# **Brains** abroad

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Emerging markets can win in the global war for talent by leveraging the talents of their expats.

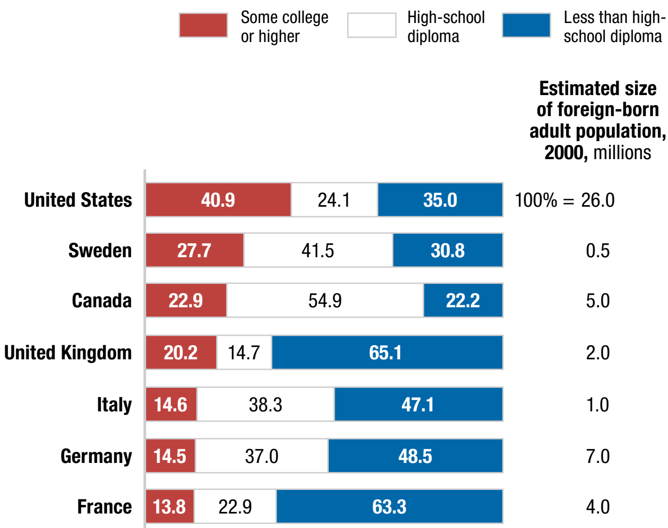
> To study a banyan tree, you not only must know its main stem in its own soil, but also must trace the growth of its greatness in the further soil, for then you can know the true nature of its vitality.
>
> —*Rabindranath Tagore*

**Consider a few statistics.** In the 1990s, roughly 650,000 people from emerging markets migrated to the United States on professional-employment visas. Over 40 percent of the foreign-born adults in the United States have at least some college education, thereby making that country the epicenter of the global talent drain (Exhibit 1, on the next page). Foreign-born workers now make up 20 percent of all employees in the US information technology sector. About 30 percent of the 1998 graduating class of the famed Indian Institute of Technology—and a staggering 80 percent of the graduates in computer science—headed for graduate schools or jobs in the

EXHIBIT 1

**Global talent drains into the United States**

Average education level of immigrants by country, 1995–98, percent




Source: Organisation for Economic Co-operation and Development; US Census Bureau; DRI-WEFA (Data Resources Incorporated–Wharton Economic Forecasting Associates); *World Development Indicators 2000*, Washington, DC: World Bank, 2000; McKinsey analysis

United States. Some 80 percent of foreign doctoral students in science and engineering plan to stay there after graduation—up from 50 percent in 1985 (Exhibit 2). Roughly a third of the R&D professionals of developing countries have left them to work in the United States, the members of the European Union, or Japan.[1]

As the global war for talent heats up, this flow of the best and the brightest from developing countries is likely to increase. Singapore is recruiting in China, India, and Malaysia to fill IT positions. Japan forecasts that it will have to import at least 30,000 high-technology workers over the next five years. The United States has nearly doubled the annual quota of temporary work visas it grants to foreign professionals—to 195,000, from 115,000.

Many fear that this talent drain will have lasting economic repercussions on the developing world, robbing it not only of the skills of these workers but also of their influence on the productivity of others. Now more than ever, intangible capital (such as intellectual property and brands) rather than physical capital separates the winners from the rest. Developing and retaining highly skilled professionals is therefore a crucial long-term investment for any country.

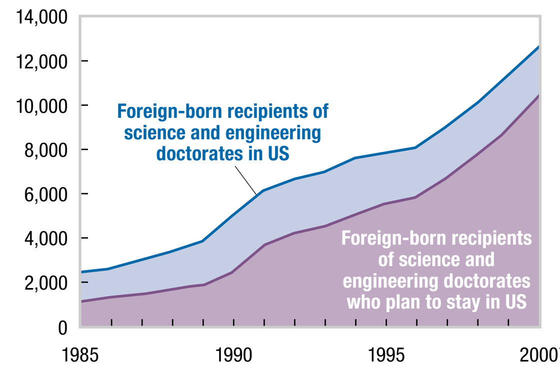
It is unrealistic to think that this trend can be reversed in the near future. Although emerging markets have generally offered a hodgepodge of regulatory and fiscal incentives to lure emigrants back home, these efforts have largely failed—no surprise, since most emigrants quickly become accultur-

