# CPBS 2010 ANNUAL REPORT

Center for Pacific Basin Studies

## Contents



## About the Center

Since 1974 the Pacific Basin program of the Federal Reserve Bank of San Francisco has promoted cooperation among central banks in the Pacific Basin and enhanced public understanding of economic policy issues in the region. In 1990 the Center for Pacific Basin Studies was established by the Bank within its Economic Research Department to open the program to greater participation by researchers in other central banks, universities, research institutes, and international organizations. The Center's mission is to further international understanding of major Pacific Basin monetary and economic policy issues. The Center's programs are designed to carry out this mission through staff research, its visiting scholar program, its international network of research associates, and international conferences.

# From the Director

*Mark M. Spiegel*
*Vice President,*
*International Research,*
*and Director,*
*Center for Pacific*
*Basin Studies*

2010 was an important year for the FRBSF Center for Pacific Studies. We published a conference volume based on our inaugural Asia Economic Policy Conference, entitled "Asia and the Global financial Crisis." This volume is available in its entirety free of charge at the web site http://www.frbsf.org/economics/conferences/aepc/2009/agenda.php.

In addition, we held our biannual research conference, which is geared towards more research-oriented papers intended for eventual publication in refereed academic journals.

The combination of our biannual policy and research conferences allow the Center to pursue its unique function as a research hub within a policy-making institution. The conference program with working paper versions of all of the papers presented in this conference is available on the web at http://www.frbsf.org/economics/conferences/1010/agenda.php.

In addition to our Asia Economic Policy Conference, we engaged in a number of joint activities. We continued our long and productive partnership with the World Bank in conducting our Joint Senior Policymaker Seminar. This year's theme was "Managing Capital Flows and Growth in the Aftermath of the Global Crisis," and the event took place in the World Bank Paris office. We were again fortunate to have the Bank of England and the Bank of France also contributing as sponsors of the event.

The Center also co-sponsored the 13th Annual Santa Cruz Center for International Economics Conference at U.C. Santa Cruz. These jointly sponsored events are valuable opportunities for furthering research on economic issues in Asia, and in conducting outreach to the global policy community. Finally, we continued our co-sponsorship of the West Coast meetings of the International Trade and Investment Group of the National Bureau of Economic Research.

The Center disseminates its research through various channels. Asia-related research is first published in the FRBSF Working Paper series, with the intention of eventual publication in refereed academic journals. Shorter analyses are distributed as "Pacific Basin Notes" through the FRBSF Economic Letter series. The Center's publications can be accessed through its web site at www.frbsf.org/economics/pbc.

Center staff has had a very productive year in promoting basic research on Asia-related economic issues. Summaries of staff research are included in this report and a reprint of a Pacific Basin Notes published in 2010, "What is China's Capital Seeking in a Global Environment?" by Hale and Santos. Our research environment is enhanced by our active visiting scholar program, which brings in academics to discuss research in international economics, with a focus on Asia.

I would like to thank all of those who have contributed to the success of the Center's activities during the past year, particularly my colleague, Reuven Glick, who co-organized the annual research conference with me, and colleagues who partnered with the Center to organize our joint activities. I would also like to thank Sylvia Papa for her continued excellent administrative assistance on behalf of the Center.

# What is China's Capital Seeking in a Global Environment?

*Galina Hale*
*Senior Economist*

*With João Santos, Assistant Vice President, Federal Reserve Bank of New York, and Titan Alon, Former Research Associate, Federal Reserve Bank of San Francisco.*

China's role in the global economy is growing as it increases its market share in international trade and builds political influence in international forums. Its expanding role as an international investor is less publicized. While China heavily regulates many cross-border transactions and portfolio capital outflows are still very limited, direct investment overseas by Chinese companies has mushroomed in recent years. China's total foreign holdings acquired through mergers and acquisitions (M&A), basically nonexistent 20 years ago, reached over $87 billion by the end of 2008.

The two main types of foreign direct investment are "greenfield," in which a company builds a plant in a target country, and direct investment through mergers and acquisitions (M&A), in which a company purchases a large stake in an existing foreign firm. Most foreign direct investment worldwide in recent years has taken place through M&A, with the exception of new resource-extracting operations. In this Economic Letter, we focus on M&A transactions that resulted in Chinese acquisition of large stakes in target companies outside China.

