reducing or cutting ties altogether.

Lilley served as ambassador to China until 1991, when he returned to Washington, DC, to take up the post of assistant secretary of Defense for International Security Affairs. From there he moved to the American Enterprise Institute, where he headed the Asia Studies program. In 2004, *China Hands: Nine Decades of Adventure, Espionage, and Diplomacy in Asia*, a memoir of his life and career that Lilley wrote with his son, was published.

In recent years, Lilley often attended US-China Business Council (USCBC) events and conferences in Washington, DC, reflecting his continued interest in the commercial aspects of the US-China relationship. USCBC President John Frisbie, who lived and worked in Beijing during Lilley's tenure as ambassador, noted that "Ambassador Lilley was a breath of fresh air to the business community in Beijing when he arrived. He began regular monthly briefings for executives on the bilateral relationship and gave his support to companies when they had opportunities or problems that needed US government attention and assistance. He was a model ambassador in this regard." 完

Looking Back to See Ahead

Robert Poole

For the US business community in China's capital, 2009 proved to be a year of coping and waiting. Adjustments to address the global economic crisis were job number one for all companies, notwithstanding the impressive performance of the Chinese economy and companies during the global downturn. Budget cutbacks and curtailed plans have been a major occupation for most multinationals in China, despite the 8 percent economic growth here.

Waiting was also the rule in Beijing last year, as companies and PRC officialdom watched for key appointments in the new US administration and for signs of changes in US trade or political policy. Many of the appointments came only last summer or later (though no later than usual, in a change of administration), and major or comprehensive reviews of trade policy have apparently taken a backseat to US domestic political priorities.

It was, in the end, a year in which hardworking employees have gained more white hairs, with the gratifying recovery in business perhaps being offset by a slowdown in economic reforms and an increase in local protectionism. It was a similarly worrisome year for PRC officials, who were trying to balance lost export markets and local unemployment against the demands of an increasingly integrated global economy, amid rising domestic and foreign political pressures.

Reform on hold

China's economic management has remained conservative, keeping the currency value steady and using fiscal stimulus and relatively loose monetary policy to maintain stability. Economic and financial market reforms, however, seem to be on hold, even though such measures are often discussed and the PRC leadership appears to agree they are necessary for the long-term health and development of the economy. Similarly, China's goal of increasing services' contribution to the economy notwithstanding, market access for foreign and private firms and meaningful competition to domestic state-owned providers seems no closer, despite the obvious benefits for Chinese consumers and markets.

Major national themes also remain unchanged. "Scientific Development"—the Chinese Communist Party (CCP) and President Hu Jintao's broad framework for progress—continues to receive great attention throughout the country. In the economic arena, indigenous innovation, building national champions, and "going out" (investing overseas) lumber ahead. True economic reform seems a memory of years gone by.

Protectionism draws attention

Companies have repeatedly cited an increase in commercial protectionism in surveys regarding China's business climate in 2009, including our own (see the *CBR*, November–December 2009, p.60). Here in China, US companies tend to view protectionism in terms of lack of opportunities for sales in China—whether in government procurement or in equal treatment under local policies—and market access in services and industries that allow foreign investment. Protectionist policies also extend to other areas such as standards setting or uneven enforcement of regulations.

But the media stays focused on another form of protectionism, namely the cross-border antidumping and countervailing duty cases in both countries. According to US Secretary of Commerce Gary Locke, such measures affect less than 4 percent of US-China trade. Yet, the percentage they occupy in media headlines and stories seems far greater.

Outlook for 2010

Looking ahead, it is difficult to forecast significant change in China's economic or business plans. One bright spot is that the Obama administration will almost certainly increase cooperation with China; the now-annual Strategic and Economic Dialogue, to be held next summer in China, provides one forum for more cooperation.

For commercial interests, the areas of energy and environmental protection will be prominent, and developments in China's healthcare reform will also be important. We hope that attention to trade disputes will lessen, though sustained efforts in China and the United States will be needed to ensure fairness in trade and investment. We also hope that engagement on economic challenges—from the managed end to stimulus spending, currency values, or the various rebalancings—will provide the impetus to restart reforms that will bring opportunities for US companies in China.

After a cold spell here in Beijing, we also hope that the Year of the Tiger will bring warmer weather and an early spring, sustained economic and business growth, and perhaps gradual renewal of reform. After several big events in Beijing—the Olympics in 2008, the 60th anniversary of the People's Republic last fall, and the visit in November of the US president—we welcome the chance for Shanghai to take the spotlight for the 2010 World Expo that opens in May. 完

***Robert Poole** is vice president, China Operations, at the US-China Business Council in Beijing.*

China Foto Press

Much of China's healthcare spending is focused on basic care and equipment, but the country still has a large market for high-end imported medical devices.

Adapting to China's Changing Medical Device Market

More government investment will create new opportunities for medical device suppliers, but producers must be patient and creative to overcome obstacles.

Judy Zakreski

Developments in China's domestic policies—particularly its massive healthcare reform effort and stimulus spending to offset the global economic downturn—have cast a spotlight on its medical device market. Exactly how China's stimulus programs may affect this market remains unclear, but suppliers that understand the current and future challenges will be better able to adapt their strategies to the changing market.

Slow but steady growth

Though the PRC government has not published official figures, most other sources estimate the size of China's medical device market at $8–$10 billion in 2008, with an average annual growth rate of about 30 percent in recent years. According to industry watchers, the market could grow to $16 billion by the end of 2010. The economic slowdown has affected this market, however. Official statistics gathered by the *China Medical Devices Review*, a Transmedia publication based in Chongqing, show that the growth rate of China's medical device production slowed to under 13 percent in the first seven months of 2009, compared with the same period in 2008. Purchasing and tendering delays due to uncertainty about the immediate direction of China's healthcare reform and stimulus programs, rather than a new trend, are the likely cause of the slowdown.

Forecasts show that China's medical device market will likely grow 15 percent to 25 percent annually. Imports, which were valued at about $5.2 billion in 2008, will likely grow at a slower rate of 12 percent to 15 percent over the near term. This does not mean that the market for high-tech imported devices is shrinking or being displaced by mid-level or mass-market products. Rather, the slower growth of import sales indicates that many multinational corporations (MNCs) have adopted integrated market solutions—including producing in China and acquiring Chinese manufacturers—to serve the domestic market comprehensively and compete in the lower end of the market in China and abroad. Today, MNC products account for a significant portion of China's domestic medical device output (see Figure).

China's medical device market consists of many different tiers, ranging from high-end to mass-market equipment. High-end equipment includes the latest diagnostic and treatment technologies, which are generally contained only in imported products, while mass-market equipment incorporates older technology used for basic screening and treatment. Most mass-market equipment purchased in China is made there, as domestic manufacturers produce competitive technologies at relatively low costs. Mid-level equipment often comes from overseas producers, but as quality and technological levels improve, domestic devices (including those manufactured by MNCs through joint ventures, technology partnerships, and wholly owned subsidiaries) are gradually supplanting imports. Imported products dominate the top tier of China's hospital market and are primarily found in the roughly 3,500 Grade II and III hospitals in China's larger cities that have the foreign capital resources to purchase high-end equipment regularly. (For more information on China's hospital system, see the *CBR*, July–August 2009, p.35.)

Quick Glance

- Plans to improve healthcare across the country will greatly expand China's medical device market.
- Foreign manufacturers still dominate the high-end market, but domestic manufacturers lead the lower levels and are moving into the middle levels.
- To compete, MNCs must rethink their approach and incorporate local operations.

Imports lead the high-end market

Though the quality of China's domestic (non-MNC) medical devices has improved significantly over the past several years, these products—even the most highly evolved models that have a strong market outside of China—have advanced only enough to reach global users at the mass-market level. For example, Shenzhen Mindray Bio-Medical Electronics Co., Ltd., China's largest medical device manufacturer, makes 14 ultrasound models for domestic and foreign markets. It has firmly established its place as a strong player in the global market for basic ultrasound technology. Some Chinese medical technicians and doctors view Mindray's top-of-the-line technology as equivalent to some lower-end imported products, as well as mass-market and mid-level products manufactured locally by MNCs. But even the most advanced Mindray ultrasound systems are used primarily in Grade I hospitals or community health centers for basic screening purposes or as backup products in higher-level institutions. For advanced screening and diagnosis, doctors generally refer their patients to the larger Grade II and III hospitals that use more advanced, imported equipment. Domestic medical device manufacturers are making substantial investments in research and development (R&D) to improve their technological competitiveness, but their current competitive niche is—and will be for the foreseeable future—limited primarily to mass-market applications.

Perhaps surprisingly, distribution and service is another area where domestic companies in the medical device market lag behind MNCs. Many MNC exporters and producers operating in China have built—or gained through an acquisition or strategic partnership—a reliable domestic distribution and service infrastructure. In contrast, many domestic manufacturers, especially those that focus on export markets outside of China, lack strong distribution and service networks within China. These manufacturers often have stronger distribution networks abroad where, much like the MNCs operating in China, they have become full-service providers through alliances and partnerships.

Challenges for medical device suppliers

Despite the opportunities offered by this growing market, medical device suppliers must contend with government-mandated processes and restrictions that hinder sales in China.

Tendering

China has adopted formal tendering processes for nearly all medical equipment purchases to ensure fairness, reduce overall purchase costs, and limit the influence of individuals and companies in swaying the preferences of doctors and hospitals. The outcomes of these processes are questionable, however.

Tendering requires writing specifications, expert reviews, and an adjudication process—all of which greatly extends the purchasing cycle and increases suppliers' expenses. But the extra cost and effort does not always lead to better outcomes. For instance, many tenders for bulk purchases have resulted in sales of far fewer units than the original bid proposed. In these cases, suppliers that offered discounted pricing based on the promise of a specific quantity purchase are unable to force the conclusion of the remaining sales and must execute the contracts at a lower profit margin or a loss.

Another problem is that minimum technological criteria tend to be low, allowing too wide a range of products to qualify for tenders. This affects high-tech products or research-focused equipment in particular, because more sophisticated specifications are needed to determine whether the product can be used for basic clinical diagnosis or more cutting-edge applications. In these cases, high-end producers must engage in lengthy negotiations. These negotiations are similar to normal sales negotiations but come with the added costs of a tendering process and the added complications of attempting to explain why a high-end product costs so much more than a seemingly similar product—all because the original bid criteria were too simple.

The PRC Ministry of Health has been refining the tendering process, but tenders take place largely at the provincial and local levels, and improvements advocated by the central government are not always implemented at lower levels (see p.26).

Price controls

To reduce healthcare costs, the PRC government has considered controlling the prices that suppliers can charge hospitals for medical consumables and the markup at which hospitals can resell these devices. Tenders that restrict the free bidding process and impose price ceilings tend to discourage R&D investment and fail to recognize the R&D costs that are inherent in new technologies. These price ceilings limit purchases of newer, more effective, and more efficient products that have higher unit prices but, in the long run, could lower the overall cost of healthcare for patients. Furthermore, if the price cap for domestic goods is set according to a percentage-based markup from an ex-factory price, but the cap for imported products is set according to a cost, insurance, and freight (CIF) price, suppliers of imported products have little flexibility to include adequate margins in China to cover local promotion and distribution costs. In contrast, domestic manufacturers can factor these costs into their ex-factory pricing.

Technology restrictions

Since 2005, hospitals have been required to obtain PRC Ministry of Health approval to purchase certain high-value (Type A) devices. This category includes large medical equipment, such as PET-CT scanners, gamma knives, and tomotherapy and robotic endoscopic surgical systems. The restrictions are managed by the PRC central government, which appoints expert panels that help develop and review the policies. Unfortunately, the experts sometimes lack direct experience with new technologies or favor current medical approaches over new technologies. In some cases, if doctors have a strong relationship with one of the experts, their hospitals may have an advantage in receiving approval to purchase new technologies. These central-government limitations also unintentionally deter Chinese doctors from keeping up-to-date on new equipment and gaining a leading edge among their international peers.

Regulatory challenges

Despite some recent improvements in execution, inefficiencies in China's regulation of medical devices, specifically the State Food and Drug Administration and China Quality Certification registration processes, create significant barriers to market entry and slow the introduction of new imported technologies into China. In particular, sellers of imported equipment face long wait times for testing reports and approvals, duplicative testing, and China-specific standards protocols. China's requirement for testing product quality is inflexible and inefficient, as well as redundant to the testing that foreign-manufactured products undergo to register in other markets. In contrast, the quality systems approach used in many foreign markets is widely recognized internationally, supports continuous design improvement, and does not hamper the introduction and sale of medical devices. Domestically made products face similar challenges within China's regulatory framework. Market-entry delays are less severe for Class I and II domestic products, which require only provincial-level regulatory approval, whereas Class I and II imported products must receive central-government approval.

Foreign Financing for Chinese Hospital Equipment Purchases

Financing sponsored by foreign governments provides an excellent opportunity for Chinese hospitals to stretch medical equipment purchasing funds, especially when buying imported high-end equipment. Such programs offer Chinese hospitals attractive financing and repayment terms to purchase imported and domestic equipment through loans and loan guarantees from government development agencies, such as Germany's KfW Development Bank, and export credit agencies, such as the Export-Import Bank of the United States. Imports financed by these programs are exempt from PRC duty and value-added tax and can lower the hospitals' final cost by more than 20 percent.

Most of the hospitals that have used foreign government-sponsored funds are county hospitals in second- and third-tier cities—precisely the types of hospitals that will be developed under the healthcare reform plan. Unfortunately, county hospitals have been informally prohibited from using these funds since the PRC healthcare reform plan was announced. Nevertheless, foreign government-sponsored financing will remain an attractive option for China's other hospitals as they develop and upgrade their technologies.

—Judy Zakreski

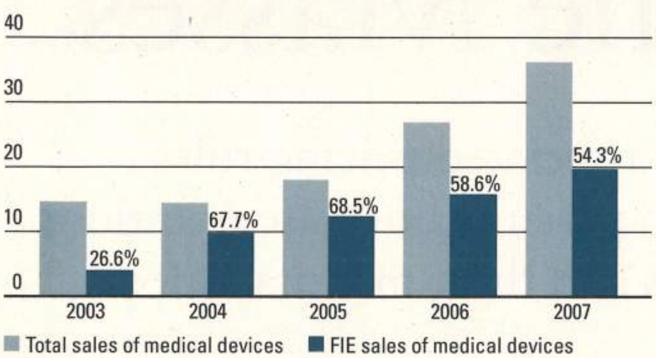
Impacts of China's healthcare reform and stimulus spending

The PRC government plans to spend ¥850 billion ($124 billion)—in addition to normal budget allocations for healthcare—over the next three years to implement its healthcare reform plan, which includes building 2,000 county hospitals and implementing a new set of health insurance programs. Though it is unclear what portion of the funds will be allocated to equipment purchases, the investment will fuel demand for medical equipment and have the greatest impact on the low- to mid-levels of the market. The increased investment should also boost overall demand, as some new hospitals will purchase mid-level and high-end equipment, and many existing Grade II and III hospitals will seek to offer more advanced services. MNCs that focus primarily on exports and mid-level and high-end markets, however, will benefit less from the healthcare reforms than local manufacturers of basic equipment.

MNCs looking to sell imports through healthcare reform programs may be limited by the "Buy China" policy in the PRC Government Procurement Law. The policy requires central and local governments to purchase all goods and services from domestic companies, unless a committee of experts attests that no suitable domestic alternative exists. Though PRC officials agreed at the October 2009 Joint Commission on Commerce and Trade to formally clarify that goods manufactured in China by MNCs qualify as "domestic" for government procurement purposes, no official clarification had been released as *CBR* went to press. Whether foreign-invested enterprises will gain access to government procurement programs under China's healthcare reform remains uncertain.

