September–October 2008

The China Business Review

USCBC
THE MAGAZINE OF
THE US-CHINA BUSINESS COUNCIL

Supply Chain

Mitigating risk
Ensuring continuity
Logistics landscape

US Exports to China
PRC Government Affairs
Clean Development Mechanism

US$22/HK$220


Small Inputs , Large Outputs
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China Foto Press

Focus: Supply Chain

Special Report: US Exports to China

Features

Departments

Cover design by Jesse Marth

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The *China Business Review* (ISSN 0163-7169) is published bimonthly by the US-China Business Council, 1818 N Street NW, Suite 200, Washington DC 20036-2470, USA (Tel: 202-429-0340), a nonprofit organization incorporated under the laws of the District of Columbia. Periodicals postage paid at Washington, DC, and additional mailing offices. Postmaster, please send address changes to the *China Business Review*, 1818 N Street NW, Suite 200, Washington DC 20036-2470, USA.(c)The US-China Business Council, 2008. All rights reserved.

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.

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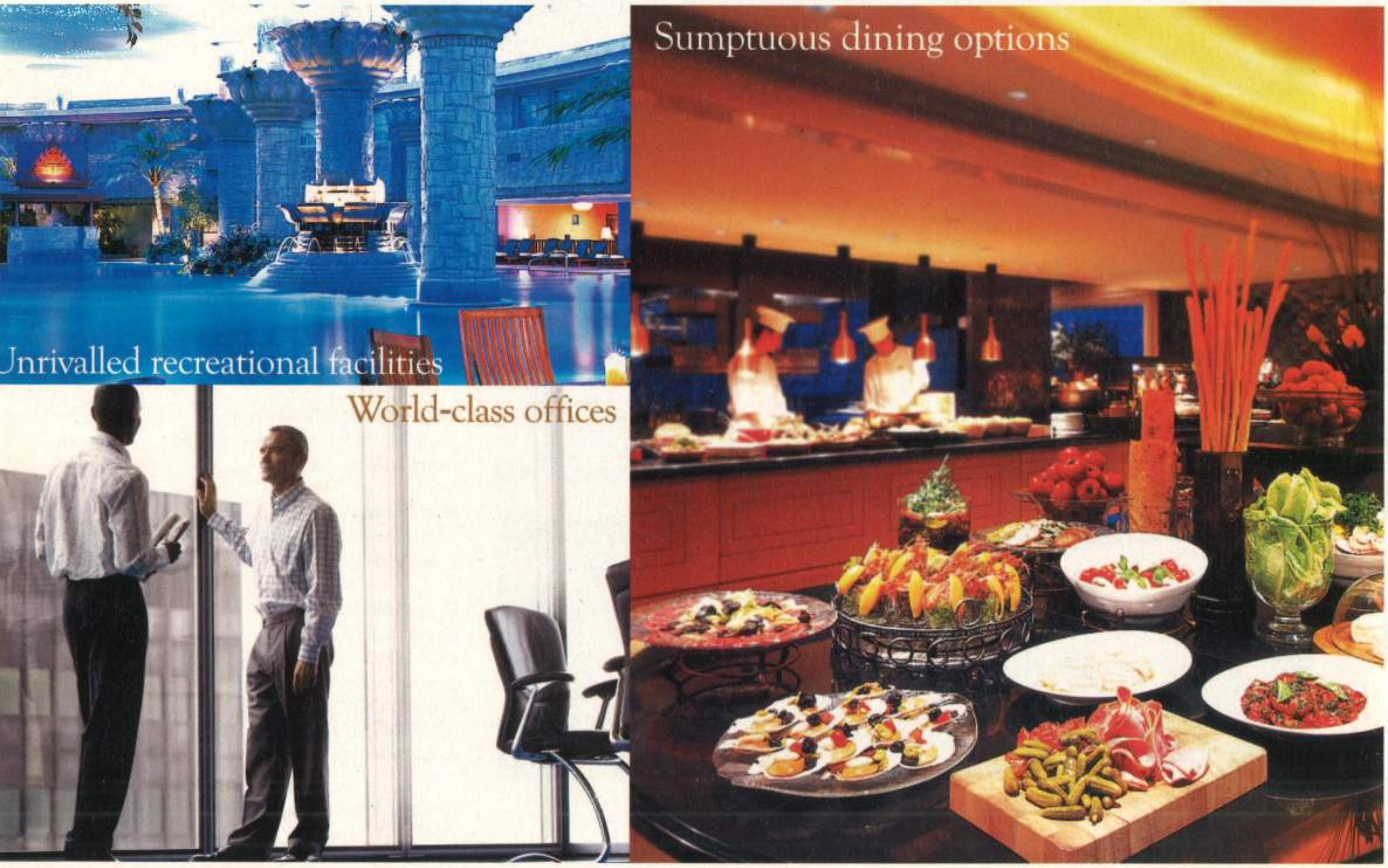

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Reprints: For bulk custom reprints (min. 100), call 1-800-960-1195
Online store: www.uschina.org/store

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News of China-Related Educational, Cultural, and Charitable Projects

US companies participate in a broad range of programs that benefit the people of China and strengthen the bonds of US-China friendship beyond the commercial realm. *Opportunities* aims to help companies identify programs that merit their assistance. The materials contained in *Opportunities* are condensed. For more detailed information, interested companies should contact the programs directly. (Note: Neither the US-China Business Council nor the *CBR* is a sponsor of any project listed in *Opportunities* and makes no recommendation with regard to corporate assistance to any specific project.)

US Institution: Education Development Center
PRC Institution: Foreign Capital Project Management Center of the State Council Leading Group Office of Poverty Alleviation
Project Description: A public-private partnership to strengthen rural migrant skills and livelihood

The Education Development Center (EDC) and Foreign Capital Project Management Center (FCPMC) recently conducted an assessment to identify migrant workers' needs in China. Based on the findings, EDC and FCPMC designed a pilot project to build the capacity of migrant workers through pre-departure training on life skills and labor law issues and follow-up training on vocational topics, financial management, and career counseling.

The project has received seed funding from Oxfam, the Asia Foundation, Save the Children UK, and Right to Play, as well as participation from three factories in the Guangdong and Shanghai areas and three training centers in Sichuan. It requires additional support. Interested parties may contact EDC for project partnership or involvement opportunities.

Contact Information

Angela Chen, Regional Director
Education Development Center
209/1 K Tower B, 11th Floor, Unit 2
Sukhumvit 21 Road (Asoke),
Klongtoey-Nua, Wattana
Bangkok, Thailand 10110
Phone: 66-0-2664-2533
Fax: 66-0-2664-2539
E-mail: achen@edc.org
Or
Wen-Chia Chang, Project Assistant
E-mail: wcchang@edc.org
www.edc.org

US Institution: Cincinnati Art Museum
Chinese Institutions: The Palace Museum, Beijing; the Shanghai Museum; and the National Palace Museum, Taipei
Project Description: To spread awareness and appreciation of Chinese language and art

The Cincinnati Art Museum will open a major exhibition that documents how Chinese painters developed a sophisticated language of animal symbolism using traditional Chinese paintings. *Decoded Messages: The Symbolic Language of Chinese Animal Painting* contains groundbreaking new scholarship by Dr. Hou-mei Sung, revealing how paintings of birds, fish, and animals are linked to Chinese philosophies, poetry, legends, and history beginning as early as the third century BC.

The exhibition will be displayed in Cincinnati, Ohio, in fall 2009. It will include 90 paintings from 15 major US museums as well as the Palace Museum, Beijing; the Shanghai Museum; and the National Palace Museum, Taipei. The Cincinnati Art Museum is seeking corporate funding for this exhibition.

Contact Information

Dr. John H. Dean, Director of Development
Cincinnati Art Museum
953 Eden Park Drive
Cincinnati, OH 45202
Tel: 513-639-2960
Fax: 513-639-2883
E-mail: john.dean@cincyart.org
www.cincinnatiartmuseum.org

Economy

China's economy grew 10.4 percent in the first half of 2008, down 1.8 percentage points from the first half of 2007, according to the PRC National Bureau of Statistics.

Consumer prices climbed 7.9 percent in the first half of 2008, largely due to steep food price increases. Prices for raw materials, fuel, and power rose 11.1 percent, up 7.3 percentage points from the same period last year.

Real per capita disposable income of urban residents grew 6.3 percent year on year, while real rural incomes grew 10.3 percent.

Meanwhile, PRC exports rose 21.9 percent to $666.6 billion, or 5.7 percentage points less than in the first half of 2007. Imports jumped 30.6 percent to $567.6 billion, 12.4 percentage points higher than last year's increase. China's trade surplus for the first half of 2008 was $99 billion, down more than $13 billion from June 2007. To help exporters, the State Administration of Taxation and the Ministry of Finance on July 30 raised value-added tax rebates on several categories of textile and apparel products.

China's foreign exchange reserves hit $1.8 trillion at the end of June 2008, up 35.7 percent from June 2007. The bulk of the increase occurred from January to May, with only $11.9 billion accumulating in June.

Olympics

The opening ceremony of the 2008 Beijing Olympic Games on August 8 kicked off China's moment in the spotlight with a bang. The event, which involved high-tech displays and some 20,000 performers, was attended by more than 80 foreign leaders, including US President George W. Bush, French President Nicolas Sarkozy, Japanese Prime Minister Fukuda Yasuo, and Russian Prime Minister Vladimir Putin. Bush made history as the first sitting US president to attend an Olympic opening ceremony outside of the United States.

Thanks to the Olympics, intellectual property rights (IPR) enforcement may experience a temporary boost. The Beijing Olympic organizing committee sought to recruit 350 volunteer lawyers by August 8 to collect clues and investigate suspicious cases related to Olympic IPR infringement, according to a government IPR website. MOFCOM and SAIC in July announced that local jurisdictions and SAIC departments would conduct investigations of counterfeit branded and Olympic products in large wholesale markets and other Olympics-related venues in the six cities hosting Olympic events.

China Foto Press

Direct flights

Signaling that cross-strait relations have warmed since Taiwan's new president, Ma Ying-jeou, took office, the two sides on June 13 signed a tourism agreement that permits passenger aircraft to fly directly between the mainland and Taiwan. The agreement initially allows 36 charter flights to travel directly between five mainland cities and eight Taiwan destinations every weekend. The first flights took off on July 4. The number of flights will gradually increase as demand grows, according to Xinhua News Agency.

Before the agreement took effect, almost all travelers between Taiwan and the mainland were routed through Hong Kong or Macao. Hong Kong's airport currently handles about 80 percent of passengers between the mainland and Taiwan, but this number could drop significantly because of the new weekend services.

Negotiations are expected to continue on several topics related to direct flights, including the possible addition of new routes, regularly scheduled flights, and chartered cargo flights.

Legal Issues

China's landmark Antimonopoly Law (AML) took effect August 1 (see p.18). Information on implementation and composition of key enforcement bodies remains scarce, but PRC media report that the Ministry of Commerce (MOFCOM), National Development and Reform Commission (NDRC), and State Administration for Industry and Commerce (SAIC) will share responsibility for AML administrative enforcement through the Antimonopoly Enforcement Agency.

China's State Council on August 1 announced the creation of the other AML authority, the Antimonopoly Commission, which will coordinate the work of the three agencies responsible for enforcement. One of those agencies, NDRC, on August 1 completed draft regulations on price monopolies that set quantitative standards for fair product pricing. In addition, the State Council on August 3 released new regulations on reporting thresholds for mergers and acquisitions.

The World Trade Organization (WTO) in July confirmed an earlier February decision that China improperly treated foreign auto parts imports. This was the first time a WTO dispute settlement panel ruled against China since its entry in 2001. MOFCOM on July 22 issued a written statement that it disagreed with the decision and reserved the right to appeal. If China appeals the ruling, the WTO appellate body will have 90 days to make a decision. Three other WTO cases, including two related to intellectual property rights, are still pending settlement.

China Conference Calendar

China-related events near you

September–December 2008

Please confirm dates and venues with the organizer prior to attending events. To suggest an entry for the next issue, send an announcement to Jesse Marth (jmarth@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.

Inter Airport China, Dec. 2–4

In-House Legal Summit

SEPTEMBER 25

Location: Hong Kong: The Excelsior
Organizer: Key Media
Contact: Michelle Chau
Tel: 852-2815-5988
michelle@kmimail.com
www.theinhousesummit.com/hk_08

Opportunities for Technology & Software Companies in China

OCTOBER 2–3

Location: Bellevue, WA: Courtyard Marriot
Organizer: The Seminar Group
Contact: Hallie Byington
Tel: 1-206-463-4400
hallie@theseminargroup.com
www.theseminargroup.net

China Import & Export Fair

OCTOBER 15–NOVEMBER 6

Location: Guangzhou, Guangdong: Pazhou Complex; Phase I (Oct. 15–19), Phase II (Oct. 24–28), Phase III (Nov. 2–6)
Organizers: Ministry of Commerce; China Foreign Trade Center
Tel: 86-20-2608-8888
webmaster@cantonfair.org.cn
www.cantonfair.org.cn

Resolving Disputes with Chinese Entities

OCTOBER 20–21

Location: New York: Helmsley Park Lane Hotel
Organizer: American Conference Institute
Contact: Virna DiPalma
Tel: 1-212-352-3220 x480
v.dipalma@americanconference.com
www.americanconference.com/chinadisputes.htm

Port Logistics & Shipping China

NOVEMBER 3–4

Location: Shanghai: Radisson Hotel Pudong Century Park
Organizer: IBG China
Contact: Fanny Wang
Tel: 86-21-6232-6090
fanny.wang@ibgintl.com
www.ibgintl.com/events/plsc2008/inside.htm

Industrial Automation Show

NOVEMBER 4–8

Location: Shanghai New International Expo Center
Organizers: Deutsche Messe Worldwide; Hannover Fairs China Ltd.
Contact: Judy Zhu
Tel: 86-21-5045-6700 x203
ias@hfchina.com
www.industrial-automation-show.com

China Air Show

NOVEMBER 4–9

Location: Zhuhai, Guangdong: China International Aviation & Aerospace Exhibition Hall
Organizer: Air Show China
Tel: 86-756-336-9235
zhuhai@airshow.com.cn
www.airshow.com.cn/en/index.html

America-China Women Business Leaders Conference

NOVEMBER 5–7

Location: Maryland: Hilton Washington, DC/Rockville Hotel & Executive Meeting Center
Organizer: America China Business Women's Alliance
Contact: Jade Zhou
Tel: 1-800-928-0572 x3
jadez@acbwa.org
www.acbwa.org/2008/index.html

China Trials 2008: Global Clinical Development Summit

NOVEMBER 9–11

Location: Crowne Plaza Century Park Shanghai
Organizer: Lychee Group
Contact: Jon Liong
Tel: 1-732-917-0664
jon.liong@lycheegroup.com
www.chinatrialsevent.com

China Mining Congress & Expo

NOVEMBER 11–13

Location: Beijing International Convention Center
Organizer: All Exhibition and Conference Co., Ltd.
Contact: Roy Xu
Tel: 86-10-5822-2790
info@mining-expo.com
www.mining-expo.com/en/default.aspx

International Exhibition on Electric Power Equipment & Technology

NOVEMBER 12–14

Location: Beijing: China International Exhibition Center
Organizers: China Electricity Council; Adsale Exhibition Services Ltd.
Tel: 852-2811-8897
exhibition@adsale.com.hk
www.2456.com/jasperweb/shows/sid-212/lang-eng/details.aspx

China International Pharmaceutical Industry Exhibition

NOVEMBER 12–14

Location: Beijing: China International Expo Center
Organizers: China Center for Pharmaceutical International Exchange; Messe Düsseldorf China Ltd.
Tel: 86-10-8221-2866
chinapharm@ccpie.org
www.chinapharmex.com

China Conference Calendar

All in Print China 2008

NOVEMBER 14–17

Location: Shanghai New International Expo Center
Organizers: The Printing Technology Association of China; Messe Düsseldorf China Ltd.; China Academy of Printing Technology
Contact: Teddy Dong
Tel: 86-21-5027-8128
allinprint@mdc.cm.cn
www.allinprint.com/e_default.aspx

China International Occupational Safety & Health Exhibition

NOVEMBER 14–17

Location: Beijing: New Hall, National Agriculture Exhibition Center
Organizer: Messe Düsseldorf China Ltd.
Contact: Elaine Chen
Tel: 86-21-5027-8128
elaine@mdc.com.cn
www.sino-safework.org.cn

International Sports Facilities Expo

NOVEMBER 17–18

Location: Beijing: China World Trade Center
Organizers: Koelnmesse GmbH; China National Sports Group; China Sports Industry International; The Sports Facilities Construction and Standards Authority, PRC General Adminstration of Sport; China Sports Venue Association; China Sporting Goods Federation
Contact: Helen Chen
Tel: 86-10-6590-7766 x736
h.chen@koelnmesse.cn
www.koelnmesse.com.sg/isfe-china/index.htm

Central China Food Expo

NOVEMBER 18–20

Location: Zhengzhou, Henan International Conference & Exhibition Center
Organizer: ITE Group plc
Contact: Joyce Cao
Tel: 86-10-5960-4330 x822
joyce.cao@ite-china.com.cn
www.ccfoodexpo.com/en/index.asp

International Conference & Fair for Measurement, Instrumentation & Automation

NOVEMBER 18–21

Location: Beijing China International Exhibition Center
Organizers: China Instrument and Control Society
Contact: Sophia Li
Tel: 86-10-8280-0621
lsh@cis.org.cn
www.miconex.com.cn/en/web/index.aspx

China World Logistics Conference

NOVEMBER 19–20

Location: Jiangsu: Nanjing International Expo Center
Organizers: China Council for the Promotion of International Trade; China International Talents Exchange Foundation; American Society of Transportation and Logistics

Contact: Chung Tam
Tel: 86-10-5962-5990
cwl08@astl-china.org
www.astl-china.org/2008/en/2008cwl.htm

China International Travel Mart

NOVEMBER 20–23

Location: Shanghai New International Expo Center
Organizers: China National Tourism Association; Shanghai Municipal Government; Civil Aviation Adminstration of China
Contact: Sun Keqiang
Tel: 86-10-6520-1304
www.citm.com.cn/en/richeng.htm

China Mobility International Summit

NOVEMBER 24–26

Location: The Regent Beijing
Organizers: Beacon Events Ltd.; China Institute of Communications
Contact: Beacon Events Ltd.
Tel: 852-2219-0111
www.china-mobility.com/en/home.html

Ad Tech Shanghai

NOVEMBER 25–26

Location: Shanghai International Convention and Exhibition Center
Organizers: DMG World Media
Contact: Julia Kwan
Tel: 65-6513-0600
julia@ad-tech.com
www.ad-tech.com/shanghai/adtech_shanghai.aspx

International Trade Fair for Construction Machinery, Building Material Machines, Construction Vehicles & Equipment

NOVEMBER 25–28

Location: Shanghai New International Expo Center
Organizer: Messe München International
Contact: Ronald Unterburger
Tel: 852-2511-5199
mmi_hk@mmiasia.com.sg
www.bauma-china.com

INMEX China: A Showcase of Advance Maritime Technology

NOVEMBER 26–28

Location: Guangdong: Guangzhou Jinhan Exhibition Center
Organizers: IIR Exhbitions Pte, Ltd.; Guangzhou Auch Exhibition Services Co., Ltd.
Contact: Michael Ng
Tel: 65-6319-2648
michael.ng@iirx.com.sg
www.maritimeshows.com/china index.php

China International Conference & Exhibition on Avionics & Testing Equipment

NOVEMBER 27–29

Location: Beijing Exhibition Center
Organizer: Grace Fair International Ltd.
Contact: Herbert Huang
Tel: 86-10-6439-0338 x610
herbert@gracefair.com
www.gracefair.com/cn/aes/exp main_en.asp?m=23

Inter Airport China

DECEMBER 2–4

Location: Beijing: China International Exhibition Center
Organizers: Mack Brooks Exhibitions Ltd; Fairlink Exhibition Services Ltd.
Contact: Thomas Ho
Tel: 44-1727-814400
tom.ho@mackbrooks.co.uk
www.interairportchina.com

Automechanika Shanghai

DECEMBER 10–12

Location: Shanghai New International Expo Center
Organizer: Messe Frankfurt (Shanghai) Co. Ltd.
Contact: James Yu
Tel: 86-21-6160-8555
james.yu@china.messefrankfurt.com
www.messefrankfurt.com.hk

30 Find more China-business events on the *China Business Review*'s website at www.chinabusinessreview.com/conference-calendar.php.