[1] Mercy Brown and Jean-Baptiste Meyer, *Scientific Diasporas: A New Approach to the Brain Drain,* prepared for the World Conference on Science, Budapest: United Nations Educational, Scientific, and Cultural Organization, 1999.

ated to their new countries and create personal and professional ties there. Moreover, the emigrants' main reason for leaving—a lack of comparable career opportunities at home—remains unresolved (Exhibit 3).

EXHIBIT 2

**Sticking around**



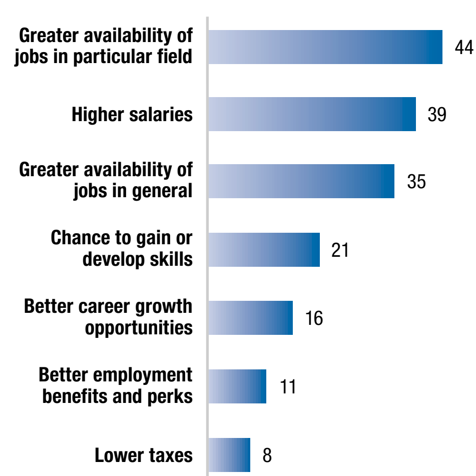

[1]Extrapolated from 1996 data.
Source: *Survey of Earned Doctorates*, National Science Foundation, Division of Science Resources Studies; McKinsey analysis

For most countries, tackling the fundamental causes of the talent drain will take years. Comprehensive economic reform is required to increase competition and level the playing field, to strengthen financial systems, and to streamline regulatory requirements. Taiwan is a rare exception: its long commitment to building a market-oriented economy—coupled with initiatives such as the creation of a venture capital industry and investments in research and education—has prompted many expatriates to return. The Hsinchu Science-Based Industrial Park is a key attraction: Silicon Valley returnees started more than half of the companies there, and it now accounts for roughly 10 percent of Taiwan's gross national product.[2]

EXHIBIT 3

**Take this job and love it**

Factors that attract Canadian graduates to US, 1995, percent[1]




[1]More than 1 response was allowed.
Source: Human Resources Development Canada; Industry Canada

But the hard reality is that few emerging markets have any hope, in the foreseeable future, of creating the type and volume of economic opportunities needed to reverse or even substantially slow the brain drain. Governments shouldn't view emigrants as entirely lost resources, however, for they can be used to promote economic growth. The

[2]"Hsinchu Science Park outshines Silicon Valley," *Taiwan Economic News*, December 11, 2000.

emigrants' technical and business skills, commercial relationships, and financial capital can all be harnessed to make long-distance economic contributions through foreign direct investment, venture funding, financial investments, and commercial and educational exchanges.

Yet most developing nations have done little to leverage their expatriate talent strategically. If they are to minimize the effects of the continuing loss, this state of affairs will have to change.

## Long-distance contributions

In a world where the cost and ease of global travel and communications are ever improving, and where companies around the world use common operating standards, it is wrong to presume that once people leave a home country, they can have no meaningful economic contact with it.

> The roughly 50 million Chinese people living abroad actually have a **total annual income** equaling some two-thirds of China's GDP

Remittances, for example, are a contribution that emigrants make to the home economy. Although these payments are a significant source of foreign exchange for some countries, such as the Philippines, the money is typically spent on consumer goods and adds little to an economy's productive capacity. But the contributions of emigrants can also boost business investment and foster long-term economic growth.

In 1999, for example, 70 percent of China's $50 billion in foreign direct investment came from Chinese people living abroad.[3] It has been reported that Indian engineers in Silicon Valley are responsible for many of the investments that Silicon Valley companies have made in high-tech firms based in the Indian cities of Bangalore and Hyderabad.[4] Nonresident Indians have deposited $5.5 billion at the State Bank of India, adding to their home country's investment capital. And emigrants from many nations have started venture capital funds in their native lands, thereby providing financial resources and furthering the development of the financial sector.