## Main reasons for foreign direct investment

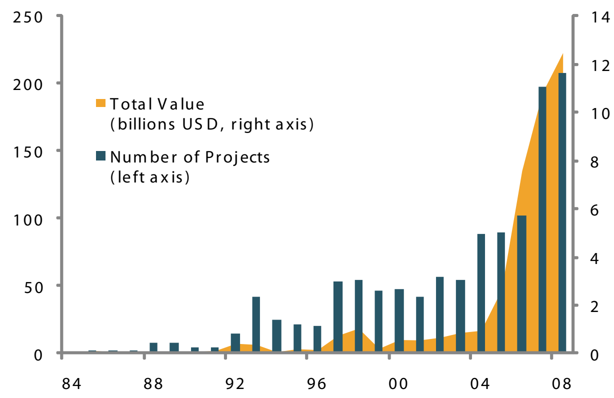
Traditional economic theory identifies market-seeking, efficiency-seeking, and resource-seeking motives as the main reasons companies engage in foreign direct investment (Caves, 2007). Market-seeking investment is aimed at gaining access to foreign markets. Companies may find it less costly or easier to produce or assemble goods in or near target markets. Foreign car companies are seeking markets when they build assembly plants in the United States. Efficiency-seeking investment is designed to move production to countries where inputs, especially labor, are cheaper. U.S. shoe companies are seeking efficiency when they build factories in Asia in order to produce for U.S. markets. Resource-seeking investment is aimed at gaining access to natural resources, particularly those that may be scarce in the country where the acquirer is located. Energy companies are seeking resources when they purchase oil fields overseas.

Researchers have recently noted other motives for foreign direct investment, such as strategic economic expansion, increased geopolitical influence in a target region, control of strategic assets, access to technology, and a desire to overcome domestic institutional barriers, such as capital controls and regulation (Dunning and Lundan, 2008; Peng et al. 2008; Rui and Yip, 2008; Alon, 2009).

## Patterns of China's outward foreign direct investment

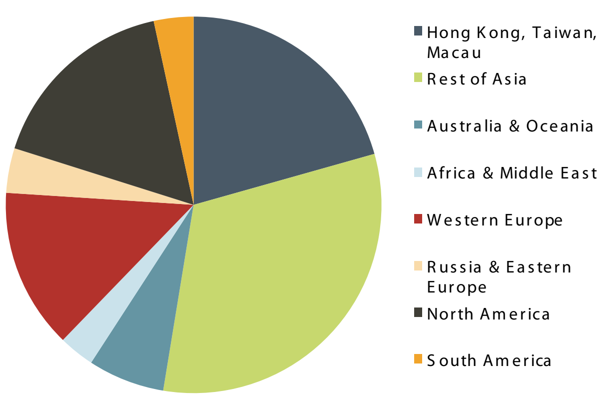
Our analysis relies upon SDC Platinum Mergers and Acquisitions Database, which shows a total of 1,210 acquisitions between 1982 and 2008 in which the acquiring company was registered in mainland China and the target was registered outside China. Figure 1 shows the number and total value of deals during this period. Deal

**Figure 1**
**China's outward FDI accelerated in recent years**



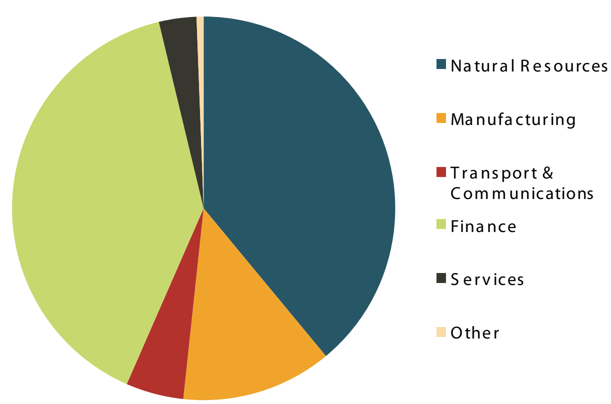

volume skyrocketed from one or two per year in the early 1980s to around 50 in the 1990s, and reached over 200 in 2008. Total transaction value grew even faster, reflecting the trend toward higher value deals. Such explosive growth reflects both the accumulation of financial wealth in China and the relaxation of restrictions on capital outflow from China. Nevertheless, despite Chinese reforms over the last decade that removed bans on foreign direct investment by the country's private sector, most outward direct investment during this period was conducted by state-owned or quasi-state-owned firms (Alon, 2009).