Event Wrap Up

WASHINGTON, DC

July

Issues Luncheon on US Export Controls
Featured Under Secretary of Commerce for Industry and Security Mario Mancuso.

US-China Working Group Third Anniversary Reception
(See below)

August

Joint Commission on Commerce and Trade (JCCT) Update
Featured Under Secretary of Commerce Christopher Padilla and US Trade Representative (USTR) General Counsel Warren Maruyama.

Briefing on the JCCT Intellectual Property Rights Working Group
Featured officials from the Office of the USTR and the US Patent and Trademark Office.

SHANGHAI

July

Seminar on PRC and US Visas
Featured Consul Jim Neel, Consular Section, US Consulate General Shanghai; and Vice Director Cai Baodi, Department of Foreign Passports and Visas, Entry-Exit Administration, Shanghai Public Security Bureau.

Luncheon on China's Economic Decisionmaking and Leadership
Featured Victor Shih, assistant professor of Political Science at Northwestern University and author of *Factions and Finance in China: Elite Conflict and Inflation.*

Upcoming Events

WASHINGTON

Issues Luncheons
September 25, 2008
October 16, 2008
November 20, 2008

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

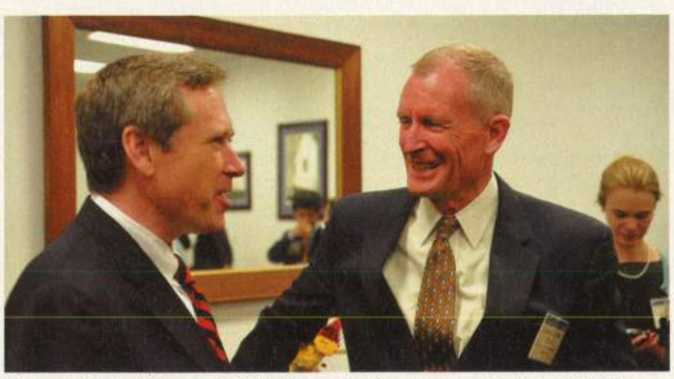
US-China Working Group Anniversary Reception

The US-China Business Council (USCBC) co-hosted a reception on July 30 in Washington, DC, for the third anniversary of the House of Representatives' US-China Working Group, a bipartisan group that plays an integral role in educating members of Congress on US-China issues and engaging PRC leaders on issues of national strategic importance. The reception honored the working group's members and founding co-chairs Reps. Rick Larsen (D-WA) and Mark Kirk (R-IL). In addition to remarks by Kirk and Larsen, PRC Ambassador to the United States Zhou Wenzhong, US Department of the Treasury Special Envoy for China and the Strategic Economic Dialogue Ambassador Alan F. Holmer, USCBC President John Frisbie, and National Bureau of Asian Research (NBR) President Richard Ellings spoke at the event. Roughly 100 guests from the public, private, and academic sectors attended the reception, which was cosponsored by USCBC and NBR.

NBR President Richard Ellings, PRC Ambassador Zhou Wenzhong, US Special Envoy for China and the Strategic Economic Dialogue Ambassador Alan F. Holmer, Reps. Mark Kirk and Rick Larsen, and USCBC President John Frisbie

Gregg Sheiowitz, legislative director, Rep. Joseph Crowley's (D-NY) Office; Erin Ennis, vice president, USCBC; and Rich Brecher, senior director, Global Government Affairs, Motorola, Inc.

sardari.com



Kirk and Admiral Dennis Blair, US Navy (ret.) and current holder of NBR's John M. Shalikashvili Chair in National Security Studies

Minister Counselor Zhang Ping, Congressional Affairs, PRC Embassy; Larsen; and Counselor He Xiangdong, Congressional Affairs, PRC Embassy

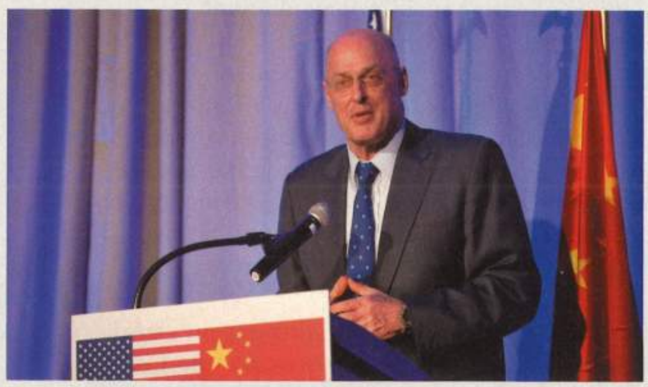
Dinner Honoring PRC Vice Premier Wang Qishan

The US-China Business Council (USCBC) co-hosted a dinner in honor of PRC Vice Premier Wang Qishan and the PRC delegation to the Strategic Economic Dialogue (SED) on June 18 in Washington, DC. Nearly 600 guests from the business community and both governments attended the event at which Wang and US Treasury Secretary Henry Paulson delivered remarks. After declaring the SED meetings successful, Wang set aside his prepared address and delivered a spirited, off-the-cuff, 45-minute speech. He commented at length on rising protectionist sentiments in both countries, acknowledging that there is an active debate on the role and impact of foreign investment in China, and declared his support for open markets. He also called upon officials and the business community in both countries to continue to engage each other to maintain a positive commercial relationship. (The text of Wang's remarks is available on www.uschina.org.) The US Chamber of Commerce and the National Committee on US-China Relations also co-hosted the event.

USCBC Board Director William Cohen, chairman and CEO of the Cohen Group and a former US secretary of Defense, welcomes Vice Premier Wang Qishan to the VIP reception.

Wang speaks with USCBC board members William Rhodes, senior vice chairman of Citigroup Inc., and the Honorable Barbara Franklin, president and CEO, Barbara Franklin Enterprises.

US Secretary of Commerce Carlos Gutierrez and US Ambassador to China Clark T. Randt, Jr. greet Wang.



US Secretary of the Treasury Henry Paulson delivers remarks on the SED meetings.

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Wang delivers his remarks.

Nearly 600 guests—plus members of the press—attended the dinner.

20 Questions for Your China Operations

Godfrey Firth

For *CBR* readers interested in some of the more detailed, nuts-and-bolts issues involved in running a major foreign-invested operation in China, below is a selection of some of the questions many China operations teams are grappling with right now. As you read these, it is worth noting that the further you delve into any one of these issues, the more complex it becomes. In the end, the key to answering all of these questions is having the right people on the ground in China.

1. Does your company have a legal obligation to facilitate the organization of a local labor union in its China-based factories? What is the appropriate response to a visit from local union officials requesting unionization?

2. How are China's new policies that promote "indigenous innovation" affecting your industry? Are domestic competitors using these policies to gain an advantage in government procurement, funding for research and development (R&D), or tax breaks? And is application research done by Chinese scientists in your Shanghai R&D center considered "indigenous innovation"?

3. If a sub-contractor to one of your company's smaller suppliers is dumping untreated wastewater into Lake Tai, would your supply chain auditors, whether internal or third-party, detect this? If a Chinese media report appears detailing precisely this situation, what is your company's immediate response?

4. Do white-collar, salaried workers in China who work more than 40 hours per week require some form of overtime compensation? Is your company's comprehensive or flexible-time work-hour system approved by the local labor bureau ?

5. Which, if any, of your company's China entities owns "core intellectual property"? Is your industry considered "high and new technology" by the PRC government?

6. What kind of market share does your company have in key product areas or industries in China? Globally? Is there potential risk of market dominance or pricing dominance investigations under the new Antimonopoly Law?

7. What is the local power situation where your company's key China factories are located? Are arrangements with the local government and electricity bureau in place to ensure supply during shortages?

8. How many of your company's China employees are hired through third-party labor dispatch agencies? What kind of new contract provisions have these agencies proposed in the past year? Are they fair?

9. Of all the tax incentives enjoyed by your company's various entities in China, which are still valid or grandfathered for fiscal year 2008? For 2009? Are there any new incentives offered by municipal or provincial governments that you can take advantage of?

10. What is the current export value-added tax rebate rate for products your company sources or produces in China? How are rising costs affecting the margins of your key suppliers, and will this feed into potential price increases or product quality problems?

11. How recently have you checked the online Trademark Register (http://sbj.saic.gov.cn) for potential copycat or infringing trademarks? How often does your company review relevant invention patents filed in China?

12. What kind of a China nexus does a planned global acquisition entail? Does the global turnover of all entities involved exceed ¥10 billion ($1.5 billion) or the China turnover of any two entities in the transaction exceed ¥400 million ($58.3 million)? If so, is your company prepared to disclose the information required to make the appropriate merger filing with the PRC Ministry of Commerce?

13. Are your company's customs filings consistent across China? Are the same products being reported in exactly the same categories and paying the same duties?

14. Does your company conduct robust background checks on management hires? What controls are in place to detect suspicious income growth among staff in sourcing, procurement, business development, marketing, and other departments with potential ethics risks?

15. Have your company's China or Asia-Pacific operations reached a critical mass suitable for a shared services initiative? Does an in-house shared service center or a third-party outsourcing provider make more strategic sense?

16. How clear is the career development path for the stars on your local management team, including opportunities for assignments at headquarters or outside of China? Who are the "top ten" employees you most want to retain, and what are you doing to ensure they stay?

17. What are the key standards committees and organizations in China for your industry? Are they working on any new national standards? What level of participation in, and access to, that process does your company have?

18. What geographic areas in China remain underserved by your business development and sales teams? Where and among what types of clients are the key opportunities for business growth in the next year? The next five years?

19. As each of the key national-level ministries finishes their internal setting of departments, functions, and staff, is your company identifying the new working-level officials who will craft policy for your industry? What strategy does your company have to ensure access to and interaction with these agencies?

20. What process have you used to ensure that your company rules and regulations conform to the requirement for employee consultation under the Labor Contract Law? Will the documentation of that process be sufficient during a potential labor dispute?

And, finally, just one more—how recently have you spoken with the US-China Business Council?

Godfrey Firth *is chief representative at the US-China Business Council in Shanghai.*

Antitrust Regime Takes Shape

China's landmark Antimonopoly Law (AML), which took effect on August 1, 2008, aims to provide China with an antitrust policy and a regulator in line with international practice. Under the law, two interagency bodies will share implementation responsibilities: the Antimonopoly Commission (AMC) and the Antimonopoly Enforcement Agency (AMEA). The State Council announced the formation of the AMC on August 1 but released limited details on its composition. In early August several notices designed to guide implementation of the AML emerged, but as the *CBR* went to press, the government had not released detailed implementing regulations. Uncertainty has left businesses questioning how PRC authorities will enforce competition policy.

Antimonopoly Commission and Antimonopoly Enforcement Agency

According to the State Council announcement, the AMC will research and draft regulations that relate to competition, survey and report on the status of market competition, draft and release a forthcoming Antimonopoly Guidebook, and coordinate the work of agencies involved in the administrative enforcement of the AML. The announcement did not, however, include details about the composition of the AMC. PRC media reports and competition experts speculate that the AMC will be led by the heads of key PRC government agencies and will also include a contingent of experts.

Though the State Council has yet to release any formal information on the AMEA, PRC media reports point to a three-way split of enforcement authority among the key agencies involved in enforcing existing competition policy: the PRC Ministry of Commerce (MOFCOM), National Development and Reform Commission (NDRC), and State Administration for Industry and Commerce (SAIC). It is unclear how these agencies will work together on specific cases and how they will divide enforcement responsibilities. Companies will likely face bureaucratic hurdles as they navigate the process.

According to PRC press reports, MOFCOM's Antimonopoly Bureau will examine concentrations and merger filings and will act as the host organization for the AMC's formal office. NDRC will handle investigations of price-related abuses, likely through the Price Supervision Department. SAIC's new Antimonopoly and Irregular Competition Enforcement Bureau will investigate monopolistic agreements, company abuse of market dominance, and administrative monopolies. According to reports, SAIC plans to release a series of notices to clarify key issues and terms, including "related markets," "market-controlling positions," "monopoly agreements," and "monopolistic abuse of intellectual property rights."

Because complex antitrust cases or investigations will not easily fall into separate categories such as "pricing abuses" or "monopolistic agreements," the potential for turf battles among the three regulators remains.

Related developments

The State Council on August 3 released new regulations on reporting thresholds for mergers and acquisitions (M&A) and other transactions that involve transfers of decisionmaking power. The reporting thresholds in these new regulations are higher than earlier reporting thresholds (see the *CBR*, July–August 2008, p.52). Businesses must report M&A transactions if, during the previous fiscal year, at least two of the parties involved each had turnover in China that exceeded ¥400 million and either the global turnover of all parties involved exceeded ¥10 billion or the turnover in China of all parties involved exceeded ¥2 billion.

The rules also give enforcement agencies the authority to review any transaction that does not meet these thresholds but that "has, or could have, the effect of limiting or eliminating competition"—a broad formulation that gives authorities great leeway to review any commercial transaction. The brevity of the final regulations suggests that further State Council regulations could be forthcoming and that MOFCOM may have great latitude to interpret when and how companies should report M&A transactions.

In another development, PRC media reports indicate that NDRC on August 1 completed draft regulations on price monopolies that set quantitative standards for determining what prices are unfairly high or low and define the indicators that investigators will use to determine company abuse of market position: "monopolistic prices," "low-price dumping," and "price discrimination." 完

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

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China Supply Chain Development

China's supply chain landscape is changing dramatically, and companies should note developments in inventory, logistics, and capacity management

Bradley A. Feuling

More than 30 years ago, production in China served only one customer, the PRC government. Prices were fixed, national planners placed sales orders directly, and state-owned enterprises coordinated local logistics. The China supply chain was forever altered in 1978, however, when it was exposed to new international complexities. Global customers and suppliers, along with competitive forces, ushered in a new phase in China's supply chain development. The creation of China's first special economic zone—in Shenzhen, Guangdong—was the first major step in the development of China's export-oriented economy and the supply chain necessary to serve that economy. China's new international links multiplied as its domestic market expanded, and now China is part of more than half of the world's supply chains.

Until recently, Chinese manufacturing was seen as advantageous merely in low-cost production. Many Chinese industries are now maturing through the supply chain development cycle, in which companies focus first on cost then quality, operational efficiency, and knowledge. Managers responsible for monitoring supply chain costs and service levels create substantial risks by neglecting the role of upstream Chinese processes, which include raw material order scheduling, raw material and work-in-process inventory management, and logistics in China. (Downstream processes include transoceanic logistics, destination country distribution, and finished goods inventory management.)

Current trends in China supply chain development

China's supply chain landscape has changed drastically in the last 10 years. Investments in distribution networks, logistics, and infrastructure have helped improve operations. For example, the phased development of Yangshan Deepwater Port, located near Shanghai, expanded throughput capacity by 5.2 million 20-foot equivalent units (TEUs) between 2002 and 2006. China's 11th Five-Year Plan (2006–10) also includes an annual $8 billion investment in railways, which currently carry 30 percent of China's goods traffic. (China's cargo transport rose 85 percent year on year in 2008.) Major infrastructure investment promises to add more than 13,000 miles of rail per year between 2006 and 2020 and 97 new airports by 2020.

Yet for manufacturers in China, rising costs and appreciation against foreign currencies are reducing once sizeable profit margins (see p.22). On the one hand, companies are closing because of unprofitable operations. In a recent survey by the Chinese Cotton Textile Association, 49.2 percent of companies suggest that they were interested in leaving the industry. On the other hand, PRC government policies are attracting foreign investment to inner provinces.

With a maturing business climate, companies face greater opportunities and risks. These are compounded by longer supply chains, in which manufacturing and raw material sourcing increasingly take place in central and western China. Existing inefficiencies in material, information, and financial flows create delays and raise costs. To avoid delays, companies should consider upstream factors, especially inventory, logistics, and capacity management.

Quick Glance

- To avoid delays and high costs, companies must consider new developments in inventory, logistics, and capacity management.
- Managing the four types of inventory—raw material, work-in-process, finished goods, and goods in transit—is critical to a supply chain's efficiency in China.
- Improving capacity management and achieving demand-product synchronization can cut costs and improve efficiency.

Finished goods inventory

It is important for companies to have a finished goods inventory large enough to satisfy demand. But according to last October's *IBM Global Business Services 2007 Mainland China Value Chain Study*, roughly 66 percent of Chinese operations experience cash-to-cash cycle times (the time between cash outflow for product or material payment to cash inflow from customer payment) of longer than 30 days, compared to 60 percent in Europe and 59 percent in North America. Companies, specifically manufacturers, require cash for investment in inventory and capacity expansion. With 6 percent fewer companies receiving cash within 30 days, Chinese manufacturers are prone to higher lead-time delay risks because they do not have enough cash to maintain sufficient inventory. If delivery dates are fixed, production will be hurried, increasing the risk of quality loss and the need for costly express deliveries.

Capacity

Many industry professionals indicate that certain sectors, such as automotive, textile, and equipment manufacturing, suffer from overcapacity. Some large facilities are producing far less than their potential output, especially in the pharmaceutical and furniture industries. In other industries, such as engine manufacturing or cement production, supply cannot satisfy global demand, and strong suppliers to foreign customers have reached full capacity because of their highly valued capabilities, including high-quality production, strong customer service, and the ability to expand while offering higher value-added services, such as involvement in design and product-line expansion. Other local manufacturers are using initial public offerings to generate capital for expansionary investment.

A closer inspection of the logistics industry reveals high fragmentation and underdeveloped use of logistics capacity. The lack of nationwide connectivity in transportation significantly affects material movement flows, costs, and throughput capacity. When a truck reaches provincial borders, it must often unload and reload its cargo into a new truck with the appropriate provincial license plates. Burdensome requirements such as these affect material handling costs and may lead to product damage. *China: Logistics and Distribution Industry*, released by the JLJ Group in March 2007, estimates total company spending on logistics—including rail, road, inland water, air, and warehousing storage—in China at nearly $490 billion, accounting for 20 percent of China's gross domestic product (GDP). In the United States, in contrast, logistics spending makes up only 9 percent of GDP.

New technologies

New technologies, such as enterprise resource planning and electronic data interchange, simplify intercompany procedures and centralize information flows, reducing processing time and providing more data and visibility to supply chain contributors. Overall acceptance of new technologies, however, remains quite low. IBM estimates that 12 percent of local Chinese companies electronically share demand and inventory data in real time with supply chain partners. Investment in such software has come primarily from advanced foreign operations in China. Many Chinese companies still track processes such as raw material order placement and inbound and outbound scheduling by hand or transfer data over the phone, which means that they cannot use the data for analytical purposes. This creates significant hurdles when considering process or continuous improvement programs that require data for trend analysis, benchmarking, and goal targeting.

Talent

By 2010, China's logistics industry will need 400,000 professionals, yet PRC universities graduate only about 10,000 students per year from logistics-related programs, according to *Logistics Management.* Many of these degrees were first given just five years ago. Supply chain management study programs are even rarer. (Logistics studies focus on physical material flow processes and information flows that affect procedures such as transportation routing, scheduling, and material handling, including packaging. Supply chain studies focus on physical material flow process design and the organization of material, information, and financial flows. It also manages demand and procurement planning, capacity, and inventory throughout the entire supply chain.) In most cases, companies will have to share their own knowledge to educate their staff and partners.

New developments

The next phase of China's supply chain development will focus on improving productivity and efficiency, especially in inventory, logistics, and capacity management. Companies will also take steps to better synchronize demand and production.