[3] Jikun Huang, Carl Pray, and Scott Rozelle, *Importing the Means of Production: Foreign Capital and Technologies Flows in China's Agriculture*, San Francisco: International Agricultural Trade and Research Consortium conference, 1999, pp. 2–3. Note that the flow of foreign direct investment is somewhat overstated here. It is estimated that a quarter of the flows originate in China and are sent to Hong Kong and then returned to China to take advantage of preferential policies not open to domestic investors.

[4] Annalee Saxenian, "Brain drain or brain circulation? The Silicon Valley–Asia connection," South Asia seminar, Weatherhead Center for International Affairs, Harvard University Asia Center, Modern Asia Series, autumn 2000.

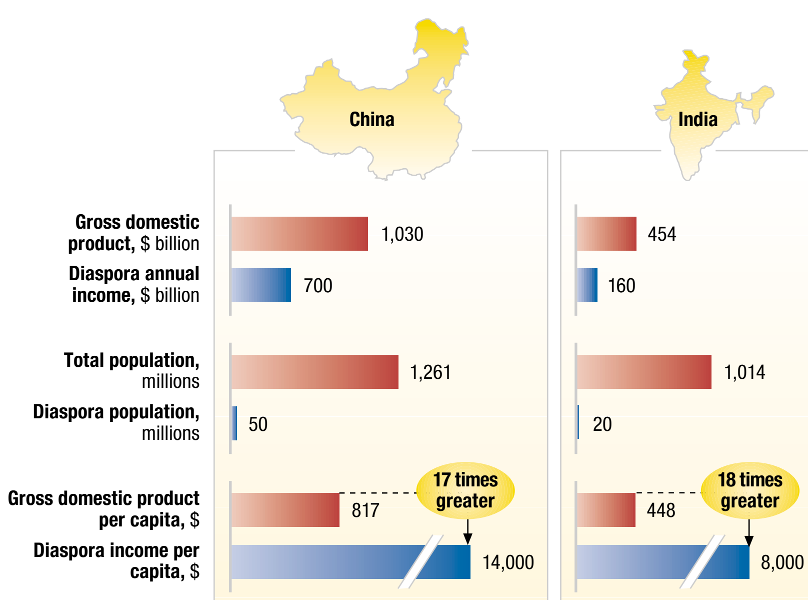
Just as important are the many nonfinancial ways in which emigrants share their business knowledge and intellectual capital. Overseas Indians, for example, have advised the Indian government on issues ranging from crafting appropriate venture capital laws to deregulating the country's telecommunications sector. Emigrants have also provided financing for India's elite engineering schools. Other emigrants have set up business internships and educational exchanges to bring residents of the home country to the adopted one, although this approach has at least one disadvantage: it can encourage more emigration.

Considering the size of emigrant populations today, these contributions to emerging-market economies, if actively promoted, could be more substantial still. More than 20 million Indians, generating about $160 billion in annual income, live overseas. Even more impressive, roughly 50 million Chinese live abroad (excluding Taiwan), and they have a total annual income of about $700 billion, equivalent to a staggering two-thirds of China's gross domestic product (Exhibit 4). To put this sum in perspective, consider that in 1999 only seven countries had a GDP exceeding that of the annual income of the overseas Chinese.

EXHIBIT **4**

**The power of expatriates**

Economic significance of Chinese and Indian diasporas, 1999




Source: *Importing the Means of Production: Foreign Capital and Technologies Flows in China's Agriculture*, San Francisco: International Agricultural Trade and Research Consortium conference, 1999; *World Factbook 1999*, Washington, DC: US Central Intelligence Agency, 2000; DRI-WEFA (Data Resources Incorporated–Wharton Economic Forecasting Associates); McKinsey analysis

## Leveraging the diaspora

To harness the knowledge and capital of the diaspora, emerging markets need to develop methodical plans, much as universities tap their alumni and as not-for-profit organizations develop relationships with large donors. Such a plan has three elements: the creation of networks of emigrants, an infrastructure that allows them to exchange information easily with people in the home country, and targeted incentives that generate productive business investments there.