**Figure 2**
**Geographical composition of China's outward FDI**
(share of total real value)




Over our sample period, Hong Kong was the primary destination for China's foreign direct investment, followed by the United States, Australia, Singapore, the United Kingdom, and Canada (See Figure 2). China targeted two main industry groups: natural resources, especially oil and gas; and the financial sector, especially banks and holding companies. Business services and manufactured capital goods followed. (See Figure 3) Since the mid-1990s, China has increasingly diversified its reach. In 2008, it carried out investment deals in 39 countries, involving industries representing 41 2-digit SIC codes.

**Figure 3**
**Industrial composition of China's outward FDI**
(share of total real value)




## What is China seeking?

Chinese acquirers are clearly seeking corporate control through M&A deals, not simply large portfolio investments. The acquired share was more than 50% in 72% of the deals and 100% in 48% of the deals. The share was under 20% in only 16% of the deals.

One evident goal of Chinese acquisitions is access to resources, especially those China lacks. Two of China's four largest acquisitions were in the resource sector. State-owned China National Petroleum Company purchased 100% of PetroKazakhstan in August 2005. And Sinopec, a member of the state-owned China Petrochemical Corporation, bought a 96.9% stake in the

Russian oil company Udmurtneft in June 2006. China's resource-seeking acquisitions have been distributed all over the world, with Canada, Australia, and Russia leading target countries.

The motives for China's vast investments in the financial sector are less obvious. A few high-profile purchases of noncontrolling stakes in recent years were apparently motivated by financial returns and should be viewed as portfolio investment, not foreign direct investment. Examples include purchases announced in 2007 by China Investment Corporation, China's sovereign wealth fund, of a 9.9% stake in Morgan Stanley and The Blackstone Group; state-controlled China Development Bank's purchase of a 3.1% stake in Barclays; and privately held Ping An Insurance group's 4.2% investment in Fortis. In these cases, China apparently chose not to exceed the 10% ownership threshold that would have required regulatory approval.

Despite these examples, buyers got controlling stakes in target companies in most Chinese financial sector acquisitions. Leading destinations for Chinese financial acquisitions were Hong Kong and the United States, followed by South Africa and the United Kingdom. The purchase by ICBC, the largest of China's state-controlled commercial banks, of 20% of South African Standard Bank Group, announced in October 2007, is a recent example. Chinese banks have bought a number of Hong Kong and Macau commercial banks. ICBC has been the most active acquirer.

Chinese banks may have two particular reasons for seeking a broader international role. First, China's strict controls on international capital flows and foreign exchange transactions have prompted Chinese banks to look for ways to get around these restrictions in order to finance China's growing international trade, improve access to investment opportunities abroad, and assist Chinese companies in other international transactions. Secondly, China's domestic banking system is still underdeveloped, dominated by five large state-controlled banks which hold most deposits and direct most loans to state-owned companies. Risk-based lending practices and participation in capital markets are still new to Chinese banks. Hence, investment in developed country banking institutions offers institutional knowledge and access to advanced banking technologies.

Manufacturing acquisitions are another major component of China's outward direct investment. Such acquisitions are in line with the global trend towards horizontal and vertical integration of production processes across national borders. The main reasons for horizontal integration, that is, mergers and acquisitions of companies in the same industry, are increased production efficiency due to economies of scale and merged technologies, and reduced competition in product markets. Another motive for horizontal investment arises from the desire of Chinese companies to circumvent formal and informal barriers to their exports by investing in foreign production facilities. Thus, horizontal cross-border M&A activity can be classified as efficiency-seeking and market-seeking.

Through horizontal M&A, Chinese companies are also able to acquire intangible proprietary benefits to compensate for their comparative disadvantages in branding, marketing, management, and international experience (Rui and Yip, 2008). Chinese businesses need these competencies to build market share in highly competitive developed markets, such as the United States and Western Europe. These advanced economies are the primary destinations for such acquisitions. Mindray Medical's purchase of Datascope Patient Monitoring in the United States in 2008 is an example. In its investor communications, Mindray emphasizes marketing in the United States and operating efficiencies gained by taking over U.S. companies.