Inventory management in China

Inventory management includes all four types of inventory: raw material, work-in-process, finished goods, and goods in transit. In China, most local manufacturers do not differentiate the types of inventory, though costs for each can vary greatly. For example, holding costs for raw material and finished goods inventories differ, and retail storage space is often more expensive than warehousing space. Managers of work-in-process inventory must consider production scheduling, which is rarely in sync with end-customer demand.

Routine stock shortages and delays in raw material management are raising manufacturing costs. Local companies face challenges in supplier selection, inventory accuracy, and reorder point policies (the level at which inventory must be replenished is required). Instead of anticipating demand, many companies fulfill incoming demand reactively, which can create longer-term problems. In addition, upstream suppliers subject to demand and cost pressures may be tempted to substitute inferior input materials. Linking point-of-sale data with manufacturing production schedules would improve information flows and reduce these types of incidents.

Work-in-process models, such as production or warehouse layout, are commonly left to manufacturers or local third-party logistics providers, and few local companies implement continuous improvement. Assembly line configurations, for example, are often designed without quantitative analytics that consider functionality and time optimization for material flow processes. As a result, station, inventory, and material handling locations are assigned random-

Rising Costs Squeeze Profit Margins for PRC Manufacturers

Costs are rising across the board in China, driven by higher labor, manufacturing overhead, and raw material input prices and currency movements.

Labor costs Hewitt Associates reported that in 2006 average salary rates increased 7–9 percent in first-tier cities such as Beijing and 7.5–10.6 percent in second-tier cities such as Hangzhou, Zhejiang. In a recent HSBC study, average annual manufacturing salaries had more than doubled between 2000 and 2006.

Facility investment and machinery As China develops, previously desirable business locations, such as Shanghai and Shenzhen, Guangdong, are becoming more expensive, but rising costs are not unique to large cities. Companies are seeking lower-cost locations as real estate prices climb steeply—by an average of more than 11 percent year on year in 70 cities in the first quarter of 2008.

Raw material prices are also driving up production equipment prices, affecting both local and foreign operations. Global demand is driving prices higher for everything from wood to steel. According to the PRC National Bureau of Statistics, the purchaser prices for raw material, fuel, and power rose by 11.1 percent in the first half of 2008. With rising prices in China and slowing demand in major export markets, many manufacturers are facing shrinking profit margins.

The RMB From July 2007 to July 2008, China's currency, the renminbi, appreciated 10 percent against the US dollar. For PRC-based exporters, this has led to an immediate profit loss and higher risks for long-term planning. Notably, currency appreciation has also boosted exports from the United States to China (see p.36). The tides of global trade are only starting to shift.

—Bradley Feuling

ly. Manufacturers without access to time and throughput data frequently face higher production costs and reduced capacity utilization. Improvements in this area will be vital to improving supply chain efficiency.

Another important factor is the management of finished-goods inventory. According to IBM, 97 percent of Chinese manufacturers had finished-goods inventory turnover of four turns or higher, meaning that they replaced their entire inventory at least four times each year. (China averages 27 turns per year, while the global average is 23 turns.) Most of the companies IBM surveyed are export-oriented, and their finished-goods inventories are generally low because their products are shipped overseas almost immediately. With considerations such as production and delivery lead times, keeping low finished-goods inventories may be justified to maintain a higher service level. Having higher inventory levels close to the customer (in the export destination) can minimize stock-out risks at the point of sale. Nevertheless, an improper balance of inventory among the manufacturer in China, in transit, and in the customer's distribution location can create inefficiencies, as the cost of holding inventory varies at different points in the supply chain.

In-transit inventory is another commonly overlooked area. For instance, a product purchasing department may order products without realizing that a new shipment was already delivered, creating excess inventory and increasing holding costs. Because of a lack of training and education

Top Supply Chain Issues in China

With the rise of China as a major global supplier in the last decade, global sourcing giants and smaller companies alike are dealing with a rapidly developing supply chain. Despite the recent improvements in China's supply chain, many participants still need to adopt international best practices to improve efficiency and provide a consistent level of service. Companies operating in China must also learn to cope with rapidly changing government policy and economic fluctuations, which in the last year or so have driven costs up in some parts of the supply chain. In this time of rising costs and focus on the environment, efficiency is the key to competitiveness at the company level.

Information

The top supply chain issue in China is information sharing. Ideally, supply and demand are linked through the sharing of information and data, but in China, the industry's sharing of information is still far from optimal. To improve business processes and make further efficiency gains, information must be shared more promptly along the supply chain. This idea is new to many businesses in China's supply chain, however, and many manufacturers still maintain an in-house logistics division instead of outsourcing logistics and focusing on their core business.

As awareness of the benefits of outsourcing grows, more companies are realizing that they can outsource the logistics function and are hiring third-party organizations to streamline their logistics and distribution processes, as well as to assist with information sharing and data management systems. In the next five years, many Chinese manufacturers will improve efficiency by outsourcing non-core functions, and the biggest efficiency gains will likely stem from the outsourcing of logistics and information technology functions.

Balance of supply and demand

Second, the balance (or imbalance) of supply and demand affects global supply chain efficiency. New business ventures have been flooding into emerging markets like China and India in waves. These fluctuating waves of investment—and the demand they create—have disrupted supply chains, resulting in the unpredictable supply of some products and the rise of a wide range of logistics services that vary in quality. To reduce uncertainties, the industry needs to adopt international best practices in supply chain management, such as ISO 28000:2007, a recent international standard for supply chain security management systems. Such standards will help emerging markets like China keep their competitive edge.

PRC policy

In China, policies change rapidly and often without adequate time to prepare for implementation. Last year's value-added tax (VAT) rebate cuts—designed to discourage low-end, polluting products—and other new rules are now squeezing low-end manufacturers and spurring changes in the supply chain. For example, some chopsticks for the Japanese market, previously made in China, are now made in Russia because of regulations aimed at halting deforestation in China. From Russia, the chopsticks will be exported to Dalian, Liaoning, where they will be enhanced with small value-added services in bonded zones. This process is called "simple circulation processing" and is relatively new to the market. After that, the chopsticks will go directly to Japanese supermarkets. In late July 2008, some of the export VAT rebate cuts were reversed—another example of China's constantly changing policies.

Current government policy encourages the creation and manufacture of innovative, high-value products. China is also creating stronger incentives for companies to move inland in an effort to reduce the disparity between coastal and inland areas and to create new, innovative organizations in research and development as well as in the information technology sector.

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in supply chain operations, PRC manufacturers in the middle of the supply chain have difficulty coping with unsynchronized fluctuations from customers and suppliers, which can result in excess inventory or high rates of stock-out.

Logistics, capacity, and demand-production synchronization

Logistics management is highly fragmented in China, and consolidation can improve operations, reduce costs, and even address environmental concerns. Without the efficiencies of consolidation, less-than-truckload shipping becomes more common, affecting product quality during transportation. Limited integration between capacity management and order tracking limits the flexibility of localized trucking. For example, once shippers have delivered a load to a retailer, trucks are often empty on the return trip. Long-haul freight is influenced by current regulations that cause delay and raise costs. For instance, some drivers avoid toll roads to cut expenses. The trade-off is that non-toll roads are often poorly maintained and indirectly routed, lengthening transportation time and increasing indirect costs and the likelihood of delays.

Greater efficiency in logistics not only cuts costs but improves corporate social responsibility. Using less packaging and running trucks only when full reduces truck use

Rich Products Corporation

Kevin Malchoff is president, International Business Group, Rich Products Corp. *CBR* Assistant Editor Dan Strouhal recently interviewed Malchoff about Rich Products' cold-chain logistics operations in China.

CBR: What unique conditions does Rich Products face as a provider of cold foods storage and transport in China?

Malchoff: As we began to expand our presence in China in 1998, we faced a number of challenges. The country's road and rail infrastructure was just beginning to develop, and it is still developing today. We also found it difficult to find a logistics business with enough cold-enabled trucks to support our growing business. Finally, we needed a warehouse network to ensure our products would be stored and handled safely, while maintaining superior quality.

CBR: How has Rich Products adapted to these conditions? What does the company do differently in China?

Malchoff: The challenges I just mentioned, and our desire to rapidly grow our food business in China, drove us to acquire a majority interest in Kangxin Logistics (Tianjin) Ltd. Co. (KX Logistics), a cold-chain third-party logistics company based in China, in 2003. In forming our joint venture relationship with KX Logistics, we received the benefit of a partner who had been in the business for years and a leader, Wei Gao (current KX Logistics general manager), who was passionate about the cold-chain logistics business and had already developed a solid customer base. We also gained access to a state-of-the art fleet of cold-enabled trucks that keep our products at the correct temperatures; trained drivers to deliver our products to our customers on time and in great condition; and a network of refrigerated and frozen warehouses in strategic locations throughout China.

Since then, we have enjoyed a successful partnership, which has resulted in significant growth. Today, KX Logistics is the leading cold-chain third-party logistics company in China. We have a multinational customer base, more than 350 associates and warehouses, and offices across China.

CBR: Rich Products' operations cover more than 300 cities nationwide. How has the company overcome the variations in geography and infrastructure differences from province to province?

Malchoff: In each province, we have team members who are residents of the local cities and who understand the local customs, as well as the unique needs of our local customers. We also learned early on that most laws in China are not created at the national level. Instead, each province is responsible for the creation and enforcement of its own laws and regulations. Therefore, it is critical that our people in each province understand the local laws and regulations and ensure we remain in compliance.

CBR: In May 2008, Rich Products and KX Logistics opened a state-of-the-art refrigeration warehouse in Beijing. Has the warehouse experienced any difficulty since opening?

Malchoff: We have not experienced any significant problems to date. I attribute our success in this regard to our experienced operations and engineering staff that has learned a great deal from building and opening warehouses in other cities across China and in other markets. We have also developed a first-class associate training program, which ensures we have the proper focus on product and worker safety on a day-to-day basis.

CBR: How will China's cold-chain logistics change in the next 5 to 10 years?

Malchoff: Demand for frozen food products will continue to grow, driven by an increasing focus on food safety and an emerging middle class with more discretionary income to spend on convenience items. Likewise, the cold-chain logistics network will need to expand to meet the growing demand for frozen food products, which bodes well for KX Logistics. We believe that the services KX Logistics provides will allow multinational manufacturers of frozen and refrigerated foods to grow at an accelerated rate in China.

and related costs and emissions. Similarly, moving only full containers increases the efficiency of transoceanic shipping, further lowering emissions. In the rush to fill export demand, many companies in China rarely consider these factors. Coordinating third-party logistics management between the manufacturer and customer often leads to better results. As coordinated supply chains become more common, however, upstream operations are changing.

Capacity management provides another opportunity to improve efficiency. Accurately understanding the capacity of suppliers all along the supply chain is important when integrating supply chain operations. This takes a detailed knowledge of throughput levels, yet many facilities do not engage in operational or process mapping, which lead to a clearer understanding of where bottlenecks occur and how to prevent them. It is important to have sufficient inventory and logistics capacity, but over-investment in capacity may hinder productivity. For example, investment in additional warehousing can lead to higher holding costs.

A last consideration is improving demand-production synchronization. For a manufacturer to accurately maintain inventory and prepare a production schedule, process flow and collaboration between the manufacturer and customer is critical. In most cases, companies adjust demand forecasts or place orders without taking lead times into account. As a result, costs increase, quality is more variable, and product shipments are more frequently delayed. Supply chain design and process flow charting can track material, information, and financial flows and procedures throughout the supply chain. Integration and coordination are integral to building sustainable supply chain advantages.

Transition on the horizon

As participants in China's supply chain seek to satisfy local and foreign demand, some are turning to alternative sourcing locations, such as Vietnam. To strengthen competitive advantages in China, businesses must work with upstream supply chain participants to enhance productivity and efficiency.

Global supply chains rely on a combination of local and foreign knowledge. Coordination in material, information, and financial flows all along the supply chain will be critical to further integrating local and global supply chains. 完

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Mitigating Supply Chain Risks

Companies can take simple steps to reduce interruptions to supply chains during natural disasters

Dennis Bessant

Numerous natural disasters during the past decade—from earthquakes to hurricanes and typhoons—have shown that people around the world routinely underestimate, or simply ignore, the degree to which calamities can disrupt businesses and the supply chains on which they depend. China is certainly no exception.

Already this year, the mainland has suffered some of the most devastating natural catastrophes it has seen in decades. A fierce winter cold snap in January and February spread heavy snow, sleet, and ice across the region, collapsing roofs, knocking out power, bursting pipes, and halting nearly every activity that requires transport during China's busiest travel season. Several rounds of heavy spring rain submerged thriving farmlands, triggered landslides, and flooded streets and homes, forcing the evacuation of millions. A massive earthquake shook Sichuan's entire infrastructure, causing thousands of deaths and injuries and costing billions of dollars in monetary losses—mostly uninsured. And this summer's typhoon season has battered the country's coastline with several violent storms. It is a grim scene, but businesses—including suppliers—do not have to be entirely at the mercy of Mother Nature's wrath.

National codes and occupation standards exist to minimize the devastation caused by natural disasters, but merely following the guidelines is not enough to safeguard assets or protect a supply chain. Central regulations are typically issued by the PRC Ministry of Housing and Urban-Rural Development (formerly the Ministry of Construction) and the Administration of Quality Supervision, Inspection, and

Quarantine, as well as agencies such as the China Seismological Bureau. Provincial and municipal governments also issue local standards. Companies must rigorously implement these regulations during both the design and installation phases, in part because local implementation and enforcement of central-level regulations can be weak in places that have not recently suffered catastrophes, a phenomenon not unique to China. For example, though China has requirements for building roof structures to withstand strong winds, the various components that make up a roof have traditionally been examined only before assembly. Awareness of testing and approval standards that require roof structures to be examined after assembly is just emerging.

As in most countries, optional insurance for natural hazards is available in China. Even so, dependency on insurance providers is not the ideal solution. Companies can help themselves by taking steps to protect their businesses and supply chains and prevent or at least minimize damages instead of relying on insurance alone to cover losses caused by natural disasters.

When considering methods to maximize the efficiency of the supply chain and to reduce costs, businesses also need to incorporate a risk management approach into the procurement process to safeguard each link in the chain. These preparations begin with identifying key products, revenue drivers, and core business processes and locations in the supply chain—from procurement of raw materials to delivery of finished goods—and the types of events that could disrupt them. Then, companies can take steps to prevent these "pinch points" from disrupting the supply chain.

Quick Glance

- Companies can take simple, inexpensive steps to reduce the risk of loss and disruption from natural disasters.
- Taking a risk management approach—identifying key products, revenue drivers, and core business processes and locations in the supply chain—will safeguard each link in the supply chain.
- Close relationships with suppliers and other partners can help ensure that they too take steps to reduce the risk of disruption.

Floods: Staying above water

According to FM Global studies, flooding costs companies billions of dollars in losses each year worldwide, making it the world's most costly natural hazard exposure. Flooding can shut down businesses for months, affect large geographic areas, and cause extensive damage to facilities. But if flooding is both predictable and preventable, why do companies risk losing so much money year after year? The primary reason is that business owners tend to underestimate either the likelihood of flooding or its consequences. Analysis reveals that a site within a "high-hazard flood zone" is five to seven times more likely to suffer a flood loss of $100,000 than to suffer an equivalent loss due to a fire or explosion. In addition, the average flood loss for an underprepared company is about 1.5 times greater than the average fire loss worldwide, according to FM Global property loss statistics.

Certain parts of China—such as areas near the Yangzi River—have historically been prone to flooding. When designating flood zones, China tends to use a return frequency for flood protection of around 1 in 50 years, meaning that there is a 2 percent chance that flooding will occur in any given year. Other countries use intervals ranging from 1 in 100 years to 1 in 500 years or more, depending on how risk-averse they choose to be. Companies that strive for sustainability use more conservative estimates—such as a 1 in 50 metric—and more stringent design criteria to gain resiliency over the long term. This is especially important in delta or coastal areas with significant new infrastructure and urbanization.

The key to preventing flood loss at one's facility, or the facility of a related third party or key supplier, lies in fully understanding the exposure of the site to flooding. It is critical to be aware of how much warning time one might have, how high floodwaters could rise, the possible impact of fast-moving water, and how long it would take floodwaters to recede. In addition, businesses should remember that floodwater contains contaminants such as mud, sand, chemicals (including gasoline and oil), and raw sewage. All of these add to damage potential. Waves barely three feet in height can cause structural damage and demolish lightweight buildings.

Looking solely at flood maps sometimes leads people to think locations outside "flood zones" are impervious to flooding. This is simply untrue. Moreover, urbanization may have changed the landscape and altered flood paths since the map was created. In addition, a site's design and layout can create a localized flood hazard if the stormwater management system becomes overtaxed. Once a company has a clear picture of what to expect, including an estimate of the damage and disruption a flood will cause to business, it should take several simple, practical steps to reduce risk:

- In greenfield projects, set a facility's foundation levels with a safety factor well above the 500-year flood level.
- Move critical items such as stock, supplies, and important records out of basements and low-lying areas.
- Make permanent physical changes (where practical) to keep floodwater out of key areas, such as permanently elevating key electrical, computer, and telecom equipment (especially out of basements) above predicted flood levels.
- Develop a flood emergency response plan (FERP).

Develop a FERP

FM Global studies show that facilities with a well-organized FERP sustain up to 70 percent less damage and resume operations sooner than locations with an inadequate FERP or none at all. Well-planned emergency actions can significantly reduce, or even prevent, property damage and business interruption. An effective FERP includes a reliable method of warning, the authority to act (because it may be necessary to shut down key operations), and a well-trained team with adequate equipment and emergency actions tailored to the amount of expected warning time. A well-designed FERP should include

- A provision that designates authority to one person to activate the FERP, redirect production resources, and shut down operations if necessary;
- Procedures to safely shut down equipment and isolate electrical equipment;
- Procedures to raise or relocate key equipment and materials;
- Plans to prevent water from entering key areas or entire buildings. For example, businesses should carefully evaluate storm drainage systems and ensure that non-return valves are strategically located to prevent backup to internal areas;
- Guidelines to ensure business continuity if the flooding is prolonged;
- Post-flood repair and business-recovery plans; and
- Annual training programs for personnel responsible for executing the FERP. Plans and procedures should be updated and tested at least once each year and shared with all employees.

Developing and maintaining an effective FERP is hard work, but it can pay off in the end. Understanding the risks and undertaking some simple preparations can prevent a company from becoming another flood loss statistic.

Windstorms: Battling the breeze

Buildings fail if they are not designed to withstand the high wind speeds of storms, but significant property loss and costly business interruption can be prevented, or at least mitigated, even in the most extreme cases. Simple, low-cost steps, often well within allotted maintenance budgets, can help to ensure that business operations continue and keep company facilities and the supply chain intact.

Windstorms often tear open a building's envelope. Rain then enters the facility, causing the costliest type of damage. During a windstorm, damage to the building's structural frame seldom occurs, but a small breach in the building envelope can destroy a large area of the interior. For this reason, keeping the building envelope sealed is one of the most effective ways to prevent windstorm damage at a facility. Building envelopes are frequently opened in one of several ways: Roof covering and insulation can tear up and off supports. Lightweight wall covers, such as exterior insulating finishing systems or aluminum panels, can tear away from the structure. Windblown debris, such as surrounding trees or gravel from nearby roofs, can break windows, and pressures exerted on the building can blow in windows.