### Create emigrant networks

To begin, emerging markets must encourage the formation of networks of emigrants. Although individual remittances and contributions are helpful, all but the very wealthy will need to join with others to generate significant contributions or investments. Consider the story of one small village in the Philippines.[5] Pozorrubio is the home of one of the country's highest concentrations of emigrant workers, and remittances to the families left behind are substantial. But for years, most of the money went for children's education or for consumption goods, and little was used for lasting business or community investments—a common problem with remittances. Noli Venezuela, a former mayor, decided to remedy it by organizing groups of US Pozorrubians and encouraging them to make collective investments in their former village. He toured the United States, organizing local emigrant communities in five major cities. The groups that he helped found have since paid for a village square, streetlights, hospital equipment and medical supplies, schoolbooks, and more. The emigrants explain that their contributions reflect their civic sense and make them feel important.

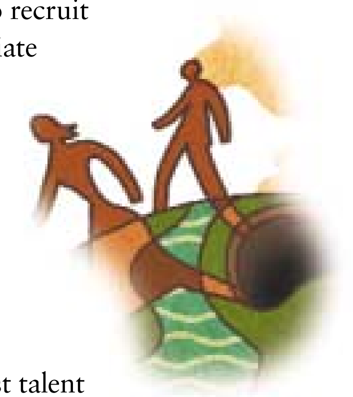
Although individual contributions do help, all but the very wealthy will have to **join with others** to generate significant investments

Typically, the most productive associations of emigrants go beyond purely social and cultural exchanges. Social organizations can undoubtedly generate occasional business deals or research efforts, and as Pozorrubio has shown, these organizations might also raise money to build a library or to give computers to secondary schools. But such efforts are usually of peripheral importance to the organization. An expatriate network built around a

[5] Frank Robert, "Checks in the mail: For a Philippine town, monthly allowances pave a road to riches," *Wall Street Journal*, May 22, 2001.

particular professional field and specifically formed to generate business investments in the home country is likely to have a far greater impact.

Emigrant associations based on specific professions create many of the advantages associated with economic clusters: in business terms, their members have more in common than do the members of social organizations, so they tend to make more and better joint investments. Professional networks also make it easier for business leaders in the home country to tap specific skills abroad. A hospital in an emerging economy, for example, might get in touch with a network of overseas doctors to recruit them for short teaching stints. Many networks of expatriate professionals already exist: the Colombian Network of Researchers and Engineers Abroad and the Silicon Valley Indian Professionals Association, to name two. The task ahead is for policy makers to start using these groups' knowledge, contacts, and capital.



## Facilitate communication

A second task for countries seeking to reconnect with lost talent is to build the infrastructure needed to facilitate the exchange. Communication is the key ingredient, and, thanks to the Internet, leaders in the home country and emigrants can instantly and cheaply share information. One type of useful World Wide Web site maintains a roster of expatriate networks. The South African Network of Skills Abroad (SANSA), for example, has created a detailed database that matches skill shortages in South Africa with the overseas locations of concentrations of expatriates who have those skills. This database allows South African companies to appeal to lost talent, new emigrants to find an appropriate expatriate network, and more settled emigrants to respond to needs in their home countries. One SANSA database tracks 21,000 university graduates who have moved abroad. From June 1999, when SANSA launched its database-search capability on the Internet, to February 2000, more than 1,000 queries from South African expatriates were logged.

Another useful type of Web site—for instance, that of Thailand's Reverse Brain Drain project (RBD)—gives expatriates who want to invest in their home countries detailed information about investment incentives, business and residence regulations, local businesses seeking foreign joint-venture partners, and targeted investment opportunities. Even if emigrants know about tax breaks on their investments, this knowledge is of little use unless they also know about specific ways of investing their money.