Separate from the healthcare reform funds, the PRC government's ¥4 trillion ($585 billion) stimulus package announced in 2008 may also affect the medical device market. Government investment in technology R&D could help China's large medical equipment manufacturers—such as Beijing Wandong Medical Equipment Co., Ltd.; Mindray; Shandong Shinva Medical Instrument Co., Ltd.; and Weigao Group Co., Ltd.—advance the technological level of their products and increase their competitiveness beyond the basic device markets.

FIE Share of China's Medical Device Market, 2003–07



Note: FIE = foreign-invested enterprise
Source: Chindex International, Inc. and *China Medical Devices Review*

China's healthcare reform funds and stimulus spending funneled to healthcare R&D will boost the sales of domestic medical device manufacturers. Much of this spending will focus on mass-market technologies to improve rural and low-end urban healthcare. MNCs that export high-end devices to China will likely be unaffected, but those with domestic production may find themselves with a larger piece of a larger pie.

Planning for the future

In addition to China's healthcare reform and stimulus spending, which will likely boost market growth and benefit domestic and foreign medical device companies in the long term, a variety of other factors is driving short-term market growth for all tiers of medical equipment. As demand for the latest top-quality technologies and the prevalence of "developed nation" diseases such as certain cancers, cardiovascular disease, and diabetes grow in China, the appetite for advanced Western technologies is increasing. The demand for basic equipment is also growing, primarily at the rural and grassroots level, bolstered by healthcare reform spending

To maximize benefits from this growth, high-end medical equipment exporters must take advantage of attractive, government-sponsored financing packages and convince the PRC government to encourage new county hospitals to use foreign-government-sponsored loans to purchase imported devices (see p.20). Demand for imported products will rise as Grade II and III hospitals upgrade and expand their diagnostic and treatment capabilities to compete for referrals from county hospitals, as well as for business from the growing middle- and upper-class patient base in China's cities. In this high-end market segment, MNCs seeking export sales to China are not yet affected by domestic competition or "Buy China" policies because equivalent domestic products are unavailable. They therefore are also unaffected by potential restrictions on purchases that use healthcare reform or stimulus funds.

Though an export-based strategy is still relevant for high-end equipment, foreign manufacturers should be prepared to incorporate some degree of in-country operations. Foreign manufacturers looking to compete with China's increasingly mature and competitive domestic manufacturers in lower levels of the market should follow the lead of the larger MNCs and adopt a more diversified strategy that includes local production. 完

Judy Zakreski *is vice president, US Operations, at Chindex International, Inc. She is based in Bethesda, Maryland.*

China Foto Press

Drugs for the Masses

China's new drug lists and associated pricing rules aim to provide low-cost drugs to patients but raise questions about the impact on hospitals and drug manufacturers.

Gordon Schatz and Patrick Nowlin

Anyone who has visited the Dongyue Daoist Temple in Beijing knows that this temple reflects key societal values that date back 600 years or more. One hall is dedicated to the gods who oversee support for healthcare and medication. Simply put, the cost and availability of drugs and medications has been an issue for many, if not all, countries throughout history, and China is no exception.

Today, drug cost and distribution remain challenges. To resolve these issues, China has launched another chapter of its healthcare reforms. A core component of China's current efforts is the National Essential Drug System, which aims to provide essential drugs at affordable prices in all government hospitals. A central part of this system is the new National Essential Drug List (NEDL) and its associated price caps.

The PRC Ministry of Health (MOH) released the new NEDL in August 2009. This list is comprised of 307 drugs—205 chemical and biological drugs and 102 traditional Chinese medicines—deemed essential to the treatment of common medical conditions (see Table). (China puts molecular names, not brand or product names, on its drug lists.)

A second step in the development of the National Essential Drug System came in October 2009, when the PRC National Development and Reform Commission (NDRC) released a notice that set price caps on 296 NEDL drugs. The new caps limit the retail prices that patients pay for 133 drugs and prohibit hospitals from marking up prices for NEDL drugs. According to an NDRC press release, the price caps are intended to relieve the financial burden on patients and encourage drug companies and healthcare providers to offer quality medicines. Price reductions average 12 percent: Price caps for roughly half (49 percent) of NEDL drugs will not change, and price caps for 6 percent of drugs on the NEDL will increase slightly. The new price system is being rolled out gradually, starting with about 30 percent of government-run hospitals by the end of 2009 and nationwide implementation in government-run hospitals by 2011.

Quick Glance

- Revisions to China's national essential drug system, including new price caps on essential drugs, could affect foreign-company drug sales—and profits—significantly.
- Many questions about local-level implementation remain, and Chinese hospitals may resist reforms that result in considerable loss of revenue.
- Early reactions from central-level officials and provincial-level implementation may provide clues about the direction of drug-reform policy.

NEDL drugs added to revised Basic Medical Insurance List

China has developed various drug lists, each associated with a different government insurance program. Of these lists, the Basic Medical Insurance (BMI) National Drug Reimbursement List, which covers urban workers, has historically had the biggest impact on pharmaceutical companies and urban patients. The BMI list is divided into category-A and category-B drugs. Category-A drugs are classified as "essential" drugs, and hospitals must carry all category-A products. In contrast, provincial governments are required to carry only 85 percent of the drugs listed in category B, and provincial health bureaus may select the category-B drugs that are most relevant to their province for reimbursement.

On November 30, 2009, the Ministry of Human Resources and Social Security (MOHRSS) issued an updated BMI drug list, which

- Adds 260 new drugs, 53 of which are included in category A;
- Includes all therapeutic medicines selected for the NEDL in category A;
- Replaces certain older drugs with more effective new ones; and
- Requires local authorities to establish a declaration system for appointed medical institutions to report drugs not in the catalogue that are necessary for emergency rescue and special disease treatment.

Implications for hospitals

The new NEDL and accompanying price regulations will affect hospitals and drug manufacturers in a number of important ways.

More central-level control over drug use

As part of the NEDL reform package, MOH has announced that it will implement new policies that aim to better enforce mandatory use of NEDL products. Measures implemented on a trial basis in 12 cities require 70 percent of primary healthcare facility drug sales to be NEDL products. Whether similar prescription requirements will apply to second- and third-tier hospitals is less clear, but MOH statements reported in a November issue of *Pharma China* suggest that use of NEDL products will become one metric used in hospital evaluations, which affects the funding hospitals receive, and individual physicians' annual performance reviews, which affect promotions. How stringently MOH plans to implement these measures remains to be seen, but hospitals and physicians will likely have new incentives to change their historical preferences for more expensive branded products.

Potential loss of drug sales revenue

Hospitals' preference for higher-priced drugs is in part tied to historical pricing policies. Traditionally, when a drug enters the BMI reimbursement list, NDRC selects one brand to receive an "innovator" price, while all others receive a "normal" price. The innovator price is generally awarded to the brand with the original drug patent (often from a multinational corporation [MNC]), allowing the brand to be reimbursed at a 30 percent premium over the normal price. This practice allows drugs to receive favorable reimbursement rates even after the company's patents expire.

Government-run hospitals can mark up drug prices 15 percent above the price they paid for the drugs. Hospitals earn a significant portion of their revenue through these markups. Because "innovator" prices are higher than "normal" prices under the BMI reimbursement system, hospitals earn more by prescribing the expensive "innovator" brand than its lower-priced generic competitors. Thus, "innovator" drugs are prescribed more often.

Under the proposed National Essential Drug System program, hospitals will not be allowed to mark up NEDL drugs. Given that these drugs are commonly prescribed products, hospitals stand to lose a significant amount of revenue as a result of the zero-mark-up policy. The central government has claimed that it will compensate hospitals for the difference with increased direct funding, but this funding may come reluctantly, if at all, from local governments, throwing into question whether hospitals will receive compensation for lost revenue. Without substitute funding, hospitals could resist implementing the NEDL prescription requirements, as losing the revenue generated through the sales of higher-priced BMI brands would quickly put most hospitals in the red.

MNCs that produce drugs on the NEDL will need to generate a much higher volume of sales to compensate for the loss of the innovator pricing advantage.

Implications for MNC pharmaceutical manufacturers

Loss of pricing advantage

The current BMI system generates significant sales and revenues for many MNCs because most "innovator" prices are awarded to MNC brands. Though the policy is not

Price Caps for Selected Essential Drugs

Therapeutic area	Indication	Drug name	Unit size	MRP (¥)
Cardiac disease	Cardiac arryhthmia	Propafenone	50 mg*50	5.90
Cardiovascular	Chest pain, high blood pressure (Beta blocker)	Atenolol	12.5 mg* 100	5.20
Cardiovascular Diseases	Cholesterol	Simvastatin	10 mg*10	20.70
Central nervous system	Parkinson's	Amantadine	100 mg*24	2.90
	Epilepsy	Carbamazepine	100 mg*100	9.10
Gastrointestinal diseases	Peptic ulcer	Omeprazole	20 mg*14	29.80
Heart disease	Edema from congestive heart failure	Acetazolamide	250 mg*100	17.00
Hematology	Diabetes	Glibenclamide	2.5 mg*100	4.00
	Diabetes	Glipizide	5 mg*30	15.00
	Diabetes	Metformin	250 mg*48	9.00
Immune system	Allergic reactions	Diphenhydramine	25 mg*100	2.30
Immunology	Immunosuppressant	Azathioprine	100 mg*36	55.30
Infectious disease	Infections, herpes	Aciclovir	100 mg*20	5.30
Mental health	Depression	Doxepin	25 mg*100	9.40
	Schizophrenia	Haloperidol	2 mg*100	10.00
Musculoskeletal	Arthritis, gout (NSAID)	Indomethacin	100 mg	0.38
Musculoskeletal disorders	Gout	Allopurinol	100 mg*100	27.40
Respiratory diseases	Asthma	Salbutamol	140 micrograms*200	7.00
Urology	Benign prostatic hyperplasia	Terazosin	2 mg*14	19.50
Viral diseases	Various viruses	Ribavirin	100 mg*24	5.00

Note: MRP = maximum retail price that a patient will pay.
Source: PRC Ministry of Health

explicit, it is highly likely that drugs that enter the NEDL will be subject to price caps and that no brands will be eligible for innovator pricing. MNCs that produce drugs on the NEDL will need to generate a much higher volume of sales to compensate for the loss of the innovator pricing advantage. To do so, MNCs must compete successfully against cheaper generics in provincial bidding and generate sufficient pull by creating demand in hospitals. Generating enough demand to offset the lower prices could be difficult, especially if hospitals resist prescribing large volumes of zero-margin NEDL drugs.

The loss of innovator status will likely be extended to all products covered under BMI, not just the NEDL. NDRC comments suggest that the innovator pricing scheme will be phased out and a different set of conditions will be introduced for brands with expired patents to command premium pricing. What the conditions will be or how they will be decided remains unclear, and it is also unclear whether a similar set of conditions would apply to compounds covered under the NEDL.

Rise in market uncertainty

All drugs included in the NEDL must be purchased through a provincial-level, public bidding process (see p.26). This policy creates two issues for manufacturers. First, province-by-province bidding makes it difficult for manufacturers to gauge annual sales volume, as the number of bids a company wins each year can vary. This in turn makes it hard for manufacturers to calculate their annual production volumes, and therefore to determine an appropriate bidding price.

Second, provincial governments tend to support local industries, and it will be difficult for one generic producer to gain significant scale by winning bids across several provinces. There are roughly 5,000 pharmaceutical manufacturers in China, resulting in a fractured generic drugs market. Provincial BMI lists carry one or two MNC brands for any given drug compound and a group of generics, some of which are national and many of which are local. With many small manufacturers competing in a low-margin market, the temptation to cut corners to preserve revenue will likely be great. Without careful monitoring and stringent quality control on smaller local producers, the risk of low-quality or dangerous products entering hospitals through NEDL bidding may grow.

Questions about implementation remain

Sticks and carrots

The government intends to promote the use of NEDL drugs through a mixture of sticks and carrots. Different ways of measuring and evaluating hospital and physician prescription behavior could lead to different results, however. If NEDL quotas are enforced at a hospital level, NEDL prescriptions may be concentrated in therapeutic areas such as anti-infectives, where the markups on BMI drugs is smaller, and the loss incurred using zero-markup NEDL substitutes would thus be lower. If, however, the NEDL is enforced at the compound or therapy-area level, hospitals may be forced to use older, generic products instead of newer, more expensive products. This would be particularly damaging for MNCs, which typically offer newer products to treat major chronic conditions such as diabetes and cardiovascular disease.

The new developments could shift current prescription patterns in favor of generics, lowering prices for patients and raising overall sales volume.

It is still too early to predict the full impact of the NEDL and accompanying pricing regulations on the healthcare system. Previous reform efforts suggest that the government will finalize the details of implementation after evaluating the results of various trials. Early reactions from hospitals and patients could provide clues to the direction of policy development.

The government is determined to use the new policies to lower drug prices and make drugs more widely available. The new developments could shift current prescription patterns in favor of generics, lowering prices for patients and raising overall sales volume. But low price levels and localized bidding systems will likely also raise questions about quality control: Just one incident of tainted products entering hospitals could paint the NEDL system as lowering prices at the expense of quality.

MNCs will be watching provincial-level implementation and the reactions of key central-level officials. As implementation details become clearer, it will be easier to assess the long-term implications of the NEDL and new pricing regulations. 完

Gordon Schatz *(gschatz@reedsmith.com) is a Life Science partner at Reed Smith Richards Butler LLP. He is based in Beijing and Washington, DC.* ***Patrick Nowlin*** *(patrick.nowlin@zsassociates.com) is a consultant at ZS Associates Inc. He is based in Shanghai.*


China Foto Press
The centralized bidding process helps keep drug costs low for China's hospitals.

Drug Procurement Bidding

Drug companies must be able to navigate the procurement bidding process to successfully reach China's market.

Chen Yang and Lei Li

State-run, nonprofit healthcare institutions in China procure most of the drugs they use through a bidding process centralized at the provincial level. This means that healthcare institutions must purchase a large share of the drugs they use from an official list that is approved and implemented by provincial-level PRC government agencies. Other methods of drug procurement are permitted only in special cases—but centralized bidding procurement (CBP) is the most common method by which healthcare institutions purchase drugs. To be commercially successful in China, drug manufacturers must be able to navigate the CBP process.

Drug CBP in China began in 2000 with small pilot programs in four provinces. After nine years of continuous development, a stable regulatory framework has emerged. With the PRC government's launch of long-anticipated healthcare reforms in March 2009, the CBP—an important component of the reforms—is expected to undergo further changes in the next couple of years. Companies that sell drugs in China must track changes to drug CBP regulations closely and adjust their sales approach if necessary.

Quick Glance

- State-run, nonprofit healthcare institutions in China must procure the drugs they prescribe and use through a bidding process that is centralized at the provincial level.
- This centralized bidding procurement system allows for different bidding approaches, but competitive public bidding must be used for drugs that are used widely or procured in large amounts.
- China plans to replace the current bidding system with a highly automated, online platform.

How the CBP works

The operational details vary by province, but all provinces' CBP processes follow the same general structure.

Scope of the drug CBP

Under PRC Ministry of Health (MOH) rules, all nonprofit healthcare institutions set up by governments above the county level must procure drugs through CBP. In 2008, China had 15,650 nonprofit hospitals, accounting for about 79 percent of all hospitals in China. CBP rules therefore apply to the vast majority of large and medium-sized hospitals in China.

As a general rule, healthcare institutions subject to the CBP rules must procure all drugs that they use through the CBP regime, except for narcotic, psychotropic, and radioactive drugs, as well as certain types of traditional Chinese medicines. For this purpose, each province in China has formulated its own CBP drug list.

In addition, MOH sets minimum thresholds on the amounts of drugs that healthcare institutions must purchase through the drug CBP. Healthcare institutions must submit a plan that lists the quantities of drugs they will procure through CBP. The quantity of each drug must be at least 80 percent of the actual quantity that the healthcare institution used in the previous year. This requirement ensures that most drugs used by covered healthcare institutions are purchased through CBP.

