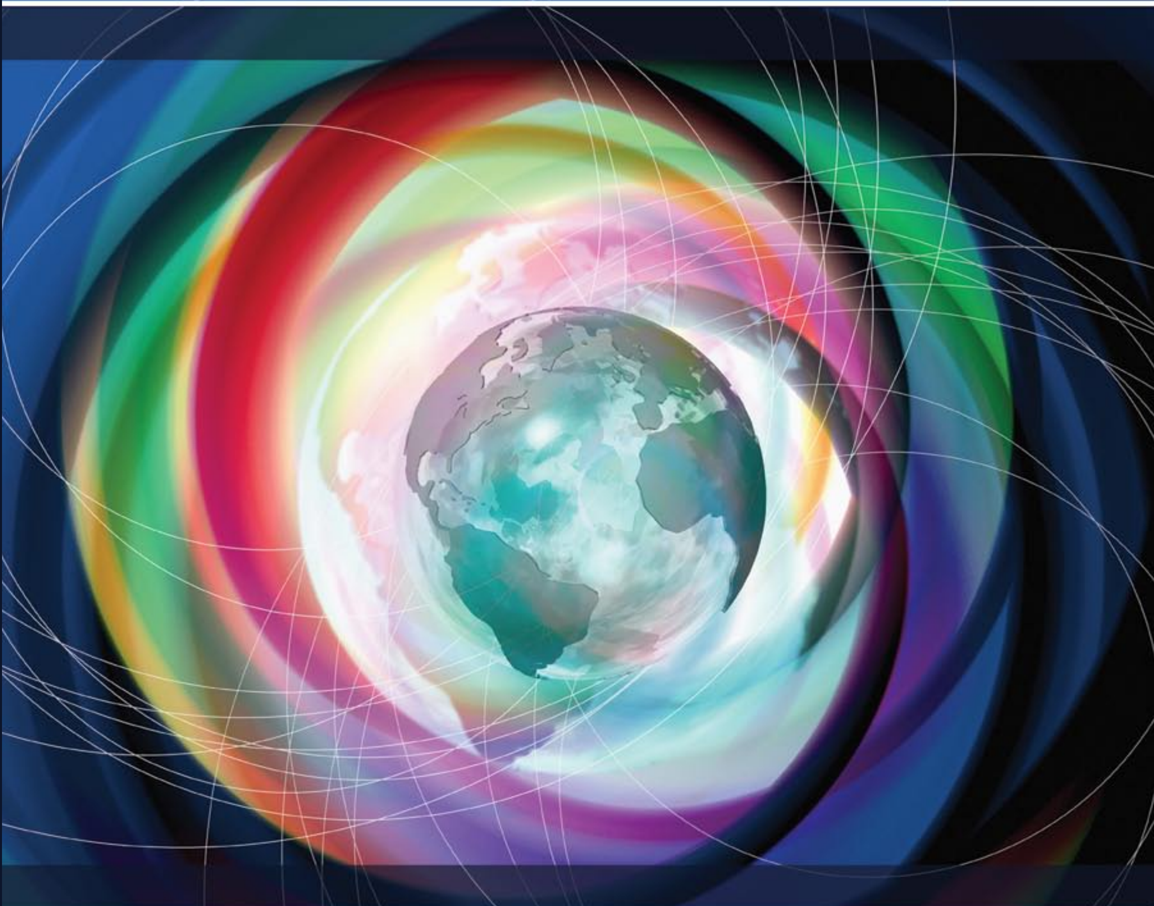
Migration, Trade, and Development



Proceedings of the 2006 Conference on Migration, Trade, and Development

Hosted by
Federal Reserve Bank of Dallas
The Tower Center for Political Studies and the
Department of Economics at Southern Methodist University
Jno E. Owens Foundation

Edited by James F. Hollifield, Pia M. Orrenius, and Thomas Osang

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Preface

The articles included in this *Proceedings* were presented at the conference "Migration, Trade, and Development," held at the Federal Reserve Bank of Dallas on October 6, 2006. The conference was hosted by the Dallas Fed and Southern Methodist University's Tower Center for Political Studies and Department of Economics and sponsored in part by the Jno E. Owens Foundation.

We would like to thank a number of people who helped make this conference possible, especially Richard W. Fisher, president of the Dallas Fed, and Harvey Rosenblum, the Bank's executive vice president and director of research. We also thank Phil Martin and Catalina Amuedo-Dorantes for filling in at the last minute and doing such an excellent job.

Finally, we want to express our gratitude to the Jno E. Owens Foundation for its generous support. The foundation was established in 1953 by Jewell Montague Owens in memory of her husband, a prominent Texas banker. During his lifetime, Mr. Owens was intensely interested in international economics, and it was his wish to establish a foundation that would memorialize his lifelong interest in international relations and his commitment to free trade.

Introduction

Migration, Trade, and Development: An Overview

James F. Hollifield, Pia M. Orrenius, and Thomas Osang

Migration, Trade, and Development: An Overview

James F. Hollifield, Pia M. Orrenius, and Thomas Osang

Migration and trade are more prevalent today than ever before in the history of the world. The United States is the recipient of about one-third of the world's migrants and accounted for a quarter of the world's output and 13 percent of the world's trade in 2005. But the global significance of the U.S. economy is slowly declining, and while the effects of migration and trade on the U.S. economy have been examined time and again, questions concerning the impact of migration and trade on development in low-income countries are of growing importance.

Simple, neoclassical economic models predict that prices should drive factors such as labor and capital across regions and countries toward their most valuable use. As this happens, developing countries, which are typically labor-rich and capital-scarce, should experience more rapid growth, higher income, and eventually convergence to industrial world levels of well-being. This process is happening slowly in some cases, but in other cases not at all.

Do migration and trade speed this convergence? If so, how? If not, why? These questions are addressed from different perspectives in the following papers presented at the conference "Migration, Trade, and Development," held in Dallas in October 2006.

The Migration, Trade and Development Nexus

While international migration and trade are often looked at in isolation in terms of their impact on development, this session looked at their individual as well as their joint roles for growth and development.

The paper by **Philip L. Martin** of the University of California, Davis, opened the conference. First, Martin analyzed three major channels through which migration can affect development in the workers' countries of origin: recruitment, remittances, and returns. The greatest benefits to migrants and their countries of origin arise from the emigration of unskilled workers, since they are most easily replaced at home and less likely to settle abroad. Remittances surpassed Official Development Assistance in the mid-1990s as a source of foreign exchange in developing countries and continue to grow. Conflicting views exist on the role played by return migrants. The optimistic scenario sees returning migrants as change agents, investing remittances and using skills acquired abroad to accelerate development at home. The pessimistic scenario states that migrants who work abroad often return to rest and retire, limiting their impacts on economic development. In the second part of his paper, Martin looked at the link between trade and migration. Since free trade agreements speed up economic and job growth in all participating countries, they tend to reduce unwanted migration into high-wage countries in the long run. However, trade agreements may trigger more migration in the short term, because freer trade can immediately speed up labor-displacing change, while time is required to generate new jobs.

Southern Methodist University economics professor **Thomas Osang** presented an empirical paper that examined the joint role of external (trade and migration) and internal (institutions and geography) development factors. He found that both internal and external determinants matter for development. The internal measures exhibited the expected signs: Good institutions have a positive impact, while proximity to the tropics hurts development. Among the external determinants, trade is typically significant, with the expected positive impact on development. The two migration measures used yielded conflicting results. The first, the foreign-born population share, matters positively for development. The second, remittances, appears to contribute little to development unless the sample is restricted to countries with a relatively large remittance share in GDP.

Raymond Robertson of Macalester College surveyed the recent literature on the impact of North American integration on the Mexican labor market. Globalization integrates labor markets through trade, capital flows, and migration. Focusing mainly on several of his own studies of Mexico's manufacturing sector, Robertson showed that Mexico's integration with the U.S. since NAFTA has potentially positive implications for Mexican workers. In particular, rising trade has coincided with rising Mexican wages (relative to U.S. wages) and falling wage inequality within Mexico. The studies also indicate that Mexican and U.S. workers are complements rather than substitutes and that North America probably should be thought of as a unified market in terms of production.

The Politics of Migration and Trade

Throughout history, migration has been controversial. In the past, newcomers were often viewed as competing for scarce resources, typically land, and accused by natives of forcing up land prices and pushing down wages. With the expansion of international trade in the past few decades, it too has been the topic of controversy. Critics have cast trade as a force that displaces workers and undercuts domestic production by bringing in cheaper goods. As a result, the politics of migration and trade are complex.

Marc Rosenblum of the University of New Orleans focused on the obstacles to cooperation between the U.S. and Mexico on the issue of immigration. He described the U.S.–Mexican migration relationship as one of complex interdependence. Policymaking in this area is multidimensional, involving complicated rules and regulations governing entry and settlement in the U.S. and multiple actors and institutions. In this sense, the migration relationship is far more difficult politically than the trading relationship. Rosenblum laid out the history of Mexican migration to the U.S. from its beginnings in the nineteenth century to the present, sorting through the shifting interests of each state. The U.S., he argued, has traditionally viewed Mexican migration through an economic lens, whereas Mexico's concern has been for emigration's effects on sovereignty and independence and for the rights of Mexican nationals in the U.S. The change in the strategic relationship that occurred under Salinas de Gortari ushered in a period of greater cooperation and less hostility between the two countries, especially with the passage of the North American Free Trade Agreement in the 1990s. But just when it appeared that there was an opening for greater cooperation on migration, the 9/11 attacks again altered the relationship, pushing security issues to the fore. Rosenblum delved into the domestic politics of migration in Mexico to explain why cooperation with the U.S. remains elusive.

SMU professor **Valerie Hunt** explored the role public opinion plays in shaping U.S. immigration policy. She pointed to the profound ambivalence Americans have had historically toward immigration—as a nation of immigrants, wanting to have a welcoming attitude toward foreigners, but at the same time fearful of the social, economic, and political consequences of high levels of immigration. She looked specifically at the impact of the 9/11 attacks on U.S. perceptions of the threat posed by immigration. The attacks heightened the awareness of immigration among Americans and further complicated the prospects for reforming immigration policy, introducing a new security dynamic into a debate that had been dominated by economic concerns. Hunt used the Pew and Tarrance Group surveys to document the rise of immigration in the public consciousness and as an electoral issue pre- and post-9/11. She outlined various immigration bills, documenting how public opinion is driving the reform process in Congress and the White House. The result, she argued, is that immigration has moved higher on the political agenda than at any time in recent American history.

The Circulation Migration of the Skilled and Economic Development

Mark Rosenzweig, Yale University professor and conference keynote speaker, discussed one of the most pressing issues in migration and development: the effect of the brain drain. Within the framework of his skill-price model, Rosenzweig showed that the big puzzle in development economics is not so much the difference in skill levels between countries as variation in skill prices (wages). Higher skill prices slow out-migration, but higher schooling levels can speed it up. To retain skilled workers, developing countries must raise their skill prices by, among other things, acquiring new technology, raising investment, and improving institutional quality.

Migration and Development: The Role of Remittances

In his contribution, **Dilip Ratha** of the World Bank discussed how migrant remittances have become a major source of external development finance and play an effective role in reducing poverty. In a message to policymakers in home and host countries, Ratha wrote that because remittances are personal flows from migrants to their friends and families, they should not be taxed or directed to specific development uses. Instead, the focus should be on making remittance services cheaper and leveraging these flows to improve financial access of migrants and their families in origin countries.

San Diego State University professor **Catalina Amuedo-Dorantes** provided an overview of her work on the effect of remittances on recipient households in Mexico, Central America, and the Dominican Republic. She discussed the characteristics of remitters, the motives for remitting, and remittances' effects on recipient households. Remittances appear to increase well-being by increasing consumption and reducing labor supply, at least among women, and also by raising spending on health. Amuedo-Dorantes also showed that some of the disruptive effects of migration, such as on children's schooling, are offset by remittances.

J. Edward Taylor, professor at the University of California, Davis, presented a series of paradoxes and puzzles in the migration-trade-development nexus. He pointed out, for example, that brain drain can be good for the home country because it raises the incentives to go to school. He also made the point that the least skilled don't migrate because they are poor and migration costs are prohibitive.

Consequently, in the short to medium term, development and income growth in less-developed countries are often positively—not negatively—correlated with migration. This result throws into question a common policy prescription for solving the immigration "problem," namely, to invest in and develop the home country.

The Historical Relationship Between Migration, Trade, and Development

Jeffrey Williamson, Harvard University professor, presented evidence showing that in the first global century, up until 1914, trade and especially migration had profound effects on both low-wage, labor-abundant Europe and the high-wage, labor-scarce New World. As labor migrated to the United States, working conditions improved in Europe and inequality declined. The opposite took place in America. Williamson argued that these developments eventually led to the U.S. high school revolution—intense investment in public schooling of American youth and a commensurate reduction in wage inequality.