## Target incentives

To capture the potential economic contributions of emigrants, governments need to be much more thoughtful and innovative about the incentives and mechanisms they offer. For example, both the home country's people and the emigrants benefit when emigrants (and other foreigners) are allowed to maintain foreign-currency deposits in the home country and, more important, laws are streamlined to protect these deposits and to allow for their withdrawal in the same currency.[6] Unlike remittances, these savings can be funneled directly into productive business investments through bank loans. They also provide an incentive for reverse immigration, especially in retirement.

Incentives modeled on those that have proved effective in luring multinational corporations are also useful: reducing corporate tax rates to levels at or below competitive international levels, removing restrictions on the repatriation of profits, and eliminating unneeded licensing requirements. Fiscal-incentive systems should be transparent, applied automatically to all eligible investors, and nondiscretionary, though many countries resist offering nondiscretionary incentives because their fiscal impact may exceed the budget allotment. Countries that offer discretionary incentives must ensure fairness by creating clear and explicit rules about how investments are judged, as well as appropriate checks and balances.

Because of cultural loyalties, emigrants are more likely than the average foreign corporation to take advantage of these incentives, just as alumni are more likely to donate money to their alma maters than are nonalumni. Incentives should thus be phased in to avoid posing too big a financial burden on the home country. Of course, though fiscal incentives can be useful, the most effective way of attracting expatriate investment in the home country is to guarantee a level playing field and an unencumbered business environment.

Policy makers should also consider nonfiscal incentives that take advantage of the desire of the emigrants to be seen supporting their homelands. Such incentives might include high-profile awards that recognize and publicize the emigrants' contributions and investments. One award might recognize investment dollars, for example; another, jobs created. For many successful expatriates, honors of this kind can be a prime motivator.

[6]Non-Resident Indian (NRI) accounts, which are available to India's expatriates, have become an important source of liquidity for the country.

Thailand's RBD project, created to spark the country's nascent R&D sector by encouraging research involving Thai scientists and their counterparts abroad, shows how to pull some of these incentives together. With a budget of $48.5 million from the Thai government, the RBD gives outright grants and tax incentives to foreign-local research collaborations that benefit Thai industry. Besides financing projects on everything from pharmaceuticals compounds to new technologies for freezing cooked rice, the RBD has recruited expatriates for the projects, giving such people the opportunity to work in their home countries.

> A strategy for leveraging the talent and resources of emigrants is **no substitute** for reforms that address the talent drain's causes

To promote further investment, emerging markets can also give local businesses and other organizations incentives to use the expatriates' knowledge and talent. For example, a "talent" tax credit, similar to investment tax credits, might apply to local companies that employed expatriate workers in the short or long term. Schools and universities might be eligible for outright grants if they brought in expatriate professionals for short teaching assignments. Special tax and regulatory breaks might apply to businesses that entered into joint ventures with foreign companies owned by expatriates.

Governments in emerging markets might also consider the idea of negotiating bilateral agreements with "brain gain" countries to help pave the way for easier travel by expatriates, joint business ventures, and business and educational exchanges. Expatriates returning for short teaching or other sabbaticals in their home countries might, for instance, have the usual work visa requirements waived.

The important thing for all incentive programs is to make sure that the expatriates' investments are appropriate for the local economy. It makes little sense to provide incentives for expatriate-led biotech start-ups, say, if the industrial infrastructure and educational foundation are not in place. To avoid this misalignment, government, when designing expatriate-incentive programs, should aim to involve local businesses, universities, and infrastructure and R&D institutions.

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A strategy for leveraging the talent and resources of emigrants is definitely no substitute for economic reforms that address the fundamental causes of the talent drain by promoting competition, encouraging entrepreneurs, raising levels of investment capital, and lightening regulatory requirements in the home country. But a development strategy that, besides promoting all of these much-needed goals, encourages the participation of emigrants in the economic development of their home countries can mitigate the effects of today's brain drain. Instead of being unambiguous losers in the global war for talent, emerging markets may find that they can be winners after all. MQ

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