Drug CBP players

The drug CBP system involves three players: tenderee, bidder, and procurement agent. The tenderee is the healthcare institution that procures drugs through CBP. Healthcare institutions may procure drugs through the drug CBP process for the province they are located in or through other provinces' CBP regimes. The bidder is the drug supplier—typically a drug manufacturer—that submits bids to the tenderee. Before 2009, drug manufacturers and non-manufacturer distributors could qualify as bidders. In January 2009, MOH and several other agencies jointly issued Opinions on Further Regulating Drug Centralized Bidding Procurement by Healthcare Institutions, which aimed to reduce distribution costs of drugs by clarifying that only manufacturers would qualify as distributors. In practice, however, non-manufacturers have found ways to avoid this restriction and continue to submit bids.

In most cases, a third-party, domestic procurement agent runs the bidding process. MOH and the State Food and Drug Administration (SFDA) require procurement agents to meet a series of qualifications before they are

China's Drug Bidding Framework

China's drug bidding process is regulated by the PRC Tendering and Bidding Law, which took effect January 1, 2000. The implementation details are laid out in numerous rules made by state- and provincial-level regulators.

From 2001 to 2004, PRC regulatory agencies released a series of drug centralized bidding process (CBP) rules. The Working Procedures on Drug Centralized Bidding Procurement by Healthcare Institutions, issued jointly by six agencies in November 2001, lay out the roles of various government agencies involved in drug CBP regulation. Based on the working procedures, several other agency rules and administrative notices have been released (see Table 1). Taken together, these documents outline the drug CBP responsibilities of various PRC agencies:

- **The Ministry of Health (MOH)** leads administration of drug CBP in China and supervises healthcare institution drug CBP activities, in collaboration with the State Food and Drug Administration.
- **The National Development and Reform Commission** administers drug CBP pricing-related matters.
- **The State Food and Drug Administration** supervises quality control of the drugs procured through CBP, examines and approves the qualifications of drug manufacturers that submit bids in the CBP, and jointly supervises procurement agents with MOH.
- **The State Administration of Industry and Commerce** oversees drug CBP to prevent unfair market competition, such as commercial bribery and contract fraud.

—Chen Yang and Lei Li

certified to provide agency services in drug CBP. Many provincial health authorities have set up their own firms to procure drugs.

Under China's healthcare reform, MOH and SFDA plan to replace the procurement-agent system with a government-run, online CBP transaction platform so that healthcare institutions and drug manufacturers may enter into CBP purchase contracts without using procurement agents or paying service fees. This will likely streamline the process further.

Drug CBP procedures

The drug CBP system allows for different bidding models. Competitive public bidding is required for drugs that are used widely in clinical treatment and for those that are procured in large quantities. This system may be supplemented by centralized price negotiation for other drugs, if certain conditions are met.

Competitive public bidding in drug CBP follows the procedures in a typical competitive bidding process, which includes the bid announcement, submission, and evaluation; determination of winning bid; and signing of a purchase contract.

Key issues in drug CBP

Criteria for bid evaluation

An expert panel set up by drug procurers evaluates bids submitted by drug manufacturers. Experts on the panel, the size of which may vary, are chosen at random from a database provided by local health authorities. To be chosen, an expert must specialize in relevant areas, such as pharmacology and clinical study.

When evaluating bids, the experts focus on drug quality and competitiveness of the offered price. In most cases, the bid evaluation process is conducted in two phases:

■ **Quantitative evaluation** The experts on the evaluation panel grade each bid and select three to five bids that will move on to the next phase. Grading is based on several factors, such as drug quality, price, after-sales service, and manufacturer reputation. Drug procurers may make minor adjustments to the formula the panel uses for calculation of the factors to make it more suitable to their needs as long as the changes are consistent with MOH rules.

■ **Final selection** In the second phase, experts consider the patterns of drug use, brand recognition, and quality-price ratio and vote to select a final winning bid.

Competitive public bidding is required for drugs that are used widely in clinical treatment and for those that are procured in large quantities.

Table 1: Key Regulations in China's Drug Centralized Bidding Procurement (CBP) Regime, 2000–09

Year issued	Regulation	Issued by
2000	Notice for Strengthening Management of Healthcare Institution CBP Pilot Sites	MOH
	Provisions on Healthcare Institution CBP Pilot Sites	MOH (lead agency), SATCM, SETC, SFDA, and SPC
2001	Working Procedures on Drug Centralized Bidding Procurement by Healthcare Institutions	MOH (lead agency), OSCRM, SATCM, SETC, SFDA, and SPC
	Interim Rules on Supervision on Healthcare Institution CBP	MOH (lead agency), OSCRM, SAIC, SATCM, SETC, SFDA, and SPC
2004	Interim Rules on CBP Drug Pricing and Charging	NDRC
	Provisions on Further Standardization of Healthcare Institution CBP	MOH (lead agency), NDRC, OSCRM, SAIC, SATCM, and SFDA
2005	Notice on List of Drugs under National Development and Reform Commission Price Control	NDRC
2009	Opinions on Further Regulating Drug CBP by Healthcare Institutions	MOH (lead agency), NDRC, OSCRM, SAIC, SATCM, and SFDA
	Interpretations of Issues Related to Opinions on Further Standardization of Healthcare Institution CBP	MOH (lead agency), NDRC, OSCRM, SAIC, SATCM, and SFDA

Notes: MOH = Ministry of Health; NDRC = National Development and Reform Commission; OSCRM = Office of the State Council for Rectifying Malpractices; SAIC = State Administration for Industry and Commerce; SATCM = State Administration of Traditional Chinese Medicine; SETC = State Economic and Trade Commission (no longer exists); SFDA = State Food and Drug Administration; SPC = State Planning Commission, a predecessor of NDRC
Sources: PRC government agencies, Sidley Austin LLP

Price

Before the winning bid becomes binding, health authorities must review and ratify the price to ensure compliance with government price-control rules. The National Development and Reform Commission and its local-level branches have established guidance retail prices for more than 2,400 drugs, including those listed in the Basic Reimbursable Drug List and those protected by patents, and these price limits cover most drugs subject to the CBP. The bid-winning price plus a government-approved retail price markup may not exceed the allowed guidance retail price. Retail price markup rates for drugs are determined by provincial pricing authorities. In general, the lower the drug price is, the higher the markup rate (see Table 2).

Purchase contract

After the winning bid is selected, the procurement agent will notify the drug manufacturer that has won the bid. Healthcare institutions and the drug manufacturer shall enter into legally binding drug purchase contracts within 30 days after the notice is issued. Purchase contracts must follow an MOH-approved template. According to the template, purchase contracts must be valid for at least one year, and healthcare institutions must pay drug manufacturers within 60 days after receiving the drugs from the supplier.

The future of drug CBP

China introduced the drug CBP to increase the transparency and efficiency of drug procurement and reduce drug prices. Numerous problems still exist, however, and local-level implementation is inconsistent and varies from province to province.

Drug procurement is an important topic in China's healthcare reform. Many changes to the procurement process have been proposed, including the rollout of a nonprofit, government-run online bidding platform that will streamline the distribution process, improvements to bid-evaluation criteria, and expansion of the CBP catalogue. Other key areas in China's healthcare system, including drug pricing, the National Essential Drug List, and the public hospital system are expected to undergo changes that may significantly affect drug procurement. Companies that sell drugs in China should closely monitor such changes.

As China's healthcare system changes, drug companies must evaluate and adjust their marketing strategies and practices in China to ensure compliance with regulatory requirements and maximize the effectiveness of their marketing activities. First, they must evaluate how the new changes will affect the supply, procurement, prescription, and consumption of drug products they sell and decide which drugs they want to introduce to the market. Second, drug companies need to formulate a flexible drug-pricing strategy so they can participate in the drug CBP while maintaining reasonable profit margins. 完

MOH and SFDA plan to replace the procurement-agent system with a government-run, online CBP transaction platform.

Table 2: Retail Price Markup Rates in Beijing

Drug price per unit (¥ per smallest retail package)	Allowable markup
Under ¥10	30%
¥10–¥40	25%
¥40–¥100	20%
More than ¥100	15%

Note: A drug's retail price is composed of the bid-winning price plus an allowable markup. Most drugs have statutory retail price limits, and bidders can use the allowable markup and price cap to calculate the theoretical highest bidding price of their drugs.
Source: Beijing Municipal Development and Reform Commission

__Chen Yang__ (ychen@sidley.com) is partner at Sidley Austin LLP's Beijing office, where she heads the firm's China Life Sciences Practice. __Lei Li__ (lei.li@sidley.com) is associate at Sidley Austin LLP's New York office and previously worked at the PRC Ministry of Commerce.

China Foto Press

With rising incomes, more Chinese are demanding patient-focused healthcare.

Private Healthcare: A Tough Market to Crack

Foreign investors in China's healthcare sector must work hard to reach their target clientele—China's increasingly affluent middle class.

James Glucksman and Roberta Lipson

The healthcare reforms that the PRC government announced in early 2009 have elicited considerable excitement among potential investors in China's large and growing healthcare services market. The reforms will boost healthcare spending by ¥850 billion ($124 billion) over 2009–11. Though most of the public funds will be used to build capacity and extend basic healthcare services, the reforms also hint at greater private participation in the sector.

The rising wealth and discernment of China's middle and upper classes make the country a potentially lucrative market for domestic and foreign private healthcare companies. Expectations of more personal and higher-quality service will likely draw patients to private clinics, where the staff-to-patient ratio permits a level of attention and excellence that is difficult to achieve in a public setting. These segments of the population will desire private clinics that focus on treatments of chronic conditions that require regular patient visits, such as dialysis and chemotherapy, or treatment of insulin-dependent diabetes, and centers that provide conception and pregnancy services, such as in-vitro fertilization.

It is uncertain, however, whether foreign participants will be able to realize opportunities on a grand scale, because prospective entrants into China's market face considerable regulatory hurdles. Moreover, Chinese consumers generally have entrenched, negative attitudes toward private healthcare—though these attitudes are slowly changing. Even with the potential obstacles to setting up private healthcare facilities in China, the government's focus on developing grassroots and rural healthcare centers and county-level hospitals may provide foreign and domestic private investors new opportunities to enter the market at the urban premium-care and specialist levels.

Signs the market is warming

As the quality of customer service in other sectors reaches new heights previously unknown in the People's Republic, some Chinese consumers have begun to question why the country's healthcare sector does not offer a similar level of customer service. For instance, the prevailing service model at Chinese hospitals and clinics does not allow patients to make appointments. Instead, patients queue to register to see a doctor, with some patients arriving at the hospital in the middle of the night to increase the chance of seeing their preferred doctor. Recently, several government directives have asked public facilities in big cities to institute appointment systems, but implementation has been difficult because of technical difficulties and high demand.

Quick Glance

- China's growing middle class, demand for better services, and government investment in healthcare suggest that China may become a strong market for private healthcare services.
- Investors in private healthcare still face obstacles, however, such as regulatory barriers and difficulty attracting staff and patients.

To address the growing demand for patient-focused care, some state-owned hospitals have established VIP wings, sometimes in conjunction with private (including foreign) healthcare companies, where the surroundings and amenities are more pleasant. In most of these wings, however, only the patient's room is special—offering more privacy, better furnishings, and extra attention from nurses. Once a patient leaves his or her room, the VIP aspect of the experience disappears.

In addition, a small number of private hospitals and clinics have emerged in some of China's major cities in the past 10 to 15 years (see p.32). These facilities range from private dental clinics to multi-city hospital networks. They often operate on a much smaller scale than the average public hospital, allowing them to devote more time to each patient because of a better staff-to-patient ratio and lower patient numbers. The facilities also provide a more pleasant environment because they can devote more resources to their patients and facility maintenance. A few of these facilities have been established with foreign investment, though most are wholly Chinese owned.

Obstacles to investment

Red tape

Healthcare services is a restricted sector in China's 2007 Catalogue Guiding Foreign Investment in Industry, which limits the speed at which new projects may be approved and increases the red tape associated with launching such projects. According to long-standing PRC requirements on the administration of joint-venture (JV) and joint-partnership medical institutions, foreign entities in healthcare services must have Chinese partners that hold at least 30 percent of total equity. These JVs must have registered capital of at least ¥20 million ($2.9 million) and may not establish branches. Foreign participants that want to have a presence in multiple cities, or at more than one site within a city, must establish separate JVs for each outlet. The approval process is onerous, requiring dual-track approval from China's healthcare bureaucracy (the PRC Ministry of Health [MOH] and relevant local health bureaus) and commercial government oversight agencies (including the Ministry of Commerce, National Development and Reform Commission, State Administration of Industry and Commerce, and their local branches). Though provincial-level governments—instead of the central government—have provided commercial approvals for healthcare JVs since early 2009, MOH in Beijing still oversees all JV applications for medical licenses. Thus, the central government retains significant control over the process.

Even after a foreign investor establishes a private healthcare institution, the institution must overcome significant obstacles to hire clinicians. For instance, Chinese physicians' licenses are held by the hospital where the physicians work rather than by the doctor as an individual. Until physicians are legally permitted to work in more than one facility, a development that is expected to occur in some jurisdictions in the next two to three years, physicians who want to work in a private facility must transfer their medical licenses to the private clinic, thus divorcing themselves from the perceived prestige, security, and social services associated with employment at the top academic hospitals. Moonlighting at a second clinic or hospital is technically permissible, but only with the express permission of the doctor's primary hospital each time the doctor consults at another facility. Some doctors are reluctant to take a second job out of concern that their loyalty will be questioned, out of fear that their extra income will be garnished, or because it is too troublesome.

Foreign clinicians may practice in China, but each jurisdiction has its own regulations regarding the licensing of foreign practitioners. (In contrast, China has standardized licensing procedures for Chinese clinicians.) Some jurisdictions simply issue a local license after the doctor submits an application and the original license from his or her home country. Other jurisdictions, such as Beijing, require each doctor to take a board-level examination before issuing a license. Though Beijing's exam is currently offered in

English and Chinese, many facilities that employ foreign doctors are concerned that the English-language exam will be eliminated so that only fluent Chinese speakers would be able to practice medicine in Beijing. Foreign nurses who come to any jurisdiction in China and who have a foreign nursing degree must take a licensing exam that is administered only in Chinese. Individuals cannot submit license applications; only fully licensed medical facilities as future employers of the applicants may submit the applications.

Though foreign physicians need to take the licensing exam only once while working in their jurisdiction, they must apply to renew their license each year. (Licenses issued to Chinese physicians are valid for as long as the doctor works for the institution.) These temporary licenses for foreign clinicians are renewable, but hospitals that employ foreign physicians worry that this may change. Once a foreign physician reaches the age of 60, the health bureau will no longer renew the doctor's work visa unless he or she qualifies as a "foreign expert". To qualify, the doctor must prove that he or she has rare skills that are difficult to replace and will benefit China. This application process is difficult, and the approval rate is low.

Finally, until recently, private and foreign-invested hospitals were ineligible for the permanent preferential value-added tax and business tax treatments that the PRC Ministry of Finance announced for many types of JVs over the last year. In November 2009, the State Council issued a circular that includes private healthcare institutions in the exemption.

Difficulty attracting patients

Once a private clinic is established, it must attract patients—a challenging task for many reasons.

■ **Restrictions on advertising** In response to a wave of misleading or even false advertisements placed by some private clinics, most jurisdictions have clamped down on content and type of healthcare facilities' advertising. Though the restrictions help deter false advertising, they also hamper facilities' ability to communicate with potential patients. To reach potential clients without violating

Selected Private Hospitals in China

China has permitted foreign private investment in hospitals and clinics since the 1990s. Since then, several private and foreign-invested hospitals have appeared across the country.

BenQ Hospital

The BenQ Hospital, which opened in 2008, is a modern, 3,000-bed facility located in Nanjing, Jiangsu. BenQ Group, a Taiwan company with its core business in information technology and manufacturing, owns 70 percent of the hospital. The Nanjing Traditional Chinese Medicine Hospital and the Nanjing State-Owned Asset Investment and Management Holdings Group own 10 percent and 20 percent of the hospital, respectively. The hospital, which targets the general public, provides outpatient and inpatient services at general public-hospital rates and has been approved to accept social health insurance (*yibao*). BenQ is constructing a new hospital in Suzhou, Jiangsu.