Vertical integration may lead to efficiency gains because each part of the production process is located where it can be accomplished most efficiently, without the costs that arise from intermediation and trade when manufacturing is distributed among many companies. Chinese companies engage in vertical integration mainly by buying producers of specialized machinery and equipment. The types of producers Chinese companies buy have evolved from basic machinery to high technology. Shoudu Iron and Steel Company's 1988 purchase of 51% of Mesta Engineering, a U.S. producer of metal production machinery, is an example of the former. China's foray into technology is exemplified by the 2008 purchase of Quorum Systems, a San Diego radio equipment maker, by Spreadtrum Communications, a producer of semiconductors for wireless communication. In a broad sense, such vertical deals can be viewed as resource-seeking, with machinery being the target resource, or as strategic acquisitions of technology. The United State, Europe, and Japan are primary destinations for such transactions.

Finally, while China does not appear to be engaging in the most common form of efficiency-seeking foreign direct investment, that is, looking for cheap labor in other countries, some other takeovers fall into the efficiency category. Chinese companies have been active buyers in the transportation equipment and transportation services sectors. Examples include China International Marine Containers' 2007 purchase of Burg Industries, a Dutch producer of specialized transportation equipment, and investments by COSCO, a large state-owned shipping company, in freight terminals in Greece, Italy, and Belgium between 2001 and 2007. Such investments may enhance China's ability to transport the goods it produces. Hong Kong and Singapore, major re-exporters in Asia, are main targets for such acquisitions.

## Conclusion

China invests abroad for many reasons, including to support an expanding industrial sector with a growing appetite for natural resources, capital inputs, and access to advanced technology and foreign markets. This pattern, combined with China's burgeoning wealth, suggests that China's outward foreign direct investment will expand and spread more widely across countries and industries. The majority of future deals are likely to take place in the financial and natural resource sectors, which, for China, are areas of comparative disadvantage. China's investment in companies with cutting-edge technology is also ripe for growth since China's domestic industrial composition is becoming more sophisticated.

State-owned companies dominate China's outward investment, reflecting the government's need to deploy the country's vast foreign reserves. As China's official foreign reserves grow, so too will its foreign investment, including equity investment in search of higher yield. China's sovereign wealth funds, however, are unlikely to seek controlling stakes in foreign target companies because they don't want to be subject to regulatory scrutiny overseas. Most such purchases are likely to take the form of portfolio investments rather than foreign direct investment. As of today, the $87 billion that China has directly invested in foreign companies is still a drop in the sea compared to the over $2 trillion in foreign reserves that the Chinese government holds.

*References*

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# CPBS 2010 Seminars

| Date | Presenter | Title |
|---|---|---|
| 12/16 | Georg Strasser<br>Boston College | "The Efficiency of the Global Markets for Final Goods and Productive Capabilities" |
| 12/13 | Ethan Ilzetski<br>London School of Economics | "How Big (Small?) are Fiscal Multipliers?" |
| 11/29 | Yu-chin Chen<br>University of Washington | "A Macro-Finance Approach to Exchange Rate Determination" |
| 11/17 | Kristin Forbes<br>Massachusetts Institute of Technology | "Capital Flow Waves: Surges, Stops, Flight and Retrenchment" |
| 10/13 | Vincenzo Quadrini<br>University of Southern California | "International Recessions" |
| 10/06 | Shang-Jin Wei<br>Columbia University | "A Sexually Unbalanced Model of Current Account Imbalances" |
| 09/21 | Carolyn Evans<br>Santa Clara University | "Electoral Systems and Protectionism: An Industry-Level Analysis" |
| 05/17 | Vivien Yue<br>New York University | "A Solution to the Disconnect between Country Risk and Business Cycle Theories" |
| 05/11 | Enrique Martinez-Garcia<br>Federal Reserve Bank of Dallas | "U.S. Business Cycles, Monetary Policy and the External Finance Premium" |
| 03/29 | Emine Boz<br>International Monetary Fund | "Financial Innovation, the Discovery of Risk, and the U.S. Credit Crisis" |
| 03/17 | John Romalis<br>University of Chicago | "Trade and the Global Recession" |
| 03/03 | Kozo Ueda<br>Bank of Japan | "Banking Globalization and International Business Cycles?" |
| 03/01 | Serafeim Tsoukas<br>Nottingham | "The Role of Bond Finance in Firms' Survival During The Asian Crisis" |
| 02/25 | Ina Simonovska<br>University of California, Davis | "Elasticity of Trade: Estimates and Evidence" |

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**Paul Bergin**
University of California, Davis