SMU professor **James Hollifield** asked why states risk migration in the absence of an international regime for migration, comparable to regimes for finance (International Monetary Fund), trade (World Trade Organization), and development (World Bank). He explored the differences in the political economy of trade and migration and explained why it is so difficult for states to create an international migration regime. He looked at coordination problems from the perspective of three schools of thought: realism, globalization or transnationalism, and liberal institutionalism. He argued that an international regime for governing migration must deal with the issue of rights (status of foreign nationals) and cannot be based purely on an economic logic. But he was not sanguine about the creation of such a regime in the near term. Receiving states are likely to remain trapped in what Hollifield called a liberal paradox for decades to come—the economic logic for migration is one of openness, while the political and legal logic is one of closure. As for many of the sending states, they have incentives to push for greater openness to reap the benefits of remittances and possible return migration. The nexus between trade, migration, and development remains tight; but the international politics surrounding each issue makes it unlikely that states will be able to overcome coordination problems.

Gustav Ranis, professor at Yale, examined the costs and benefits for both origin and destination countries, while differentiating between skilled and unskilled immigrants. The migration of unskilled workers represents the largest potential benefit to global welfare, even though the distribution of gains between origin and destination countries remains controversial. The origin country benefits from unskilled migration because the country receives remittances without losing much productive capacity. For the destination country, the costs and benefits are more complex. While consumers and social security systems benefit, domestic unskilled workers experience a wage decline. The impact of skilled worker migration on the origin country is equally complex. Although the country benefits from remittances and return migration, the loss of human capital is costly in the short run. In contrast, the destination country appears to benefit from skilled worker immigration due to a reduction in specific labor shortages and more entrepreneurial energy and technological change.

Conclusion

In the long run, economic forces should act to iron out, not exacerbate, international income differences and improve national incomes in all countries. Cross-country interaction, be it through migration or trade, should help this process along and improve global well-being. Presenters at this conference examined the various dimensions in which trade and migration affect economic development, whether individually or jointly, through economic or political forces. Despite the public controversy over the free flow of goods and people, the message of the papers collected in this volume is simple and clear: The net benefits from opening borders to foreign goods, services, and people are positive and substantial in most cases. However, not all benefits will materialize immediately as economies transition toward more open borders. Nevertheless, policymakers interested in advancing the national well-being ought to pursue those policies most likely to promote long-term economic growth and prosperity. Policies aimed at helping goods, services, and people overcome national borders are clearly among them.

Session I:

The Migration, Trade, and Development Nexus

The Trade, Migration, and Development Nexus

Philip L. Martin

External and Internal Determinants of Development

Thomas Osang

Globalization and Mexican Labor Markets

Raymond Robertson

Commentary on Session I

Kent H. Hughes

The Trade, Migration, and Development Nexus

Philip L. Martin

The world is divided into about 200 nation states. Their per capita incomes ranged in 2004 from less than $250 per year to more than $50,000 (World Bank 2006), providing significant incentive to migrate from one country to another for higher wages. The thirty high-income countries had 1 billion residents in 2004, a sixth of the world's population, and their gross national income was $32 trillion, 80 percent of the global $40 trillion.[1] The resulting average per capita income of $32,000 was twenty-one times the average $1,500 for the five-sixths of the world's people in low- and middle-income countries.

About 3 percent of the world's 6.4 billion people were international migrants in 2005. These 191 million migrants included 62 million who moved from south to north (from a developing to a developed country), 61 million who moved from south to south, 53 million who moved from north to north, and 14 million who moved from north to south. In each of these flows, about half of the migrants were in the labor force of the destination area (International Labor Office 2004), prompting the question: What role can migrant workers who move from a developing to a high-income country play in fostering trade and accelerating development in their countries of origin? For most of human history, the assumption was that migrants contributed primarily to their new homes, not to their countries of origin. Historians debate the emigration mistakes of governments, as when the French expelled the Huguenots in the sixteenth century, helping to spark the Industrial Revolution in Britain.

Until recently, there were relatively few stories of migrants abroad transforming the country they left behind. One exception is Taiwan, which invested so little in higher education in the 1970s that many of those who wanted graduate degrees went abroad. Many graduates stayed abroad despite rapid economic growth in

Taiwan, but during the 1980s (even before the end of martial law), some began to return.[2] To encourage returns, the government established the Hinschu Science Industrial Park in 1980 as a rival to Silicon Valley in California. Financial incentives such as subsidized Western-style housing were provided to encourage high-tech businesses to locate in Hinschu (Luo and Wang 2002). By 2000, Hinschu was a major success, employing over 100,000 workers in 300 companies with total sales of $28 billion. Over 40 percent of Hinschu-based firms were headed by returned overseas migrants, and 10 percent of the 4,100 returned migrants employed in the park had Ph.D. degrees.

Is Taiwan's Hinschu experience with diaspora-stimulated development the exception or the rule? Can migrants abroad foster the trade and investment links associated with faster economic growth in poorer countries, even if their countries are not undergoing rapid economic growth, as in Taiwan? Are migrants, as United Nations Secretary General Kofi Annan asserted, "the motors of human progress" for both sending as well as receiving countries?[3]

This paper deals with migrants' role in stimulating development in their countries of origin, outlining the three major channels through which migration can affect development: recruitment, remittances, and returns. It next turns to the North American Free Trade Agreement (NAFTA), assessing the relevance of the Mexico–United States migration hump for migration, trade, and development elsewhere. The paper concludes that migrants can accelerate development in their countries of origin but finds nothing mechanical or automatic about the migration and development linkage. Countries growing and ready to grow can benefit from migration's three R's: recruitment, remittances, and returns. But in other cases, migration's three R's can prevent an economic takeoff. Thus, the answer to the question of whether migration accelerates development is simple: It depends.

Migration's Three R's

Migration that moves workers from lower- to higher-wage countries can be a win-win-win situation, with migrants benefiting from higher wages, receiving countries benefiting from more employment and larger gross national product, and sending countries benefiting from jobs, remittances, and returns. The first two wins are well established. Migrants demonstrate their strong desire to go abroad by taking enormous risks to move to higher-wage countries, and most studies conclude that migrants in industrial countries slightly expand economic output by slightly depressing wages.

The third win—the effect of emigration on migrant countries of origin—has been in the spotlight recently, largely because migrant numbers and remittances have been rising and some sending-country governments have demanded compensation for their loss of human capital. Two extreme scenarios have emerged involving highly skilled migrants and their countries of origin: Indian information technology emigration and African health care migration. The virtuous circle that began with the emigration of Indian information technology specialists resulted in the development of a new software and outsourcing industry in India, while the vicious circle that began with the exodus of African health care professionals has been associated with deteriorating health care systems, lower worker productivity, and slower socioeconomic development.[4]

The Indian IT success story began in the mid-1980s, when some of the 7,000 Indian IT specialists were sent by multinationals to their subsidiaries outside India, where they performed well. The late-1990s IT boom and Y2K issue encouraged industrial countries to open doors to IT professionals from India and elsewhere. Independent brokers soon emerged to recruit and deploy Indians to firms that did not have operations in India. Two decades later, India has annual revenues of over US$10 billion from exports of computer-related services.

By contrast, the recruitment of African doctors and nurses by hospitals in ex-colonial masters such as the U.K. may have set in motion vicious circles that retarded economic development. African doctors and nurses are often trained to colonial-power standards, expediting the recognition of their licenses abroad. Many government-funded health care systems in Africa find it hard to lure doctors and nurses to poorer rural areas, so they often assign graduates to rural areas and enforce these assignments by withholding licenses until the term of duty is completed. The result is often emigration fever, so that 40 percent of the 1,300 doctors and 2,500 nurses who graduate each year in South Africa emigrate as soon as they can (Organization for Economic Cooperation and Development, or OECD, 2004). The resulting loss of human capital can be significant. The South African government estimated it spent $1 billion educating health workers who emigrated during the 1990s, equivalent to a third of the development aid received from the end of apartheid in 1994 to 2000.

There are obvious differences between IT and health care, including government's role in shaping labor supply and demand. IT is largely a private-sector industry in which much training occurs on the job and many standards are set privately. By contrast, the supply of health care services is heavily influenced by governments that support doctor and nurse training and control licensure, and the demand is influenced by the ease of access to and charges for services. Migration's effects on countries of origin usually lie between these virtuous and vicious extremes, justifying a closer look at the three R's that shape emigration's effects on development.

Recruitment

Migration is not random. Young people are most likely to move over borders because they have the least invested in jobs and careers at home and the most time to recoup their "investment in migration" abroad. Who migrates depends significantly on an individual's human capital and network connections, but demand conditions in receiving areas are the dominant factor shaping labor flows. For example, if employers in destination countries want IT professionals and nurses, networks and recruiters will evolve to help them move abroad; if the demand is for maids and farmworkers, networks and agents will evolve to move them over borders.

Migrants moving from developing to developed countries are different from the workers they left behind as well as the workers in the countries to which they move. About 40 percent of the world's workers are employed in agriculture, 20 percent in industry and construction, and 40 percent in services; the world's developing country migrants are drawn from societies that have this 40–20–40 distribution (World Bank 2006). The industrial countries to which migrants move have about 3 percent of their workers employed in agriculture, 25 percent in industry, and 72 percent in services.

However, the 31 million migrant workers from developing countries who were in industrial countries in 2005 had a labor force distribution unlike that in sending or receiving countries. About 10 percent were employed in agriculture, 40 percent in industry and construction, and 50 percent in services. This distribution of developing-country migrants reflects a tendency of three types of industrial-country employers to request migrants: those in sunset industries such as agriculture and some manufacturing (sewing); those in industries that are difficult to trade, such as construction; and those in many growing service-sector industries, from janitorial to health care.

Developing-country migrants in industrial countries also have personal characteristics that set them apart from other adults in receiving countries. Migrants differ in the best single determinant of individual earnings in industrial countries: years of education.

In most developing countries, the distribution of adults by years of education has a pyramid shape reflecting a few well-educated persons on top and a mass of workers with less than a secondary-school certificate or high school diploma at the bottom.

Native-born adults in high-income countries, by contrast, have a diamond shape when arrayed by years of education. About 25 percent have a college degree, 60 percent a secondary-school certificate, and 15 percent less than a secondary-school certificate or high school diploma.

Developing-country migrants in industrial countries have more of an hourglass or barbell shape. About 40 percent have a college degree, 25 percent a secondary-school certificate, and 35 percent less than a secondary-school certificate or high school diploma. International migration from developing to industrial countries takes people from the top and bottom of a pyramid distribution and adds them to the top and bottom of a diamond-shaped distribution.

Professionals and Students. The migrants drawn from the top of the education pyramid of developing countries are often professionals, students, or legal residents of industrial countries. Foreigners arrive in industrial countries via front, side, and back doors. The front door represents presumed settler immigration; the side door allows the entry of tourists, guest workers, and students for a specific time and purpose; and the back door represents illegal entries as well as legally arrived foreigners who violate the terms of their entry, such as tourists who go to work or overstay.

Over the past two decades, almost all industrial countries have made it easier for foreign professionals to enter as settlers or guest workers. There are two broad approaches to selecting immigrants who are professionals: so-called supply and demand systems. The supply-oriented systems of Australia, Canada, and the U.K. give points to applicants for immigrant visas based on their language ability, years of education, age, and other factors presumed to affect earnings and grant immigrant visas to those with sufficient points. The demand-oriented system of the U.S., by contrast, makes the major criterion having a job offer from a U.S. employer. There has been some convergence between supply- and demand-oriented selection systems. In particular, Canada has raised the number of points awarded for having a local job offer to avoid brain waste—the presumed lack of earnings due to immigrants' employment in jobs that do not require their credentials, such as when a doctor drives a taxi. Meanwhile, the U.S. makes it easiest for employers to obtain immigrant visas for degreed foreigners who fill a U.S. job that requires at least a college degree.

Side-door "nonimmigrant" professionals and students often wind up obtaining immigrant visas. Nonimmigrants are admitted for a specific time and purpose, but most industrial countries have probationary immigrant guest worker programs similar to the U.S. H-1B program, which makes entry and settlement relatively easy (Martin 2006). U.S. employers open the border gate to degreed foreigners by attesting that these workers are needed to fill U.S. jobs that usually require a college degree. During the six years that an H-1B visa is normally valid, foreigners may become immigrants by finding a U.S. employer to sponsor them under a different certification process that involves proving that qualified U.S. workers are not available. With the foreign worker usually employed in the job while the employer engages in the required recruitment of U.S. workers, it is no surprise that U.S. workers are rarely hired in these situations (U.S. Department of Labor 1996).

Professionals complete their education before they cross borders and are probationary until they find an employer to sponsor them for visas (U.S.) or satisfy requirements (Europe) that provide permanent residence status. Foreign-student programs are another type of probationary immigrant system. Most graduates of host-country institutions learn the host-country language and become familiar with host-country ways of study and work before graduation. If they find employers to hire them, most countries permit foreign student graduates to remain at least several years or settle.

In 2000, two million foreign students were in OECD countries—half from outside the OECD, including 34 percent in the U.S., 16 percent in the U.K., 13 percent in Germany, 11 percent in France, and 8 percent in Australia (OECD 2002). Foreign students usually study subjects that impart skills transferable internationally, such as science and engineering rather than law. Some institutions of higher education have become dependent on the revenues from foreign students, and some graduate programs appreciate the willingness of foreign students to be relatively low-wage research assistants and postdoctoral researchers.