Clifford Hospital

Opened in late 2001, Clifford Hospital is a 600-bed facility in Panyu, Guangdong, (a satellite city of Guangzhou) that received Joint Commission International (JCI) accreditation in 2003 and was re-accredited in 2006. Clifford is noted for combining traditional Chinese, Western, and alternative medicine in a hotel-like environment. Established by the Clifford Group, a Hong Kong-based company with its core business in real estate, Clifford Hospital provides full-scope outpatient and inpatient services at general public-hospital rates and accepts *yibao*.

Phoenix Hospital Group

Founded in 1988, local company Phoenix Hospital Group operates two major hospitals in Beijing: the 500-bed Beijing Jiangong Hospital and the 670-bed Beijing Yanhua Hospital. Though Jiangong is run for profit and Yanhua is run as a nonprofit, both are large hospitals that provide the full scope of outpatient and inpatient services at public-hospital rates. These two hospitals accept *yibao*, and because they focus on the same population group and charge about the same prices as public hospitals, they compete with public hospitals for patients.

United Family Healthcare

United Family Healthcare (UFH), which opened its first facility in Beijing in 1997, is currently the only private or international healthcare provider with a presence in multiple Chinese cities. UFH operates comprehensive, JCI-accredited, premium-care inpatient and clinic facilities in Beijing and Shanghai. It also runs outpatient clinics in Beijing; Guangzhou, Guangdong; and Shanghai and manages a clinic in Wuxi, Jiangsu. UFH plans to open clinics or hospitals in several other cities in the coming years. Though UFH's patient base was initially heavily expatriate, its Chinese patient numbers have steadily increased, and its newest facilities are being established with the Chinese market in mind. UFH's hospitals are all contractual joint ventures (JVs)—solely managed by the Chindex United Family Healthcare Group. Chindex International, Inc., which has majority ownership in the JVs, partners with the Chinese Academy of Medical Science in Beijing and the Changning Central Hospital, on whose campus the hospital resides, in Shanghai.

—James Glucksman and Roberta Lipson

advertising restrictions, some facilities conduct extensive outreach activities, such as blood drives and on-site health checks, to acquaint potential patients with their services.

■ **Distrust of private clinics** Many Chinese patients are reluctant to seek medical treatment at private facilities. This reluctance may be a legacy of China's centrally planned economy, or it could derive from the unethical behavior of some early private healthcare providers. Whatever the reason, many Chinese citizens believe that medical treatment, along with certain other social services, are the natural preserve of the government and come to them as a right.

As private facilities proliferate and begin to earn the trust of a broader spectrum of Chinese society, this traditional reticence is likely to fade, especially as busy Chinese families begin to value the convenience and personal nature of private facilities more. A segment of the population, consisting largely of Chinese citizens who have returned to China after years of working or studying abroad and other relatively affluent people, already gravitates toward private facilities. These patients value the convenience of being able to make appointments instead of queuing to see a doctor. If private healthcare facilities are allowed to accept China's social health insurance (*yibao*) as partial payment of their fees, such facilities will likely grow faster at the high end of the market. (Currently, the government will review only those facilities that set their pricing at or below the pricing level of public hospitals for approval to accept *yibao*.)

■ **Inability to reach critical mass** In recent years, a few private hospitals that aim to deliver care at public hospital rates while offering more convenient services have opened. To break even or earn a return on their investment, these hospitals must operate on a fairly large scale. In many cases, however, these facilities have found it difficult to attract sufficient clinical talent to serve patients on this scale, mostly because clinicians are reluctant to leave academic institutions for untried, new providers.

■ **Bias against lesser-known doctors** Chinese patients tend to prefer seeking medical attention from tertiary or teaching institutions, often searching out the most famous doctors to take on their cases. This is partially due to the patients' desire to see top practitioners, but it is also because some Chinese patients lack faith in doctors whose credentials are not well-known. China lacks a mechanism to verify a doctor's license or examine his or her educational background, malpractice history, or other criteria that might inform a decision on which doctor to choose. Chinese patients have recently begun using Internet chat rooms to choose practitioners, but in general, they believe that doctors who are not practicing in large, state-owned hospitals are less qualified or experienced than those who do. To tackle this issue, successful private clinics have hired the most famous doctors from large hospitals as full-time employees or regular consultants.

Dearth of private health insurance

The widespread adoption of private healthcare is predicated on the willingness and ability of Chinese patients to pay for it. Though China has a sizeable population of wealthy patients for whom out-of-pocket cash payments are not an obstacle, most private healthcare facilities need to attract a much larger segment of China's population—the middle class—to stay afloat. One potential stumbling block to investment in private facilities is the relatively small scale of private medical insurance in China.

Though China's healthcare reforms include a provision to expand the role of insurance in the healthcare system, the country currently has a limited market for private insurance. Because most Chinese citizens do not fully understand the supplementary private insurance option and have a hard time finding appropriate products, they generally pay for their uncovered medical bills out of pocket. China's healthcare reform plan includes provisions to provide basic medical insurance to 90 percent of the population by 2011, but the level of care that will be covered is unclear. Because public insurance plans currently cover only 40 percent of costs, some observers believe that the new plans may cover roughly 40 percent of total in-patient healthcare expenditure too.

In many countries with basic national health insurance, consumers may purchase supplementary private insurance to cover services that the national plan does not cover. One day, this option may also exist in China, and a number of local insurance companies have already signaled their intent to offer this service. Currently, some insurance companies offer innovative products—for instance, some private insurance includes disease-specific policies that provide a fixed payment in the event that the insured contracts certain diseases, such as cancer or heart disease, regardless of the actual medical bills incurred.

Opportunities for those who can clear the hurdles

The market for private healthcare services in China is still in the early stages of development, and it must leap significant hurdles before it can emerge as a viable alternative to the public healthcare system. But the scale of the potential opportunity and the likely appetite of the population for patient-centered medical services will remain a tempting target for international healthcare companies. Yet only those with the patience to tread carefully through the regulatory and legislative hurdles, and with the financial resources to devote to such a challenging enterprise, are likely to achieve a successful and profitable outcome. 完

James Glucksman *(james.glucksman@ufh.com.cn) is vice president of Human Resources and Special Projects and Investor Relations at United Family Hospitals and Clinics.* ***Roberta Lipson*** *(rlipson@chindex.com) is chair of United Family Hospital and Clinics, CEO of Chindex International, Inc., and a director of the board of the US-China Business Council. They are based in Beijing.*

Johnson & Johnson

Johnson & Johnson's China-based medical learning centers feature international experts and medical seminars.

Johnson & Johnson

Johnson & Johnson (J&J) has been in China for over 30 years, predating the country's economic opening in 1979. The company entered China through a technology-transfer agreement to build a chemical factory in 1979. In 1985, J&J established its first joint venture in China, Xi'an-Janssen Pharmaceutical Ltd., and it is now beginning to retire its first generation of Chinese employees and leaders.

J&J companies employ roughly 6,000 people in China today and produce a wide range of consumer, pharmaceutical, and medical products. The companies use local market research, natural ingredients, and competitive prices to meet the needs of China's emerging market. J&J is seen in many ways within China as a Chinese company—one that has grown with the nation.

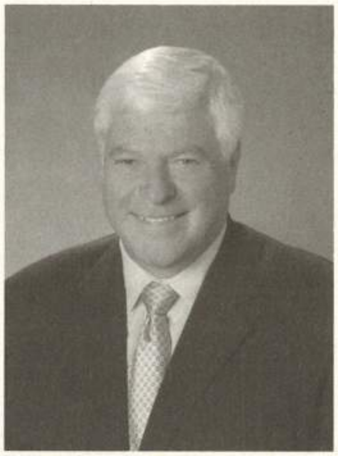
***William C. Weldon**, chair and chief executive officer of J&J, recently discussed the company's China operations with* CBR *Assistant Editor Daniel Strouhal.*

What are the biggest challenges that foreign companies operating in the healthcare and pharmaceutical sectors face in China? What strategies does J&J use to manage these issues?

We face many of the same challenges as firms in other sectors, including stiff competition for talent, a highly competitive market, and the need to produce and distribute products in an efficient, cost-effective way. But our sector is unique because healthcare is such a critical, personal, and sensitive area. In addition to ensuring the quality and safety of our products, companies in our industry are inevitably part of the debate over how best to provide healthcare for all citizens. For this reason, our sector faces a significant level of regulatory oversight, covering everything from exacting product safety standards to price controls and extensive procedures for approval of new products in the market. All of these issues require a combination of technical expertise and government-relations capabilities to reach the right audiences and develop lasting solutions.

Our strategy is to be broadly based in healthcare and to provide comprehensive solutions in China that address the particular needs of patients throughout the country. We are working with the government on its major healthcare reform initiative.

J&J operates in an industry that involves complex quality and safety issues. How does the company ensure that its products made in China meet global standards and expectations?



William C. Weldon

Our first obligation is to ensure that the doctors, healthcare professionals, patients, customers, and families who use our products benefit from our high standards of quality, safety, and effectiveness. Our companies have standards and processes in place to ensure that products that come out of our facilities in China are equal in quality and safety to products we produce anywhere in the world. Quality and safety assessments and measures are followed throughout the manufacturing process, from raw-materials sourcing to manufacturing of components and finished products to delivery in the marketplace. Of course, working with regulatory authorities and other agencies worldwide is critical to our improvement of monitoring, testing, and processes.

In 2007, J&J opened the Emerging Markets Innovation Center in Shanghai. How do this and other J&J facilities help the company adapt product development and marketing to China?

Developments in information technology and transportation have facilitated the flow of products around the world. However, in this environment it is important to keep in mind that while it may be easy to take a product developed and marketed in one country and sell it in another, that product may not be suitable or embraced everywhere. This is especially so in a country like China, which has its own long history, strong traditions, cultural identity, and personal preferences. So it is critical that we be sensitive to the particular needs and preferences of our customers in China. Our researchers and product developers at the Emerging Markets Innovation Center focus on developing new and affordable products to address the consumer needs and preferences of customers in China and other emerging markets. One of the center's first successes was the launch of Johnson's Baby Long Protecting Cream, which was specifically designed, priced, and packaged to meet the needs of our Chinese customers.

Our acquisition of Beijing Dabao Cosmetics Co., Ltd. in 2008 is also an example of an approach we have taken to address local market preferences. This acquisition not only provided us with a brand that is well-known and respected in households across China but also expanded our presence in China and extended our commitment to build the country's consumer healthcare sector. We hope to bring the Dabao brand to the rest of the world in the future.

J&J entered into a partnership with the Tianjin Medical University Cancer Institute and Hospital in 2008 to develop biomarker models for personalized medicine. What role does this partnership play in the company's market strategy and its commitment to China?

By the end of 2010, cancer is expected to be the world's leading cause of death, and by 2025, 50 percent of new patients with chronic diseases such as cancer are expected to come from developing countries such as China. Our goal is to transform cancer into a preventable, chronic, or curable disease through a better understanding of cancer biology that will lead us to innovative solutions such as predictive biomarkers. Biomarkers, which are used in all J&J oncology research and development programs, are essential to our ability to realize the promise of personalized medicine.

The partnership with Tianjin Medical University Cancer Institute and Hospital is part of our external innovation strategy to build a collaborative network with top research institutes to access and accelerate cancer therapies. It is also a cornerstone of our research and development strategy in China to build alliances with local research organizations to collaborate in research areas that maximize the strengths of both organizations. Through these joint programs, we will play a key role in encouraging scientific exchange from the best sciences around the world and will be a partner to the momentum of innovation from China. These kinds of collaborations will also serve to build platforms and foundations for innovation in disease areas that have high unmet needs in China and other Asian countries.

J&J was a top sponsor of the 2008 Beijing Olympics and will be a top sponsor of China's Expo 2010 in Shanghai. How does the company's participation in these events fit into its overall China strategy?

As a company that has grown together with China for the past 30 years, we share the excitement and pride that come with the Olympics and the 2010 Expo, and we are happy to do what we can to make sure that others have a chance to enjoy these historic events. Being the official healthcare sponsor of the Beijing 2008 Olympic and Paralympic Games not only helped to enhance our reputation in China but also helped us forge deeper relationships with the people of China. We conducted a variety of activities during the Olympic Games focused on providing education and information to improve the health and well-being of families and communities, including opening a professional training and education center. These activities have contributed to our growth in the market and, most important, have aided our ability to attract and retain top talent.

providers are more serious than ever, and the growth opportunities associated with them are significant, globally and in China. Our overall business is growing well in China despite the global economic downturn, and we view growth in emerging markets like China as essential to the overall health of our business.

> The unmet needs of patients, consumers, and healthcare providers are more serious than ever, and the growth opportunities associated with them are significant.

The Expo is expected to bring 70 million visitors, of which 50 million or so will be Chinese, and the companies of J&J are looking forward to opportunities to connect with these customers in meaningful ways that will extend beyond the event itself.

How does J&J protect its intellectual property rights (IPR) in China?

IPR violations, as well as the related issue of counterfeiting, are serious concerns for J&J as we expand into new markets. In particular, the global problem of counterfeit healthcare products puts the health and safety of patients at risk while undermining confidence in product safety and effectiveness. Over the past several years, we have been encouraged by the increased emphasis that the PRC government has put on IPR protection in China. Because there is no single step that can ensure IPR is protected, our collaboration with governments, regulators, and other stakeholders is critical to our ability to identify ways to strengthen and enforce existing laws to ensure the integrity of our patents is maintained. We have also worked with the PRC government and US business associations to support their efforts to protect IPR.

We use a diverse mix of strategies to reduce the risks from counterfeiting. These include monitoring markets and collaborating with regulatory and law-enforcement authorities and others to identify, seize, and destroy counterfeit goods and take legal action. Probably some of the most important work we do is to raise awareness among stakeholders on the dangers of counterfeit products and the role these stakeholders can play in eliminating a practice that puts our customers at risk.

How do you see the outlook for the pharmaceutical, medical device, and consumer products markets in China over the next 5 to 10 years? In what areas will J&J grow most in years to come?

Though we don't make public sales forecasts that far out, the unmet needs of patients, consumers, and healthcare providers are more serious than ever, and the growth opportunities associated with them are significant, globally and in China.

providers are more serious than ever, and the growth opportunities associated with them are significant, globally and in China.

Our strategy is to be well-positioned for growth in a variety of rapidly growing healthcare segments across consumer [health products], phramaceuticals, and medical devices and diagnostics. Some spaces where we have been making our most recent investments for growth include beauty and cosmetics, Alzheimer's disease, vaccines, oncology, HIV, cardiovascular disease, diabetes, and wellness and prevention.

China is undertaking major healthcare reforms. What is J&J's role in these reforms, and how will the company adjust to change?

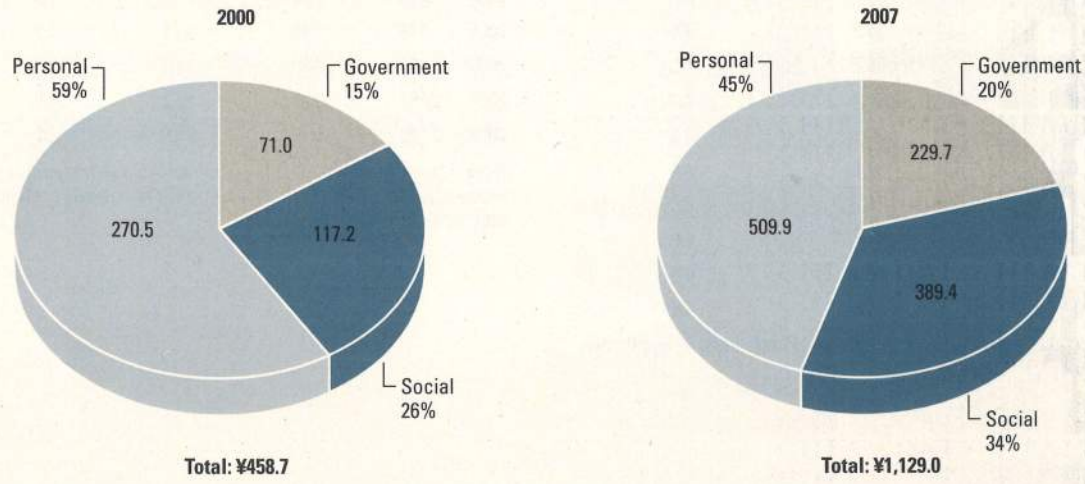
Countries around the world continue to wrestle with the issue of how best to ensure adequate healthcare for their citizens in a cost-effective way. Both the United States and China are undergoing major reassessments of their healthcare systems. As a leading global company in the healthcare area, J&J has much to offer China and other governments by way of experience and ideas.