Solutions to prevent or mitigate property damage and business interruption can be relatively inexpensive, however. For example:

- An FM Global engineer noticed that a roof at a client's facility in Japan was missing some standing-seam roof clamps, which are frequently used on buildings in typhoon-prone countries such as China, India, the Philippines, South Korea, and Vietnam. One week later the client had a roofer on site to add an additional 100 clamps. When a typhoon struck the facility three weeks after the roofing enhancements, the roof remained intact.
- One yacht manufacturer's estimated damage in the event of a windstorm hitting its factory was more than $1.35 million. Because production of every yacht started in one building, property loss in this case could cause a significant bottleneck and increase the potential for costly business interruption. To improve windstorm anchorage of the standing-seam roof of that building, the company installed 11,000 additional screws in the roof—a $14,000 investment. The work, which was completed two months before Hurricane Isabel struck, kept the roof intact. When Isabel arrived, it caused the factory less than $3,500 in damages, mostly due to broken exterior light bulbs.
- A company in Guam stored a few pallet loads of high-value, but low-volume, water-sensitive stock worth millions of dollars. Typical solutions to minimize damage by providing extra security at corners and parameters of this large building's roof would have been rather expensive. Instead, the best way to protect the high-value stock was to construct a small concrete warehouse within the building, which achieved the company's goal at a much lower cost.

Other low-cost solutions to consider include:

- Moving stored products off the floor and up from basement levels;
- Having ample waterproof tarpaulins on hand to cover vulnerable equipment, material in process, and finished goods;
- Removing outdoor furniture, garbage containers, and other lightweight objects that could become flying missiles; and
- Shielding windows with hurricane shutters or plywood.

Earthquakes: Holding steady during the shake

Improving the earthquake resistance of buildings and other structures has received considerable attention in recent years. Less effort, however, has been directed at improving the earthquake resistance of a building's contents, largely because fully mitigating shake damage to every piece of equipment may require time-consuming and expensive modifications. The risk of shake damage to a facility's contents, however, can be substantially reduced simply by restraining items that are vulnerable to earthquake-induced damage, valuable, or important to production.

A reasonable starting point for the mitigation of shake damage to a facility's contents is to anchor tall, slender objects, such as storage racks, free-standing electrical and telecom cabinets, and pallet racks. Experience shows that these items, if unanchored, can overturn during strong ground shaking and sustain heavy damage, whereas they typically survive if restrained.

During a recent 10-year period, FM Global clients experienced about $315 million in earthquake damage to their facilities. Roughly 75 percent of this amount can be attributed to shake damage. The extent of shake damage depends on both the intensity of the shaking and the physical characteristics of a facility. Shake intensity is often expressed in terms of its Modified Mercalli Intensity (MMI), which is evaluated on a 12-level scale (1 to 12, from least to most severe). Severe shaking in an earthquake is usually in the range of 8 to 10 MMI, but shake damage can still occur at 6 and 7 MMI. The most severe ground shaking naturally occurs in the region nearest the earthquake's epicenter and at sites that, while perhaps farther away, have unfavorable local geologic conditions, such as soft soil. Businesses can take several small steps to keep both items and profits from falling during an earthquake:

- Restrain important tall, slender objects wherever possible by installing expansion anchors through holes at the base of each object.
- Install automatic earthquake-actuated seismic shutoff valves where flammable gas or liquid is piped into buildings. Located outside the building, these valves will prevent internal leaks from fueling larger fires and more catastrophic loss during or after an earthquake.
- Incorporate earthquake response into emergency response team activities.
- Involve a business continuity expert in new construction projects, fire protection system installations, and modifications to existing protection.
- Implement any seismic upgrade recommendations to prevent fire following earthquake and fire-protection systems.
- Develop minimum seismic design standards and specifications for all construction and new equipment installations.
- Develop an earthquake recovery plan.
- Survey facility contents to determine if the sliding or swinging of objects during an earthquake would result in significant loss.
- Engage a qualified engineer to design earthquake modifications, wherever justified by expected losses, for tall, slender objects that cannot be anchored through existing holes in their bases and for other facility contents that can be damaged during sliding or swinging.

The supply chain connection

Taking steps to prevent and mitigate property damage is important, but companies should also identify risks in the supply chain and take measures to reduce those risks. This requires businesses to recognize specific deficiencies and weaknesses within their own and their suppliers' facilities, as well as the potential impact of damage inflicted by a natural disaster. If a business can divert production to another site, downtime will not affect that business nearly as much as if the site were the sole supplier of time-sensitive products to the worldwide market. Such measures can help to ensure that the business maintains resiliency during and after a natural disaster.

> Cooperation with suppliers is critical to reduce risks in the supply chain.

Supply chain decisions in most organizations tend to be procurement-oriented and driven by the desire to keep manufacturing costs at a bare minimum. This inevitably requires sourcing solutions in geographies remote from the corporate domicile, which can multiply the number of risks the enterprise takes on. Sourcing from multiple suppliers can help to reduce risk, but if all the suppliers are located in a single geographic area, they could still be exposed to the same unavoidable physical damage and subsequent business and logistics disruption. The impact of such events, however, can be prevented or at least mitigated.

To reduce risk, companies can evaluate the above dangers when contracting potential suppliers. Buildings, machinery, and equipment at risk of damage from natural hazards can be kept safe through organizational continuity planning. Cooperation with the supplier is critical, and a close working relationship between customer and supplier helps immensely. During greenfield projects, new opportunities to negotiate and invest in robust supply chain facilities at the outset can eliminate the need for more expensive retrofits later, especially if the whole facility is earmarked for a single client that has significant influence on production.

By implementing holistic, enterprise-wide supply chain risk management programs that prevent and mitigate property loss and costly business interruption, companies will be prepared to handle wind, water, and quakes. Companies that do not implement such programs are, in a very real sense, working without a safety net. In today's high-risk world, that is never a smart idea. 完

Dennis Bessant *is vice president of Global Services and Asia Operations, FM Global. He is based in Singapore.*

China Foto Press

Managing Brands through Supply Chain Visibility

Brand owners that source from China must keep a close eye on every link in the supply chain to maintain quality standards

Roy Strunin

Recalls of food, tires, and children's toys have the global media scrutinizing the quality and safety of many products made in China. Concerns over restricted substances and product safety and quality also affect other products and industries—such as pharmaceuticals and electronics. In addition, scrutiny will likely increasingly focus on the responsibility of brand owners, manufacturers, retailers, exporters, and importers to ensure quality and safety throughout the supply chain.

Twenty years ago, when products were typically sourced, manufactured, and sold in the same country, they were relatively easy to track. As companies seek to build and maintain competitive advantages in today's global economy, they are naturally joining supply chains that cross geographic and regulatory borders, making product tracking more complicated. Though issues that arise in long and complicated supply chains are not unique to China, the country plays a large role in global manufacturing, and companies that source or manufacture in China must focus on their entire supply chains.

Global economic pressures—especially those related to changes in the value of US and PRC currencies—have created incentives for Chinese manufacturers to trim costs. The pressure to win bids without raising prices, however, has led to the danger that suppliers may lower quality and safety standards to keep prices low. Since brand owners strive to be price competitive while maintaining product safety and quality, the best way to maintain such standards is to build traceability and transparency throughout the supply chain.

Quick Glance

- With the most at stake, brand owners must develop and design safe products and ensure that every unit produced and on store shelves meets the same safety standards as the initial test product.
- Since many product recalls occur because of unapproved, last-minute changes by the supplier, the brand owner must select suppliers carefully.
- To ensure product safety, brand owners should use best practices for supply chain management and be able to trace their entire supply chain.

Identify the source of the problem

The underlying issues that have led to recent product recalls do not necessarily originate with final product manufacturers. Many recalls occurred because of problems with materials, components, and sub-components from secondary or tertiary suppliers. Based on observations and analysis of recalls of products that were manufactured in China during the second half of 2007, Intertek found that the top five reasons for recalls involved unapproved changes to products, components, housing material for electrical components and auto parts, design, and wire and contact material (to reduce copper content). In many cases, these component materials originated in other countries and were exported to China for manufacturing.

Though brand marketers, wholesalers, and retailers all have vested interests in protecting the brand's value, ultimately the brand owner has the most at stake. Brand owners must not only develop and design safe products, they must ensure that every unit produced and on store shelves meets the same safety standards as the initial test product. To maintain product quality and safety, brand owners must maintain transparency and traceability throughout the supply chain.

Evaluate the quality standards of suppliers

A safe product is built from safe components. Thus, to ensure the safety of a final product, companies should first choose suppliers wisely (see the *CBR*, January–February 2008, p.34). To build a well-structured safety program, companies should establish a supplier identification system in which the companies select suppliers with reputable quality control systems and industry standard certifications. Companies should ask the following benchmark questions:

- Is the supplier International Organization for Standardization (ISO) 9000 (quality management system) and/or ISO 22000 (food safety management system) certified?
- Does the supplier have an in-house or third-party program of testing and inspecting products and processes?
- Does the supplier have procedures for security and safety compliance?

Beyond these basics, many companies seek suppliers with sound social responsibility practices and those that aim to minimize their carbon footprint. All of these programs provide companies with increased visibility throughout the supply chain, which they can then share with their partners.

Pre-qualify multiple vendors

Evaluating and developing multiple supply chain sources will reduce reliance on a single supplier and ensure the future availability of supplies. This step mitigates risks related to resource allocation, natural disasters, and suppliers' financial situations. It is especially important for companies sourcing specialized, non-commodity items to pre-qualify multiple vendors. If a company is sourcing a highly specialized part and cannot find a viable alternative supplier, any problems that render the sole supplier unable to provide the product would halt production and force the company to redesign the product. A new design would require new testing and certification.

Even companies that have decided to source a component from a single supplier may benefit from identifying and evaluating multiple sources of the component in the early stages of supplier identification. Though this may be a complex exercise if the product contains several diverse components, it is preferable to conduct such due diligence rather than risk a production bottleneck caused by a parts shortage.

Determine supplier sustainability

As a company appraises its suppliers to ensure product quality, safety, and availability, it should also evaluate the suppliers' long-term sustainability by asking several questions:

- What is the supplier's current and projected capacity?
- Will the supplier be able to provide the same component for the product's entire life cycle?
- Can the supplier easily increase output if demand for the product grows?
- Does the supplier seem likely to reduce its commitment to quality?
- How strong are the company's contacts with the supplier?
- Could the company's position as a priority customer be diminished by another buyer?
- Does the supplier have the financial stability to support the company's future needs?

Consider the supplier's potential risks and abilities

In general, a supplier's long-term ability to deliver product is affected by the regulations of, and conditions in, its country (such as labor laws and union activity, political and economic stability, infrastructure, educational systems, and corruption) and the conditions of its industry and facilities.

Recent regulatory factors that affect suppliers in China include measures to suppress overheated export growth—such as last summer's export tax rebate adjustments and the addition of several hundred commodity categories to the Catalogue Restricting Processing Trade Commodities. These developments have raised the production costs of related commodities and forced some small and medium-sized companies to close. (This summer, PRC government officials increased tax rebates for exported textiles, apparel, and a few other sectors to offer relief to some labor-intensive sectors.)

In addition, Chinese manufacturers have estimated that the new PRC Labor Contract Law, which took effect in January 2008, may boost their labor costs by 10–25 percent over several years, according to UBS AG. The appreciation of China's currency—the renminbi—is also boosting low-end manufacturing labor costs. For international companies operating in US dollars, the annual growth rate of such costs is currently about 15 percent, up from 3–4 percent five years ago, according to UBS. All of these changes place great cost pressures on Chinese exporters. Since consumers will not accept rapid price increases for many products and nearly all input costs are rising, suppliers will need to improve productivity and adopt new technology to reduce their labor forces without sacrificing product quality.

When looking at supplier capabilities in a particular industry, companies should take into account how labor-intensive a supplier's production process is, the industry standards on sub-contracting, prevalence of skilled workers, injury rates, and availability of production materials and tools.

In terms of production facilities, companies will also want to consider a supplier's ownership type (for example, whether it is a private or state-owned enterprise and whether it is local or foreign owned), percentage of production dedicated to a major brand, management and worker-training systems, structural integrity, and internal enforcement and verification of management systems.

To ensure the safety of a final product, companies should first choose suppliers wisely.

Use a score card

Score cards are an important tool for creating supply chain visibility and helping suppliers improve their processes through the use of statistical feedback. Items on a score card may vary depending on the brand owner's supply chain expectations and focus. For example, companies may wish to measure various aspects of the suppliers' quality control; environment, health, and safety practices; corporate social responsibility programs; and security practices. Continuous tracking of supply chain partners will provide the company and the supplier with data on the vendor's ability to maintain the standards of the brand. This actionable data will enable the company to make better-informed decisions based on a supplier's actual performance over time. Also, by sharing the data with the supplier, the brand owner can help the supplier improve key areas.

Helping a vendor improve by using a score card is a four-step process. First, the company and the supplier should agree on the factors to be measured and the metrics for success. Second, the company and supplier must accurately measure performance against the established metrics. Third, measurement results must be recorded in a way that is visible to both parties. Finally, based on the data, the supplier must agree to take corrective action.

In one example of a China-based supply chain security monitoring program, Intertek monitors and measures suppliers across a range of industries on a set number of security-related performance areas such as information technology, personnel, procedures, manufacturing plants, and shipping containers. In July 2008, Intertek recorded a 14 percent increase in security performance over July 2007 across all industries. Once they receive this kind of quantifiable feedback, many suppliers are willing to take steps to improve on their own, such as attending training seminars or hiring a consultant. This marked improvement is directly related to sharing quantifiable measurements among parties and implementing the four-step process mentioned above.

Keep testing

In addition to the initial benchmarking of suppliers for their ability to provide quality and speed, companies should develop a regular audit process to confirm that the product and its production process have not changed since their original benchmark. The company and supplier should sign contractual agreements that clearly define the expectations and responsibilities of each party, product specifications, and process testing to ensure future supply chain visibility.

Pre-shipment inspections

One method to ensure product quality from the supplier is to conduct pre-shipment inspections at the supplier's site. The practice of pre-shipment inspections is based on the policy of "trust but verify." The most common situations in which a company would require pre-shipment inspections are when it has a new supplier, the supplier has produced low-quality goods in the past, or the supplier does not have the desired quality and process controls in place.

Though pre-shipment inspections can incur inspection costs and cause shipment delays, particularly when the shipment fails inspection, it is far cheaper to identify defects at a supplier's site than at the receiving site. A manufacturer that receives a container filled or nearly filled with defective products may find that it is not worth the money to return the shipment or to sort through it to separate good from defective products. In fact, the cost of pre-shipment inspection is usually considerably lower than the cost of receiving defective materials. In a scenario where a full container holds $50,000 worth of product, pre-shipment inspection may cost only $300, about one-half of 1 percent of the product's value and perhaps 5 percent of the shipping costs, according to Intertek research.

Pre-shipment inspections can be an important part of setting quality standards with a new supplier. The financial cost of the effort can be justified, and the additional time requirement can be factored into the production. Over time, however, it is preferable for companies to be able to eliminate, or at least reduce, the number of pre-shipment inspections. After receiving positive results on multiple inspections, companies may be able to move from regular inspections to random inspections or skip-lot inspections in which only a fraction of the lots are inspected.

Continuous tracking of supply chain partners will provide the brand owner and the supplier with data on the vendor's ability to maintain the brand's standards.

Random sample testing

It is not enough to design a safe product and to select top-notch suppliers; brand managers must ensure that every unit that reaches the consumer meets its expected quality and safety standards. To ensure consumer confidence in supply chain management processes and maintain consistently high quality standards, many US retailers and merchandisers have instituted random sample testing. A program of random sample testing demonstrates to consumers that the retailer and brand owner are doing everything possible to ensure consumer safety. The program also deters supply chain partners from taking shortcuts that can lead to product safety issues.

Ensure supply chain traceability

Managing a brand includes being prepared for a product safety issue. Thus, it is important to maintain a traceable chain for each component. When securing suppliers, a company should design and implement a tracing system that tracks source materials from the original suppliers through various processors, manufacturers, and distribution channels to the end user. Such a system will provide the best oversight and allow the brand owner to address any problems in the most rapid and effective manner.

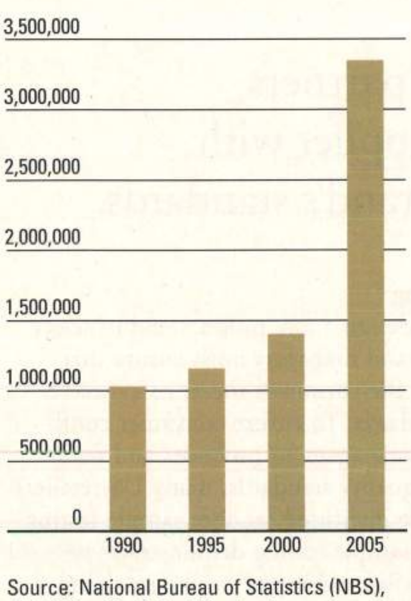
Protect your investment—and reputation

Brand owners invest heavily to build and maintain the best possible reputation for their brands. Because product recalls and quality and safety concerns can harm brand reputation and revenue, brand owners must select suppliers and develop supply chains carefully. From supplier evaluation to risk mitigation or product testing, brand owners should use best practices for supply chain management and create visibility across their supply chain to protect their brand. 完

Roy Strunin *is senior marketing manager at Intertek Testing Services NA, Inc. He is based in Boxborough, MA.*

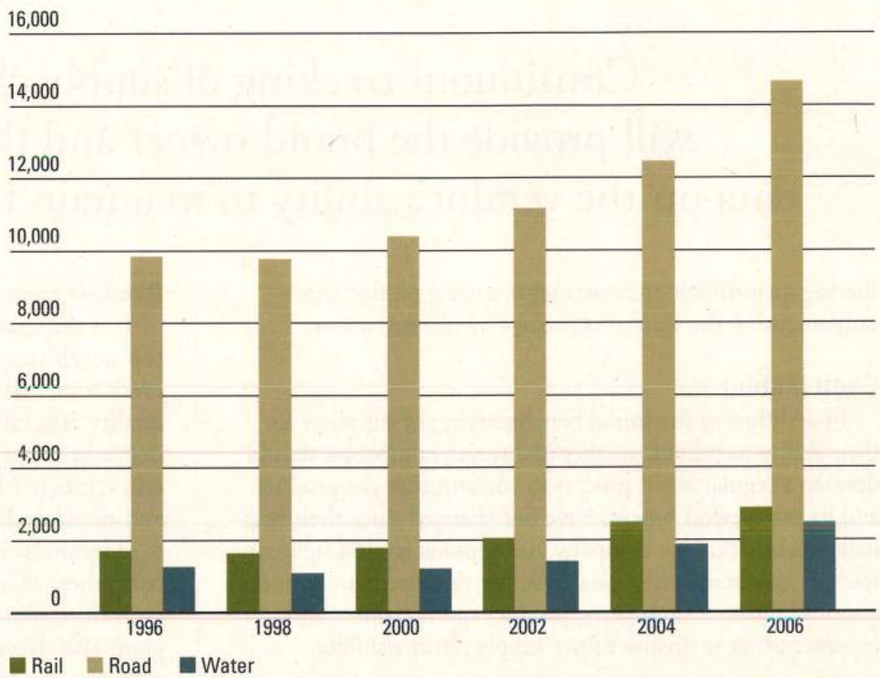
Freight Transport

The length of roads in China has more than tripled since 1990...



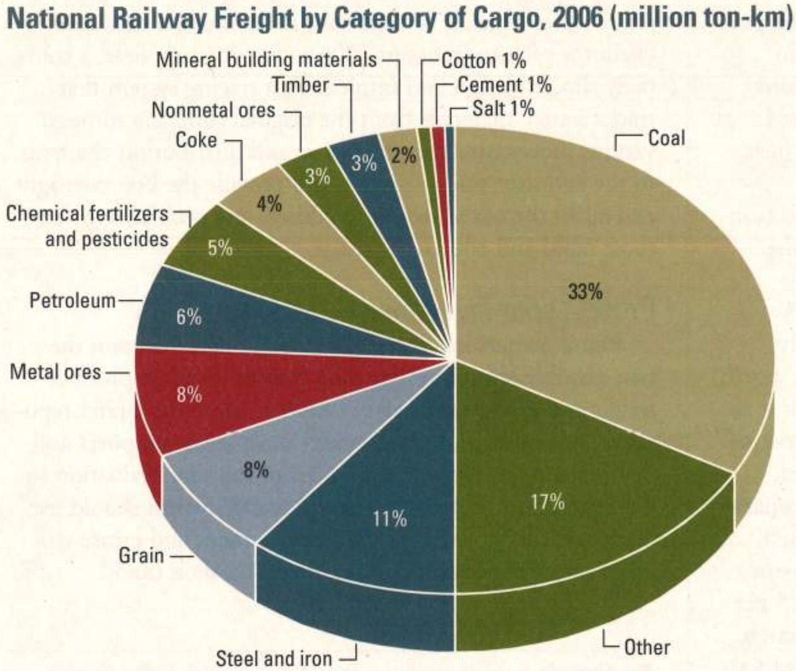
Source: National Bureau of Statistics (NBS), *2007 China Statistical Yearbook*

...and the amount of freight transported by water, road, and rail has soared.