The rising number of foreign students, especially in science and engineering graduate programs, raises the question of whether they are needed. Teitelbaum (2003) argues that the high percentage of foreign students in U.S. science and engineering doctoral programs reflects labor market deficiencies and student desires for immigrant visas, not a "national need" for more Ph.D.s in science and engineering. He points out that in many basic sciences, six or more years of graduate study is followed by five to ten years of low-paid postdoctoral research, so that graduates do not get "real jobs" until age 35 or 40.[5]

Unskilled Migrants. Most of the world's workers and most of the world's migrant workers are unskilled. Many need help to cross national borders, and there has been rapid growth in the number of for-profit recruiters that move the workers (Kuptsch 2006). The wage gap between countries motivates migration, and the recruiter's share of this wage gap depends on a number of factors, including the difficulty of migrating illegally (or migrating without the help of recruiters) and prospects for settlement and upward mobility abroad. In most labor flows, recruiting fees are highest at the beginning of a flow. But after workers are established abroad, more potential migrants have access to information via social networks and may find alternative routes to employment that include traveling as tourists to visit relatives and staying to work.

In countries such as the Philippines, where most migrants leave legally, recruiters match half or more with jobs. The government tries to limit recruiting fees to the equivalent of one month's wages for the typical two-year contract, about 4.2 percent, but Abella (2004) concludes that limits on fees that recruiters can charge workers have been "widely disregarded" because there is an excess supply of migrants. A migrant may leave the country with a contract stipulating that the recruitment fee is a month's wage but, upon arrival, is asked to sign another contract that raises the fee to four to six months' wages. Migrants can refuse to sign the second contract but may be forced to return without the means to repay recruitment debts.

A December 1995 survey of male migrants in Kuwait found that 75 percent of Sri Lankan migrants used private recruiters to get their jobs, paying an average $800, or four months' wages, for the typical $200-a-month worker (some of these recruitment fees wind up in the hands of the foreign sponsor-employers). Fewer Indian and Pakistani men used recruiters because they had more access to social networks; the Indians and Pakistanis who used recruiters paid two to three months' wages in fees (Shah 1996). Half of the Bangladeshis used recruiters, and they paid the highest fees despite having the lowest monthly earnings: an average $1,800 for jobs paying $150 a month. The recruitment fees paid by Bangladeshis rose in the 1980s,[6] perhaps because the shift from construction to services jobs allowed migrants to remain abroad longer (Azad 1989).

It is important to emphasize that conditions in receiving-country labor markets, such as employer perceptions of the relative virtues of migrants and local workers, affect what type of worker is preferred and how migrants find jobs. Most economists believe that employers prefer workers with the most human capital, but sociologists Roger Waldinger and Michael Lichter (2003) find that many Los Angeles-area employers preferred newly arrived migrant workers because they had the "right" attitude toward the often low-wage and difficult jobs offered.[7] Migrants lacking English, schooling, and familiarity with American culture may be preferred by some employers because of their "personal qualifications—friendliness, enthusiasm, smiling, subservience."

Waldinger and Lichter look at the requirements of jobs held by migrants and find that in manufacturing, workers needed to be able to engage in the physical exertion associated with the job, but their next-most-important trait was an ability to get along with coworkers. In most workplaces, current employees were expected to teach new workers the tricks of particular tasks and machines. Migrant networks are ideal for such on-the-job training because current workers often recruit friends and relatives. Networks save employers recruitment and training costs and enable workers from particular foreign places to "capture" particular workplaces, so that unemployed local workers with more human capital but no "social capital" may not even learn about the vacant jobs.[8]

Most migrants move over national borders under the terms of unilateral guest worker programs, meaning that employers who satisfy national government criteria for employing foreign workers can recruit them where and how they wish. Most countries do not sign bilateral agreements or memorandums of understanding (MOUs) with migrant countries of origin to regulate recruitment, even though the International Labor Organization (ILO) favors recruitment under bilateral agreements and included a model agreement in Recommendation 86 (1949).[9]

More MOUs regulate migration today than in the past, but they often deal with the return of apprehended migrants, not the recruitment and protection of migrant workers. Thailand has MOUs with the three neighbors that send migrant workers—Burma, Cambodia, and Laos—and they call for migrant workers in Thailand to receive equal wages and benefits. However, the emphasis on return is reflected in the 15 percent of wages earned in Thailand that are withheld to encourage returns and provide funds for development in migrant areas of origin.

In exchange for opening legal channels for migrants, Burma, Cambodia, and Laos are to issue identification documents to their nationals at home and abroad and accept the return of apprehended unauthorized foreigners. In December 2005, the Thai cabinet approved the admission of 200,000 migrants under these MOUs while there were 300,000 nationals of these countries in detention for irregular status.[10] Since these apprehended foreigners had to be dealt with before new legal guest workers were admitted, the net effect of the announcement may have been to promote illegal migration. Some migrants expecting to go legally may have been encouraged to go illegally rather than wait.

Remittances

Remittances are international financial transfers from individuals to individuals. Most are derived from the earnings of citizens of one country who are employed in another, meaning that remittances replace what would have been earned at home if the individual had not migrated.

Three steps are involved in a typical remittance transfer: The migrant pays the remittance to a money transfer firm such as Western Union in one country, the money transfer firm instructs its agent in another country to deliver the remittance, and the agent pays the recipient. Agents in the two countries periodically settle their credit and debit accounts, often via a commercial bank. Under the *hundi*, *hawala*, *padala*, *fei-chien*, and other informal remittance systems, no money need cross national borders immediately to have remittances paid to beneficiaries.

Volume and Formalization. Remittances are the sum of workers' remittances and "compensation of employees" payments recorded in balance of payments data. Workers' remittances are monies received from nationals or residents of countries abroad more than twelve months (regardless of their legal status), while compensation of employees payments are funds from those abroad less than twelve months, including border commuters and seasonal workers.[11] Not all countries report remittance data. Forty-five report both workers' remittances and compensation of employees data, fourteen only workers' remittances, and nineteen only compensation of employees data (World Bank 2005).[12]

The International Monetary Fund (IMF) compiles reports of remittances from national central banks in its *Balance of Payments Statistics Yearbook*. Conceptually, workers' remittances are a transfer without a quid pro quo, while compensation of employees is labor income, but "it may be difficult to separately identify the two items" (United Nations Technical Subgroup on Movement of Natural Persons 2005). Some countries, such as Indonesia, report personal transfers from abroad as workers' remittances; others, such as Thailand, report them as compensation of employees; and some, including the Philippines, report under both categories. Most analyses sum workers' remittances and compensation of employees to obtain a measure of formal transfers, and this sum is generally called remittances.[13]

Major payers of remittances include the U.S. ($39 billion in 2004), Saudi Arabia, and Germany. Flows of money out of countries in which migrants work should match inflows of funds to migrant countries of origin (unless migrants send remittances to third countries). This does not necessarily occur, in part because some countries do not (fully) report remittances, and some remittances are transferred via informal channels, such as when migrants return with cash, send cash with friends or via couriers or informal systems, or return with goods.

The *Global Economic Prospects 2006* report (World Bank 2005) estimates total remittances of $232 billion in 2005, including $167 billion received by developing countries. There are several reasons for rapidly rising remittances, including the increased scrutiny of remittance flows after the September 11, 2001, terrorist attacks;[14] lower costs and expanding networks to move small sums over borders via regulated financial institutions; better recording of fund transfers; more migrants; and the depreciation of the dollar, which raises the dollar value of remittances transferred in other currencies.[15] Unrecorded remittance flows via informal channels "may conservatively add 50 percent (or more) of recorded flows" (World Bank 2005), or $84 billion to developing countries in 2005, bringing the total to at least $251 billion.

In 2004, 34 developing countries each received over $1 billion in remittances. India received the most, $21.7 billion, followed by China, $21.3 billion; Mexico, $18.1 billion; and the Philippines, $11.6 billion.[16] About two-thirds of remittances to developing countries came from migrants in developed countries and a third from developing-country migrants in other developing countries (for example, when Indonesians in Malaysia send remittances to Indonesia). Remittances to developing countries doubled between 2000 and 2004, with half the increase accounted for by China, India, and Mexico. Countries in which remittances are the highest share of gross domestic product include islands such as Tonga, 31 percent; countries making transitions from communism, including Moldova, 27 percent; and traditional labor exporters such as Lesotho, 26 percent.

The major determinants of remittance volume include the number of migrants, their income abroad, and their propensity to remit to their countries of origin. International organizations such as the World Bank and IMF aim to increase and formalize remittances to accelerate poverty reduction and improve the access of poor people in developing countries to financial services. Formal transfers may have favorable macroeconomic effects on recipient countries, such as when banks lend against remittance deposits or sell bonds based on anticipated remittances, increasing their multiplier effect. Formal remittances may also deepen recipient-country financial systems and strengthen country credit ratings. In many cases, if recipients pick up remittances at banks, they open accounts, which can have favorable impacts on bank profits as well as development.

Formalizing remittance flows can be encouraged by reducing the cost of formal transfers, increasing migrant access to banks and other formal transfer mechanisms, and providing migrants with the IDs needed to deal with regulated financial institutions. The World Bank 2005 report concludes that it is generally easier to formalize remittance flows by reducing costs and improving migrant access to regulated financial institutions than by trying to impose regulation on informal transfer mechanisms.

Reducing formal remittance costs and easing access can be accomplished with regulatory changes such as:

- Allowing and encouraging domestic banks to operate in countries where migrants are employed to overcome migrant distrust of unfamiliar banks[17] and to ensure that banking services are provided in the migrants' language (in some cases, capital requirements may need to be reduced to allow more foreign banks to operate in countries hosting migrants).
- Discouraging or banning exclusive arrangements between transfer agents, such as Western Union or MoneyGram, and entities with dispersed facilities in migrant areas of origin, such as postal agencies, thereby promoting competition in the so-called last mile of a remittance corridor linking two countries.
- Encouraging the spread of cellular telephone-based remittance systems, which promise the lowest-cost means of sending remittances while improving communications in migrant-sending areas.

All research agrees that the best way to increase and formalize remittances is to ensure that migrant-sending countries have sound economic policies, including an appropriate exchange rate and a banking system that is cost-efficient and friendly to remitters and recipients. Most remittances are spent on consumption, reflecting the fact that the breadwinner is abroad and remittances substitute for local earnings. However, the portion of remittances saved and invested in the home country can be increased if the savings and investment climate favors these activities; that is, if there is little risk of devaluation or taxation or expropriation of local savings and there are opportunities to launch profitable small businesses.

Remittances and Development. Increasing the development impact of remittances is the second policy priority of national governments and international institutions. With remittances rising faster than Official Development Assistance and flowing through private channels to often poor areas that send migrants abroad, increasing the portion of remittances invested in job-creating businesses could reduce future emigration pressures.

Little evidence exists that programs targeted at migrants have significant development-enhancing effects, suggesting that growth- and business-friendly macro and micro environments hold more promise to encourage migrant investments. However, targeted programs to increase the development impact of remittances are spreading. These include Mexico's three-to-one program, which provides federal, state, and local government matches for remittance contributions invested in infrastructure improvement in migrant areas of origin.

In 2004, Mexican migrants in the U.S. raised $20 million for such infrastructure investments. Federal, state, and local governments added $60 million to fund, for example, infrastructure improvements in migrant villages. However, $80 million is less than half of 1 percent of the $18 billion in remittances received by Mexico, and World Bank (2005) reports that most of the Mexican hometown associations that raised funds for matching in 2004 invested less than $10,000 in their communities of origin.

The World Bank 2005 report concludes that the development effects of matching program investments are "poorly documented."[18] Other complaints were that the money to match migrant funds usually comes from overall development funds. If migrant and local development priorities differ—for example, when migrants want to restore the local church while local residents want a paved road or sewer system—migrant funds can lead to conflict over how scarce development funds should be allocated.

A more promising development-accelerating impact of remittances may be to lower the cost of borrowing money. Banks in Brazil, the Philippines, and other countries have floated bonds at lower-than-average interest costs because investors assume remittances will provide a continuing inflow of foreign exchange to repay them. Remittance securitization typically involves a borrowing bank establishing an offshore entity and pledging the remittances it anticipates to this entity. Correspondent banks channel remittances to the offshore entity, which pays off the bonds and funnels the surplus to the bank. Investors are willing to accept a lower interest rate from the offshore entity because there is less danger that the country will make it hard to convert local currency to foreign. Bonds based on the expected flow of remittances to El Salvador, for example, carry interest rates 1 to 2 percent less than the debt issued by the El Salvador government (World Bank 2005). Between 1994 and 2004, about 90 percent of the remittance-based debt issued involved three countries—Turkey, Brazil, and Mexico.

Matching migrants' investment contributions and lowering the cost of borrowing with remittance-backed bonds are examples of incremental development-enhancing steps. The U.N.'s high-level dialogue in September 2006 aimed to find larger development-enhancing benefits from migration. Some believe that the combination of remittances and diasporas is a key to more rapid development, with funds flowing from migrant-receiving to migrant-sending countries, accompanied by more trade in both directions.