One of China's priorities has been to build a harmonious and innovative society. J&J has supported this effort by working to ensure that innovation is rewarded and that Chinese patients receive the best health treatment possible, including in rural areas. We have worked with the PRC government, including through strategic partnerships with the Ministry of Health and the State Food and Drug Administration, as well as with organizations like the China Association of Mayors and the All-China Women's Federation, to share our experiences and best practices. Overall, China's healthcare reform policymaking process has been extraordinarily open, with the government seeking public engagement from a variety of stakeholders, including business. As a result, we have had the opportunity to provide input on private insurance, hospital finance, pharmaceutical supply, and other major elements of reform. We believe that this unprecedented level of transparency and participation has been a critical factor in developing a sounder healthcare policy and that this experience can serve as a model for policy development in other areas in China. 完

Stepping Up Medical Services

Public health spending nearly tripled from 2000 to 2007, with government and social spending making up a larger share of the total.

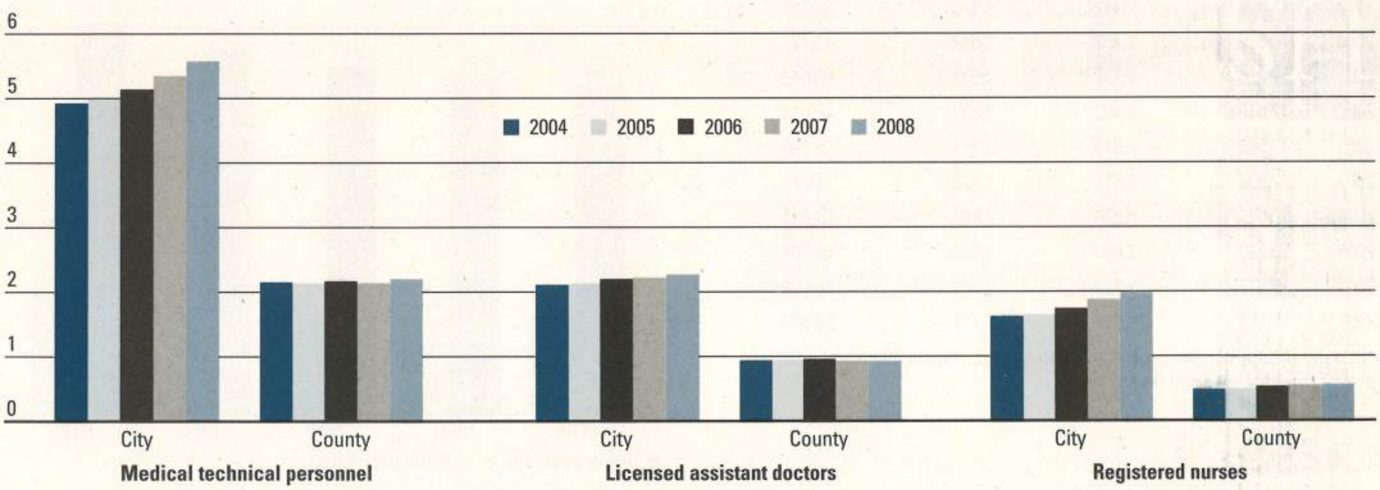
Spending on Public Health, 2000, 2007 (¥ billion)



Note: "Social spending" refers to nongovernmental budgetary input from basic medical care insurance, commercial health insurance, non-health-department administrations, enterprises, rural households, private investment, and extra budgetary funds of public healthcare institutions.

The number of urban healthcare workers is rising, while the number of rural healthcare workers has stagnated.

Personnel in Healthcare Institutions, 2004–08 (per 1,000 persons)



Note: "Medical technical personnel" refers to professional staff in healthcare facilities, including licensed doctors, licensed assistant doctors, registered nurses, pharmacists, and laboratory technicians. Licensed doctors include licensed assistant doctors in training.

The use of medical services in rural township health centers has jumped in the last two years—as has participation in the new rural cooperative medical system.

Use of Medical Services in Rural Township Health Centers, 1999–2008

	Visits (millions)	Utilization rate (%)	Average stay in hospital (days)
1999	838	32.8	4.6
2000	824	33.2	4.6
2001	824	31.3	4.5
2002	710	34.7	4.0
2003	691	36.2	4.2
2004	681	37.1	4.4
2005	679	37.7	4.6
2006	701	39.4	4.6
2007	759	48.4	4.8
2008	827	55.8	4.4

Note: "Utilization rate" refers to the percentage of beds used in healthcare facilities per year.

New Rural Cooperative Medical System, 2004–08

	Counties participating	People participating (million)	Participation rate (%)	Total spending (¥ billion)	People compensated for medical treatment (million)
2004	333	80	75.2	2.6	76
2005	678	179	75.7	6.2	122
2006	1,451	410	80.7	15.6	272
2007	2,451	726	86.2	34.7	453
2008	2,729	815	91.5	66.2	585

Note: Compensated medical treatments include hospitalization, out-patient expenses, catastrophic disease out-patient coverage, childbirth expenses, and medical examinations.

The number of specialized hospitals has more than doubled, while the number of healthcare centers has dropped.

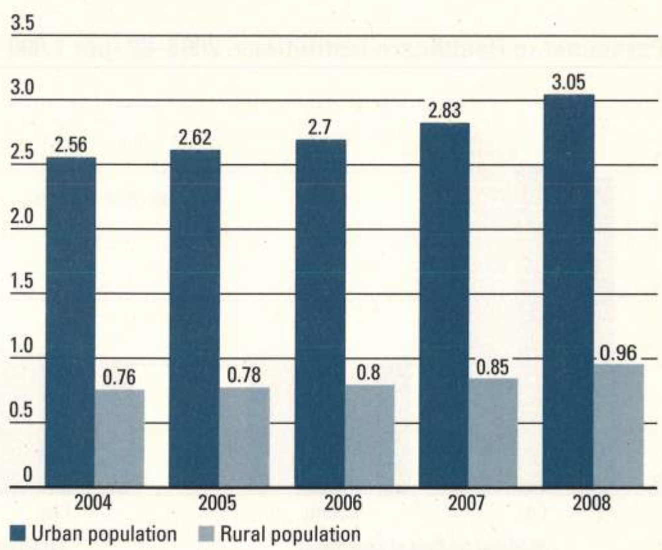
Healthcare Institutions by Type, 1999-2008

	General hospitals	Traditional Chinese medicine hospitals	Specialized hospitals	Healthcare centers
1999	11,868	2,441	1,533	50,257
2000	11,872	2,453	1,543	49,777
2001	11,834	2,478	1,576	48,643
2002	12,716	2,492	2,237	46,014
2003	12,599	2,518	2,271	45,204
2004	12,900	2,611	2,492	42,471
2005	12,982	2,620	2,682	41,694
2006	13,120	2,665	3,022	40,791
2007	13,372	2,720	3,282	40,679
2008	13,119	2,688	3,437	39,860

Note: Healthcare centers include urban and rural lower-tier care and preventive centers and clinics.

The number of beds per 1,000 persons is much higher in urban than rural areas, but the ratio is growing faster in rural areas.

Beds in Healthcare Institutions, 2004–08 (per 1,000 persons)



Most counties participate in the new rural cooperative medical system, and more people tend to be compensated in China's eastern provinces.

New Rural Cooperative Medical System by Region, 2008

	Participating counties (%)	People participating (million)	People compensated (million)	Funds raised (¥ million)
National	**95.5**	**815.2**	**585.2**	**78,458.4**
Henan	98.7	72.8	36.5	6,492.3
Shandong	95.7	63.6	88.9	5,573.7
Sichuan	97.2	61.4	27.2	5,086.4
Guangdong	91.7	48.4	15.4	5,517.3
Hebei	95.3	46.7	18.0	4,188.0
Anhui	95.2	45.2	18.0	4,301.6
Hunan	100.0	45.0	13.4	3,581.7
Jiangsu	84.9	44.1	70.8	5,538.7
Hubei	93.1	35.4	27.0	3,304.5
Guangxi	100.0	35.4	15.8	2,749.6
Yunnan	100.0	32.2	59.4	2,886.1
Zhejiang	95.6	30.8	39.8	4,374.7
Jiangxi	97.0	29.3	8.0	2,700.7
Guizhou	100.0	28.3	18.8	2,515.5
Shaanxi	97.2	25.3	8.2	2,272.6
Fujian	91.8	23.2	2.1	2,051.1
Shanxi	96.6	20.9	10.1	1,938.3
Chongqing	97.5	20.1	26.9	1,779.0
Liaoning	91.0	19.5	13.1	1,896.5
Gansu*	NA	18.7	10.6	1,684.5
Heilongjiang	94.5	13.5	7.2	1,121.2
Jilin	100.0	12.2	5.3	981.9
Inner Mongolia	94.1	11.8	4.9	1,084.3
Xinjiang	90.8	9.5	8.5	975.9
Hainan*	NA	4.7	1.2	451.9
Ningxia	100.0	3.6	2.7	330.8
Tianjin	66.7	3.6	3.5	521.0
Qinghai	100.0	3.3	2.5	347.0
Beijing	72.2	2.7	2.8	915.7
Tibet	100.0	2.2	3.9	343.8
Shanghai	52.6	1.8	15.6	952.7

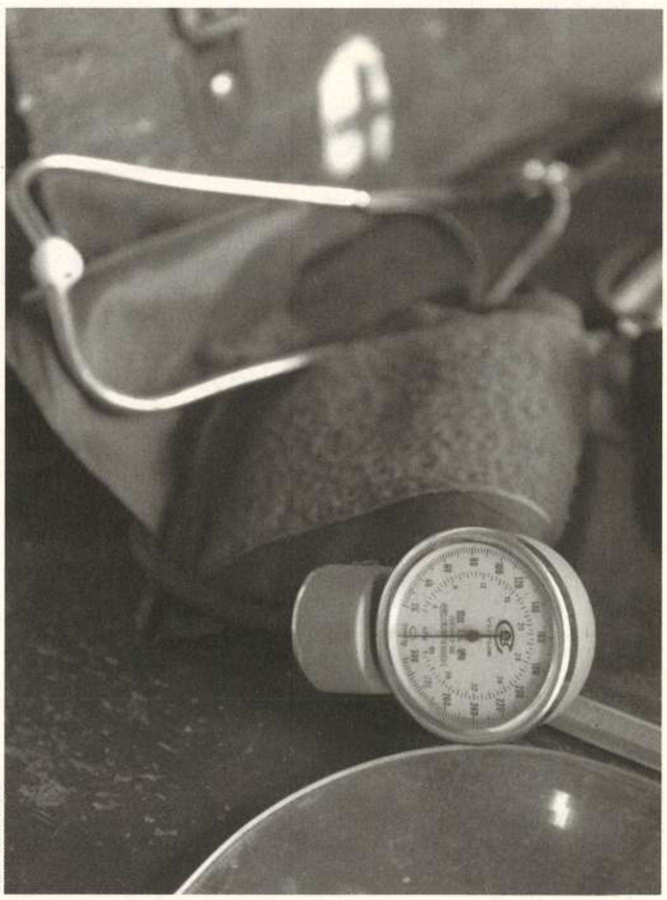
Notes: NA = not available. *The number of participating counties in Gansu and Hainan exceeds the number of counties in these provinces according to the 2009 *China Statistical Yearbook.*

Sources: PRC National Bureau of Statistics, 2009 *China Statistical Yearbook;* the US-China Business Council.

Government spending has focused on the rural "three-tier healthcare networks"—county hospitals, rural health centers, and village clinics.

Estimated Healthcare Investment by Province, 2009–11

	Estimated investment	
Province/municipality	**¥ billion**	**$ billion**
Henan	47.9	7.0
Hunan	42.5	6.2
Guangdong	42.0	6.2
Yunnan	42.0	6.2
Jiangsu	41.8	6.1
Shandong	41.8	6.1
Shaanxi	36.8	5.4
Zhejiang	35.6	5.2
Hebei	34.5	5.1
Fujian	34.0	5.0
Inner Mongolia	30.0	4.4
Chongqing	24.5	3.6
Liaoning	19.9	2.9
Qinghai	10.4	1.5
Hainan	7.2	1.1



China Foto Press


China Foto Press

Roughly 80 percent of global trade is affected by standards, according to the Organization for Economic Cooperation and Development.

Standards in China: Behind the Headlines

China's approach to standards and conformance can create significant challenges for US companies doing business in China.

Elise Owen

A recent string of high-profile standards-related events in China has focused attention on the importance of standards to global trade—and on the ability of US companies to enter and compete in the Chinese market. Recent "hot issues" related to standards and conformance in China include patents and intellectual property, environmental regulations such as restrictions on hazardous substances, supply-chain safety, information security regulations, and limitations on foreign participation in China's standards development processes.

Standards, technical regulations, and the testing, certification, and other procedures needed to demonstrate compliance with them—collectively referred to as "standards and conformance"—serve as the unseen foundation for and international language of commerce. When applied and used well, standards and conformance provide the basis for interoperability of technologies, support innovation, and increase consumer trust and confidence; when misapplied, they can disrupt trade and create market barriers. When a country's standards and conformance differ too greatly from international best practices, foreign and domestic companies alike face greater barriers to accessing international markets.

China's top-down approach to standards and conformance

In China, several government bodies receive funding and have a mandate to decide not only which standards to develop, but also the processes and fora used to develop them. These bodies often offer incentives and other mechanisms to push standards of their choice into broad use within the Chinese market.

The top-down approach has helped China's standards and conformance systems develop rapidly. China's current systems are relatively new and have been built largely from scratch since China joined the World Trade Organization (WTO) in 2001. But China's top-down approach has also made it more difficult for private stakeholders to participate in the standards-setting process. In some cases, a single leader or group of officials will make decisions without the benefit of the collective knowledge of all stakeholders and experts, leading to standards and conformance approaches that are impractical and unevenly enforced, limit access for foreign products, or entrench inferior or outdated technologies.

Quick Glance

- China's central authorities make decisions about what standards the country will develop and use.
- Poor transparency and sudden changes to requirements can create difficulty for foreign companies navigating China's standards and conformance systems.
- To mitigate or avert standards-related problems before they arise, companies can work with other stakeholders to track issues and coordinate efforts.

Low confidence in private-sector standards setting and conformity assessment

In China, a strong belief prevails that the government must solve important environmental, health, safety, and quality issues. Many Chinese decisionmakers believe that the government is more reliable and capable than the private sector to carry out effective standards and conformance, so the government often steps in to offer authoritative solutions. This system can create highly bureaucratic and cumbersome standards and conformance requirements, which in turn force US companies to repeat costly testing, inspection, or certification activities that they have already conducted for the US and other major global markets.