Source: NBS, *2007 China Statistical Yearbook*

Coal is by far the top commodity transported by rail.



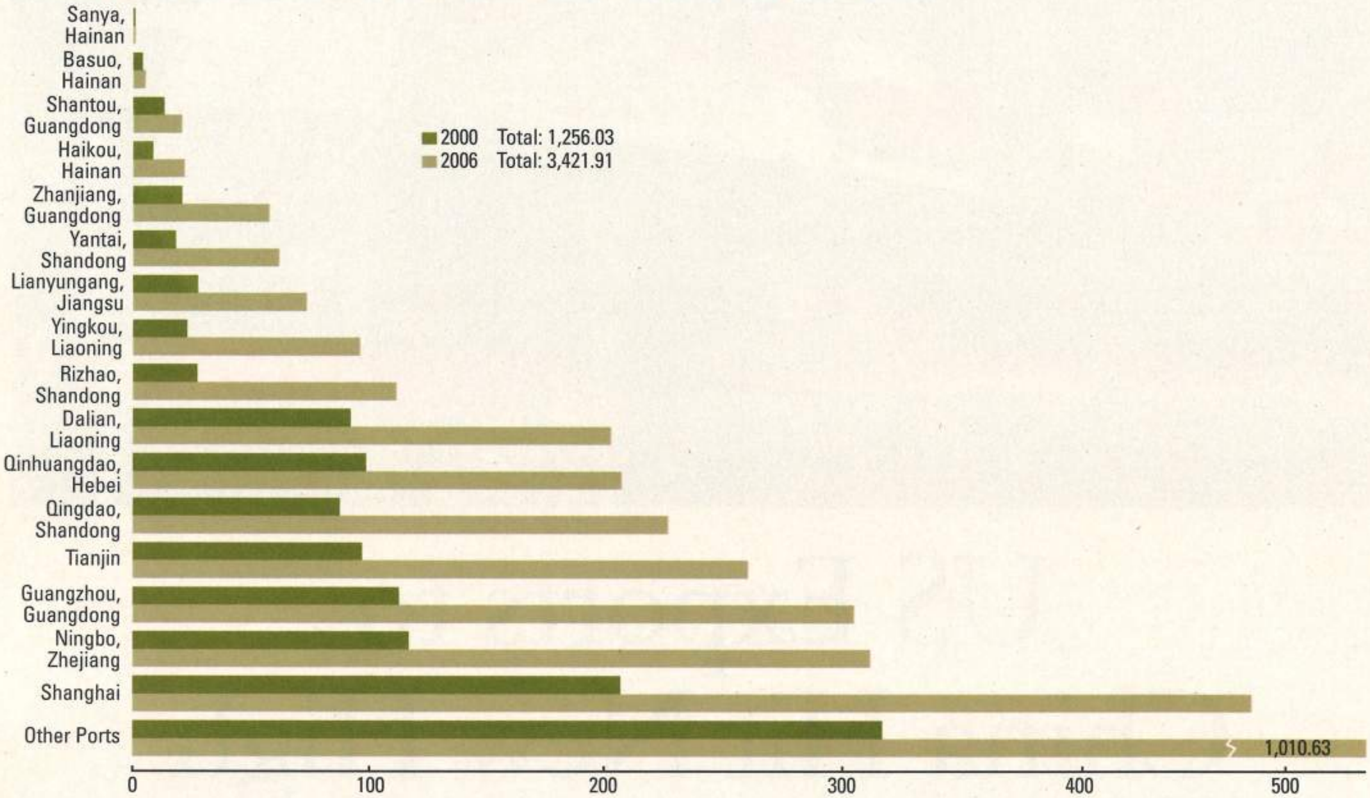
Source: NBS, *2007 China Statistical Yearbook*

Li Shaowen/China Foto Press

n the Rise

As China's coastal ports handle increasingly heavy freight loads...

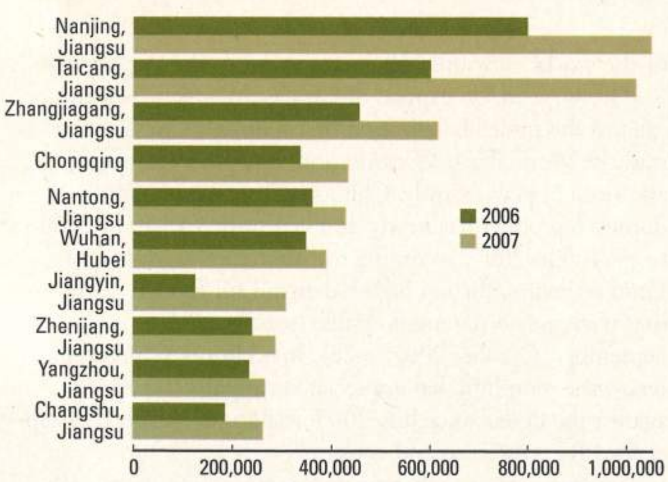
Volume of Freight Handled in Major Coastal Ports, 2000 and 2006 (million tons)



Source: NBS, *2007 China Statistical Yearbook*

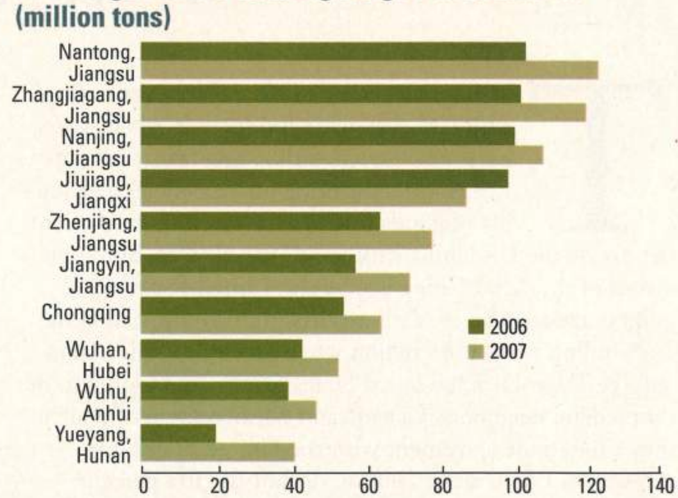
...inland ports are serving as transit points for more containers and cargo every year.

The Yangzi River's Largest Container Ports, 2006–07 (TEU*)



*TEU=Twenty-foot equivalent units;
Source: *Yangtze Transport 2008: Accessing China's Interior*

The Yangzi River's Leading Cargo Ports, 2006–07 (million tons)



Source: *Yangtze Transport 2008: Accessing China's Interior*

US Exports to China Hit New High

In the last seven years, exports to China have surged dramatically, topping $65 billion last year.

The hype about US store shelves overflowing with Chinese-made products in recent years must be coupled with a new reality: that of US exporters sending an ever-increasing supply of goods to China. According to a recent report by the US-China Business Council (USCBC), publisher of the *CBR*, China is now the United States' third-largest export market, with exports in 2007 surpassing the $65 billion mark ($85 billion when Hong Kong is included, see Table 1). The United States exports more only to its immediate neighbors, Canada and Mexico, each of which has a free-trade agreement with the United States. US exports to China since 2000 have shot up 301 percent, dwarfing the 81 percent growth of the next fastest-growing export market, Belgium. In contrast, US exports to the rest of the world grew only 50 percent during the same period.

The surge in US exports to China can largely be attributed to the trade liberalization that followed China's entry into the World Trade Organization, but other factors have also been at play recently. China's real per capita gross domestic product has nearly doubled from ¥3,945 in 2000 to ¥7,400 in 2007, according to International Monetary Fund estimates, fueling higher demand for foreign goods that were previously unaffordable (see the *CBR*, September–October 2007, p.28). In addition, China's currency, the renminbi, has appreciated roughly 20 percent against the dollar since July 2005, making US exports cheaper for PRC importers and consumers.

Nineteen states each exported goods worth more than $1 billion to China in 2007, and another ten states each exported goods worth more than $500 million. The top state exporters were California, Washington, Texas, Louisiana, and New York (see Table 2). Several states that are not usually considered beneficiaries of trade with China made the top 15 exporters list: Illinois, North Carolina, Georgia, Ohio, Michigan, Pennsylvania, and Wisconsin. Together, they recorded an average of 418 percent growth in exports to China in the past seven years.

Exporters sold a diverse array of goods to China in 2007. In terms of overall value, computers and electronics ($13.3 billion) ranked first, followed by transportation goods, chemicals, waste and scrap, and non-electrical machinery (see Table 3). Besides the top-five products, several other products were top exports in certain states. As might be expected, agricultural strongholds Kansas ($206 million), Arkansas ($111 million), and Nebraska ($100 million) exported a cornucopia of processed foods. In the largely rural states of Louisiana ($1.8 billion) and Mississippi ($156 million), crop production exports topped those of other goods. Forested Georgia and Maine exported paper products worth $320 million and $110 million, respectively. Alaska sold seafood products worth $427 million. Nevada, whose exports earnings have skyrocketed faster than any other state at 3,678 percent since 2000, sold $263 million in minerals and ores in 2007—no doubt driven at least in part by China's construction boom.

All data used in the USCBC study come from the US Department of Commerce's Census Bureau and the International Trade Commission. For each of the 50 US states, the report tracks the annual volume of exports to China over the past eight years, 2000–07 growth in exports to China, 2000–07 exports to the rest of the world, top-five export markets, and top-five exports to China. The complete report is available on the USCBC website (www.uschina.org).

To illustrate the importance of China's market to US exporters, the *CBR* asked several US companies that earn a significant portion of their revenue from exports about their export products and markets. The following company profiles are based on their answers.

—Arie Eernisse

Table 1: Top US Export Markets, 2007 ($ billion)

Market	Exports ($ billion)
1. Canada	248.4
2. Mexico	136.5
3. **China***	**65.2**
4. Japan	62.7
5. United Kingdom	50.3
6. Germany	49.7
7. South Korea	34.7
8. The Netherlands	33.0
9. France	27.4
10. Taiwan	26.4
11. Singapore	26.3
12. Belgium	25.3
13. Brazil	24.6
14. **Hong Kong**	**20.2**
15. Australia	19.2

*Including Hong Kong, China's exports were $85.4 billion;
Source: US International Trade Commission

Table 2 : Top US State Exporters to China, 2007

State	Exports ($ billion, 2007)	Export Growth, 2000-07
1. California	10.6	198%
2. Washington	9.6	406%
3. Texas	8.3	470%
4. Louisiana	2.7	149%
5. New York	2.5	222%
6. Illinois	2.0	267%
7. North Carolina	1.8	405%
8. Georgia	1.6	389%
9. Ohio	1.5	413%
10. Oregon	1.4	370%
11. Massachusetts	1.4	174%
12. Arizona	1.3	766%
13. Michigan	1.3	521%
14. Pennsylvania	1.3	369%
15. Wisconsin	1.2	564%

Source: US Department of Commerce

Table 3: Top Exports, 2007

Export	Amount Exported ($ billion)
1. Computer and electronic products	13.3
2. Transportation equipment	9.4
3. Chemicals	7.9
4. Waste and scrap	7.3
5. Machinery (except electrical)	7.1
6. Agricultural products	5.8
7. Food and related products	2.3
8. Primary metal manufacturing	2.3
9. Electrical equipment, appliances, and components	1.4
10. Paper	1.3
11. Fabricated metal products	1.1
12. Minerals and ores	1.0
13. Special classification provisions	0.8
14. Plastics and rubber products	0.7
15. Miscellaneous manufactured commodities	0.6

Source: US Department of Commerce

Applied Materials, Inc.

Applied Materials, Inc., based in Santa Clara, California, specializes in nanomanufacturing technology solutions, with a broad portfolio of innovative equipment, services, and software products for the fabrication of semiconductor chips, flat panel displays, solar photovoltaic cells, flexible electronics, and energy-efficient glass. The company assembles modules supplied by US and foreign manufacturers at its Austin, Texas, facility and conducts research and development (R&D) in its Santa Clara location. Overseas markets account for the bulk of sales, with North America sales contributing 16 percent to total revenue.

Courtesy of Applied Materials, Inc.

Earnings from exports to Asia contribute the greatest portion of Applied Materials' revenues. In 2007, the company exported products worth $8.18 billion, or about 80 percent of total revenue, with 74.2 percent of export revenue earned from sales to the Asia-Pacific region. Southeast Asia and China, not including Taiwan, contributed 12.4 percent of total exports, and in the second quarter of 2008, 18 percent of all new orders came from the subregion. Exports to China alone have risen 235 percent from 2003 to 2007. In addition to marketing products in Asia, Applied Materials uses China-sourced materials, which are typically exported to the United States or Singapore for final integration into the finished item.

Export sales enable Applied Materials to invest $1 billion each year on R&D, helping the company maintain its position as a global industry leader. These sales allow the company to attract, hire, and retain highly talented individuals from around the world, and more than half of Applied Materials' 14,500 employees are based in the United States. To stay competitive as a US manufacturer, Applied Materials is optimizing its supply chains, using a more flexible workforce structure, increasing productivity, working more closely with customers, and seeking new markets.

—Dan Strouhal

GE Transportation

GE Transportation, a unit of General Electric Co. based in Erie, Pennsylvania, is a leading global supplier of railroad, marine, drilling, mining, and wind industries. The company produces freight and passenger locomotives, railway signaling and communications systems, information technology solutions, marine engines, motorized drive systems for mining trucks and drills, and high-quality replacement parts.

In 2007, GE Transportation revenues exceeded $4.5 billion, driven largely by global sales. John Dineen, former president and CEO of GE Transportation notes, "Despite a slowing of the North America rail market, GE Transportation is maintaining its double-digit profit growth and has increased its US employment levels due to wins in international locomotive markets." Even though GE Transportation's business is down 30–40 percent in North America, it is up 300–400 percent globally, according to Dineen. In 2007, GE Transportation's total locomotive production hit 907 locomotives, one of the highest production numbers in GE Transportation's 100-year history, and 4 of every 10 locomotives currently on order are slated for export.

China is playing an integral part in GE's export growth. The country's economic success offers rapidly growing markets for GE's infrastructure and its green technologies. In 2007, GE Transportation exported prod-

The Dow Chemical Company

The Dow Chemical Co., based in Midland, Michigan, delivers a broad range of products and services to customers in roughly 160 countries, supporting 22,000 US jobs through domestic manufacturing and exports. With annual sales of $54 billion and 46,000 employees worldwide, Dow exports various chemical and plastic products, including polyethylene (plastics used in durable goods, consumer goods, packaging, and coating wire and cable), polystyrene foam boards (for insulation and construction applications), polyurethanes (thermoplastic used in durable goods, auto parts, and consumer applications), and water filters.

Courtesy of The Dow Chemical Co.

China is one of Dow's main export markets, and exports to Greater China have increased by 15 percent

Courtesy of GE Transportation

ucts to China worth $54 million. And recently, the company shipped its first of 300 cutting-edge Evolution Series locomotives to the PRC Ministry of Rail. The first China Mainline locomotive was scheduled to arrive in August 2008.

GE Transportation employs 5,600 people in Erie and 11,000 worldwide. Its operations support jobs at more than 3,000 suppliers around the world, including jobs at more than 100 suppliers in Erie alone.

—Dan Strouhal

in the past two years to over $660 million. Dow's exports to China serve as inputs to the company's growing investments and operations within Greater China and help the company to produce a broad range of products for the Chinese economy. Many of Dow's products are necessary building blocks for downstream Chinese customers, who turn the various chemical products into useful consumer products for the Chinese and global economies.

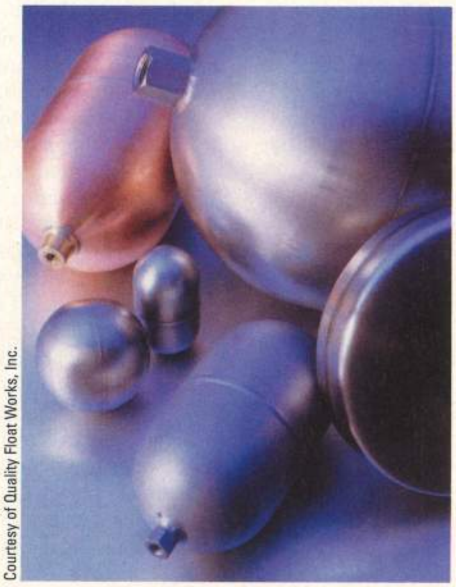
Dramatic change in the petrochemical industry—specifically the rising and volatile cost of hydrocarbons and energy—has led Dow to advocate sustainable energy policy improvements in the US Congress and with governments around the world. As part of the company's innovative business model, Dow has pursued an "asset light" strategy to accommodate these rising energy costs by partnering with key companies like the Shenhua Coal Co. By using joint venture structures in various locations around the world, Dow creates stronger companies—and long-standing partnerships—that can compete successfully throughout industry cycles.

—Arie Eernisse

Quality Float Works, Inc.

Quality Float Works, Inc. (QFW), based in Schaumburg, Illinois, manufactures hollow metal float balls and vessels that level liquids in industries such as gas, plumbing, oil, and agriculture. Some typical applications include chemicals, surge tanks, flasks, liquefied gas storage, pumps, valves, and electronics.

In 2003, QFW expanded its product line to make entire float assemblies used to purify water in developing nations. As the dollar recently weakened, QFW aggressively marketed its innovations, winning new customers abroad. Foreign customers often find it easier to purchase QFW's products manufactured in the United States and ship them overseas than to purchase floats locally. For products shipped to China, QFW uses stainless steel materials and stainless screw products from the United States.



Courtesy of Quality Float Works, Inc.

QFW's international sales have skyrocketed from 3 percent of total sales in 2003 to a projected 20 percent of total sales in 2008, leading to revenue growth of about 105 percent—the highest in the QFW's 93-year history. About 1 percent of QFW's exports go to China and 8 percent to Asia. Total 2007 exports were worth approximately $374,000, with about $5,000 going to China and $176,000 going to Asia. QFW has seen steady business from China, with one or two orders filled each year since 2004, mainly in Guangzhou, Guangdong.

Customers in North America, Europe, Latin America, and Asia—including E.I. du Pont de Nemours and Co., Ford Motor Co., General Dynamics Corp., W. W. Grainger, Inc., the US Department of Navy, and the Walt Disney Co.—use QFW floats as vital components in the operation of their equipment. Thanks to QFW's recent success tapping export markets abroad, the company has significantly increased revenue and doubled the size of its highly skilled workforce.

—Arie Eernisse

***Arie Eernisse** and **Dan Strouhal** are assistant editors of the* CBR.

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Green Investment: Opportunity Knocks

With more emissions reduction opportunities available, foreign investors may wish to invest in Clean Development Mechanism projects in China

Filip Moerman, Janet Weller, and Zheng Zhou

As debates rage about the impact of climate change and the merits of strategies to mitigate that impact, the global carbon market—designed to help countries and private companies meet their emissions-reduction goals by trading carbon-emission permits—is booming. According to the market research firm Point Carbon, the value of the global carbon market doubled from 2006 to 2007 to reach €40 billion (about $63.5 billion). Furthermore, in just the first half of 2008, the global carbon market generated almost as much money (€38 billion, about $60.3 billion) as it did in all of 2007.