Returns

The third R in the migration and development equation is returns. Ideally, migrants who have been abroad return and provide the energy and ideas needed to start or expand businesses, or return with the skills and discipline needed to raise productivity as employees. Migrants are generally drawn from the ranks of the risk takers at home, and if their savings from work abroad are combined with risk-taking behavior on their return, the result can be a new impetus for economic development.

On the other hand, if migrants settle abroad and cut ties to their countries of origin, or if they return only to rest and retire, migration may have limited development impact. In the extreme, returning to rest and retire can slow development if workers acquire a work-abroad and rest-at-home mentality, and this mentality spreads to children. There may also be back-and-forth circulation, which can under some conditions contribute to economic growth in both countries.

Countries such as China sometimes refer to their diasporas as "stored brainpower" abroad, to be welcomed home when needed, as in the Taiwanese case. It is much harder to persuade established migrants to return to the poorest countries. The International Organization for Migration operates a return-of-talent program for professional Africans abroad, providing them with travel and wage subsidies if they sign two-year contracts pledging to work in the public sector of their country of origin. The U.N. Development Program has a similar Transfer of Knowledge Through Expatriate Nationals program that subsidizes the return of teachers and researchers. Sussex University's Richard Black calls such programs "expensive failures" because they bring temporary returns but not the "investment that [long-term return] should bring."[19]

Even if migrants do not return immediately, they can contribute to development at home by maintaining links with their countries of origin, increasing the probability of an eventual return and perhaps forging trade and investment ties. One way for sending countries to maintain links with their nationals abroad is to permit dual nationality or dual citizenship, which Bhagwati (2003) argues can lead to a diaspora model of development, "which integrates past and present citizens into a web of rights and obligations in the extended community defined with the home country as the center." Bhagwati notes that migrants abroad can generate "political remittances," including ideas that help to speed up change in often-traditional sending countries.

There are two caveats to the current enthusiasm for diaspora-led development. First, it is often asserted that instead of promoting returns with subsidies, dual nationality, and other devices, sending countries should do more to retain migrants by reducing discrimination and other factors that prompt people to leave. An example is when only those from the tribe or political party in power are given access to universities and good jobs. It is generally cheaper to keep potential migrants at home than to induce migrants abroad to return. Second, the diaspora can be a force for conflict and economic stagnation rather than development at home. This is the case when migrants abroad provide the funds to prolong civil wars or conflicts.[20]

NAFTA, Migration, and Development

Europe and the U.S. have distinctly different policies concerning economic integration with poorer neighbors that are sources of migrants. The European Union, built on the four freedoms—free movement of goods, services, capital, and labor—aims to foster the political and economic changes necessary to minimize emigration before granting workers freedom-of-movement rights. As a result, when there is freedom of movement, usually after seven years, few Italians or Spaniards migrate. The U.S. has followed a different path with NAFTA, hoping that freer trade and investment lead to faster economic and job growth in Mexico and reduced migration over time.

Migration was the central feature of Mexico–U.S. relations for most of the twentieth century, but the volume of cross-border flows rose remarkably in the 1990s. A third of all legal Mexican immigrants admitted in the twentieth century and a third of twentieth-century apprehensions were in the 1990s (*Table 1*). High levels of legal and unauthorized migration have continued in the twenty-first century despite rising levels of Mexico–U.S. trade and stepped-up border enforcement efforts.

The roots of this Mexico–U.S. labor migration lie in the U.S. government-approved recruitment of about five million Mexican workers between 1917 and 1921 and again between 1942 and 1964. Distortion and dependence resulted from these guest worker programs. Some U.S. farmers made investment decisions that assumed there would be a continued influx of Mexican workers, and some Mexicans became dependent on U.S. jobs and earnings. These developments allowed the labor migration that began with U.S. recruitment to take on a life of its own.

A combination of increased demand-pull pressures in the U.S., especially during the job booms of the late 1980s and late 1990s, and increased supply-push

Table 1

Mexican Immigration and Apprehensions: 1890–2003

Decade	Immigrants, annual average	Decade total	Decade as percent of 1890–2003 total	Apprehensions, annual average	Decade total	Decade as percent of 1890–2003 total
1890–1900	97	971	0	NA	NA	NA
1901–10	4,964	49,642	1	NA	NA	NA
1911–20	21,900	219,004	3	NA	NA	NA
1921–30	45,929	459,287	7	25,697	256,968	1
1931–40	2,232	22,319	0	14,746	147,457	0
1941–50	6,059	60,589	1	137,721	1,377,210	3
1951–60	22,981	229,811	3	359,895	3,598,949	8
1961–70	45,394	453,937	7	160,836	1,608,356	4
1971–80	64,029	640,294	10	832,150	8,321,498	19
1981–90	165,584	1,655,843	25	1,188,333	11,883,328	26
1991–00	224,942	2,249,421	34	1,466,760	14,667,599	33
2001–03*	180,557	541,670	8	1,008,017	3,024,052	7
Total		6,582,788	100		44,885,417	100

NOTES: Apprehensions record events, so one person caught three times is three apprehensions. Mexicans are 95 to 98 percent of those apprehended. Apprehensions for 1925–30 were 128,484; Border Patrol was created in 1924. *2001–03 values are not comparable to other decade totals because the period only covers three years.

SOURCE: *Statistical Yearbook of the Immigration and Naturalization Service* (now the *Yearbook of Immigration Statistics*), various years.

pressure in Mexico, especially after economic crises in the mid-1980s and mid-1990s, helped diffuse the origins and destinations of Mexican migrants. Today, more Mexicans come from southern and urban Mexico, and more are taking non-farm as well as farm jobs throughout the U.S. The U.S. labor force of 148 million in 2004 included 19 million Hispanics (13 percent), with perhaps 40 percent born in Mexico. The Hispanic share of net U.S. labor force growth over the 1994–2004 decade, 44 percent, is three times the Hispanic share of the labor force.[21]

Mexico–U.S. trade has increased as a result of NAFTA, but the rate of increase in Mexico–U.S. migration has been even faster. The Mexican government changed its economic policies in the mid-1980s from an inward-oriented import-substitution model to an outward-oriented model that assumed foreign investors would create jobs in factories to capitalize on low Mexican wages to produce goods for export. Mexican President Carlos Salinas sought to lock these free-trade policies into an international agreement through NAFTA.

NAFTA accelerated the lowering of trade and investment barriers among Canada, Mexico, and the U.S. that was already under way. The result was expected to be more trade and employment as well as higher wages in all three countries. Some of the political leaders promoting NAFTA assumed that if trade and migration are substitutes in the long run, they are also substitutes in the short run. Then-President Salinas, for example, asserted in a Bush letter to Congress (May 1, 1991) that freer trade means "more jobs…[and] higher wages in Mexico, and this in turn will mean fewer migrants to the United States and Canada. We want to export goods, not people."

However, Mexico–U.S. migration increased along with Mexico–U.S. trade. The estimated number of unauthorized Mexicans in the U.S. rose from 2.5 million in 1995 to 4.5 million in 2000 and to 6.6 million in 2005, when 60 percent of the 11 million unauthorized foreigners in the U.S. were Mexican (Passel 2006). Over 80 percent of migrants from Mexico in recent years have been unauthorized—most between the ages of 18 and 40.

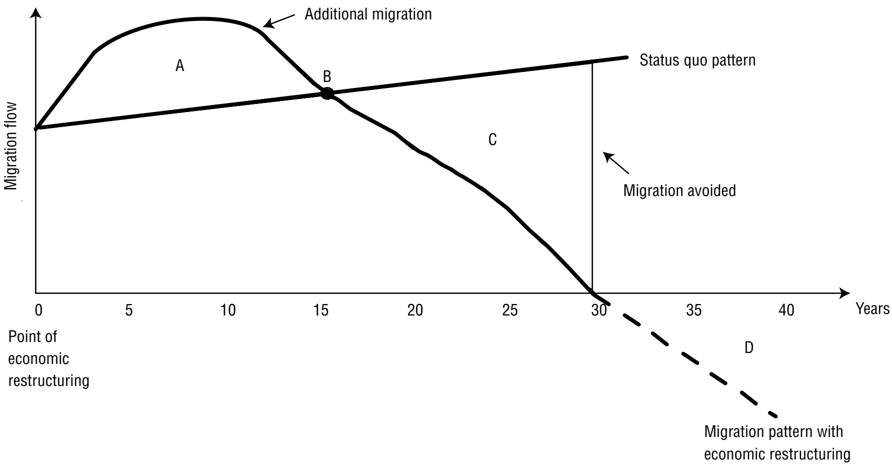
The upsurge in Mexico–U.S. migration between 1990 and 2005 has been called a migration hump—an assumed temporary increase in migration. A migration hump in response to closer economic integration means that the same economic policies that can reduce migration in the long run can increase it in the short run, generating "a very real short-term versus long-term dilemma" that can make it hard to persuade a skeptical public that freer trade is the best way to reduce unwanted migration (Martin 1993).

The steadily rising line in Figure 1 represents the status quo migration flow, with slightly rising migration reflecting demographic and economic differences. The hump line depicts the additional migration associated with freer trade and economic integration. The temporary increase in migration is represented by A, which occurs if freer trade displaces Mexicans but foreign investors need time to create additional factory jobs (or the jobs they create do not go to the workers displaced). Freer trade speeds up economic and job growth, and the downside of the hump is the movement toward the status quo, or B. As economic integration accelerates convergence in wages between migrant-sending and migrant-receiving areas, C represents the migration avoided by economic integration, and D represents the migration transition, which occurs when a net migrant-sending country becomes a net receiving country.

The critical policy parameters are A, B, and C—how much does migration increase as a result of economic integration (A), how soon does the migration hump disappear (B), and how much migration is "avoided" by the faster growth associated with economic integration (C)? Three factors are generally required to create a migration hump: a continued demand-pull for migrants in the destination country, an increased supply-push in the origin country, and migration networks that can move workers across borders.

The usual comparative static economic analysis focuses on equilibrium points, not the process of adjustment to reach them. The migration hump is precisely

Figure 1
The Migration Hump



SOURCE: Author's calculations.

this adjustment process. However, it is important to emphasize that once wage differences narrow to four-to-one or less and job growth offers more opportunities at home, the "hope factor" can deter especially irregular migration since most people prefer to stay near family and friends.[22]

NAFTA got off to a promising start in Mexico, with employment rising in 1994. However, just before President Ernesto Zedillo was inaugurated in December 1994, an economic crisis led to a sharp devaluation of the peso. The U.S. provided emergency funds to stabilize Mexican government finances, but the number of formal-sector jobs shrank by over 10 percent. Job growth resumed in 1996, and formal Mexican employment peaked in 2000 as employment in maquiladoras reached 1.3 million, 10 percent of formal-sector jobs.

When the U.S. went into recession in 2000–01, maquiladora employment fell and many of the border assembly factories, especially those producing textiles and apparel, closed and moved to China and other countries with lower wages. Of the 700,000 new maquiladora jobs generated in NAFTA's first seven years, 300,000 were eliminated between 2000 and 2003, and most are unlikely to reappear. The consensus is that Mexico must upgrade the skills of its workers and their productivity or risk losing even more jobs to lower-wage countries.

NAFTA gave industrial employment a boost in Mexico while accelerating rural-to-urban migration. About 25 percent of Mexicans live in rural areas, and 20 percent depend mainly on agriculture for income. The NAFTA villain in rural Mexico is increased imports of low-cost and subsidized U.S. farm commodities such as corn. Corn is planted on 50 percent of Mexican cropland, much of which is not irrigated, and some three million Mexican households depend at least partially on corn production. The availability of cheaper U.S. corn sends a clear signal that there is no future in small-scale and rain-fed corn production in Mexico.[23]

Many evaluations of NAFTA's first decade conclude that trade-led growth was not sufficient to bring stay-at-home prosperity to Mexico. Real wages in Mexico were lower in 2001 than in 1994 despite higher productivity, and income inequality increased. Mexico's per capita economic growth was 1 percent a year between 1994 and 2003, compared with 7 percent a year in China. Poverty remains widespread. Half of the 104 million Mexicans in 2003 were considered poor, including 42 million who make less than $2 a day (the daily minimum wage is about $4).

U.S. Responses: Immigration Reform

In March 2005, the U.S. had 37 million foreign-born residents, 30 percent of whom were unauthorized (*Table 2*). The increase in unauthorized workers has been especially fast in recent years. The number rose by an estimated 4.4 million between 2000 and 2005, an average 880,000 a year. By comparison, 706,000 legal immigrants were admitted in 2003.[24]

Opinion polls find that most Americans want additional steps taken to prevent illegal migration. A December 2005 *Washington Post*–ABC News poll reported that 80 percent of Americans think the federal government should do more to reduce illegal immigration, and 56 percent agree that unauthorized migrants hurt the U.S. more than they help it.[25] An April 2006 *Los Angeles Times* poll found that 63 percent of Americans favored stepped-up enforcement as well as a guest worker program to deal with illegal migration, while 30 percent favored stepped-up enforcement only.[26]

Table 2
Status of Foreign-Born U.S. Population

Status, March 2005	Percent	Number (millions)
Naturalized U.S. citizens	31	11.5
Legal immigrants and nonimmigrants	39	14.4
Unauthorized	30	11.1
Total	100	37

SOURCE: Passel (2006).