**Carolyn Evans**
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**Pierre-Olivier Geurinchas**
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**Kenneth Kletzer**
University of California, Santa Cruz

**Andrew Rose**
University of California, Berkeley

**Katheryn Russ**
University of California, Davis

# Center Working Papers

Recent Center Working Papers are available on the Internet at
http://www.frbsf.org/economics/pbc/index.html

| Number | Author | Title |
| --- | --- | --- |
| **2010** | | |
| WP 21 | Galina Hale<br>Cheryl Long | If You Try, You'll Get By: Chinese Private Firms' Efficiency Gains from Overcoming Financial Constrains |
| WP20 | Joshua Aizenman<br>Reuven Glick | Asset Class Diversification and Delegation of Responsibilities between Central Banks and Sovereign Wealth Funds |
| WP19 | Aaron Mehrotra<br>Jose R. Sanchez-Fung | China's Monetary Policy and the Exchange Rate |
| WP18 | John Fernald<br>Brent Neiman | Growth Accounting with Misallocation: Or, Doing Less with More in Singapore |
| WP04 | Christopher Candelaria<br>Jose Lopez<br>Mark Spiegel | Bond Currency Denomination and the Yen Carry Trade |

# Center Staff Pacific Basin Publications

| Date | Author | Title |
|---|---|---|
| 2010 | Reuven Glick<br>Mark Spiegel | Asia and the Global Financial Crisis, Proceedings of Asian Economic Policy Conference, Federal Reserve Bank of San Francisco, July 2010, Reuven Glick and Mark Spiegel (eds.) |
| 2010 | Galina Hale | Comment on "What Accounts for the Rising Sophistication of China's Exports," by Wang and Wei, China's Growing Role in World Trade, University of Chicago Press, R. Feenstra and S. Wei (eds.) |
| 2010 | Mark M. Spiegel<br>Joshua Aizenman | "Takeoffs," *Review of Development Economics*, 14(2), pp. 177-196 |
| 2010 | Andrew Rose<br>Mark Spiegel | "Cross-Country Causes and Consequences of the 2008 Crisis: International Linkages and American Exposure," *Pacific Economic Review*, 15(3), pp. 340-363 |
| 2010 | John Krainer<br>Mark Spiegel | "Asset Price Persistence and Real Estate Market Illiquidity: Evidence from Japanese Land Values," *Real Estate Economics*, 38(2), pp. 171-196 |

# CPBS Pacific Basin Notes

| Date | Author | Title |
|---|---|---|
| 03/22/10 | Titan Alon<br>Galina Hale<br>João Santos | What is China's Capital Seeking in a Global Environment? |
| 03/15/10 | Janet Yellen | Asia and the Global Financial Crises: Conference Summary |
| 02/08/10 | Janet Yellen | Hong Kong and China and the Global Recession |

# Other Recent Articles and Working Papers By Center Staff

| Date | Author | Title |
|---|---|---|
| 2010 | Reuven Glick<br>Alan Taylor | "Collateral Damage: Trade Disruption and the Economic Impact of War, " *The Review of Economics and Statistics*, 92(1), pp. 102-127 |
| 2010 | Reuven Glick<br>Michael Hutchison | "The Illusive Quest: Do International Capital Controls Contribute to Currency Stability?," forthcoming in *International Review of Economics and Finance* |
| 2010 | Paul Bergin<br>Reuven Glick | "The Micro-Macro Disconnect of Purchasing Power Parity," *FRBSF Working Paper*, 2010-14 |
| 2010 | Galina Hale<br>João Santos | "Do Banks Propagate Debt Market Shocks?," *FRBSF Working Paper*, 2010-08 |
| 2010 | Giancarlo Corsetti<br>Luca Dedola<br>Sylvain Leduc | "Optimal Monetary Policyand the Sources of Local-Currency Price Stability," International Dimensions of Monetary Policy, University of Chicago Press, J. Gali and M. Gertler (eds.) |
| 2010 | Christopher Gust<br>Sylvain Leduc<br>Robert J. Vigfusson | "Trade Integration, Competition, and the Decline in Exchange-Rate Pass-Through," *Journal of Monetary Economics*, 57, pp. 309-324 |
| 2010 | Giancarlo Corsetti<br>Luda Dedola<br>Sylvain Leduc | "Optimal Monetary Policy in Open Economies," forthcoming in Handbook of Monetary Economics, M. Woodford and B.M. Friedman (eds.) |
| 2010 | Sylvain Leduc | "Entry Dynamics and the Decline in Exchange-Rate Pass-Through," forthcoming in Macroeconomic Performance in Globalizing Economy, Cambridge University Press |
| 2010 | Sylvain Leduc<br>Keith Sill | "Expectations and Economic Fluctuations: An Analysis Using Survey Data," *FRBSF Working Paper*, 2010-09 |
| 2010 | Carlos Carvalho<br>Fernanda Nechio | "Aggregation and the PPP Puzzle in a Sticky Price Model," forthcoming in *American Economic Review* |
| 2010 | Fernanda Nechio | "Foreign Stock Holdings: The Role of Information,"*FRBSF Working Paper*, 2010-26 |
| 2010 | Andrew Rose<br>Mark Spiegel | "The Causes and Consequences of the 2008 Crisis: Early Warning," forthcoming in *Global Journal of Economics* |
| 2010 | Andrew Rose<br>Mark Spiegel | "International Environmental Arrangements and International Commerce," The Gravity Model in International Trade, Cambridge University Press, Van Bergeijk and Brakman (eds.) |
| 2010 | Joshua Aizenman<br>Mark Spiegel | "The Olympic Trade Effect," *Finance and Development*, 47(1), pp. 12-13 |