For example, under the China Compulsory Certification (CCC) program, which affects more than 20 percent of US exports to China, certification must be carried out in China by designated certification bodies (DCBs) affiliated with the PRC government. Conformity assessment work that has already been conducted by qualified private-sector organizations, including assessments that are typically accepted in the United States and other international markets, must be repeated by Chinese test labs and certification bodies. Because DCBs rarely have a presence outside China, companies that export products to China must arrange and fund travel for a Chinese agent to conduct pre-market inspections at the manufacturer's location and submit to subsequent routine inspections after receiving the CCC mark. Though the costs associated with processing a CCC mark can be significant, especially for small and medium-sized enterprises, most companies report more pressing concerns about delays to market—particularly for new product scopes as they are added to the CCC catalogue—and disadvantages for foreign companies that must compete with Chinese entities, which enjoy more direct access to testing, inspection, and certification services. US companies have also expressed concern that proprietary product designs and manufacturing methods could be compromised during the certification process, given the close ties that many Chinese testing and certification bodies appear to have with Chinese manufacturers.

Openness and transparency

In the United States, openness and transparency are cardinal principles of the standardization system, but the Chinese approach to standards and conformity assessment has not traditionally placed the same value on openness, transparency, and broad stakeholder consultation. US companies that produce for the Chinese market frequently complain of sudden changes to requirements without advance notice and report challenges in identifying the standards, regulations, and other requirements for their products in China. They also find it difficult to identify and monitor the progress of, and provide input on, relevant standards and regulatory developments. This is particularly true of standards developed outside of China's national standards (*guo biao*) structure, such as industrial standards and regulations used by individual PRC government regulatory agencies. Inadequate openness and transparency reduce domestic and international scrutiny of Chinese standards and conformance requirements, prevent experts from providing input on ways to make these requirements more effective and more practical, and remove pressure for these requirements to be developed in accordance with international approaches.

Since entering the WTO, China has made significant improvements to the transparency of its system. As a WTO member, China has committed to notifying the WTO secretariat of new or proposed changes to technical regulations that could affect trade significantly and to consider comments from all other WTO members. The number of Chinese notifications has risen from 40 in 2003 to 184 in 2008 in part because China has adopted new technical regulations that aim to protect the environment, human health, and safety, and also because China has increased its capacity to meet its WTO obligations. Another positive example is China's work with the American National Standards Institute (ANSI) to develop the StandardsPortal website (see p.42). China's progress is promising, and it presents opportunities for the United States to share its perspectives and experiences with PRC regulators and standards developers on how openness and transparency can help accomplish their objectives more effectively, as well as provide technical assistance and practical guidance on increasing transparency.

Inconsistent implementation creates uncertainty

It is common for PRC officials to work out practical details of implementation and enforcement after a requirement has already taken effect. For instance, a regulation that requires a product to be tested in an "approved facility" may enter into force before facilities have been approved. This lack of clear implementation details tends to affect foreign companies disproportionately because they often lack the relationships with PRC standards agencies that domestic companies have and thus may find it more difficult to get clarification directly from the agency concerned.

Recent public health and safety scares involving imports of Chinese tires, food, toys, and other products have exacerbated this problem, because China's response to such concerns has generally been to create more stringent standards and regulations. This approach fails to solve key concerns: incomplete implementation and inadequate enforcement of existing requirements. The resulting requirements are increasingly onerous, less likely to be enforced for domestic companies, and even less effective at reducing threats to the environment, human health, and safety.

Actions that US companies can take

US companies may feel overwhelmed by the scope of standards and conformance-related challenges they encounter when doing business in China, but most problems are solvable with the proper level of engagement and participation on both sides. Capacity building and cooperation ini-

Overview of the American National Standards Institute and Its China Program

As coordinator of the US standards system, the American National Standards Institute (ANSI) offers a neutral forum where companies, nongovernmental organizations, academics, government officials, and others work through consensus processes to develop US policies and positions for standardization. ANSI represents the interests of US companies and other stakeholders internationally, promotes standards and conformance approaches that support international trade and investment, and helps companies navigate foreign standards and conformance processes.

ANSI has worked cooperatively with China under a memorandum of understanding established with China's national standards body nearly 30 years ago. In 2006, ANSI established a dedicated China Program that aims to

- Address overarching standards and conformance issues in China;
- Help companies and organizations address sector-specific issues; and
- Provide information and resources to help ANSI members succeed in China.

Two key aspects of the ANSI China Program are StandardsPortal and the ANSI Manufacturer Member Roundtable in China.

StandardsPortal (www.standardsportal.org)

StandardsPortal is an online resource designed to facilitate trade and exports by answering key standards and conformity assessment-related questions:

- What technical requirements must a product meet to enter and compete in the US, Chinese, and international markets?
- How can I receive "early warning" about changes to these requirements?
- How can I ensure that my company's perspectives are heard and considered in the development of the standards, technical regulations, and conformity assessment policies that could affect my business?

Launched in 2006, StandardsPortal includes English- and Chinese-language information on both countries' standards systems and related national policies. It also provides information about and access to foreign and international standards, resources to make use of such standards, and detailed information about how to participate in the development and modification of such standards.

StandardsPortal provides companies with English-language access to search the full catalogue of PRC national standards, China's plans for future developments and amendments to national standards, and policies and procedures on standards development in China. ANSI has also compiled case studies on the experiences of US organizations that have resolved standards and conformance issues in China and posted them to StandardsPortal.

ANSI Manufacturer Member Roundtable in China

The ANSI Manufacturer Member Roundtable in China provides a forum for manufacturing companies to discuss challenges and strategies, exchange information across industry sectors, and provide perspectives on issues that affect their China operations, including

- China Compulsory Certification regulations;
- China's restriction of hazardous substances;
- China's new energy-efficiency requirements; and
- Other priority issues for companies doing business in China.

The roundtable's monthly meetings, which alternate between Beijing and Shanghai, are conducted primarily in Mandarin and frequently feature briefings from PRC government officials and other top experts.

—Elise Owen

tiatives carried out by the US government, ANSI, the US-China Business Council (USCBC, publisher of the *CBR*). and others are already helping to address differences and deficiencies between the US and PRC systems. Individual companies must also take preventive action to standards and conformance in China, because that is the most effective way to address these challenges. For example, companies should

- Identify the departments or individuals within the company who are responsible for standards or regulatory affairs and work with them to share information on standards and conformance issues across geographic responsibilities and business units.
- Establish and maintain relationships with PRC government agencies responsible for standards, conformity assessment, and regulations that affect the company's products. Companies should meet with these agencies regularly to gain an understanding of these agencies' needs, challenges, goals, and objectives and position themselves as a partner that can support these agencies.
- Establish and maintain relationships with Chinese industry through Chinese trade associations, technical committees, and conferences. Companies should work formally and informally to identify and pursue common goals and concerns for standards and conformance.
- Use resources provided by ANSI, the US government, USCBC, and others to gain "early warning" on possible standards and conformance developments that could affect their products. Companies should share potential concerns with these organizations to help focus information-gathering efforts and discuss concerns and share practical recommendations with PRC officials before standards, regulations, or policies are published.
- As standards issues in China are increasingly cross-cutting, coordinate and share experiences with companies in other industry sectors.

When standards and conformance issues do arise, companies should consider the following actions:

- **Work with others to develop a coordinated approach** Use the resources of ANSI, the US government, USCBC, and other trade associations to support advocacy efforts and show a united front.
- **Focus on the facts** Standards issues are typically complex. When discussing a concern with PRC officials, companies should know which policy or regulation is causing problems and how it differs from approaches in the United States, Europe, and other regions. It is more effective to present facts about how the requirement affects the company's business than to share opinions about what PRC officials "ought to do."
- **Seek help from other PRC agencies** When faced with a problematic policy or requirement, it is tempting to approach the responsible agency directly to discuss concerns. Though this is an important first step, companies may want to consider other PRC government agencies that may share—or at least be more sympathetic to—company concerns. Companies should consider whether the problem they are facing could affect the competitiveness of Chinese industry, China's ability to innovate, or China's ability to obtain cutting-edge equipment to support societal needs, such as medical devices that save lives or agricultural equipment that helps increase crop yields. 完

***Elise Owen** (eowen@ansi.org) is director of the China Program and director of International Development at the American National Standards Institute (ANSI). She is based in Washington, DC.*

Case Study: Foreign Participation on Chinese Technical Committees

To increase transparency and consistency among Chinese national technical committees, the Standardization Administration of China (SAC) released an announcement in 2008 that formalized the operating procedures of Chinese technical committees. Transparency in China's standards, conformity assessment, and regulatory system has been a key area of concern for the American National Standards Institute (ANSI) and its members, and China's effort to formalize and post technical committee operating procedures publicly—as part of broader initiatives to make the Chinese system more transparent—is a positive development.

One clause in the recent SAC announcement raised concern, however. This clause stated that "it is permitted that the foreign enterprises can send people as observers to take part in activities of related technical committees." Typically in such PRC documents, an option not explicitly "permitted" is not allowed. The new regulations thus created concern for many US companies that had made significant investment to gain access to standards development in China and that had either already lost voting rights on Chinese technical committees or feared that they would under the new policy.

ANSI raised these concerns with SAC, using the jointly established StandardsPortal website as a compelling example of how US-based standards developers welcome—and even recruit—participation from international experts and how this strengthens standardization in the United States. The issue was also raised by the US government during the 2008 meeting of the US-China Joint Commission on Commerce and Trade. In early 2009, SAC revised its policy to indicate that representatives of entities legally registered within China may participate in Chinese national technical committees as voting members at the discretion of the technical committee chair. With this announcement, the voting rights of companies on Chinese technical committees that had been in jeopardy were restored.

—*Elise Owen*

The US End User Review Committee checks whether endusers engage only in commercial, non-military activity.

The Struggles of Shipping Dual-Use Goods to China

Two US Department of Commerce programs encourage exports to China but also add red tape for both sides.

Christopher F. Corr and Jason T. Hungerford

US exports to China have risen rapidly in recent years, totaling $69.7 billion in 2008, up nearly 30 percent from 2006. As demand fell during the global economic slowdown, US exports to China dropped but still accounted for 6.2 percent of total US exports, up from 5.5 percent in 2008. China's importance to the United States as an export market continues to grow despite sometimes-onerous US export control restrictions. US export controls are more stringent than those of competitor nations, in part because of their complexity and resulting potential to delay transactions.

Though the value of US exports to China is increasing, the US-China trade deficit continues to expand, reaching $268 billion in 2008, a 3.7 percent increase year on year.

The best way to remedy this imbalance is to increase exports to China, where the economy expanded even as the global economy soured.

The United States faces fierce competition as emerging markets with inexpensive labor compete on price for sales of commodity goods and developed countries compete for sales in value-added sectors. Even in the high-tech sector, where the United States enjoys a competitive advantage, stringent US export controls hamper growth.

To ease regulatory burdens for US exporters that seek to tap the enormous China market, the US Department of Commerce Bureau of Industry and Security (BIS) recently introduced two programs: the Validated End User (VEU) authorization program, which began in June 2007, and the proposed Intracompany Transfer License Exception program. Though these new initiatives could make life easier for US exporters and boost US exports to China, they expose participants—especially Chinese end users—to heightened US government scrutiny and increased administrative burdens. Whether companies perceive the risks and burdens as outweighing the programs' benefits remains to be seen, but early indications are not promising.

Quick Glance

- The Validated End User (VEU) program and the proposed Intracompany Transfer License Exception aim to make it easier to export dual-use items to China.
- Red tape, opposition in the US Congress, and reluctance in China have hindered use of the VEU program.
- If these problems can be resolved, the programs could help boost US exports to China.

VEU authorization program

BIS requires goods and technology that may be used for commercial and military purposes—referred to as dual-use items—to be licensed before they are exported to China. (The US Department of State controls goods used primarily for military purposes, including most satellite and aerospace technology and parts.) Because of concerns about PRC military involvement with private-sector technology firms in China, BIS heavily scrutinizes licensing applications for dual-use exports to China. This causes uncertainty, delays, and opportunity costs for US producers.

In June 2007, BIS implemented the VEU authorization program to ease the regulatory burden on US exporters and third-country re-exporters that ship approved technology to pre-authorized Chinese end users. The program requires the Chinese end user to apply to BIS for approval by the End User Review Committee, an interagency panel consisting of representatives from the US departments of Commerce, Defense, Energy, State, and other US agencies. The committee reviews the end user's records to ensure that it engages in only commercial, non-military-related activity and complies with US export controls. It also reviews the end user's relationships with US and other companies. If the committee approves the application, exporters may ship certain items designated by BIS to the end user without a license. The approval does not expire or require renewal. In return for VEU status, however, the end user must allow BIS to conduct on-site audits and inspect records of all transactions that use this authorization.

The VEU program has several limitations. First, the End User Review Committee allows only goods, software, and technology with certain BIS export control classification numbers to qualify for license-free authorization. Certain items, such as those used in missiles or crime control, are ineligible for approval. Second, items exported under VEU authorization may be used only by the VEU or at the VEU's facility. Any further domestic or international transfer of the items requires separate BIS authorization. Finally, the authorization may be subject to company-specific limitations and conditions that are not disclosed to the general public.

Objections to the VEU program

Challenges have plagued the VEU program since its inception. The PRC government objected at the outset to the program's requirement that VEUs allow BIS to conduct on-site audits, an objection that effectively suspended the VEU program and threatened to end it before it began. In early 2009—more than 18 months after the program began—the PRC Ministry of Commerce (MOFCOM) agreed to allow BIS on-site access to Chinese VEUs on the condition that the audits be arranged through MOFCOM and conducted were under its watchful eye. As *CBR* went to press, all indications were that no on-site audits have been conducted. Whether this sensitive, extra-judicial "validation" process can be implemented effectively remains uncertain.

Opposition in the United States has also threatened the VEU program. During US congressional hearings on the subject in 2008 and 2009, the nongovernmental organization Wisconsin Project on Nuclear Arms argued that the committee review process is faulty and dangerous. The organization alleged that two of the initial five VEUs approved by BIS have ties to the Chinese military and noted that another approved VEU shares an address with the China National Electronics Import and Export Corp., an entity sanctioned by the US State Department from 2006 to 2008.

Under the weight of criticism from both sides of the Pacific, the VEU program nearly collapsed at the end of 2008. BIS reportedly stopped accepting new applications in mid-2008 and disbanded the office that coordinated the End User Review Committee's work. But MOFCOM's agreement in early 2009 to allow BIS site visits in China appears to have given new life to the program: BIS approved an additional Chinese VEU in April and expanded the program to India, approving the first Indian VEU in July 2009.

Continued on page 49

China Foto Press

More individuals and companies are developing credit histories in China.

Checking Credit in China

The credit system's detailed information may reduce the risk of doing business in China.

Chunxin Jia and Philip C. Chang

Many people assume that China does not have an effective credit information system—at least not one good enough to support business decisions. But the country has developed a comprehensive national system that companies can use to check the credit of individuals or businesses in China. Foreign companies may find the system useful for checking the backgrounds of clients, potential partners, or job applicants. Since the system collects company credit records, including those of foreign firms, companies should establish a credit record in China and check the accuracy of their credit reports.

Data boom

China's credit information system is similar to France's system: The government is responsible for collecting and providing credit information. The government of Shanghai, mainland China's largest municipality and financial center, created the country's first credit information system in 2000. At the central level, data collection has progressed rapidly since 2003, when the central government tasked the People's Bank of China (PBOC), China's central bank, with establishing a national credit information system.

By the end of 2008, PBOC's Company Credit Information System (*Qiye Zhengxin Xitong*) contained the credit records of 7 million companies and basic information on 14 million businesses and other organizations (see Figures). The company database was used more than 32 million times to check credit in 2008. The Personal Credit Information System (*Geren Zhengxin Xitong*) contains the credit records of 140 million individuals and basic personal information on 630 million people—nearly half of China's population. In 2008, the personal database was used to check credit records 152 million times. PBOC has expanded the system significantly within the last few years, making it much easier for companies to use credit records to do business.

Quick Glance

- China's credit information systems include credit records for 7 million companies and 140 million individuals.
- Parties that wish to check a company or individual credit record must first obtain the target's consent.
- Although the system is not yet complete, checking the credit of customers and business partners can help companies reduce risk.