The House and Senate have taken distinctly different approaches to the issue. The House in December 2005 approved the enforcement-only Border Protection, Antiterrorism, and Illegal Immigration Control Act (HR 4437) on a 239–182 vote. It includes a requirement for mandatory screening of employees to ensure that they are legally authorized to work in the U.S. Within two years of its enactment, all U.S. employers would have to submit Social Security and immigration data on newly hired workers to government agencies by telephone or computer, receiving a credit-card-type confirmation of each worker's right to work in the U.S. Within six years, employers would have to verify the status of their current employees.

The House bill contains several controversial items that include making "illegal presence" in the U.S. a felony and adding 700 miles of fencing along the Mexico–U.S. border. The House bill does not include a guest worker or legalization program, under the theory that enforcement must be proven effective before additional migrant workers arrive legally and the government deals with the unauthorized foreigners now in the U.S.

The Senate approved the Comprehensive Immigration Reform Act of 2006 (S 2611) in May 2006 on a 62–36 vote. Like the House bill, it contains measures that would increase border enforcement by adding agents and fences and require employers to submit data on newly hired employees to a government database. However, the Senate bill also includes a new type of guest worker program and an "earned path" from illegal to legal immigrant status.

The Senate-approved guest worker program would add H-2C worker visas to a list that already includes H-1A, H-1B, H-2A, and H-2B. Employers in any U.S. industry would have to attest that the employment of H-2C migrants "will not adversely affect the wages and working conditions of workers in the United States similarly employed" and not lead to the termination of U.S. workers 90 days before and after the H-2C migrants go to work. Foreigners in their countries of origin who receive job offers from U.S. employers filing such attestations would pay $500 and pass medical exams to obtain three-year renewable work permits. After three years of U.S. work, H-2C guest workers would have to spend at least one year in the country of origin unless the foreigner has become a U.S. immigrant.

H-2C guest workers could change U.S. employers but only to work for other employers filing the same attestations regarding their need for migrants; migrants unemployed more than 45 days would be subject to removal. The H-2C guest workers could become immigrants while working in the U.S. in two ways: Their employers could apply for immigrant visas on their behalf after one year of work in the U.S., and the workers could apply for immigrant visas on their own after four years in the U.S. and if they are proficient in English and civics. In both cases, this path to immigrant status may be complicated by the requirement that the U.S. Department of Labor certify that no U.S. workers are available to fill the jobs for which H-2C visas are sought, a process that today takes several years.

The H-2C program aims to be sensitive to U.S. labor market conditions by adjusting the number of visas to employer requests. The number of H-2C visas was initially set at 325,000 a year, to be immediately raised by 20 percent (to 390,000) if all H-2C visas were allocated within the first quarter of the fiscal year. That would make the ceiling for the next fiscal year 468,000. If H-2C visas were exhausted in the second quarter, an additional 15 percent of the fiscal year's visa ceiling would be made available immediately, and the annual ceiling would be raised by 15 percent for the next year. If the visas were exhausted in the third quarter, the factor would be 10 percent. If H-2C visas were not used up, the ceiling for the next year would be reduced by 10 percent.

During Senate deliberations, the starting number of H-2Cs was reduced to 200,000, but the adjustment formula remains, so that 600,000 H-2C guest workers could be admitted in the seventh year if all visas were used up each year in the first quarter.

Unauthorized foreigners already in the U.S. are divided into three groups by the Senate bill:

- Those in the U.S. at least five years could become "probationary immigrants" by proving they worked in the U.S., paid back taxes owed and a $1,000 fee, and passed English and background tests. At the end of six years of continued U.S. work and tax payments and after an additional $1,000 fee, they could apply for green cards or immigrant visas, although they would have to go to the back of the queue. (Total fees were raised to $3,250 during Senate deliberations.)
- Those in the U.S. two to five years would have to satisfy the same requirements but would also have to return to their countries of origin and reenter the U.S. legally.
- Those in the U.S. less than two years would be expected to depart, although they could return with H-2C visas.

Unauthorized farmworkers would be treated differently. The Agricultural Job Opportunity, Benefits, and Security Act (AgJOBS) of the Senate bill would allow up to 1.5 million unauthorized foreigners who did at least 150 days of farmwork during the 24-month period ending December 31, 2005, to pay $500 and obtain blue-card temporary-resident status. Blue-card holders who performed at least 100 days of farmwork each year during the next five years could become legal immigrants. While in blue-card status, foreigners could also do nonfarm work, travel legally in and out of the U.S., and get work authorization for their spouses, who would not have to work in agriculture, and legal status for their minor children in the U.S. When the qualifying farmwork is completed, blue-card holders could get immigrant visas outside the global ceiling of 675,000 a year and country ceilings of 20,000 a year.

The House bill makes reducing illegal immigration and employment its top priority and does not deal with unauthorized foreigners in the U.S. or employer requests for new guest worker programs. Some House leaders have suggested that, as new enforcement measures make life more difficult for unauthorized foreigners, some will depart on their own, and the smaller number who remain could eventually be legalized.

The Senate bill involves a three-legged stool of enforcement, guest workers, and legalization—the comprehensive approach endorsed by President Bush. No one knows how its components might interact to affect workers and labor markets. For example, would legalization lead to a new industry creating work histories of at least two years or 150 days of farmwork, or would immigration adjudicators tap into administrative data to determine work done? Would workers without documentation leave the United States, or would they go further underground in the U.S. economy, complicating the enforcement of labor laws?

Conclusions

Is sending workers abroad a way to speed up development? Does opening front and side doors for migrants reduce backdoor illegal migration and generate win-win-win outcomes that speed up economic growth in migrant-sending and migrant-receiving countries?

Migrant and remittance numbers are rising faster than generally accepted answers to questions about how migration affects development. Sending workers abroad has been considered a means of reducing the number of surplus workers, and economic theory has suggested that the major contributions of migrants are in destination areas. New literature suggests that recruitment, remittances, and returns can accelerate development in migrant countries of origin. This reasoning suggests that developing countries should welcome the opportunity to send workers abroad to get more remittances and to benefit from the return of entrepreneurs or contributions from the diaspora.

The number of migrants has doubled in the past two decades, as have remittances to developing countries. Only time will tell if migration is a win-win-win proposition for migrants and receiving and sending countries. While there are clear benefits to migrants and the employers that hire them, the benefits to sending countries are less clear. It may be useful for states to be cautious of the theory that sending their best and brightest workers abroad will accelerate economic development at home, particularly when private market-led development has replaced state-induced development that protected infant industries.

Notes

[1] At purchasing power parity, which takes into account national differences in the cost of living, the world's gross national income was $56 trillion, including 55 percent in high-income countries.

[2] Some maintained homes in both North America and Taiwan but spent so much time commuting that they were called "astronauts" to reflect the time they spent on airplanes.

[3] Kofi Annan wrote that migrants take risks when crossing national borders "to overcome adversity and to live a better life" and that such migrant "aspirations have always been the motors of human progress" ("In Praise of Migration," *Wall Street Journal*, June 5, 2006).

[4] For additional detail on Indian IT and African health care migration, see Martin, Abella, and Kuptsch (2005), 70–74.

[5] According to one study cited by Teitelbaum (2003), bioscientists can expect to earn $1 million less in their lifetimes than M.B.A.s graduating from the same university and $2 million less if stock options are taken into account, suggesting one explanation for the very different composition of students in graduate and science M.B.A. programs.

[6] The wage differential narrowed because of declining wages in the Gulf oil-exporting countries, not because of rising wages in Bangladesh.

[7] Training times were typically short: Restaurants said that new workers needed eight days to master their jobs; hotels said 11 days.

[8] Migrants are selected to fill some jobs precisely because they are "here to work" and do not have "negative attitudes." This "dual frame of reference and less-entitled status" helps newcomers to find so-called 3-D jobs (dirty, dangerous, and difficult) acceptable. However, many migrant workers and most of their children educated in the receiving country eventually want and expect upward mobility, posing the danger that a large and growing group of migrants and descendants could produce "a future of ethnic conflict" (Waldinger and Lichter 2003, 229, 233).

[9] Even if there is no bilateral agreement or memorandum of understanding, there may be a social security agreement between labor-sending and labor-receiving countries. For example, China has social security agreements with Germany and Korea but no bilateral labor agreements.

[10] Thai employers had to pay 10,000 to 50,000 baht to hire one of the detained migrants, a fee many considered too high for workers earning 130 to 180 baht a day. Employers that pay the fee usually deduct it from migrant wages, giving the migrants an incentive to run away, since working illegally provides a higher wage.

[11] A third type of transfer over borders is migrants' transfers, which represent the personal wealth of migrants who cross borders. An example is when the owner of IBM stock moves from the U.S. to Singapore and the value of the stock transfers as well.

[12] Note that 23 countries report all three indicators: workers' remittances, compensation of employees, and migrants' transfers.

[13] The G–8 in April 2004 called on international financial institutions to improve remittance data, which led to the creation of the Technical Subgroup on Movement of Natural Persons, chaired by the United Nations Statistics Division. The subgroup recommended that "workers' remittances" in balance-of-payments data be replaced by "personal remittances," which would encompass cash and in-kind transfers received by resident households from nonresident households, including net compensation of persons abroad less than a year. Finally, the subgroup recommended that institutional remittances such as those from nongovernmental organizations be reported, so that total remittances would be the sum of personal and institutional flows (World Bank 2005, 87).

[14] The World Bank reports that some migrants in rich countries remitted more funds after September 11, 2001, so they would have funds at home if they were deported. Such "defensive remittances" help to explain the tripling of remittances to Pakistan between 2001 and 2003 (World Bank 2005, 92).

[15] Another factor increasing formal remittances is the spread of banks from migrant countries of origin to migrant destinations, where they offer services in the migrants' language as well as ancillary services to migrant relatives at home.

[16] Remittances include $8.5 billion from overseas Filipino workers and $3.1 billion from Filipinos settled abroad.

[17] Encouraging migrants to use banks is part of a larger antipoverty strategy of providing banking services to the "unbanked" and spreading the reach of microfinance institutions.

[18] *Global Economic Prospects 2006* asserts that Mexico's three-to-one program, begun in 1997, established projects worth $44 million by 2002 but concludes that "HTAs have not been very successful" in part because diasporas may not have good information on local needs or may have different priorities for infrastructure improvements (World Bank 2005).

[19] Quoted in Alan Beattie, "Seeking Consensus on the Benefits of Immigration," *Financial Times,* July 22, 2002, 9.

[20] Some governments are reluctant to welcome home refugees, viewing with suspicion those who fled a conflict for refuge abroad.

[21] The U.S. labor force rose an average 1.7 million a year over the 1994–2004 period, from 131 million to 148 million, and employment rose an average 1.6 million a year, from 123 million to 139 million. Hispanic employment rose 700,000 a year, from 11 million in 1994 to 18 million in 2004.

[22] South Korea made one of the world's fastest migration transitions, sending 200,000 workers abroad in the early 1980s and receiving over 300,000 migrants today. However, some Koreans still want to emigrate, and about 11,000 a year do so. Private firms such as the Emigration Development Corporation advertise emigration opportunities to Koreans and collect fees for helping Koreans navigate such requirements as the Canadian point system.

[23] Rural Mexico is dominated by *ejidos*, the communal farms that include 103 million hectares, or 56 percent of the arable land and 70 percent of the forests. To ensure that peasants had land, ejido land could not be sold, which limited productivity-increasing investments. The 29,162 ejidos became synonymous with rural poverty; however, in 1992, the Mexican constitution was amended to allow the sale or rental of ejido land.

[24] The estimate of unauthorized immigrants is from Passel (2006). The Congressional Budget Office in a May 24, 2006, letter to Sen. Jeff Sessions (R-AL), estimated an inflow of 900,000 unauthorized foreigners a year.

[25] Dan Balz, "Political Splits on Immigration Reflect Voters' Ambivalence," *Washington Post*, January 3, 2006.

[26] Mark Z. Barabak, "Guest-Worker Proposal Has Wide Support," *Los Angeles Times*, April 30, 2006.

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External and Internal Determinants of Development

Thomas Osang

As Rodrik, Subramanian, and Trebbi (2004) point out, factors that affect economic development can be classified using a two-tier approach. Based on a standard production function, inputs such as labor and physical and human capital directly affect per capita income. Much of the empirical cross-country growth literature has focused on these covariates. But the factors themselves are the product of deeper and more fundamental determinants and, thus, are at best proximate factors of economic development. The deeper determinants fall into two broad categories: internal and external. Among the former, institutions and geography have received the most attention, while international trade has been the focus of the latter.[1] The main purpose of this paper is to add an external factor, namely measures of migration, to the existing geography-institutions-trade setup and to evaluate its contribution to the observed differences in per capita income across countries.