# Participation in the Center's Programs

## Background

Since 1974, the Federal Reserve Bank of San Francisco has conducted an active Pacific Basin program to promote cooperation among central banks in the region and enhance public understanding of major Pacific Basin economic policy issues. The Bank has sponsored international conferences and published books and articles on Pacific Basin issues. The Bank's Center for Pacific Basin Monetary and Economic Studies, established in 1990, opened the program to the participation of other institutions and individuals who wish to join in promoting greater understanding of major Pacific Basin monetary and economic policy issues.

## Participation

Two types of participation in the Center's activities are possible:

### Visiting Scholars

Visiting Scholars are invited to conduct research at the Center on Pacific Basin monetary, financial, and economic policy issues of interest to the United States and other nations in the region. The Center is prepared to receive up to three Visiting Scholars at a time. In principle, the terms of Visiting Scholars are for six months; in special cases, shorter or longer terms can be considered. To qualify, a Visiting Scholar must have an established research record in terms of publications in professional economic journals and the ability to interact in English with other researchers.

Besides an opportunity to conduct full-time research on Pacific Basin subjects, a particular attraction to scholars is an environment that provides active and mutually supportive interactions with other scholars with similar interests as well as access to the expertise of the Bank's research staff in a wide range of subject areas, such as monetary policy, macroeconomics, international economics, economic development, and banking and financial markets. In addition, scholars have access to renowned economics and finance faculty members in the universities and research institutes located in the San Francisco Bay Area. Visiting Scholars also benefit from the Center's research support facilities, including research assistants, computers, the Bank's databases, and its Research Library's reference services and Pacific Basin collection.

The Center provides research support facilities, but typically relies on visiting scholars to come with their own funding. Institutions in the United States and other Pacific Basin countries that share the Bank's interest in promoting Pacific Basin studies are invited to sponsor and fund Visiting Scholars. The sponsoring institution can either nominate a Visiting Scholar subject to the Center's approval or leave the nomination to the Center subject to the sponsoring institution's approval. University faculty members on sabbatical leave will find the Center a particularly attractive place to undertake their studies.

### Center Associates

Any researcher who is interested in the Center's activities may become a Center Associate. Benefits of membership include opportunities to present research findings at the Center's seminars, and receive its publications. There are no membership fees.

## Activities

**Seminars.** Each Visiting Scholar is expected to present a seminar on a subject of his or her own past research on Pacific Basin issues and to outline a proposed research project to be conducted while in residence at the Center. Center Associates and the Bank's research staff also present their research in seminars.

**Publications.** Preliminary research results by Visiting Scholars and the Bank's research staff are distributed as Pacific Basin Center Working Papers to Center Associates free of charge.

**Conferences.** The Center organizes and hosts conferences on major Pacific Basin economic policy issues at two- or three-year intervals, to which central banks, research institutes, and international organizations interested in the region are invited. Conference papers are published in book form by commercial publishers for worldwide distribution. In addition, the Center also sponsors occasional conferences, often jointly with other institutions.

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