With a June 2008 Netherlands Environmental Assessment Agency report stating that China has replaced the United States as the world's largest emitter of greenhouse gases (GHGs), many investors may be attracted to China's expanding opportunities for investment in GHG-reduction projects, known as Clean Development Mechanism (CDM) projects. The CDM was designed to reduce compliance costs, engage developing countries that are not otherwise obliged under the Kyoto Protocol to reduce GHG emissions, and encourage technology transfers from industrialized countries to developing countries.

Companies interested in investing in CDM projects in China should understand the CDM framework and the legal and practical considerations for such investment.

CDM basics

International efforts to reduce GHG emissions are currently organized under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The Kyoto Protocol commits countries in the protocol's Annex B—mostly industrialized nations—to capping their domestic GHG emissions below the agreed baseline levels by the end of 2012. The protocol permits these countries to meet their commitments through a variety of flexible mechanisms. One such mechanism, the CDM, allows an Annex B country to invest in a GHG-reduction project in a non-Annex B country and gain credit for the emissions reduction achieved in the host country.

Countries that have not ratified the Kyoto Protocol, such as the United States, are ineligible to partner directly with China to generate carbon credits, officially known as certified emission reductions (CERs). But this exclusion does not extend to US multinational corporations that operate in jurisdictions with binding Kyoto GHG-reduction commitments. On the contrary, such corporations must comply with the host jurisdictions' caps, and compliance is possible through CDM projects.

Quick Glance

- US companies can participate in Clean Development Mechanism (CDM) projects in China through their subsidiaries in countries that have ratified the Kyoto Protocol.
- China prefers CDM projects that include renewable energy and energy efficiency improvements, as well as projects that transfer technology to China.
- Like all projects, CDM projects come with risks that investors should thoroughly investigate before making a commitment.

The China market

Because of its heavy coal consumption and strong desire to improve energy efficiency, China holds vast market potential as a source of CERs. In fact, China accounted for about 61 percent of the market share of total CERs supplied to industrialized countries between 2002 and 2006 and expanded its market share to 73 percent in 2007, according to the World Bank. At the beginning of August 2008, China expected to generate an average of 113.6 million CERs per year from its 250 registered CDM projects, according to China's CDM statistics. New project applications in China continue to soar. At the end of May 2008, China had approved a total of 1,388 CDM projects since 2005, of which about two-thirds were approved after May 2007. The most active buyers in the Chinese market are carbon funds and Europe-based multinational corporations. A majority of the projects approved in China have been in "priority sectors" as defined in China's Measures for Operation and Management of CDM Projects in China (the CDM Measures), such as renewable energy, energy efficiency improvement, and methane recovery and utilization.

The structure and process for CDM project approval

The Kyoto Protocol requires CDM projects to be approved by the host country's designated national authority and registered by the CDM Executive Board, an international body established by the Conference of the Parties to the Kyoto Protocol in 2001 that supervises CDM projects. A country's designated national authority approves and helps monitor the projects within that country. The CDM Executive Board oversees the administration of CDM and CDM-related activities. A CDM project must register with the executive board to receive credit for the emissions reduction achieved.

The typical CDM project cycle, from conception to final fruition, includes the following stages:

- **Negotiation and project design document** Project participants, including a project developer from an Annex B country and a project owner from a non-Annex B host country, negotiate the project and prepare a project design document. In the document, the project participants define the project, estimate the emissions reduction to be achieved, and establish a monitoring plan. Project participants must then submit the document to the host country's designated national authority for approval.
- **Validation** If the designated national authority approves the project, a designated operational entity—an entity with expertise in related fields accredited by the CDM Executive Board—will, at the request of the project participants, independently review the project design document and check it against CDM requirements (see Table). If the designated operational entity determines the project is valid, it submits the registration request to the executive board.
- **Registration** The CDM Executive Board registers the project after receiving the registration request from the designated operational entity. Registration signals that the executive board formally accepts the CDM project. (A project is deemed registered eight weeks after the CDM Executive Board receives the request for registration, unless a party to the proposed project or three members of the executive board request review.)
- **Implementation** Once the project is registered, participants can implement the project, subject to monitoring by the designated national authority and the designated operational entity.
- **Verification and certification** After participants complete the project, the designated operational entity verifies the actual emissions reduction achieved and issues a verification report followed by a certification report.
- **Issuance of CERs** The CDM Executive Board issues CERs representing the verified emissions reduction into its

account in the CDM Registry 15 days after the submission of the certification report (unless review is requested by a party to the proposed project or three members of the executive board). The CDM Registry, run by the UNFCCC secretariat, issues CDM credits and holds them for non-Annex B countries permanently and for Annex B countries until the credits are distributed to their respective national registries. The CERs in the CDM Executive Board's account are then allocated as requested to the accounts of the project participants.

The CERs so issued are for compliance purposes only and cannot be sold. They are tradable only after they are transferred to the national registry of each Annex B country. The transfer of CERs from the CDM Registry to a national registry occurs through the International Transaction Log, which began operations in November 2007. The log's completion greatly enhanced the liquidity of CERs and may provide powerful incentives for greater investments in CDM projects. In addition, the EU Emissions Trading Scheme allows CERs to be converted into carbon allowances tradable within the scheme. CERs can also be traded in secondary markets, such as voluntary climate exchanges.

China's CDM Measures and legal requirements

China ratified the Kyoto Protocol in 2002 and in 2005 issued the CDM Measures, which establish the current procedures for CDM project administration, application, and approval (see p.45).

A foreign CDM project developer interested in carrying out a CDM project in China should be aware of legal requirements under the CDM Measures and should carefully evaluate the risks of potential projects. First, the project owner, or local host, must be a wholly Chinese-owned or -controlled enterprise. Second, CDM projects should facilitate the transfer of environmentally sound technologies into China. Because PRC regulators favor CDM investments in certain priority project areas—namely energy efficiency improvement, new and renewable energy development, and methane recovery and utilization—CDM projects outside these areas will likely face financial disincentives and difficulty obtaining approval.

Under the CDM Measures, the PRC government owns a share of the CERs generated through CDM projects in China and is entitled to a corresponding portion of the sales revenues of such CERs. Not all projects are treated equally, however. For projects in priority areas, the government's share is only 2 percent. In contrast, the government's share is highest for hydrofluorocarbon and perfluorocarbon projects—65 percent—and is set at 35 percent for nitrous oxide projects.

Designated Operational Entities

British Standards Institution
Bureau Veritas Certification Holding SA
Colombian Institute for Technical Standards and Certification
Deloitte Tohmatsu Evaluation and Certification Organization Co., Ltd.
Det Norske Veritas Certification AS
JACO CDM, Ltd.
Japan Consulting Institute
Japan Quality Assurance Organization
Korea Energy Management Corp.
Korea Foundation for Quality
KPMG Sustainability BV
Lloyd's Register Quality Assurance Ltd.
PricewaterhouseCoopers South Africa
SGS United Kingdom Ltd.
Spanish Association for Standardization and Certification
TÜV NORD CERT GmbH
TÜV Rheinland Japan Ltd.
TÜV SÜD Industrie Service GmbH

Note: Companies are listed alphabetically and are current as of August 12, 2008; the designated operational entities are accredited for certain sectors. Source: The UN Framework Convention on Climate Change Clean Development Mechanism website (http://cdm.unfccc.int)

Other legal challenges and risks

In addition to the legal requirements of the CDM Measures, foreign (especially US) investors will likely encounter many more legal and practical challenges.

Extra work for non-ratifying parties

As a non-ratifying party of the Kyoto Protocol, the United States—and by extension its corporations—are ineligible to participate in CDM activities in partnership with a Chinese project owner. This challenge is not insurmountable, however. US investors may invest through subsidiaries in Annex B jurisdictions. Alternatively, they may take advantage of the 2001 Marrakesh Accords to the Kyoto Protocol, which permit unilateral CDM projects. Such projects include GHG-reduction projects initiated and implemented solely by a developing country, without the involvement of an Annex B partner. Under this scenario, a US investor may enter into a contract to buy the resulting CERs from the Chinese enterprise that undertakes the unilateral CDM project. The CDM Measures mention the possibility of a unilateral CDM project, stating that if no foreign buyer is determined by the time a project is submitted for approval, the project development document must indicate that the CERs generated will be transferred to China's national account in the CDM Registry and may be transferred out later with National Development and Reform Commission authorization. Presumably, US investors could buy such CERs. It should be noted that, in practice, PRC regulators do not favor unilateral projects because they do not transfer technology to China.

Delivery risk

An investor in a CDM project must also consider the risk that a project may fail to deliver the expected amount of CERs. There are multiple sources of such risk. On the macro-policy level, methodological changes required by the

CDM Executive Board can change the projected amount of CERs delivered. Likewise, inaccurate monitoring and verification of reductions, delay or failure in the registration process, and an error in the International Transaction Log can also result in reduced CER delivery. On the project level, new technologies may be unreliable, causing projects to perform below expectations.

Credit risks

For projects carried out in China, the credit risks of project owners, most of which are small or medium-sized enterprises with no credit rating, should not be overlooked. Investors must diligently investigate potential credit risks before and during the course of a CDM project.

Many risks can be managed or avoided with careful planning, well-crafted contractual provisions, or consideration of alternatives. For example, rather than buying CERs directly from a project owner, a buyer may purchase bank-guaranteed CERs to achieve the same objectives, thereby shifting delivery risk to the bank, or buy in the secondary market, where delivery risks are largely borne by the sellers.

Opportunities abound for forward-thinking, diligent investors

Given the PRC government's recent acknowledgement of climate change concerns, investors should track and assess expanding opportunities for environmental and financial gains by investing in CDM activities in China. Though companies should regularly evaluate opportunities to benefit from CDM projects in China, they should also recognize that these investments carry a fair amount of risk and uncertainty given the general regulatory and investment environment in China. Any investor interested in such projects is well advised to thoroughly investigate any potential project opportunity and proceed carefully, with clear legal documentation and full consideration of alternatives that can help mitigate the risks. 完

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The Administration and Approval of CDM Projects in China

Three national authorities administer China's Clean Development Mechanism (CDM) regime. The National Coordination Committee on Climate Change—an interagency group comprised of representatives from 15 government agencies—is the highest authority (see Table). The committee coordinates China's climate change policies, provides direction for CDM-related policies, and approves members of the National CDM Project Board. Under the leadership of the committee, the National CDM Project Board, which consists of seven governmental agencies and is co-chaired by the National Development and Reform Commission (NDRC) and Ministry of Science and Technology (MOST), reviews CDM project proposals, recommends projects for approval, and reports to the committee on CDM project implementation. NDRC also serves as the designated national authority of China and oversees CDM projects in the country. NDRC receives CDM project proposals, conducts preliminary screening of the proposals, approves CDM projects (jointly with MOST and the Ministry of Foreign Affairs) in accordance with recommendations made by the National CDM Project Board, and issues official designated national authority approval for CDM projects on behalf of the PRC government.

According to the CDM Measures, a CDM project owner (the PRC host entity) must submit an application for a proposed CDM project activity, including a project design document and a financial plan, to NDRC. NDRC engages external experts to evaluate the proposal and submit a report to the National CDM Project Board for its review and recommendation. This step may take up to 30 days. After its review, the National CDM Project Board informs NDRC of the eligible projects, and NDRC (jointly with MOST and the Ministry of Foreign Affairs) issues an official approval. NDRC generally must respond within 20 days of receipt of an application (excluding the expert review time) but may get a 10-day extension with the approval of agency heads. The CDM project approval process should not take more than two months in China.

After receiving NDRC's approval, a project owner in China can proceed to designated operational entity validation and, if validated, CDM Executive Board registration. Once a project is registered, the project owner must report the CDM Executive Board's registration decision to NDRC within 10 days.

— *Filip Moerman, Janet Weller, and Zheng Zhou*

Members of the PRC National Coordination Committee on Climate Change

China Meteorological Administration
Chinese Academy of Sciences
Civil Aviation Administration of China
Ministry of Agriculture
Ministry of Commerce
Ministry of Environmental Protection
Ministry of Finance
Ministry of Foreign Affairs
Ministry of Housing and Urban-Rural Development
Ministry of Science and Technology
Ministry of Transport
Ministry of Water Resources
National Development and Reform Commission
State Forestry Administration
State Oceanic Administration

Note: Members are listed alphabetically.
Source: China's Clean Development Mechanism website (http://cdm.ccchina.gov.cn)

Managing Government Affairs

In China's rapidly evolving business environment, companies need an effective government affairs staff

Julie Walton

Unlike the US government, which places few restrictions on business, the PRC government plays a significant role in business in China. Partners, customers, suppliers, competitors, service providers, and media are often directly or indirectly controlled by the Chinese Communist Party and China's parallel government bureaucracy. As US companies develop their China operations—whether by expanding existing facilities, building stronger brands, or entering entirely new markets—their need to review the range and scope of their government affairs operations has never been greater.

Rampant turnover of government affairs staff and misperceptions about how to conduct government affairs in China—particularly the belief that a company must rely on someone with connections to achieve its goals—make it difficult for companies to conduct government affairs effectively. As a result, many US companies are seeking more information about what the practice of "government affairs" means in China, where a developing, rapidly changing, and often opaque economic system make advocacy more challenging now than in the past.

To meet this need for information, the US-China Business Council (USCBC), publisher of the *CBR*, unveiled the first half of a two-part report member survey in October 2007. The survey sought members' opinions on the structuring, hiring, and tasking responsibilities for managing government relationships in China (see the *CBR*, March–April 2008, p.46). To delve more deeply into some of the survey's findings, the USCBC interviewed 26 China-based senior executives and government affairs practitioners in March 2008. Questions covered organizational structure as well as relationships with other business units and departments, interaction with industry associations, hiring practices, evaluation criteria, tasks and responsibilities, and perhaps most important, respondents' interactions with PRC government officials.

The purpose of government affairs

Because the PRC government is involved in nearly every step of doing business in China, the government affairs role encompasses a wide variety of tasks. Professionals devote the bulk of their time to analyzing policy and regulatory developments, conducting strategic advocacy, formulating company and industry positions and delivering these to the government, and building awareness within the PRC government of the company's brand. Central, provincial, and municipal PRC agencies rarely act in unison and often have conflicting goals that force government affairs professionals to tailor their strategies to each agency.

Government affairs involves internal company logistics and coordination, as well as relationship building with authorities. Successful government affairs professionals that are well integrated into their companies can build relationships with authorities and "sell" the company's perspective and experience to the PRC government.

Coordination

Effective government affairs professionals act as channels through which policy, regulatory, and corporate information flows from the company to the government and vice versa. Thus, government affairs staff in China facilitate communication among business units, local industry associations, government agencies, corporate leaders, and the state-owned enterprises that are the company's customers and partners. They also maintain open channels with entities involved in the policymaking process, including universities, national-level think tanks such as the Chinese Academy of Social Sciences, and ministerial-level think tanks such as the National Development and Reform Commission's Energy Research Institute. This allows companies not only to keep abreast of the latest policy ideas but also to express their views informally during the earliest stages of policy formulation.

By interacting with the government, government affairs staff gauge and communicate the mood and priorities of government agencies to the rest of the company. They also facilitate cooperation between the agencies that set and enforce standards and the technical experts in their company's relevant business units. This requires a great deal of internal coordination because it is sometimes unclear which company expert should be part of the discussion.

Internally, government affairs staff streamline and prioritize the business units' requests for various government agencies to prevent conflicting or confusing corporate messages that could derail a broader company initiative. They also help balance competing priorities within a company. Business units have short-term production and profitability goals that might appear distinct from broader, long-term corporate goals. Many government affairs executives in China see their job as making links among business units' short-term goals, the company's broader goals, and the government's policy and growth goals.

Government affairs staff frequently design and manage programs that support a particular corporate interest or priority with an association or government agency and write talking points for media or public relations staff. They are also involved in developing strategies to protect the company's intellectual property rights. Finally, they can help facilitate the licensing and approval process of new legal entities and participate in contractual negotiations, which often involve local government officials.

Relationship building

Once a company finishes internal communication and approves a final message, government affairs staff are responsible for building relationships with government officials across a variety of agencies and levels. Interviewees recommended that companies remember several points about building relationships with government officials.

First, only a small group of officials in any given industry can address a specific issue, and finding the right officials in any given agency, association, or think tank and ensuring that they have relevant information can be time-consuming. Few, if any, detailed agency organizational charts for PRC agencies are publicly available. Many government affairs executives in China believe that US headquarters place unrealistic expectations on government affairs work in China because they do not understand how hard it is to reach the right people.

Second, government affairs staff should find and develop relationships not only with the director general of a particular department, but also, and perhaps more important, with the division chiefs below that director general. A company needs to understand an official's relationship to the rest of the department and the agency to develop the most effective advocacy points. Moreover, developing good relationships with lower-level officials can help the company later on, when the officials are promoted.

PRC government officials have little incentive or obligation to share information across departments within an agency, let alone with other agencies. Therefore, the government affairs executive must have multiple meetings on the same topic within one agency. Agency reluctance to direct calls to the right person or even pass along contact information adds another layer of work for the China-based government affairs professional.

Quick Glance

- Government affairs is taking on a new importance for companies in China as the government rolls out new policies.
- The most effective government affairs departments are well integrated into the company and interact regularly with business units and functional departments.
- Successful government affairs staff regularly demonstrate their value to the rest of the company.

Structures

The reporting and organizational structures that companies adopt to manage government relations in China influence how their government affairs staff operate, as well as on what issues they focus. Companies use a wide range of reporting structures to manage links between senior government affairs staff in China and the rest of the company. Many interviewees noted that the better integrated a China-based government affairs executive is into the company's process of formulating broad strategies for business operations in China, the easier it is for the company to develop meaningful advocacy strategies, coordinate among business units, and raise awareness of the company's brand among PRC government agencies. Some common reporting structures include:

- **Direct report to the United States with dotted line to China** In this structure—the most common among companies interviewed—the senior government affairs person in China reports directly to a more senior government affairs person in the United States or elsewhere, with a secondary report to the most senior person in China—often a country president. This structure is effective when companies want to ensure a unified government affairs message across global operations.
- **Direct report to China with dotted line to the United States** In this structure, government affairs staff report directly to the senior in-country executive with a secondary report to US government affairs. Companies note that this structure gives the senior China-based executive greater authority over the local government affairs department. It is also helpful for companies whose China operations are functionally different or independent from their US or global operations.
- **Multiple direct reports** The senior government affairs person reports directly to a senior US-based executive for government affairs and a senior China-based Asia-Pacific executive. Companies with this structure report that it works well in balancing the needs of the China-based entities and the company's overall policy interests.
- **Single direct report in China** Some US companies established as holding companies in China have their in-country government affairs executive report only to the most senior China-based executive, which gives that executive great authority over setting government affairs priorities in China.

Less common structures include:

- **Lower-level reporting** The senior government affairs person reports directly to a China-based corporate executive a few levels below the country president. Government affairs executives at companies with this structure reported that they were not part of strategic planning decisions for China and had difficulty getting support from business units.

Senior executive manages government affairs The senior corporate executive for China, usually the country president, is responsible for government affairs work. Companies with this structure tend to have a small in-country presence wherever they operate, or else their sectors are so restricted worldwide that top management has global experience handling government interaction.

Regardless of the structure companies use, they should institutionalize relationships with the government across the company so that they survive staff turnover.

Internal communication and interaction

An especially difficult challenge for the China-based government affairs professional is helping business units understand how they can benefit from the government affairs function. Government affairs staff cite several reasons for this difficulty. First, China-based business units are sometimes uncertain about what their government affairs colleagues do. The lack of tangible product makes communicating the value of government affairs work difficult. Second, many government affairs departments in China are new and have had few opportunities to demonstrate their value to the company. Third, until recently, some companies have not had a government affairs department, so a supportive corporate culture is lacking. Finally, in some companies, limited support from senior in-country management or the China strategy team has lowered the visibility of government affairs and made it more difficult to coordinate with business units. Consequently, business units appear to fall into three general categories: those that have little idea what government affairs does, those that are slowly engaging more with the China government affairs staff, and those that are integrated into China government affairs work.