Geography refers to the physical location of a nation and the various physical characteristics it is endowed with (for instance, distance from the equator, access to sea, agro-climatic zone, disease environment, soil type, and natural resources). A country's size, access to sea, and general topography can crucially affect transport costs and the extent of its integration with the world. Climate and soil affect the types of crops planted. Interestingly, geography may even contribute to the nature of a country's early institutions (Gallup, Sachs, and Mellinger 1998; Sachs 2003). Thus, geography is an obvious choice as an essential factor that shapes the course of a nation's development.

The role of institutions for development can be directly linked to the work of Douglass North (1993; 1994a, b, c). North's motivation was the inability of neoclassical theory to explain widespread differences in economic performance across countries. If only factor accumulation led to progress, all countries would advance, provided the payoffs are high enough. Since progress is absent in many countries, the payoffs must be different for different countries—and institutions may be the reason for the differences (North 1994a). Institutions define the rules of the game that determine the incentives people face and the choices they make. An alternative way of looking at institutions is through the transaction-cost approach. Well-defined rules and their smooth enforcement—for example, better institutional quality—greatly reduce transaction costs faced by economic agents and, thus, lead to more efficient economic outcomes (North 1993; 1994b). One of the first studies to carefully examine the impact of institutions on productivity levels across countries was Hall and Jones (1999). Unlike geography, however, there is a potential endogeneity problem with institutions that needs to be addressed in the empirical investigation.

International trade may affect economic development in several ways. In addition to gains from specialization in production based on comparative cost advantages, trade can make available new technologies and ideas, which, in turn, enhance total factor productivity. Moreover, operating in a larger market allows firms to take advantage of economies of scale and consumers to take advantage of a larger variety of goods. The empirical literature on the international trade-development nexus is extensive, but a few papers stand out. Sachs and Warner (1995) construct an openness index and find that greater openness leads to higher growth. Similarly, Frankel and Romer (1999) find that international trade plays an important role in explaining cross-country differences in economic performance. Since trade measures, too, are likely to be endogenous, the authors construct an instrument for trade using a gravity-type model that explains the volume of trade between countries through their joint economic size and the distance between them.

Migration can affect development in numerous ways, such as changes in the cost of labor, the loss or gain of human capital, knowledge spillovers, or workers' remittances. While empirical literature on the impact of remittances is fairly extensive,[2] fewer studies examine the role of emigration of skilled workers (brain drain) or the potential brain gain due to migration (Beine, Docquier, and Rapoport 2001).

This study indicates that both internal and external determinants matter for development. The internal measures—institutions and geography—exhibit the expected signs and are typically statistically significant, but they differ in their economic impact. Institutional measures appear to have large elasticity estimates, while geography measures are rather small. Among the external determinants, trade measures and the foreign-born population share (destination-country measure) exhibit the expected signs and are significant in most specifications. Interestingly, remittances (source-country measure) appear to contribute little to the observed variation in per capita income across countries unless the sample is restricted to the top half of all countries receiving remittances. In that case, remittances have a positive impact on economic development.

In the next section, we provide an overview of the literature on trade, migration, and development. In the sections that follow, we describe the empirical models used, discuss the data set, and present and interpret the empirical results.

Review of the Literature

In this section, we review the literature on the trade, migration, and development nexus. We begin with the welfare and labor market implications of migration as well as a brief discussion of political economy issues related to migration. We then investigate the special relationship between trade and migration in the context of their joint effect on economic development. Finally, we review a number of papers that examine the impact of both migration and trade within a regional context.

Migration and Development

Welfare Effects of Immigration. From an empirical standpoint, there is no agreement on the gains or losses from immigration at the aggregate (national) level for either destination or source country. Martin (2003) maintains that economic gain from the current level of immigration in the United States is small, and even doubling the number of entering migrants would not make a great deal of difference. Head and Ries (1998) suggest in passing that immigration lowers transaction costs and generates trade gains that would not have been realized otherwise. In a welfare analysis, Razin and Sadka (1997) determine that those left behind in the source country lose, landlords in the destination country gain, and wage earners in the destination country lose, though their loss is less than the gain of the landlords.

While the Razin and Sadka findings—like the majority of studies in the migration literature[3]—suggest a net gain in the destination country, an empirical study by Davis and Weinstein (2002) finds that U.S. natives collectively suffer a $72 billion loss per year due to migration, roughly equal to 0.8 percent of gross domestic product. Davis and Weinstein argue that immigration increases the output of the destination country while decreasing the output of the source country. The net effect in the U.S. is deterioration of trade as prices for U.S. goods go down while those of foreign goods go up. Furthermore, gains that accrue to the immigrants' source country may be greater than the loss sustained by the destination country.

Labor Market Effects of Migration. A key result of the Heckscher–Ohlin model is the Rybczynski theorem, which states that a difference in a country's endowment of labor will be reflected in its output of goods. Gandal, Hanson, and Slaughter (2000) cast some doubt on the empirical validity of the theorem in a case study of Israeli immigration. In the early 1990s, Israel experienced a massive influx of highly skilled Russian immigrants (relative to the Israeli population). Curiously, this did not significantly depress the wages of Israeli workers. The authors show that the mix of output in Israel did not change during this period to reflect the change in labor composition. The most skill-intensive industries were not always the fastest growing. Instead, a global wave of skill-biased technological change helped Israel adjust to such a shock in factor supply. In fact, the change in production technology was such that the effective supply of skilled labor in Israel decreased even as its raw supply increased. The technological advances could have come to Israel from the United States through bilateral trade, capital flows, and government activities.

Interestingly, in a related study using U.S. state-level data, Hanson and Slaughter (2002) find evidence in support of the Rybczynski effects.

Political Economy of Immigration. Rising differentials in global per capita income and advances in technology and transportation have contributed to an upsurge in international migration flows. Russell and Teitelbaum (1992) find this increase is most dramatic among illegal migrants. Futhermore, migration movements have become not only greater but also more volatile and unpredictable and are accompanied by significant remittance flows. They also play a role in the trade of many services previously considered "nontradable."

This trend raises concerns in wealthy countries, where the native populace is often resistant to immigration because of its potential to depress wages, displace native workers, or benefit from wealth redistribution tax schemes. Dolmas and Huffman (2004) model the behavior of a voting population when it decides on the level of immigration. A critical determinant is the native's initial wealth level. Those endowed with relatively more capital will allow maximum immigration because the influx of migrants raises the marginal product of capital. Natives endowed with relatively less capital have to rely comparatively more on labor for their income, and since immigration erodes the marginal product of labor, poorer natives' optimal decision is to allow zero migration. Interestingly, the natives' collective decision is associated with the population's level of wealth inequality: Greater inequality is likely to lead to a no-immigration policy, while inequality that approaches zero can bring a maximum-immigration policy. In the survey article by Razin and Sadka (1997), the potential loss suffered by the native population in a welfare state through wealth redistribution tax policies is given as a possible reason for native resistance to immigration. The Dolmas and Huffman model also addresses this scenario and shows that the tax rate approaches zero as the number of voting immigrants approaches 100 percent of the original population. However, the tax rate rises significantly once immigrants outnumber natives. Razin and Sadka also mention that the reallocation of investment from physical to human capital further erodes native welfare.

The Relationship Between Trade and Migration

Migration and Trade as Substitutes. If the fear is tenacious that immigration may result in losses for the host country, the Heckscher–Ohlin model suggests one approach for reducing the flow: The unimpeded movement of goods will lead to the equalization of factor prices, and that will remove an incentive for labor to move from one country to another. Horiba (2000) finds empirical evidence of the Heckscher–Ohlin theory. He shows that the convergence toward a more similar relative labor supply (which would equalize wages) is limited in magnitude, perhaps due to the costs associated with migration. Instead, the trade in goods, which can be considered trade in the factors that produced these goods, follows the same path as one would expect the factors to move according to Heckscher–Ohlin.

Migration and Trade as Complements. Razin and Sadka (1997) point out that trade and immigration are substitutes only under the somewhat restrictive conditions of the Heckscher–Ohlin framework, allowing for country differences in the relative factor endowments only. For countries that differ in other aspects—technology, for example—free trade cannot equalize factor prices and may even widen factor price differentials. Immigration will allow each country to further specialize in the goods in which it has a technological advantage, leading to complementarity between trade and migration.

Helliwell (1997) and Head and Ries (1998) both offer empirical evidence that trade and migration are complementary insofar as migration is capable of facilitating trade. Specifically, Head and Ries find that a 10 percent increase in immigration in Canada is associated with a 3 percent increase in imports and a 1 percent increase in exports to the immigrant's source country. They attribute this finding to two factors: Immigrants may have a preference for goods produced at home, and immigrants' knowledge about their home economies can lower the cost of foreign trade. However, the authors note that the tendency for immigration to increase imports more than exports creates a decrease in net exports, which can translate into currency depreciation and a loss of welfare for the destination country, though such a loss can be offset by social and economic gains that accrue from increased diversity.

Migration and Trade as Complements in the Short Run and Substitutes in the Long Run. Two recent papers, both theoretical in nature, conjecture that the relationship between trade and migration depends on the time horizon of the analysis.[4] Ludema and Wooton (1997) find that trade liberalization is initially agglomerative, creating a manufacturing core that attracts labor from the country of origin (an argument earlier posited by Krugman 1991), but as trade liberalization continues, the cost of trade becomes sufficiently low that a manufacturing core loses its advantages and some labor shifts back to the periphery. Ludema and Wooton emphasize the importance of timing revealed by this diversification–agglomeration–diversification pattern and suggest that countries in the midst of liberalizing trade ought to restrict labor mobility until agglomerative forces weaken.

Lopez and Schiff (1998) deconstruct migration patterns by skill composition in a small, labor-abundant developing economy after unilateral trade liberalization. Initial liberalization does not have much effect on the movement of skilled labor, but it does increase the number of unskilled workers leaving the country. The total labor force decreases, though the average skill level of the remaining population rises. Once trade has become substantially liberalized, the number of unskilled emigrants decreases and the total labor force stabilizes. This result is consistent with the pattern described above: a temporary spike in migration followed by a stabilization of migration flow.

Immigration and Trade: Regional Analysis

Taylor (1995) looks at the Asia–Pacific region and, in particular, the determinants of the region's relatively high economic growth rates. His empirical findings point to the high investment rate, primarily imported capital, as the biggest factor. Secondary causes include human capital accumulation and low population growth. Migration plays a very limited role, partly because the movement of people has become relatively restricted, unlike the massive immigrant flows that characterized the pre-World War I days. Taylor does suggest, however, that the movement of goods may have substituted, to some extent, for the movement of labor.

Examining the effects of immigration and trade on a host country's wage structure, Borjas et al. (1997) perform an empirical study on the U.S. labor pool and find that neither immigration nor trade can be counted as a sufficient explanation for the widening differential between unskilled and skilled wages. However, in the case of native workers with less than a high school education, immigration has a decidedly large effect on the relative wages, more so than trade. The magnitude of this impact can be attributed to the flow of less-educated immigrants into the country, which raised the relative supply of unskilled workers (those without a high school education) 15 to 20 percent between 1980 and 1995. The authors do concede, however, that isolating the effects of immigration on the native labor market is difficult, in part because immigration does not have large regional effects. The movement of native migrants tends to balance that of immigrants so that relative skill endowments stay the same. As a result, comparing regions especially receptive of immigrants to other regions does not provide meaningful results. In addition, other factors that influence the U.S. labor market are not adequately controlled, and a realistic counterfactual is difficult to establish.

Dunlevy and Hutchinson (1999) base their paper upon recent findings that immigrants have a pro-trade effect between source and host country (Head and Ries 1998). Data on U.S. trade and immigration between 1870 and 1910 provide empirical evidence for this pro-trade effect, particularly on finished foodstuffs and manufactures. For these two categories of goods, a 10 percent increase in migrant stock increased imports from the source country by 4 percent. The authors also find that the pro-trade effect diminished or was nonexistent for New European countries (eastern and southern Europe) as well as for the period between 1900 and 1910. They hypothesize that immigrants from New Europe were unable to form the kind of links or relationships that would facilitate trade. They also suggest that from 1900 to 1910, a significant shift in source countries occurred, which also weakened the pro-trade effect. In general, this study supports the Head and Ries paper, which focuses exclusively on U.S.–Canada trade.

Martin (2003) also focuses on post-NAFTA Mexico, though his paper is more descriptive than empirical. He argues that when the assumptions involved in Heckscher–Ohlin are relaxed, trade and migration are more likely to be complements. He calculates that migration to the United States will increase by 10 to 30 percent in the five to fifteen years following the North American Free Trade Agreement, creating what he terms a migration hump. He does predict, however, that migration will decrease soon after due to social and economic trends in Mexico.