Sources of credit information

The central government coordinates China's extensive credit information system. PBOC, which monitors all commercial banks, obtains bank credit and loan information across the country, including credit card information, and loads it into the system. The China Securities Regulatory Commission (CSRC) holds information on all publicly listed companies and has connected its database to PBOC's central credit information system.

PBOC is gradually incorporating other non-bank databases into the system, including databases on social insurance payments by individuals and corporations, overdue taxes, overdue telephone and Internet bills, wages owed, penalties or awards issued on environmental protection and quality-control standards, and law enforcement information (such as refusal to comply with court verdicts and tickets for drunk driving). Because only personal income above ¥120,000 ($17,575) is taxable in China—a high threshold considering that the average annual income for employed urban residents was about ¥29,000 ($4,250) in 2008—the database mainly covers overdue corporate income taxes. The information is tracked and submitted by the relevant bodies, including commercial banks, CSRC, the State Administration of Taxation (SAT), and telephone companies. As soon as a database is integrated into the central system, the information becomes available on the system's intranet. Because the country is large and levels of development vary, data collection from second- and third-tier cities may lag behind first-tier cities.

Besides PBOC, government agencies such as provincial-level offices of the administration for industry and commerce and of the development and reform commission recently began to set up their own credit information systems, mainly covering non-bank information on local firms and individuals. Some private providers of credit information have also emerged, but their coverage is far less complete than the government's. These private providers offer other value-added services, however, such as credit ratings.

Tapping the sea of information

Foreign companies can use China's credit information system to check the credit of businesses or individuals after obtaining their consent.

The credit system is not publicly available online (though commercial banks can access the system online). For an individual to check his or her own credit, the person must go to a PBOC branch or a PBOC Credit Reference Center and complete the Personal Credit Report Application Form: For Checking Your Own Credit *(Geren Xinyong Baogao Benren Chaxun Shenqingbiao)*. The form asks for basic personal information, such as birth date, identification number, contact information, educational level and degrees, and occupation.

For a company agent to check the credit of an individual, the agent must take the above steps—plus submit brief information on him or herself—and provide proof in the form of a letter that the agent has the individual's permission to check their credit. The agent must also bring identification for him or herself and the individual. Alternatively, the inquiring company can ask the individual to obtain his or her own report and submit the report to the company.

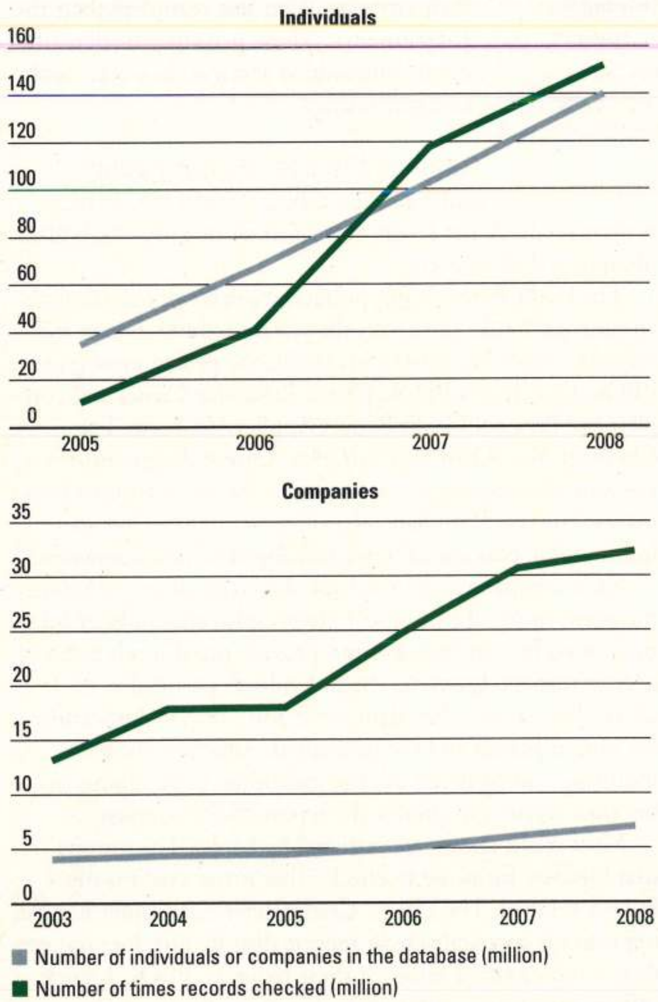
Most credit checks are initiated by banks. The process that business firms use to check other firms' credit is not fully developed. The PBOC Credit Reference Center handles requests for corporate credit reports directly but does not yet have a standardized form for these requests. PBOC branch offices set their own procedures for processing requests.

PBOC can generally issue credit reports on the spot. Currently, it does not charge a fee for requesting credit reports, though this may change. PBOC does not yet assign a grading system or credit scores as credit agencies do in the United States. If a company or individual rejects a request to check its credit, the inquirer may have grounds to suspect a poor credit history.

If a company or individual rejects a request to check its credit, the inquirer may have grounds to suspect a poor credit history.

The credit-monitoring system for small and medium-sized enterprises (SMEs) is still underdeveloped. In China, SMEs have less access to commercial bank loans than publicly listed or state-owned enterprises because banks concentrate on serving larger firms. As a result, many SMEs that seek financial assistance borrow money from family, friends, or underground money lenders. Since the central credit information system relies on information provided by banks, its information on SMEs is limited. Thus, the absence of a bad record in the PBOC system does not guarantee that the company has good credit.

Growth of China's Credit Information System



Note: China did not make credit data on individuals available until 2005.
Sources: *Almanac of Chinese Finance and Banking (2004–08)* and *Annual Report of People's Bank of China (2004–08)*

The system will improve after data from non-bank sources are fully incorporated into the central system, a feat that will take time. It will also improve when the PRC government finishes developing the regulatory framework on collecting, protecting, and using credit information—a lengthy process with no clear deadline. PBOC issued Provisional Regulations on the Management of the Basic Personal Credit Information Database in 2005 and Provisional Regulations on the Management of the Basic Business Credit Information Database for comment in 2008. In addition, the State Council Legislative Affairs Office issued draft Regulations on Credit Information Management for comment in October 2009. PRC authorities have not yet finalized the regulations.

A boon for business?

Firms now have one-stop access to a comprehensive database that covers 14 million companies and half of China's population. With easier access to credit information, companies can significantly reduce the risk of doing business in China.

To gain access to financing in China and to have a strong credit history in case relevant parties conduct a credit check, foreign companies should establish credit records in China. The easiest way to do this is to apply for a "loan card" at the PBOC branch in the city where the company is registered and obtain a loan.

Finally, companies—domestic and foreign—should remember that they have the right to check their own credit reports and ask for corrections if errors are found. Errors should be reported to PBOC, which generally takes fewer than 15 days to investigate and correct. For more information, see PBOC's Credit Reference Center (www.pbccrc.org.cn/kefuzhongxin_304.html). 完

Chunxin Jia *(cjia@gsm.pku.edu.cn) is an associate professor of finance at Peking University's Guanghua School of Management.* ***Philip C. Chang*** *(philip.chang@haskayne.ucalgary.ca) is an associate professor of finance at University of Calgary's Haskayne School of Business in Canada.*

The Struggles of Shipping Dual-Use Goods to China

Continued from page 45

Benefits of the VEU program still uncertain

The VEU program aims to reduce licensing burdens for US exporters. Though BIS boasts that up to 90 percent of licensed US exports to China will eventually be covered by VEU authorizations, the volume of exports shipped to approved VEUs under the program remains negligible. The VEU program may give Chinese end users easier, faster, and perhaps lower-cost access to US exports, but it also subjects them to greater US government oversight than standard licensing procedures. Some VEUs have stated that although they expect the authorization to help them in the future, they have not yet used it to import US products.

The process also exposes US exporters to BIS scrutiny: Exporters that use the VEU authorization must collect and maintain end-user certifications from VEUs and submit annual reports to BIS, and BIS may audit exporters' records of transactions with VEUs under the program. US exporters also bear compliance risk, because BIS reveals the company-specific conditions and limitations on VEU authorizations only to the VEUs and not to the exporter. BIS regulations compound this uncertainty by providing US companies with little guidance on procedures and requirements for shipping to a VEU.

Intracompany Transfer License Exception

BIS does not currently have a special licensing provision for export and re-export shipments among affiliated entities. In October 2008, BIS proposed the Intracompany Transfer (ICT) License Exception, which would allow an approved parent company and its approved wholly owned or controlled subsidiaries and branches to export, re-export, and transfer controlled items and technology among themselves without a BIS license. BIS has not yet implemented the exception.

The ICT would be similar to the Special Comprehensive License, which also covers multiple export transactions. The ICT, however, would have fewer and different limitations: It would allow unlimited shipments between approved entities for an unlimited amount of time and place fewer restrictions on the types of items that may be authorized for shipment. Only encryption technology and items controlled as "significant equipment" would be ineligible for shipment under the ICT exception.

The ICT exception has two important limitations. First, to be eligible for the exception, parent companies would have to be incorporated or have their principal place of business in the United States or one of 37 other BIS-designated countries. Parent companies based in China would not be able to use the exception, but Chinese subsidiaries of approved non-Chinese parent companies would be eligible. Second and more significant, items shipped under the ICT exception would have to be used internally and could not be retransferred outside the approved company without separate BIS approval.

The ICT exception would reduce the licensing burden for approved companies, but similar to the VEU authorization, companies that use the exception would subject themselves to greater government scrutiny. To secure BIS approval, ICT applicants would have to develop and submit an internal control plan that complies with BIS regulations. The plan would also have to include a self-evaluation of compliance efforts and disclose any deficiencies that the applicant company may have. This mandatory "voluntary" self-disclosure requirement would subject the applicant company to increased US government scrutiny and potential fines and penalties. Applicants would also have to disclose the identities of significant shareholders and agree to biennial and spot audits of themselves and their subsidiaries.

Assurances needed

The perceived risk-reward imbalance, especially for Chinese end users, has so far kept the VEU program from easing the process of exporting dual-use items to China. If companies perceive the cost of more government scrutiny to outweigh the benefits of license-free internal transfers, the proposed ICT exception may reduce constraints on exports to China only modestly. Furthermore, uncertain cooperation from PRC authorities and resistance in the US Congress may hamper the growth of both programs.

To ensure that the VEU authorization and ICT exception free a significant volume of US exports to China from bureaucratic red tape, BIS will need to reassure exporters and Chinese end users that these programs will not expose them to significantly greater compliance risks and burdens. At the same time, BIS will need to assure domestic critics of its ability to perform due diligence on applicants to these programs. For now, US and PRC companies should consult with BIS and compliance counsel before deciding whether to take advantage of these programs. 完

Christopher F. Corr *(ccorr@whitecase.com) is partner at White & Case LLP's Beijing and Washington, DC, offices.* ***Jason T. Hungerford*** *(jhungerford@whitecase.com) is associate at the firm's Washington, DC, office.*

Sales and Investment

November 2009

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 the present at www.chinabusinessreview.com.

Compiled by Aliza Bach

Agriculture

INVESTMENTS IN CHINA

Intermost Corp. (Hong Kong)/ Prosperous Agriculture Ltd., Co. (Shaanxi)
Signed MOU for Intermost to acquire 51% stake in Prosperous Agriculture.

Monsanto Co. (US)
Will open biotechnology research center in Beijing.

Automotive

CHINA'S EXPORTS

Fabrika Automobila Priboj (FAP, Serbia)/Dongfeng Motor Corp. (Hubei)
Signed MOU for Dongfeng to supply FAP with truck parts.

CHINA'S INVESTMENTS ABROAD

MGR (Hong Kong)/SORL Auto Parts, Inc. (Zhejiang)
Formed JV, SORL International Holding Ltd., in Hong Kong to expand SORL's global sales and distribution network. (Hong Kong:40%-PRC:60%).

INVESTMENTS IN CHINA

ALD Automotive (France)/ Baosteel Group Corp. (Shanghai)
Formed JV vehicle-leasing firm, ALD Fortune Auto Leasing (Shanghai) Co. (France:50%-PRC:50%). $7.32 million.

BMW Brilliance Automotive Ltd., a JV between Bayerische Motoren Werke AG (Germany) and Brilliance Automotive Holdings Ltd. (Hong Kong)
Will build a second plant in Shenyang, Liaoning, to raise local production to 100,000 autos per year. $838.2 million.

Renault-Nissan Alliance, a partnership between Renault SA (France) and Nissan Motor Co., Ltd. (Japan)/Guangdong Development and Reform Commission
Signed MOU to study the conditions necessary for the mass introduction of electric cars.

Aviation/Aerospace

INVESTMENTS IN CHINA

General Electric Co. (US)/ AVIC (Beijing)
Signed framework agreement to form JV to develop and market avionics systems for commercial aircraft.

MTU Aero Engines (Germany)/ AVIC Commercial Aircraft Engine Co. Ltd. (Shanghai)
Signed MOU to study what structure a domestic aircraft engine company should adopt and what technology it should use to be viable in China.

Spirit AeroSystems, Inc. (US), Hong Kong Aircraft Engineering Co. Ltd.
Opened JV airplane engine maintenance, repair, and overhaul station, Taikoo Spirit AeroSystems (Jinjiang) Composite Co. Ltd., in Jinjiang, Fujian.

OTHER

Hawaii State Government (US)/ Hainan Airlines Co. Ltd.
Signed memorandum of cooperation to launch commercial flights between Beijing and Hawaii.

Honeywell International Inc. (US)/AVIC (Beijing)
Signed MOU for Honeywell to bid on components for first China-made jumbo jet.

Banking & Finance

INVESTMENTS IN CHINA

Aviva plc (UK)/Central China Securities Holdings Co., Ltd. (Henan)
Will form JV asset-management company. (UK:49%-PRC:51%).

Fujitsu Ltd. (Japan)/Guangdong Electronic Certification Authority
Will form JV to open a data center in Foshan, Guangdong. $29.5 million.

Manulife Financial Corp. (Canada)
Will purchase Fortis Bank NA/SV's 49% stake in ABN AMRO TEDA Fund Management Co. Ltd., which will become Manulife TEDA Fund Management Co. Ltd. $156 million.

OTHER

Export-Import Bank of China (Beijing)
Will provide loan for infrastructure projects to Nepal's Finance Department. $200 million.

Government of Malaysia/ Government of the PRC
Signed MOU on banking supervision cooperation.

Government of Taiwan/ Government of the PRC
Signed MOU to allow banks, securities, and insurance firms to conduct business and dispatch officials to audit operations in each other's territories.

Microsoft Corp. (US)/ABC (Beijing)
Signed MOU to form strategic cooperation on next-generation Internet banking.

Abbreviations used throughout text: 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; 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.; 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.

Securities Investor Protection Corp. (US)/China Securities Investor Protection Fund (Beijing)
Signed MOU to provide cooperative assistance on cross-border compensation issues and develop mechanisms for bilateral investor protection.

Chemicals, Petrochemicals & Related Equipment

INVESTMENTS IN CHINA

Mitsui Chemicals, Inc. (Japan)/Sinopec (Beijing)
Will form 50-50 JV to build a plant to produce phenol and a plant to produce ethylene propylene terpolymer in Shanghai. $732 million.

OTHER

CHEMPARK (Germany)/Nanjing Chemical Industry Park (Jiangsu)
Signed MOU to share information and collaborate on training and employee exchange.

Defense/Military

OTHER

Government of the Netherlands/Government of the PRC
Signed MOU to cooperate on law enforcement.

Distribution, Logistics & Related Services

INVESTMENTS IN CHINA

Korea International Trade Association, Incheon Port Authority (South Korea)/Tianjin Harvest International Trading Co.
Signed MOU to construct logistics center near Tianjin and link it to Incheon's logistic center.