Limited interaction model

A few large multinational companies report that their China business units and corporate functions, such as finance and human resources, have little or no contact with the corporate staff responsible for government affairs. A drawback of this model is the confusion that the system sometimes creates, not only within the company but also among government officials.

For example, one company interviewed has eight different business units in Shanghai, each with the same concern about local implementation of new environmental protection rules. The chief compliance officer of one business unit sought clarification from the local authorities. Two days later, the general manager of another business unit had the same question. The local government officials were perplexed because they had just met with the company on the same topic. In addition, the two business units could interpret the information received from government officials differently, which could lead to uneven—and potentially noncompliant—implementation across business units.

Emerging relationship model

Business units and functional departments are beginning to realize that a distinct government affairs function exists within the company to support growth plans and troubleshoot when problems arise, according to interviewees. Companies trying to improve internal communication report that they undertake several important exercises, sometimes simultaneously.

Government Affairs at the Facility Level

Many respondents interviewed for the second phase of the US-China Business Council's government affairs survey noted that each of their company facilities in China has at least one person who manages local government relations as part of his or her responsibilities. This individual typically manages everything that happens outside of the facility, including media and broader community relations. This person reports directly to the head of the facility and coordinates messages and priorities with the corporate government affairs team. The local facility shoulders the costs associated with this work.

The size and age of the facility often determines who manages these tasks. Sometimes the general manager assumes some of these responsibilities, although it is more common to have human resources or compliance managers split their time between the local government affairs work and their departmental duties. Even so, interviewees noted that, in recent years, more of their facilities have created a local government affairs position to coordinate the facility's engagement with external actors. Reasons cited for the creation of a government affairs position at the facility level include the size of the facility (a larger facility draws more government attention), the importance of the facility in terms of employment and tax revenue to that locality, and the need to improve communication and management by alleviating the workloads of staff who split their time between government affairs and other responsibilities.

Government relations tasks at the facility level are often technical and can include managing inspections from the local office of the State Administration of Work Safety. Companies in the pharmaceutical industry observed that their local government affairs managers navigate local pricing and reimbursement issues that would overwhelm corporate-level staff with country-wide responsibilities.

—Julie Walton

First, government affairs staff show other departments in their companies how their work benefits the company. Successful government affairs work is often measured by what does not happen; thus, it can be hard to demonstrate a need for an increased role for government relations, especially to technical or sales departments. To demonstrate their value, government affairs staff initiate conversations with business units and functional departments, learn about what they do, and recommend specific points of government interaction or advocacy tactics that might help the business unit achieve its goals. Government affairs staff can also contribute by thinking and acting ahead on an issue, even if it is not on the current list of business unit priorities.

In another company interviewed, senior corporate executives asked the government affairs director to support a business unit that had a staff shortage in the licensing and approval process for a new facility. The business unit leader was skeptical about the value a government affairs director could bring to a "business issue." The government affairs director spent time talking with all of the different partners in the licensing process and coordinated meetings with local officials in which potential problem areas could be discussed informally. After the licensing and approval process went more smoothly than any previous registration process, everyone in the business unit agreed that the government affairs director had prevented the usual delays, confusion, and cost increases.

Second, companies further define and clarify the role of government affairs staff by establishing guidelines and examples for reporting and interaction that can be communicated to all units and refined as the government affairs function becomes more integrated into the organization.

Third, companies foster integration from the top. Public support from senior country management about the role that government affairs can play in achieving business unit and corporate goals reinforces government affairs department efforts to build trust inside the company.

Fully integrated model

Several government affairs professionals reported having excellent working relationships with business units and functional departments. When the government affairs function is fully integrated into a company, other departments and units know what the government affairs department does and are active partners in policy advocacy development. In turn, government affairs staff are more involved in the work of business units or functional departments.

For instance, government affairs staff work closely with business units to recommend specific talking points to support a business unit priority. Because they are aware of the unit's priorities, they are better positioned to serve as an early warning voice for the unit when the government is considering policy changes. Government affairs staff can also facilitate introductions for heads of business units to key researchers to discuss a particular technology. This is especially important in China, where researchers at influential think tanks often play a role in the formulation of government policy.

When a business unit is involved in negotiations with the local government, government affairs staff sometimes help develop messages and smooth the process. They can also lobby central government officials to convince them of the policy rationale for including company products on approved "buy" lists at the same time that sales staff are talking to local officials about the merits of those products. Companies whose products are strictly regulated may want to consider assigning government affairs staff to particular agencies with oversight for those products. For instance, one company assigned a government affairs manager solely to the State Administration for Industry and Commerce because of its product lines and advertising expenditures.

Government affairs staff can also aid functional departments, for instance, by helping human resources staff troubleshoot problems with employee household registration, and inviting speakers to, or hosting local officials at, events organized by the business unit. One company has assigned a government affairs manager to track all PRC policy and regulatory developments that would affect corporate functions—human resources and finance, for example—to facilitate better interaction among its functional departments, its business units, and the government.

Government affairs staff can also help the finance department work out problems with profit repatriation or troubleshoot problems with local tax bureaus. For example, the decision to move a company from district A to district B within the same city would likely trigger a lengthy and contentious tax audit in tax district A, which would like to keep the company in its district. In this situation, government affairs staff can facilitate discussions with more senior municipal government officials to help them see the bigger picture about investment in their city and to secure their assistance in speeding up the necessary paperwork.

Emergence of the corporate lobbyist

Many companies are realizing that government affairs in China requires greater time commitment and internal organization than in the past. Information gathered through interviews seems to indicate that the reporting structure of the government affairs function, and how well it is integrated into the company, has a tremendous impact on the effectiveness of government affairs work. To get the most out of their government affairs staff in China, companies should clearly define the role and goals of each government affairs position and fully integrate staff into corporate strategy formulation. 完

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Sales and Investment

May 15–July 15, 2008

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).

Compiled by Nicholas Chu

Advertising, Marketing & Public Relations

INVESTMENTS IN CHINA

Publicis Groupe SA (France)
Acquired Shanghai-based EmporioAsia Inc., a full-service online marketing agency, which is now called EmporioAsia Leo Burnett. 05/08.

Saatchi & Saatchi, a subsidiary of Publicis Groupe SA (France)/ Energy Source Communications (China) Ltd. (Shanghai)
Will form strategic JV, Saatchi & Saatchi Energy Source Integrated Interactive Solutions, based in Shanghai and Guangzhou, Guangdong. 06/08.

OTHER

VODone Ltd. (Hong Kong)/ AirMedia Group Inc. (Beijing)
Signed agreement to establish strategic partnership to penetrate China's advertising market. 05/08.

Architecture, Construction & Engineering

CHINA'S EXPORTS

Guangdong Overseas Construction Group Co., Ltd.
Signed contract with Saudi Arabia's King Khalid University to construct 16 buildings as part of the university's expansion plan. $612 million. 07/08.

CHINA'S IMPORTS

GE Water & Process Technologies, a unit of General Electric Co. (US)
Will build a wastewater treatment system for the municipal government of Wuxi, Jiangsu, to improve water quality in Tai Lake. $10 million. 06/08.

INVESTMENTS IN CHINA

TCC International Holdings Ltd., a unit of Taiwan Cement Corp.
Will invest in a project in Xuzhou, Jiangsu, to boost daily cement clinker production capacity by 5,000 tons. $115.5 million. 05/08.

Automotive

CHINA'S IMPORTS

Ford Motor Co. (US)
Will export 30,000 vehicles and supply transmission components and parts to its Sichuan-based JV partner, Changan Ford Mazda Automobile Co., Ltd. $800 million. 06/08.

General Motors Corp. (US)
Will export vehicles, component kits, machinery, and equipment to its JV partner, Shanghai General Motors Co., Ltd. $1 billion. 06/08.

WABCO Holdings Inc. (Belgium)
Won contract from the Beijing Public Transport Corp. to provide braking products and aftermarket services for 20,000 buses through September. 05/08.

INVESTMENTS IN CHINA

ArcelorMittal (Luxembourg)/ Hunan Valin Iron & Steel Group Co. Ltd. and its subsidiary, Hunan Valin Steel Tube & Wire Co. Ltd.
Will form industrial and commerical JV, Valin ArcelorMittal Automotive Steel, with annual production capacity of 1.2 million tons of flat carbon steel. (Luxembourg:33%-PRC:67%). 06/08.

China Auto Corp. Ltd. (Singapore), Dr. Schneider Kunststoffwerke GmbH (Germany)
Formed JV, Dr. Schneider CAC Automotive Pte Ltd., to build a factory in Xiamen, Fujian, that will manufacture plastic parts and modules for air vents for car makers. (Singapore:51%-Germany:49%). 06/08.

Daimler AG (Germany)/Beiqi Foton Motor Co., Ltd., a subsidiary of Beijing Automotive Industry Holding Co., Ltd.
Will form JV to produce 100,000 heavy-duty trucks annually for domestic and overseas sales. (Germany:50%-PRC:50%). 06/08.

Dongfeng Motor Co., Ltd., a JV between Nissan (China) Investment Co., Ltd., a subsidiary of Nissan Motor Co., Ltd. (Japan), and Dongfeng Motor Group Co., Ltd. (Wuhan)
Will build a factory with annual production capacity of 120,000 vans and trucks in Henan by 2010. (Japan:50%-PRC:50%). $145 million. 05/08.

Guangzhou Toyota Motor Co., Ltd., a JV between Toyota Motor Corp. (Japan) and Guangzhou Automobile Group Co.
Will build a second production line, with annual production capacity of 120,000 vehicles. $380 million. 06/08.

Nifco Inc. (Japan)
Will build a factory in Beijing to triple its production capacity for automotive plastic parts. 06/08.

Sichuan FAW Toyota Motor Co., Ltd., a JV between Toyota Motor Corp. (Japan) and China FAW Group Corp. (Jilin)
Will build SUV production plant with eventual annual production capacity of 200,000 units in Changchun, Jilin. $527 million. 07/08.

Sichuan FAW Toyota Motor Co., Ltd., a JV between Toyota Motor Corp. (Japan) and China FAW Group Corp. (Jilin)
Will relocate its Chengdu plant to another site within Sichuan and increase annual production capacity by 17,000 vehicles. $527 million. 07/08.

OTHER

Chrysler LLC (US)
Signed MOU with Hebei-based Great Wall Motor Co., Ltd. to assess the feasibility of developing a long-term strategic relationship. 07/08.

Aviation/Aerospace

CHINA'S IMPORTS

Airbus SAS (France)
Will sell 20 Airbus A330 aircraft to Beijing-based Air China Ltd. $3.8 billion. 06/08.

The Boeing Co. (US)
Will supply 15 Boeing 777 and 30 Boeing 737 aircraft to Beijing-based Air China Ltd. $6.3 billion. 07/08.

Bombardier Aerospace (Canada)
Signed contract with Shenyang Aircraft Corp., a subsidiary of Beijing-based AVIC I, to supply the center fuselage on its Bombardier CSeries aircraft. 07/08.

CFM International SA, a JV between General Electric Co. (US) and SAFRAN Group (France)
Will supply CFM56-5B engines, backed by a long-term material services agreement, to Guangzhou-based China Southern Airlines Co., Ltd. for 20 Airbus A320 aircraft. 07/08.

Embraer-Empresa Brasileira de Aeronáutica SA (Brazil)
Signed contract to sell five Embraer 190 jets to Kun Peng Airlines Co., Ltd., a JV between US-based Mesa Air Group, Inc. and Shenzhen Airlines. $187.5 million. 07/08.

IAE International Aero Engines AG (US)
Will supply V2500 engines, backed by a long-term aftermarket agreement, to Hainan Airlines for 13 Airbus A320 aircraft. $350 million. 07/08.

RAE Systems Inc. (US)
Awarded contract to supply radiation-screening portals and wireless toxic gas-screening networks for the Beijing Capital International Airport, in preparation for the Olympics. 05/08.

Banking & Finance

CHINA'S INVESTMENTS ABROAD

China Merchants Bank Co., Ltd. (Shenzhen)
Won bidding for Hong Kong-based Wing Lung Bank Ltd. $4.66 billion. 05/08.

ICBC (Beijing)
Received regulatory approval to establish a wholly owned investment banking unit in Hong Kong. 05/08.

Oriental Patron Financial Services Group (Hong Kong)/ China Southern Fund Management Co., Ltd. (Shenzhen)
Won regulatory approval to establish an asset management JV in Hong Kong. 07/08.

INVESTMENTS IN CHINA

Banco Bilbao Vizcaya Argentaria SA (Spain)
Will increase its stake in China CITIC Bank Corp., a unit of Beijing-based CITIC Group, from 5% to 10.1%. 06/08.

Banco Bilbao Vizcaya Argentaria SA (Spain)
Will increase its stake in CITIC International Financial Holdings Ltd., a unit of Beijing-based CITIC Group, from 15% to 30%. 06/08.

CapitaLand Ltd. (Singapore)/ CITIC Trust, a unit of CITIC Group (Beijing)
Signed MOU to establish a real estate private equity fund, CITIC CapitaLand Business Park Fund, that will invest in PRC business parks. $72.5 million. 06/08.

Credit Suisse Group (Switzerland)/Founder Securities Co., Ltd. (Beijing)
Won CSRC approval to form securities JV in China. (Switzerland:33.3%-PRC:66.7%). 06/08.

Deutsche Bank AG (Germany)/ Shanxi Securities Co. Ltd.
Signed deal to establish a brokerage JV in China. (Germany:33%-PRC:67%). 06/08.

Fubon Bank (Hong Kong) Ltd., a subsidiary of Fubon Financial Holding Co., Ltd. (Taiwan)
Will acquire 19.99% stake in Fujian-based Xiamen Commercial Bank. $33.2 million. 06/08.

Morgan Stanley (US)
Won CBRC approval to acquire 19.9% stake in Hangzhou Industrial & Commercial Trust Co. 06/08.

Morgan Stanley (US)
Won CSRC approval to acquire 40% stake in Shenzhen-based Jutian Fund Management Co. to establish China fund JV. $5.77 million. 05/08.

The Royal Bank of Scotland Group plc (UK)
Won CBRC approval to acquire 19.9% of Suzhou Trust Co. 06/08.

United Overseas Bank Ltd. (Singapore)
Will acquire 15.38% stake in Shandong-based Evergrowing Bank Co. Ltd. $114 million. 06/08.

United Overseas Bank Ltd. (Singapore)/Ping An Insurance (Group) Co. of China Ltd. (Guangdong)
Will form fund management JV in China. (Singapore:25%-PRC:75%). 06/08.

OTHER

Citibank (China) Co., Ltd., a unit of Citigroup Inc. (US)
Won PBOC approval to issue debit cards with its partner, China Union Pay Data Services Co. Ltd., a subsidiary of Shanghai-based China Union Pay. 07/08.

Deutsche Borse Group (Germany)/Shenzhen Stock Exchange
Signed MOU to exchange information in areas such as joint product development, the development of new trading functions, and the sale of trading data. 05/08.

Chemicals, Petrochemicals & Related Equipment

CHINA'S IMPORTS

Praxair China Investment Co., Ltd., a subsidiary of Praxair, Inc. (US)
Signed contract to supply liquid nitrogen and a nitrogen cooling system to the Jiangsu Defeng Pharmaceutical & Chemical Co., Ltd. 07/08.

Solutia Inc. (US)
Signed contracts with three Chinese companies to supply vydyne, a heat-resistant nylon-based plastic. $182 million. 06/08.

INVESTMENTS IN CHINA

Albemarle Holdings Ltd., a subsidiary of Albemarle Corp. (US)/Weifang Sinobrom Import & Export Corp., Ltd. (Shandong)
Will form JV, Sinobrom Albemarle Bromine Chemicals (Shandong) Co. Ltd., to produce bromine derivatives. (US:75%-PRC:25%). 05/08.

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.

Cabot (China) Investment Co., Ltd., a subsidiary of Cabot Corp. (US)/China National BlueStar (Group) Corp. (Beijing)
Signed contract to form JV, Cabot-BlueStar Chemicals (Tianjin) Co., Ltd., to build a fumed silica plant with annual production capacity of 7,000 metric tons in Tianjin. $40 million. 05/08.

The Carlyle Group (US)
Will invest in Shanghai-based Sinorgchem (Group) Co., a producer of chemical additives for making rubber products. $87 million. 07/08.

Oxea Corp. (US)/Shenyang Zhangming Chemical Co., Ltd. (Liaoning)
Signed MOU to form JV to produce carboxylic acids in China. 06/08.

Saudi Basic Industries Corp. (Saudi Arabia)/Sinopec (Beijing)
Signed agreement to form JV to build a plant with annual production capacity of 4 million metric tons of petrochemical products in Tianjin. (Saudi Arabia:50%-PRC:50%). $2.5 billion. 06/08.

Shanghai Aohong Industry Co., Ltd., a subsidiary of China America Holdings, Inc. (US)
Signed agreement with Shanghai 3F New Materials Co., Ltd. to supply refrigerant R22. $8.6 million. 06/08.

SK Energy Co., Ltd. (South Korea)/Sinopec (Beijing)
Signed framework agreement to form JV to build an ethylene plant in Wuhan, Hubei, that will produce 800,000 metric tons of ethylene annually and key petrochemical products. (South Korea:35%-PRC:65%). $2 billion. 05/08.

Sociedad Quimica y Minera de Chile SA (Chile)/Migao Corp. (Beijing)
Signed investment framework agreement to form JV to build a potassium nitrate facility with annual production capacity of 40,000 metric tons in China. (Chile:50%-PRC:50%). $20 million. 05/08.

Distribution, Logistics & Related Services

INVESTMENTS IN CHINA

Prysmian SpA (Italy)
Will establish a holding company in Beijing, Prysmian China Investment Co., Ltd. 06/08.

OTHER

ProLogis (US)
Leased 205,000 square feet of distribution space at the ProLogis Park Dalian Free Port to Nittsu Sinotrans Logistics Dalian Ltd., a JV between Sinotrans Liaoning Co. and Nippon Express Co., Ltd. 07/08.

Electronics, Hardware & Software

INVESTMENTS IN CHINA

Samsung Electronics Co., Ltd. (South Korea)
Will establish a liquid crystal display television module plant in Guangdong. $500 million. 06/08.

Energy & Electric Power

CHINA'S INVESTMENTS ABROAD

China Energy Recovery, Inc. (Shanghai)
Signed contracts to build waste heat recovery systems in Congo and Malaysia. 06/08.

Shangdong Electric Power Corp.
Will be the engineering, procurement, and construction contractor for India-based GMR Group for a 1,050 MW thermal power plant in India. 05/08.

INVESTMENTS IN CHINA

Arcapita Bank BSC (Bahrain), Colossus Holdings, a Singapore-based holding company of the Tanti Group (India)
Formed JV and signed definitive purchase agreement to acquire Honiton Energy Holdings plc, which will develop wind farms in Inner Mongolia with a 1,650 MW capacity. $2 billion. 07/08.

Bosch Rexroth AG, a subsidiary of Robert Bosch GmbH (Germany)
Signed purchase agreement with Zhejiang Easun Pneumatic Technology Co. Ltd. to acquire a majority stake in the company. 06/08.

OTHER

Government of Russia/ Government of the PRC
Signed agreement to construct a uranium enrichment plant in China and deliver Russian enriched uranium to China. $1 billion. 05/08.

Environmental Equipment & Technology

INVESTMENTS IN CHINA

International Finance Corp., a member of the World Bank Group/Shanghai Pudong Development Bank
Signed risk-sharing agreement to collaborate on energy-saving projects that will help cut 3.5 million tons of carbon dioxide emissions in China annually. $145 million. 06/08.

OTHER

Sembcorp Industries Ltd. (Singapore)
Signed MOU with government of Zhangjiagang, Jiangsu, to enhance cooperation in water management. 05/08.

Food & Food Processing

CHINA'S IMPORTS

Fonterra Cooperative Group Ltd. (New Zealand)
Signed contract to supply nutritional milk powders in China. $300 million. 05/08.