Robertson (2005) takes an empirical approach to the Mexican labor market following NAFTA. He uses wage convergence as a measure of labor market integration and finds that the rate of wage convergence in post-NAFTA Mexico did not significantly increase. Integration was not uniform, as one would expect if trade were the main force behind wage convergence, nor was it higher in manufacturing industries that received large amounts of foreign direct investment. Instead, integration was highest in the two border cities—Tijuana and Ciudad Juárez—that experienced large immigrant flows. Robertson thus concludes that migration plays the most significant role in labor market integration. Liberalization in trade and capital flows alone is insufficient to induce wage equalization. This, of course, contradicts the Heckscher–Ohlin premise of factor price equalization following free trade.

Empirical Models

The starting point of our empirical investigation into the internal and external determinants of economic development is the following linear empirical model:

(1) $$Income_i = \theta_1 + \theta_2 Inst_i + \theta_3 Geog_i + \theta_4 Trade_i + \theta_5 Mig_i + \varepsilon_i$$

where $Income_i$ is income per capita in country i and $Inst_i$, $Geog_i$, $Trade_i$, and Mig_i are measures of country i's institutions, geography, international trade volume or policy, and migration, respectively. As mentioned before, institutions and geography represent the internal determinants of development, while trade and migration are the external measures. Simple least square (OLS) estimates of equation (1) will serve as the benchmark for subsequent specifications.

Our second empirical specification addresses the issue of endogeneity of regressors. Institution, trade, and migration measures are likely to be endogenous due to measurement error, survey bias, and/or reverse causality.[5] Consequently, appropriate instruments are needed for all measures. Of the various external instruments found in the literature, two stand out due to their widespread use: *settler mortality* as an instrument for institutions (Acemoglu, Johnson, and Robinson 2001),[6] and *predicted trade shares* as an instrument for a country's actual trade share (Frankel and Romer 1999) (*Table 1*). Since the exogeneity of the geography measure is indisputable (and assuming for now that migration is exogenous), our second specification is the two-stage least square (2SLS) estimator version of equation (1), with the following first-stage regressions for the two endogenous regressors (institutions and trade):

(2a) $$Inst_i = \alpha_1 + \alpha_2 SM_i + \alpha_3 PTrade_i + \alpha_4 Geog_i + \theta_5 Mig_i + \eta_i$$

(2b) $$Trade_i = \beta_1 + \beta_2 SM_i + \beta_3 PTrade_i + \beta_4 Geog_i + \beta_5 Mig_i + \nu_i$$

where SM_i measures settler mortality and $PTrade_i$ is the predicted trade share in country i.

One problem with specifications (2a) and (2b) is that the two instruments used are highly correlated. As a result, they may not be able to identify the impact of the endogenous regressors they are instrumenting for (Dollar and Kraay 2003). As an alternative to the external instruments, our third specification uses internal instruments instead (Lewbel 1997). In particular, we use second- and third-order-central moments of the endogenous variables as instruments.[7] In this specification, we not only account for the potential endogeneity of the trade and institution measures but of the migration measures as well.

Finally, a shortcoming of all the above models is that they assume that all covariates have the same impact for all countries. In other words, the model ignores unobserved time-invariant heterogeneity across countries. Using a panel-data approach enables us to exploit the time dimension of the data to account

Table 1
Variable Definitions and Data Sources

Institutions	
Name	**Definition and source(s)**
CIM (contract intensive money)	Defined as the ratio of noncurrency (M1 minus currency) to total money (M2). Compiled by R. M. Bittick, California State University, Dominguez Hills, based on data from the International Monetary Fund (1998).
Rule of law	Measures the quality of contract enforcement, police and courts, as well as the likelihood of crime and violence, average for 1996, 1998, and 2000. From Kaufmann et al. (2003)
Trade	
Name	**Definition and source(s)**
Trade share	Imports plus exports relative to GDP. From PWT Mark 6.1 (Heston et al. 2002).
Import tariffs	Import duties as a percentage of total imports. From World Bank (2003), author's calculations.
Geography	
Name	**Definition and source(s)**
Distance equator (relative distance from the equator)	Calculated as distance from the equator, divided by 90. From Gallup et al. (1998) and Hall and Jones (1999).
Migration	
Name	**Definition and source(s)**
Remittances share	Ratio of remittances to GNP. From World Bank (2000).
Foreign population share	Ratio of foreign born to total population. From United Nations (1994).
Instrumental variables (external) for 2SLS regressions	
Name	**Definition and source(s)**
Settler mortality	Mortality rate of European colonialists in the 1500s. From Acemoglu et al. (2001).
Predicted trade share	Obtained from bilateral gravity-type equations and controlling for geography. From Frankel and Romer (1999).

for this unobserved country-specific heterogeneity. The following panel model is estimated:

$$(3) \qquad Income_{it} = \gamma_1 + \mu_i \lambda_t + \gamma_2 Inst_{it} + \gamma_3 Geog_{it} + \gamma_4 Trade_{it} + \gamma_5 Mig_{it} + \delta_{it}$$

where μ_i and λ_t are country- and time-specific fixed effects, respectively. A panel-data specification such as (3), however, is problematic if some of the right-hand-side variables are time invariant. Thus, when using mean- or first-differencing to remove the unobserved time-invariant country-specific effects—the standard procedure in fixed effect (FE) estimation—all time-invariant covariates such as most geography measures are removed from the estimation equation as well. However, the "lost" parameter estimates can be recovered through an auxiliary regression of the estimated fixed effects on the time-invariant covariates. As an alternative to the above FE model, we also estimate a random effects (RE) model. Hausman specification tests guide us in the model-selection procedure.

Data

In general, the data set covers the four decades from 1961 to 2000, though fewer time periods may be available for certain variables. For the cross-section estimates, all time-varying variables are averaged, except for the dependent variable that is measured in 2000. The number of countries varies among the different specifications of the baseline regression model, ranging from $N = 65$ to $N = 125$.

For the panel-data estimates, the time-varying variables are averaged over 10 years to smooth out temporary shocks and business cycle fluctuations common across countries. As a result, the time dimension of the panel-data regressions includes four years of observations. The number of countries in the panel regressions is $N = 68$.

Dependent Variable. Our measure of economic development (the dependent variable in all regressions) is the log of per capita GDP in 2000, expressed in purchasing power parity-adjusted dollars (Heston, Summers, and Aten 2002).

Explanatory Variables. Our main measure of institution is contract intensive money (CIM), which was proposed by Clague et al. (1999). It is defined as the ratio of noncurrency money to total money. The basic argument for such a measure stems from the fact that in societies where the rules of the game and property and contract rights are well defined, even transactions that heavily rely on outside enforcement can be advantageous. Currency in this setting is used only in small transactions. Agents are increasingly able to invest their money in financial intermediaries and exploit several economic gains. Clague et al. discuss the various gains from increased use of CIM and augment their use of CIM with case studies. They also show that CIM is a measure of contracting environment and not of financial development, as one might suspect. This measure is thus in line with the definition of institutions as noted above. Moreover, CIM is a rather objective measure without the many biases and measurement errors that are typical of the survey-based measures of institutions.

While CIM is our preferred measure of institutions, we also use the *rule of law* (Kaufmann, Kraay, and Mastruzzi 2003) as an alternative measure. This variable captures the extent to which agents abide by the rules of society.

To control for the effect of geographic location and climate, we use a country's distance from the equator (*distance equator*).

We measure the extent of a country's openness to international commerce in two ways: by its *trade share*, as defined by the ratio of exports and imports to GDP, and by the average import tariff, constructed as the ratio of import duties to imports (*tariff rate*).

A country's exposure to international migration is also captured in two ways. First, we use the share of remittances in gross national product (*remittances share*) as an indicator of the potential benefits from emigration for the source country. Second, we employ the ratio of foreign born to total population (*foreign-born share*). The foreign-born share can be interpreted as measure of the potentially beneficial impact of immigration for the destination country, either as a proxy for the size of the immigration surplus or the positive externalities associated with immigration. A third migration measure, the ratio of emigrants to total native population, can be interpreted as an indicator of the negative brain-drain effect of emigration for the source country. However, reliable emigration data are either difficult to obtain or not available. For this reason, we do not consider the measure in this study.[8]

Empirical Results

Cross-Section Estimates

To contrast our empirical results with the literature, we first estimate the cross-section specification used by Rodrik, Subramanian, and Trebbi (2004); see Table 2A, col. 1. The measure of economic development is the log of *per capita GDP*, expressed in international prices.[9] Openness to international trade is measured as the average *trade share* from 1961 to 2000. *Rule of law* is used to measure the quality of public institutions, while the measure of geography is distance from the equator, *distance equator*. While the magnitude of the coefficient estimates in col. 1 are not exactly identical to the ones reported in Rodrik, Subramanian, and Trebbi, all signs are the same and both geography and institutions are statistically significant (at the 1 percent level), while trade share is not statistically significant.

Table 2A
Cross-Section Regressions I: Remittances, Rule of Law, and Trade Share

(Dependent variable natural log GDP per capita in 2000, in purchasing power parity dollars)

Model	(1) OLS	(2) OLS	(3) 2SLS IV Set A	(4) 2SLS IV Set B
Rule of law	.812	1.024	2.849	2.735
	(11.7)**	(7.14)**	(3.32)**	(3.43)**
Trade share	.0277	.0475	−.434	−.300
	(.33)	(.43)	(−1.00)	(−.74)
Distance equator	1.348	.736	−1.940	−1.342
	(4.05)**	(1.68)†	(−.93)	(−.69)
Remittances share		−.0226	−.131	−.190
		(−.96)	(−1.51)	(−1.93)†
Observations	131	80	42	42
R-squared	.70	.48	−.55	−.41
DWH test: OLS (null) vs. 2SLS (P-value)			[.0008]	[.0023]

NOTES: t statistics in parentheses, ** $p<0.01$, * $p<0.05$, † $p<0.1$; P-values in square brackets; IV Set A: Settler mortality for *rule of law*; predicted trade share for *trade share*; IV Set B: Same as Set A plus higher-centered moments of *remittances share*.

SOURCE: Author's calculations.

Adding remittances as a covariate (col. 2) does not lead to substantive changes in the results. This is not surprising given that the (negative) coefficient on remittances is insignificant by itself. However, the potential endogeneity of institutions, trade, and remittances has not been taken into consideration so far and, thus, all results may be biased. In column 3, we use the 2SLS estimator with settler mortality and predicted trade share as instruments while continuing to assume that the remittances share is exogenous. As in Rodrik, Subramanian, and Trebbi, using instruments for institutions and trade makes the geography measure insignificant without changing the lack of significance of the trade measure and the remittances share. When we use instrumental variables to account for the potential endogeneity of the remittances share (col. 4), both institutions and remittances are significant at 1 percent and 5 percent, respectively, while geography and trade measures remain insignificant. Given the negative sign on the remittances share, remittances appear to have a negative impact on a country's macroeconomic performance. At this point, our results appear to support Rodrik et al.'s conclusion that "institutions rule," with the added twist of the negative impact of remittances. Note that the Durbin–Wu–Hausman (DWH) test easily rejects the simple OLS models (col. 2) in favor of the two 2SLS estimators (cols. 3 and 4).

Next, we reestimate Table 2A with different and, we believe, better measures of institution and trade. Instead of *rule of law*, we use *CIM* for institutions, while *trade share* is replaced with a trade policy measure, the average *import tariff*. In addition, we use internal instruments for trade and institutions rather than the external instrumental variables in Table 2A. The results are shown in Table 2B. The immediate consequence of the substitutions is a reduction in the sample size for the OLS estimates (cols. 5 and 6), while the 2SLS sample sizes are slightly larger (cols. 7 and 8). In terms of the estimates, the main differences pertain to the impact of geography and trade. In every specification of Table 2B, trade and geography measures have the expected signs and are significant at least at the 10 percent level. The remittances share, however, is negative and insignificant throughout. Note that at the 10 percent level, the DWH test indicates that OLS (col. 6) is preferred over the 2SLS estimates.

So far, the skewed nature of the remittances variable has not been taken into consideration. As Table 3 reveals, more than half the countries listed have remittance shares that are less than 1 percent of GNP. To account for this, we construct two remittance dummies, one for countries with shares between 1 percent and 10 percent (*medium remittances share*), and one for countries with shares larger

Table 2B
Cross-Section Regressions II: Remittances, CIM, and Tariff Rate

(Dependent variable natural log GDP per capita in 2000, in purchasing power parity dollars)

Model	(5) OLS	(6) OLS	(7) 2SLS IV Set A	(8) 2SLS IV Set B
CIM	2.529	2.438	2.029	2.201
	(6.73)**	(5.03)**	(3.58)**	(3.80)**
Tariff rate	−.152	−.345	−.453	−.405
	(−2.56)*	(−1.73)†	(−2.23)*	(−1.94)†
Distance equator	2.602	1.473	1.560	1.671
	(5.45)**	(2.02)*	(2.23)*	(2.37)*
Remittances share		−.0263	−.0160	−.0616
		(−.57)	(−.36)	(−1.12)
Observations	86	47	47	47
R-squared	.73	.53	.52	.51
DWH test: OLS (null) vs. 2SLS (P-value)			[.3173]	[.1492]

NOTES: t statistics in parentheses, ** p<0.01, * p<0.05, † p<0.1; P-values in square brackets; IV Set A: Higher-centered moments of *CIM* and *tariff rate*; IV Set B: Higher-centered moments of *CIM, tariff rate*, and *remittances share.*

SOURCE: Author's calculations.

than 10 percent (*high remittances share*). The results are shown in Table 2C.