Education

CHINA'S IMPORTS

The McGraw-Hill Companies (US)
Will develop English-language training coursework for IT engineers in vocational training programs at Beijing-based Ambow Education Group. $4 billion.

INVESTMENTS IN CHINA

Autodesk, Inc. (US)/Government of the PRC
Signed MOU to improve engineering education in higher-education and vocational schools in China.

Hong Kong Polytechnic University/Government of the PRC
Signed MOU to conduct feasibility studies for setting up a collaborative educational institution in Dongguan, Guangdong.

OTHER

Fubon Bank (Taiwan)/Beijing University Guanghua School of Management
Created joint financial study center for official and expert exchanges between Taiwan and the mainland.

National Institute of Engineering, Skyquest Technology Consulting Pvt. Ltd. (India)/Shanghai Science and Technology Commission
Signed MOU to promote technology transfer between academia and industry.

Pakistan National School of Public Policy/China National School of Administration (Beijing)
Signed MOU to cooperate in education, research, and civil servant training.

Semarang State University (Indonesia)/Ningbo University (Zhejiang)
Signed MOU to set up Mandarin-language program at Semarang and student exchanges between the universities.

Singapore University of Technology and Design/Zhejiang University
Signed MOU to establish a Chinese cultural center in Singapore.

Electronics, Hardware & Software

CHINA'S INVESTMENTS ABROAD

Digital China Software (BVI) Ltd., a subsidiary of Digital China Holdings Ltd. (Beijing)
Will acquire 23.63% of Japan-based IT company SJI Inc.

INVESTMENTS IN CHINA

China Public Procurement Ltd. (Hong Kong)/Jiaji Tian Cheng Technology Ltd. (Guangdong)
Signed MOU for China Public Procurement to acquire Jiaji Tian Cheng Technology. $6.45 million.

LG Display Co., Ltd. (South Korea)/Guangzhou Municipal Government (Guangdong)
Will form JV to construct an LCD plant in Guangzhou, Guangdong. (South Korea:70%-PRC:30%). $1.33 billion.

LG Display Co., Ltd. (South Korea), TPV Technology Ltd. (Hong Kong)
Will manufacture LCD modules, televisions, and monitor and public-display products in Fujian. $84 million.

OTHER

Axiata Group Bhd (Malaysia)/Huawei Technologies Co., Ltd. (Guangdong)
Signed MOU to explore cooperation in innovation, procurement, and financing.

Energy & Electric Power

CHINA'S EXPORTS

Nepal Electricity Authority, Sagarmatha Power Co. (Nepal)/Sino-Hydro Corp. (Beijing)
Signed MOU to build 50 MW Upper Marsyangdi Hydro Electricity Project in Lamjung, Nepal. $138 million.

INVESTMENTS IN CHINA

IBM Corp. (US)/ENN Group (Hebei)
Signed agreement to form IT JV for Smart City and Smart Energy plans in Kunshan, Jiangsu, and for IBM to invest in ENN.

OTHER

G24 Innovations (UK) Ltd./China Academy of Sciences (Beijing), China National Academy of Nanotechnology and Engineering (Tianjin), Nanotechnology Industrialization Base of China (Tianjin)
Signed MOU to accelerate commercialization of G24's dye-sensitive solar cells.

Environmental Equipment & Technology

CHINA'S EXPORTS

CNPV Dongying Photovoltaic Power Co. Ltd. (Beijing)
Will supply Czech Republic-based Stand-by Europe, sro with 100 MW photovoltaic modules in 2009-12.

CHINA'S IMPORTS

C-Lock Technology, Inc., a subsidiary of Evergreen Energy Inc. (US)
Won contract from Shanghai Electric Power Co. Ltd. for feasibility study on greenhouse gas reduction. $453,000.

CHINA'S INVESTMENTS ABROAD

Shriram EPC Ltd. (India)/Northwest Electric Power Design Institute of China (Shaanxi), a wholly owned subsidiary of China Power Engineering Consulting (Group) Corp. (Beijing)
Signed MOU to form consortium to develop thermal power projects in India.

INVESTMENTS IN CHINA

CleanTech Partners (Singapore)/Hangzhou Municipal Government (Zhejiang)
Signed MOU to give CleanTech Partners access to projects in Hangzhou-Qianjiang Economic Development Area.

General Electric Co. (US)/ Shenhua Group Corp. Ltd. (Beijing)
Signed MOU to create JV to develop and promote clean coal technology by mid-2010.

Global Energy Ltd. (Australia), Goldbridge Clean Tech Energy (UK)/Yusenjiayu Environmental Protection Technology Co. Ltd. (Beijing), Inner Mongolia Gu Xin Mining Co. Ltd.
Formed JV for coal gasification project in China. $400 million.

Royal Philips Electronics NV (the Netherlands)/Sino-Singapore Tianjin Eco-City Investment & Development Co. Ltd.
Signed MOU to collaborate on test-bedding, energy-efficient lighting, and consumer products for a model eco-city development. (The Netherlands:50%-PRC:50%)

OTHER

Government of Sweden, EcoEnergy Scandinavia AB (Sweden)/Changzhou Xinbei District Government (Jiangsu), Jiangsu Guoyu Electric Co., Ltd.
Signed MOU for EcoEnergy to conduct feasibility study to build local waste to energy facilities in Changzhou, Jiangsu.

UOP LLC, a subsidiary of Honeywell (US)/CNPC (Beijing)
Signed MOU to collaborate on biofuel and green transportation fuel technologies.

Healthcare Services & Investment

CHINA'S INVESTMENTS ABROAD

Shenzhen Beike Biotechnology Co., Ltd. (Guangdong)
Acquired significant share in Japan-based Biomaster Inc. to research and commercialize stem cell therapies.

Insurance

OTHER

AMP Ltd. (Australia)/China Life Insurance Co. Ltd. (Beijing)
Signed MOU for strategic cooperation on asset and pension management.

Hong Kong Export Credit Insurance Corp./China Export & Credit Insurance Corp. (Beijing)
Signed MOU to cooperate on business ventures.

Internet/E-Commerce

OTHER

Baidu.com, Inc. (Beijing)
Will direct music-related search inquiries to US-based Qtrax, which offers free, legal music downloads.

Light Industry/Manufacturing

INVESTMENTS IN CHINA

Valeo SA (France)
Bought remaining stake in Jilin-based Valeo Fawer Compressor (Changchun) Co., Ltd., a JV between Valeo and Guangdong-based Fawer Automotive Parts Co. Ltd.

Media, Publishing & Entertainment

INVESTMENTS IN CHINA

Australian Interactive Media Industry Association
Joined Canada-based International Federation of Multimedia Associations, which is overseeing development of the digital media park in Shenyang, Liaoning, to give Australian digital companies access to the China market.

OTHER

United Nations Children's Fund/ Xinhua News Agency (Beijing)
Signed MOU to promote awareness of children's issues through television, Internet, photography, and text coverage for the 20th anniversary of Universal Children's Day.

Metals, Minerals & Mining

CHINA'S IMPORTS

Corporacion Venezolana de Guayana (Venezuela)
Signed contract to supply Hubei-based Wuhan Iron and Steel (Group) Corp. with iron ore.

Mineral Resources Ltd. (Australia)
Signed deal to supply Shanghai-based Baosteel Group Corp. with manganese ore.

Panoramic Resources Ltd. (Australia)/Jinchuan Group Ltd. (Gansu)
Signed MOU to extend nickel concentrate agreement for 10 more years.

United Company RUSAL (Russia)
Signed contract to supply Beijing-based China North Industries Corp. with 1.68 million tons of aluminum in 2010-16.

CHINA'S INVESTMENTS ABROAD

National Iranian Oil Refining and Distribution Co. (Iran)/Sinopec (Beijing)
Signed MOU to build oil refineries in Iran. $6.5 billion.

Resourcehouse Ltd. (Australia)/ Metallurgical Corp. of China Ltd., a subsidiary of China Metallurgical Group Corp. (Beijing)
Signed MOU for Metallurgical Corp. to develop and arrange 70% of funding for coal project in Queensland, Australia, and buy 30 million metric tons of coal over 25 years. $4.9 billion.

Petroleum, Natural Gas & Related Equipment

CHINA'S EXPORTS

CNPC (Hong Kong) Ltd., a subsidiary of CNPC (Beijing)/ Jinan Diesel Engine Co., Ltd. (Shandong)
Signed MOU for CNPC (Hong Kong) to purchase Jinan Diesel products.

Vietnam Oil and Gas Group (Petrovietnam)/China International United Petroleum and Chemicals Co., Ltd. (Beijing), a wholly owned affiliate of Sinopec (Beijing)
Signed MOU for Petrovietnam to buy crude oil from United Petroleum.

CHINA'S IMPORTS

Qatar Liquefied Gas Co. Ltd./ CNOOC (Beijing)
Signed MOU for CNOOC to purchase 5 million tons of LNG from Qatargas every year.

Sinopec (Beijing)
Signed deal to import 2 million metric tons of LNG from US-based ExxonMobil Corp.

CHINA'S INVESTMENTS ABROAD

Government of Iran
Approved Belarus-based Belorusneft Po Rup and Beijing-based Sinopec's development of Yadavaran and Jofeir oilfields as buy-back schemes. $4.1 billion.

OTHER

Government of Sudan/CNPC (Beijing)
Signed MOU on second-phase expansion of Khartoum refinery, crude oil trade, and an equity swap between CNPC's Block 6 and Malaysia State Oil's Block 5A.

Pharmaceuticals

CHINA'S IMPORTS

BMP Sunstone Corp. (Beijing)/ Pfizer (China) Research and Development Co., Ltd. (Shanghai), a wholly owned subsidiary of Pfizer, Inc. (US)
Formed strategic partnership to import, distribute, and promote Pfizer's Depo-Provera products in China.

INVESTMENTS IN CHINA

Novartis AG (Switzerland)
Will build a pharmaceutical research plant in Shanghai. $1 billion.

Novartis AG (Switzerland)
Will build a plant in Jiangsu for research, development, and manufacturing. $250 million.

Pharmaceutical Product Development, Inc. (US)
Acquired Beijing-based Excel PharmaStudies Inc.

OTHER

HUYA Bioscience International, LLC (US)/Ocean University School of Medicine and Pharmacy (Shandong)
Ocean University will give HUYA rights of first review and negotiation to the university's therapeutic and diagnostic product candidates in exchange for access to HUYA's network of pharmaceutical partners and resources.

Rail

CHINA'S EXPORTS

General Electric Co. (US)/ Government of the PRC
Signed MOU to advance high-speed rail opportunities in the United States and give Chinese companies the first chance to bid on US high-speed rail projects.

INVESTMENTS IN CHINA

Trimble Navigation Ltd. (US)/ China Railway Eryuan Engineering Group Co., Ltd. (Zhejiang)
Will form JV in Chengdu, Sichuan. (US:50%-PRC:50%).

Research & Development

INVESTMENTS IN CHINA

Acer Inc. (Taiwan)
Will create R&D center in Shanghai to develop smartphones and desktop computers based on China's TD-SCMA 3G standard.

Foxlink Image Technology Co., Ltd. (Taiwan)
Will set up R&D center at Dongguan Songshan Lake Science and Technology Industry Park in Guangdong. $291 million.

Pfizer (China) Research and Development Co., Ltd. (Shanghai), a wholly owned subsidiary of Pfizer, Inc. (US)/ Wuhan National Bioindustry Base (Hubei)
Signed MOU for Pfizer to build an R&D center in Wuhan, Hubei.

Retail/Wholesale

INVESTMENTS IN CHINA

TESCO Corp. (UK), HSBC Nan Fung China Real Estate Fund (Hong Kong), Metro Holdings Ltd. (Singapore)
Will form JV to build three shopping malls in China, in Anshan, Liaoning; Fushan, Shanxi; and Qinhuangdao, Hebei.

Telecommunications

OTHER

TmaxSoft, Inc. (South Korea)/ Bright Oceans Inter-Telecom Corp. (Heilongjiang)
Signed MOU to promote each other's products and services in their domestic markets.

Tourism & Hotels

OTHER

Government of Nepal/ Government of the PRC
Signed MOU on Kathmandu-Lhasa and Canton-Lhasa-Kathmandu flights to promote tourism.

CBR subscribers with online access can now search China Deal Database listings from 2000 to the present at www.chinabusinessreview.com.

Terra Cotta Soldiers Roll into Washington

A behind-the-scenes look at transporting artifacts

Paula M. Miller

After touring museums in California, Georgia, and Texas, an exhibition of 2,000-year-old terra cotta warriors from the tomb of China's first emperor arrived at the National Geographic Museum in Washington, DC, in November 2009. Though many enthused museumgoers will line up, tickets in hand, to see the *Terra Cotta Warriors: Guardians of China's First Emperor* over the next few months, many workers who prepared the exhibit—including those who transported it—were just as excited.

The exhibit displays 15 full-size terra cotta figures and 100 pieces of art, including armor, a bronze crane and swan, coins, a terra cotta horse, jade ornaments, and weapons. Visitors will find themselves face to face with archers, an armored soldier, a cavalryman, a chariot driver, infantrymen, and officers—as well as a court official, musicians, a stable attendant, and a strongman. The exhibit also displays building materials and a small-scale model that shows how terra cotta warriors and horses were made.

National Geographic

A kneeling archer at the *Terra Cotta Warriors: Guardians of China's First Emperor* exhibit in Washington, DC.

The UPS Foundation helped fund the exhibit's journey, and UPS transported the pieces from China, to four museums in the United States, and back. Dave Csontos, director of Operations, UPS Freight Truckload, explained, "The most significant aspect of the exhibit is that it contains the largest group of Level-1 [China's highest classification of artifact importance and rarity] terra cotta works China has ever loaned to the United States. Many of the artifacts are in prime condition. Some of the figures weigh over 400 lbs. The horse crate was massive, and the most challenging to move, requiring multiple people and sometimes a forklift."

PRC and US museum specialists handled the packing and unpacking of the artifacts. Once the items were crated, UPS loaded the 42 wooden crates onto trailers and a plane, flew them to the United States, and transported the shipment to its US destinations: the Bowers Museum in Santa Ana, California; High Museum of Art in Atlanta, Georgia; Houston Museum of Natural Science in Houston, Texas; and National Geographic Museum in Washington, DC. Csontos explained that because the artifacts are extremely fragile and sensitive to temperature changes, a team of museum experts worked with UPS to develop the transportation precautions: "First, the trailers needed to be temperature controlled. Traveling from day to night, across deserts and mountains—the artifacts would experience massive temperature and climate changes. Second, vibrations were a main concern, so we used rubber mats to help insulate the shipment from vibrations. Third, the trailers use a high-end suspension 'air-ride' system." UPS also contracted a security firm to guard the shipment while it was in the company's care. "We were overcautious. And it's better to be overcautious than not cautious enough," Csontos explained. For the ground shipments, UPS selected 10 experienced drivers who signed up for the special mission. The drivers—two per truck—rotate and travel continuously except for fueling.

Csontos was present at the shipment's arrival in Atlanta. "The part I remember most was when the truck doors opened and everyone could see the crates lined up perfectly. It's hard to describe the anxiety you feel before then. Standing there with the four drivers that drove from California to Georgia was amazing. When I looked at the four employees' faces after the doors opened, I saw a sense of pride and accomplishment. They saw they did their job well and were smiling ear to ear."

UPS is no stranger to shipping items that require special care. In 2006, the company transported two whale sharks from Taipei, Taiwan, to Atlanta's Georgia Aquarium on a specially configured UPS B-747 freighter. And from October 2006 through 2009, UPS shipped hundreds of art works from Paris's Musée du Louvre to Atlanta's High Museum for nine exhibitions.

UPS has also worked with China for some time. In its biggest project, UPS was the official logistics and express delivery sponsor of the Beijing 2008 Olympic and Paralympic Games. Like the Olympics, the terra cotta warrior exhibit places China in the spotlight.

Washington-based readers can catch the *Guardians of China's First Emperor* at the National Geographic Museum until March 31.

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