INVESTMENTS IN CHINA

Legacy Wine & Spirits International Ltd. (US)
Signed agreement with British Virgin Islands-based Legacy Wine and Spirits Merchants Ltd. for the rights to a 15-year general license to import, bottle, blend, manufacture, and distribute wine and spirits in China. 05/08.

NutraCea Inc. (US)
Signed agreement with Bright Food Investment Co., a subsidiary of Shanghai-based Bright Food (Group) Co., Ltd., to build a rice bran oil refinery with annual production capacity of 500,000 metric tons. 06/08.

OTHER

Heineken-APB (China) Pte Ltd., a subsidiary of Asia Pacific Breweries, a JV between Heineken NV (the Netherlands) and Fraser & Neave, Ltd. (Singapore)
Will sell its 49% stake in Jiangsu Dafuhao Breweries Co., Ltd. to partner Nantong Fuhao Alcohol Industry Co. Ltd. $38 million. 06/08.

Forestry, Timber & Paper

INVESTMENTS IN CHINA

International Finance Corp., a member of the World Bank Group, Morgan Stanley (US)
Signed investment agreement with Nature Flooring, a subsidiary of Guangdong-based China Floor Holdings Co., Ltd., to develop a steady supply of wood sourcing and promote sustainable development of the flooring industry. $100 million. 06/08.

Human Resources & Labor

INVESTMENTS IN CHINA

Macquarie Group Ltd., SEEK Ltd. (Australia)
Signed deal to jointly invest in Beijing-based Zhaopin Ltd., owner of China's third-largest recruitment website. $105 million. 07/08.

Infrastructure

CHINA'S IMPORTS

Orient (Tianjin) Corrosion Engineering Ltd., a JV of Orient Resource Holdings Ltd. (Australia)
Will provide corrosion engineering services for the Qingdao Bay Bridge. $1.4 million. 05/08.

Insurance

INVESTMENTS IN CHINA

BNP Paribas (China) Ltd., a subsidiary of BNP Paribas (France)/Shanghai Pudong Development Bank
Signed MOU to form insurance JV in China. 06/08.

OTHER

AIG General Insurance Co. China Ltd., a wholly owned subsidiary of American International Group, Inc. (US)
Won approval from CIRC to establish a branch in Beijing. 07/08.

Internet/E-Commerce

INVESTMENTS IN CHINA

Telstra Corp. Ltd. (Australia)
Acquired 55% stake in two PRC Internet advertising businesses that operate Autohome.com.cn, Che168.com, IT168.com, and PCPop.com. $76 million. 06/08.

OTHER

Asiana Corp. (Canada)
Signed LOI with Hebei-based Good Life China Corp. to sell its International Express Payment Corp. division. 06/08.

Softbank Corp. (Japan)/ Alibaba.com Ltd., a subsidiary of Alibaba Group (Zhejiang)
Formed JV, Alibaba.com Japan, to take over operations of Alibaba.com's existing Japanese-language website. (Japan:65%-PRC:35%). $20 million. 05/08.

Light Industry/Manufacturing

INVESTMENTS IN CHINA

Rotoblock Corp. (US)
Will acquire 51% stake in Jiangsu-based Hikom Gottell Corp. to develop and manufacture small engines and consumer and industrial equipment. $25 million. 06/08.

OTHER

Carrier Corp., a unit of United Technologies Corp. (US)/ Guangdong Midea Electric Appliances Co., Ltd., a unit of the Midea Group (Guangdong)
Signed agreement to form an air conditioner manufacturing JV, Foshan Midea Carrier Air Conditioning Equipment Co., Ltd., in Shunde, Guangdong. (US:40%-PRC:60%). 07/08.

Machinery & Machine Tools

CHINA'S EXPORTS

DHI DCW Group Co., Ltd. (Liaoning)
Signed agreement with Japan-based Mitsubishi Corp. to supply 12 stacker reclaimers and 12 belt conveyors. 06/08.

INVESTMENTS IN CHINA

Caterpillar Inc. (US)
Signed investment agreement with the Jiangning Science Park Administrative Committee to build a 150,000 sq m hydraulic excavator manufacturing facility in the Nanjing, Jiangsu-based science park. 07/08.

Medical Equipment & Devices

CHINA'S IMPORTS

Chindex China-Export GmbH, a German subsidiary of Chindex International, Inc. (US)
Signed two contracts to supply laboratory and hospital products to Centers for Disease Control in Gansu and Inner Mongolia. $17.1 million. 07/08.

INVESTMENTS IN CHINA

Microbix Biosystems Inc. (Canada)/Hunan Provincial Government
Signed agreement to form JV to build and operate a major influenza vaccine manufacturing plant in Hunan. $200 million. 06/08.

OTHER

Chindex International, Inc. (US)
Won approval from the PRC State Food and Drug Administration to sell US-based Intuitive Surgical, Inc.'s da Vinci S Surgical System and US-based Candela Corp.'s AlexLaser in China. 07/08.

Medtronic, Inc. (US)/ Shandong Weigao Group Medical Polymer Co., Ltd.
Signed agreement to form JV that will market Medtronic, Inc.'s spinal products and Shandong Weigao Group's orthopedic products in China. (US:51%-PRC:49%). 07/08.

Sartorius Stedim Biotech SA (France)
Signed agreement with WuXi AppTec, Inc., a wholly owned subsidiary of Shanghai-based WuXi PharmaTech Co., Ltd., to cooperate on viral clearance studies. 06/08.

Metals, Minerals & Mining

CHINA'S INVESTMENTS ABROAD

China Metallurgical Group Corp. (Beijing)
Will acquire 20% stake in a $4 billion project to build mines, roads, and power plants in the Democratic Republic of Congo. 07/08.

China National Machinery and Equipment Import and Export Corp. (Beijing)
Signed mineral-rights agreement with the Government of Gabon to develop Belinga iron ore reserves. $790 million. 07/08.

Government of Afghanistan/ China Metallurgical Group Corp. (Beijing)
Signed a multi-billion dollar deal for the exploration of Afghanistan's Aynak copper deposit. 05/08.

Jilin Jien Nickel Industry Co., Ltd.
Signed LOI with Canada-based Goldbrook Ventures Inc. to form JV to explore and develop Goldbrook's land holdings in northern Quebec. 06/08.

Sinosteel Corp. (Beijing)
Won control of Australia-based Midwest Corp. Ltd. by raising its stake to 50.97%. $1.3 billion. 07/08.

INVESTMENTS IN CHINA

Vesuvius Group SA/NV (Belgium)/ Angang Steel Co., Ltd. (Liaoning)
Signed cooperation agreement to set up refractory materials production JV in China. (Belgium:50%-PRC:50%). 07/08.

OTHER

International Mineral Resources AG (Kazakhstan)/Jiuquan Iron and Steel Group (Gansu)
Won approval from Gansu Provincial Government to form JV in China. (Kazakhstan:49%-PRC:51%). $5.9 billion. 07/08.

Silvercorp Metals Inc. (Canada)
Acquired all of the issued shares of Yangtze Mining Ltd. from Yangtze Gold Ltd. to obtain silver, lead, and zinc exploration permits in Guangdong. $61 million. 06/08.

Miscellaneous

OTHER

Government of Mongolia/ Government of the PRC
Signed more than 10 cooperative agreements on trade and economic cooperation, diplomacy, military, health, forestry, quality control, and animal husbandry. 06/08.

Petroleum, Natural Gas & Related Equipment

CHINA'S EXPORTS

COSCO Corp. (Singapore) Ltd., a unit of COSCO (Beijing)
Signed LOI to build two deep-water rigs for Norway-based Sevan Marine ASA. 07/08.

CHINA'S IMPORTS

Daewoo International Corp. (South Korea)
Signed MOU with CNPC to supply natural gas to China from its fields in Myanmar. 06/08.

Qatargas Operating Co. Ltd. (Qatar)
Signed a sales and purchase agreement with CNOOC to supply 2 million metric tons of LNG per year for 25 years. 06/08.

Total SA (France)
Signed agreement with Beijing-based CNOOC to supply 1 million tons of LNG per year, beginning in 2010. 06/08.

CHINA'S INVESTMENTS ABROAD

CNPC (Beijing)
Signed agreement with Government of Niger to exploit the Agadem oil block and build a refinery with daily capacity of 20,000 barrels and a 2,000 km pipeline to export the oil. $5 billion. 06/08.

Daewoo International Corp. (South Korea)/CNPC (Beijing)
Signed MOU to enhance cooperation in exploring overseas gas and oil fields, including the AD-7 gas block in Myanmar. 05/08.

INVESTMENTS IN CHINA

The Hong Kong and China Gas Co., Ltd. (Hong Kong)
Will invest in mainland gas production projects using new energy sources. $256.1 million. 05/08.

Royal Vopak NV (the Netherlands)/SDIC Communications Co., a subsidiary of the State Development and Investment Corp. (Beijing)
Will form JV to construct a public oil terminal and a 500 million sq m commercial oil storage base in Hainan. $1.02 billion. 07/08.

Sasol Ltd. (South Africa)/ Shenhua Group Corp. Ltd. (Beijing)
Will jointly produce motor fuel from coal in China by 2016. 06/08.

Total SA (France)
Will double the number of JV gas stations with Beijing-based Sinochem Corp. in East China. 06/08.

OTHER

Government of Japan/ Government of PRC
Reached political agreement to jointly develop gas fields and share profits in disputed areas of the East China Sea. 06/08.

Qatar Petroleum International, Shell (China) Ltd., a subsidiary of Royal Dutch Shell plc (the Netherlands)/PetroChina (Beijing)
Signed LOI to assess the feasibility of establishing a refinery and petrochemical complex and selling its products in China. (Qatar:24.5%-the Netherlands:24.5%-PRC:51%). 06/08.

Ports & Shipping

INVESTMENTS IN CHINA

J. Ray McDermott SA, a subsidiary of McDermott International, Inc. (US)/Qingdao Wuchuan Heavy Industry Co., Ltd., a subsidiary of China Shipbuilding Industry Corp. (Beijing)
Formed JV, Qingdao McDermott Wuchuan Offshore Engineering Co., Ltd., to establish a 111-acre offshore facility with annual throughput capacity of 33,000 tons. 06/08.

OTHER

Municipal Government of Qinzhou (Guangxi)
Won approval from Beijing to establish a free port zone near the Vietnam border to boost economic ties with neighboring countries. 06/08.

Rail

OTHER

Government of the PRC
Will finance 85% of Jamaica's $354 million project to develop its railroad industry by issuing a loan to Jamaica Railway Corp. 05/08.

JSC TransContainer, a subsidiary of JSC Russian Railways/China Railway International Multimodal Transport Co., Ltd., a subsidiary of China Railway Engineering Corp. (Beijing)
Signed memorandum of cooperation to form JV in Beijing to promote containerized cargo trade between Russia and China. 05/08.

Real Estate & Land

CHINA'S INVESTMENTS ABROAD

Niro Investment Group (Romania)/Beijing Urban Construction Group
Formed JV, Beijing Urban Construction Engineering & Niro, to develop real estate and infrastructure projects in Europe, including a 25-story building in Bucharest, Romania. (Romania:49%-PRC:51%). 06/08.

INVESTMENTS IN CHINA

The Blackstone Group (US)
Acquired 90% stake in a Shanghai commercial building from Hong Kong-based developer VXL Capital Ltd. $158.9 million. 06/08.

Henderson Land Development Co., Ltd., Sun Hung Kai Properties Ltd., the Wharf (Holdings) Ltd. (Hong Kong)
Formed JV to develop an integrated residential and commercial complex in Chengdu, Sichuan. $669.9 million. 07/08.

Mapletree India-China Fund, a private real estate fund of Mapletree Investments Pte Ltd., a unit of Temasek Holdings Pte Ltd. (Singapore)/Guangzhou Southern-Donald Scientific Technology Co., Ltd.
Formed JV to develop a 9-hectare mixed-use development in Foshan, Guangdong. (Singapore:80%-PRC:20%). 05/08.

OTHER

CB Richard Ellis Group, Inc. (US)/China Vanke Co., Ltd. (Guangdong)
Formed JV to provide property management services to residential properties developed by Vanke in China. 06/08.

Research & Development

INVESTMENTS IN CHINA

Intel Corp. (US)/Qinghua University (Beijing)
Signed MOU with the PRC Ministry of Science and Technology to establish a Mobile Computing Technique Research Center. 06/08.

OTHER

Bosch (China) Investment Ltd., a subsidiary of the Bosch Group (Germany)
Will build new headquarters with R&D function in Shanghai. $187 million. 05/08.

Retail/Wholesale

INVESTMENTS IN CHINA

Deckers Outdoor Corp. (US)/Stella International Holdings Ltd. (Hong Kong)
Formed JV to open retail stores and distribute Deckers' UGG brand shoes in China. (US:51%-Hong Kong:49%). $5 million. 07/08.

Telecommunications

CHINA'S IMPORTS

Alcatel Shanghai Bell Co., Ltd., a subsidiary of Alcatel-Lucent (France)
Signed contract with Beijing-based China Telecom to deploy its IP routing solution into Chinese provincial markets. 06/08.

Alcatel Shanghai Bell Co., Ltd., a subsidiary of Alcatel-Lucent (France)
Signed contract with Beijing Municipal Government to deploy an optical transport network in Beijing, enhance e-government security services, and deliver communications. 06/08.

Cisco China, a unit of Cisco Systems Inc. (US)
Signed cooperation agreement with Beijing-based China Mobile to supply data network equipment and services, collaborate on an IP over wavelength-division multiplexing project, and deploy the Cisco TelePresence system. 06/08.

Cisco China, a unit of Cisco Systems Inc. (US)
Will construct a core network for CCB and a data center at its head office. 06/08.

Nokia Siemens Networks, a JV between Nokia Corp. (Finland) and Siemens AG (Germany)
Signed framework agreement with Beijing-based China Mobile to expand China Mobile's network capacity and improve customer service. $875 million. 07/08.

CHINA'S INVESTMENTS ABROAD

Huawei Technologies Co. Ltd. (Guangdong)
Signed deal with Grameenphone Ltd., a JV between Norway-based Telenor ASA and Bangladesh-based Grameen Telecom, to help Huawei expand its next generation GSM core and radio network. 06/08.

SingTel Optus Pty Ltd., a subsidiary of Singapore Telecommunications Ltd./Huawei Technologies Co. Ltd. (Shenzhen)
Formed JV to develop a Mobile Innovation Center in Sydney, Australia. 05/08.

INVESTMENTS IN CHINA

SK Telecom Co., Ltd. (South Korea)
Signed MOU with the PRC government to jointly build a 200,000 sq m international industrial complex in Beijing to promote China's digital content and design industries. $1 billion. 05/08.

Tata Communications International Pte Ltd., a wholly owned subsidiary of Tata Communications Ltd. (India)
Signed equity JV agreement with Beijing-based China Enterprise Communications Ltd. to acquire 50% equity interest. 06/08.

Telefonica SA (Spain)
Will spend $1.6 billion on outsourcing in China. 06/08.

Warburg Pincus LLC (US)
Signed MOU with Beijing Tianyu to acquire a stake in the mobile phone maker. 06/08.

OTHER

Oki Electric Industry Co., Ltd. (Japan)
Bought out its JV partner's share of Changzhou OKI-GEG Telecoms Ltd., now called OKI Telecommunications Technology (Changzhou) Co., Ltd. 05/08.

Qualcomm Inc. (US)
Signed a royalty-bearing licensing agreement with China Zhenhua (Group) Science & Technology Co., Ltd. to develop, manufacture, and sell CDMA2000 subscriber units. 05/08.

Tourism & Hotels

INVESTMENTS IN CHINA

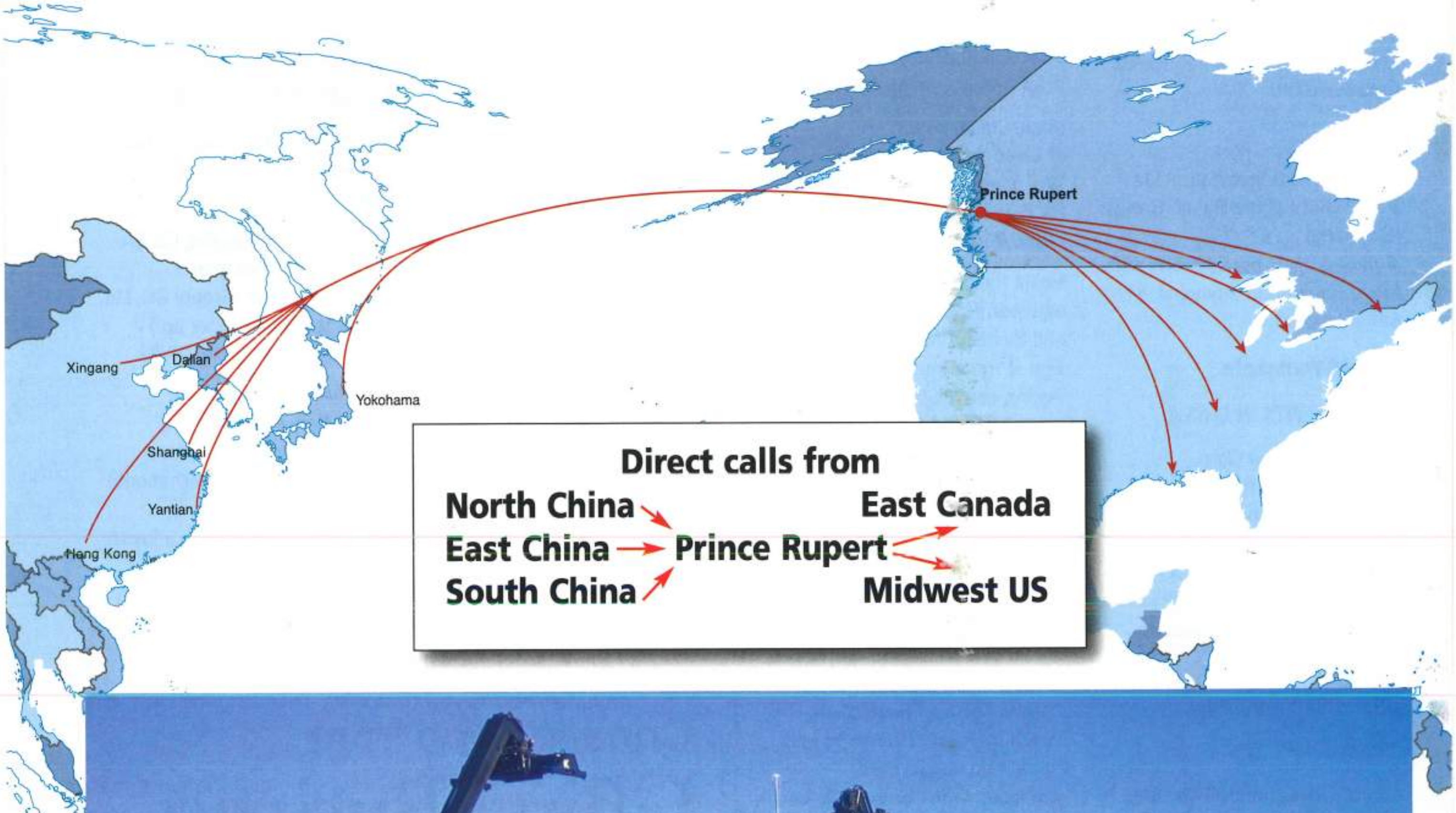
Marriott International, Inc. (US)
Will build 18 new hotels in China by 2012. 06/08.

Mediterranean Shipping Co. SA (Switzerland)/Shanghai International Port (Group) Co., Ltd.
Signed agreement to set up JV travel agency in China. 07/08.

MGM Mirage Hospitality, a subsidiary of MGM (US)/ Diaoyutai State Guesthouse (Beijing), Sinosteel International Plaza Co., Ltd. (Tianjin)
Will develop and operate a luxury hotel and office complex in Tianjin. 06/08.

COSCO Delivers

2 Weekly Sailings to Prince Rupert



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

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