Once again, we compare simple OLS (col. 9) with 2SLS (col. 10), in which we use high-order-central moments of *CIM* and *tariff rate* as instruments. The results indicate that discretization of the remittances variable does not change the outcome. The medium- and high-share dummies aren't significant, and both are negative.

In our final cross-section model, we drop from our sample all countries with a remittances share of less than 1 percent of GDP since remittances are likely to play no role in these countries. The results are given in Table 2D. In addition to the OLS estimates, we report 2SLS estimates using internal instruments for institutions and trade (col. 13) and institutions, trade, and remittances (col. 14). We also use the trade share instead of the trade policy measure. Despite the reduction in power (N = 24 in cols. 12–14), the coefficient estimates for institutions, geography, and trade are statistically significant (except for trade in col. 11) and have the expected sign, while the coefficient estimate on the remittances share is now positive throughout and even statistically significant at the 10 percent level in two specifications (cols. 12 and 13). The insignificance of the coefficient estimate on

Table 2C
Cross-Section Regressions III: Remittances Group

(Dependent variable natural log GDP per capita in 2000, in purchasing power parity dollars)

Model	(9) OLS	(10) 2SLS IV Set A
CIM	2.102	1.773
	(4.86)**	(3.48)**
Tariff rate	−.306	−.391
	(−1.58)	(−2.01)*
Distance equator	2.417	2.503
	(3.42)**	(3.67)**
Medium remittances share	−.238	−.228
	(−1.25)	(−1.25)
High remittances share	−.0920	−.0830
	(−.18)	(−.17)
Observations	64	64
R-squared	.50	.49
DWH test: OLS (null) vs. 2SLS (P-value)		[.3606]

NOTES: t statistics in parentheses, ** p<0.01, * p<0.05, † p<0.1; P-values in square brackets; IV Set A: Higher-centered moments of *CIM* and *tariff rate.*
SOURCE: Author's calculations.

Table 2D
Cross-Section Regressions IV: High Remittances Sample

(Dependent variable natural log GDP per capita in 2000, in purchasing power parity dollars)

Model	(11) OLS	(12) OLS	(13) 2SLS IV Set A	(14) 2SLS IV Set B
CIM	3.85	2.16	2.351**	2.296**
	(7.42)**	(3.89)**	(4.60)	(4.56)
Trade share	.0003	.356	.362*	.361*
	(.00)	(2.08)*	(2.05)	(2.05)
Distance equator	3.25	3.21	3.183**	3.223**
	(6.86)**	(4.26)**	(4.58)	(4.63)
Remittances share		.17	.166	.143
		(1.72)†	(1.86)†	(1.48)
Observations	48	25	25	25
R-squared	.83	.68	.73	.73
DWH test: OLS (null) vs. 2SLS (P-value)		[.2279]	[.4877]	

NOTES: Sample is restricted to countries in which remittances share of GDP exceeds 1 percent; t statistics in parentheses, $^{**}p<0.01$, $^{*}p<0.05$, $^{\dagger}p<0.1$; P-values in square brackets; IV Set A: Higher-centered moments of *CIM* and *trade share*; IV Set B: Higher-centered moments of *CIM, trade share*, and *remittances share.*
SOURCE: Author's calculations.

remittances in the last specification (col. 14) is mitigated by the fact that the DWH test cannot reject the OLS null hypothesis (col. 12). Thus, it appears that for the group of countries with substantial unilateral foreign transfers, remittances appear to matter for a source country's economic development, in addition to the effects of trade, institutions, and geography.

Panel Estimations

We use the panel-data approach to investigate the impact of the share of the foreign-born population on economic development. As previously discussed, the foreign-born share measures the impact of migration on destination countries, compared with the remittances share, which affects only source countries. Furthermore, while the remittances share is important for developing countries only, nontrivial foreign-born population shares can be found in both developing and developed countries (see Table 4 for a ranking of countries by the foreign-born share).[10] Our estimation results are given in Table 5. Column 1 contains the random-effects specification since the Breusch-Pagan (BP) test reveals that RE is strongly preferred over pooled OLS (the null hypothesis). While institutions,

(*Continued on page 53*)

Table 3
Ranking of Countries by Remittances-to-GNP Ratio

Rank	Country	Mean 1970–98	Rank	Country	Mean 1970–98
1	Lebanon	.312		Honduras	.011
2	Yemen, Rep.	.263	42	Nigeria	.010
3	Samoa	.245	43	Guatemala	.009
4	Eritrea	.196	44	Barbados	.008
5	Tonga	.172		Mexico	.008
6	Jordan	.170	46	Seychelles	.006
7	Cape Verde	.169		Philippines	.006
8	Albania	.131		Colombia	.006
9	Egypt, Arab Rep.	.075		Mauritania	.006
10	Dominica	.072	50	Armenia	.005
11	Morocco	.067		Oman	.005
12	St. Kitts and Nevis	.065	52	Cameroon	.004
13	Burkina Faso	.064		Niger	.004
14	El Salvador	.057		Ecuador	.004
15	Jamaica	.051		Cambodia	.004
16	Haiti	.048	56	Peru	.003
17	Pakistan	.046		Djibouti	.003
18	Benin	.045		Mongolia	.003
	Sri Lanka	.045		Guinea-Bissau	.003
	Belize	.045	60	Costa Rica	.002
21	Vanuatu	.044		Panama	.002
22	Comoros	.042		Indonesia	.002
23	Tunisia	.041		Guinea	.002
24	Dominican Republic	.039		Trinidad and Tobago	.002
	St. Vincent and the Grenadines	.039		Poland	.002
26	Mali	.038	66	Madagascar	.001
27	Grenada	.035		Sao Tome and Principe	.001
28	St. Lucia	.031		Belarus	.001
29	Sudan	.027		Ghana	.001
30	Croatia	.025		China	.001
31	Turkey	.023		Korea, Rep.	.001
32	Macedonia, FYR	.021		Rwanda	.001
33	Senegal	.020		Moldova	.001
34	Bangladesh	.019		Brazil	.001
35	Somalia	.017		Paraguay	.001
	Nicaragua	.017		Guyana	.001
	Nepal	.017		Kyrgyz Republic	.001
38	Algeria	.014		Bolivia	.001
39	Togo	.013		Congo, Dem. Rep.	.001
40	India	.011			

NOTE: Countries with no remittances were omitted.

SOURCE: World Bank (2000); author's calculations.

Table 4
Ranking of Countries by Share of Foreign-Born Population

Rank	Country	1965	1975	1985	1990	Mean 1965–90
1	United Arab Emirates	.842	.675	.663	.900	.770
2	Kuwait	.529	.524	.594	.715	.590
3	Qatar	.515	.588	.586	.633	.580
4	Macau	.674	.601	.536	.446	.564
5	Hong Kong	.466	.430	.405	.400	.425
6	Israel	.560	.416	.339	.309	.406
7	Jordan	.362	.261	.261	.265	.287
8	Bahrain	.202	.213	.329	.351	.274
9	Luxembourg	.158	.192	.270	.316	.234
10	Oman	.080	.158	.319	.335	.223
11	Singapore	.282	.235	.186	.155	.215
12	Australia	.179	.195	.219	.234	.206
13	Cote D'Ivoire	.024	.218	.261	.292	.199
14	Saudi Arabia	.065	.115	.285	.257	.181
15	New Zealand	.146	.158	.151	.155	.152
16	Switzerland	.129	.162	.140	.160	.148
17	Canada	.017	.152	.151	.155	.118
18	Taiwan	.171	.114	.085	.079	.112
19	Gambia	.118	.100	.094	.112	.106
20	France	.090	.105	.108	.104	.102
	Libya	.043	.098	.143	.123	.102
22	Lebanon	.080	.076	.104	.122	.096
23	Belgium	.055	.078	.090	.090	.078
24	Argentina	.110	.083	.060	.052	.076
25	Malawi	.075	.056	.040	.121	.073
26	Sweden	.050	.069	.078	.089	.071
	Pakistan	.106	.054	.065	.061	.071
28	Zimbabwe	.050	.060	.078	.079	.067
29	Somalia	.004	.096	.093	.072	.066
30	Ireland	.032	.053	.080	.093	.064
	Puerto Rico	.023	.043	.099	.092	.064
	Iran	.091	.044	.059	.062	.064
	Syria	.061	.060	.068	.066	.064
34	United States	.050	.054	.070	.079	.063
35	Malaysia	.088	.072	.047	.042	.062
	Gabon	.040	.040	.078	.088	.062
37	Zambia	.092	.063	.045	.041	.060
38	Togo	.087	.062	.047	.041	.059
39	Venezuela	.063	.057	.061	.053	.058
	Costa Rica	.023	.014	.043	.153	.058
41	United Kingdom	.045	.056	.062	.065	.057
42	Burundi	.048	.038	.070	.061	.055
	Uganda	.109	.077	.013	.019	.055
44	Congo	.044	.047	.052	.059	.050
	Poland	.070	.053	.040	.036	.050

(*Continued on page 52*)

Table 4 (continued)
Ranking of Countries by Share of Foreign-Born Population

Rank	Country	1965	1975	1985	1990	Mean 1965–90
46	Netherlands	.029	.025	.054	.078	.047
47	Zaire	.052	.062	.031	.028	.043
48	Nigeria	.002	.161	.003	.003	.042
	Liberia	.031	.039	.046	.050	.042
50	Paraguay	.028	.037	.048	.043	.039
51	Sierra Leone	.024	.032	.044	.050	.037
	South Africa	.048	.038	.029	.030	.037
53	Austria	.017	.028	.036	.059	.035
54	Tanzania	.041	.040	.025	.023	.032
	Norway	.020	.027	.037	.044	.032
	Senegal	.047	.037	.017	.025	.032
57	Denmark	.021	.026	.035	.041	.031
58	Sudan	.019	.019	.049	.033	.030
59	Honduras	.022	.014	.020	.056	.028
	Cameroon	.034	.029	.024	.024	.028
61	Ghana	.058	.029	.014	.009	.027
62	Burkina Faso	.008	.017	.034	.047	.026
63	Nepal	.033	.023	.017	.021	.024
64	Turkey	.029	.022	.019	.020	.023
65	Italy	.016	.018	.023	.027	.021
	Greece	.008	.013	.030	.032	.021
67	Iraq	.003	.009	.033	.028	.018
	Mali	.023	.024	.014	.012	.018
69	Guatemala	.011	.006	.014	.029	.015
	Portugal	.007	.017	.021	.014	.015
71	India	.019	.015	.012	.010	.014
72	Algeria	.016	.014	.009	.015	.013
	Yugoslavia	.008	.010	.017	.017	.013
	Korea	.005	.008	.017	.021	.013
75	Spain	.009	.009	.010	.018	.011
	Kenya	.017	.012	.008	.007	.011
	Romania	.018	.011	.007	.006	.011
78	Chile	.012	.011	.007	.008	.009
	Niger	.004	.003	.015	.015	.009
	Brazil	.009	.011	.009	.008	.009
	Thailand	.014	.010	.007	.006	.009
	Bangladesh	.009	.010	.008	.007	.009
83	Japan	.006	.006	.006	.007	.006
	Mexico	.005	.004	.006	.008	.006
85	Ethiopia	.001	.002	.003	.016	.005
	Czechoslovakia	.004	.004	.005	.006	.005
	Egypt	.007	.005	.004	.003	.005
88	Colombia	.004	.004	.003	.003	.004
89	Myanmar	.002	.001	.002	.002	.002

NOTE: List shows countries reporting these data to the U.N.

SOURCE: United Nations (1994).

Table 5
Panel Regressions: Share of Foreign-Born Population

(Dependent variable natural log GDP per capita in 2000, in purchasing power parity dollars)

Estimation method	(1) RE	(2) FE	(3) RE-IV Set A	(4) RE-IV Set B
CIM	1.377	.982	.755	.814
	(6.43)**	(4.50)**	(2.17)*	(2.36)*
Tariff rate	−.0706	−.0684	−.0653	−.0624
	(−3.60)**	(−3.52)**	(−2.85)**	(−2.73)**
Distance equator	3.127		3.419	3.404
	(7.40)**		(7.62)**	(7.61)**
Foreign-born share	.100	.0257	.111	.117
	(2.09)*	(.48)	(2.23)*	(1.87)†
Observations	175	175	175	175
Number of countries	68	68	68	68
R-squared		.33		
BP test: pooled (null) vs. RE (*P*-value)	[.0000]			
Hausman test: RE (null) vs. FE (*P*-value)		[.0000]		
Hausman test: RE (null) vs. IV RE (*P*-value)			[.1613]	[.1783]

NOTES: *z* statistics in parentheses, ***p*<0.01, **p*<0.05, †*p*<0.1; *P*-values in square brackets; RE-IV Set A: Higher-centered moments of *CIM* and *tariff rate*; RE-IV Set B: Higher-centered moments of *CIM*, *tariff rate*, and *foreign-born share*.
SOURCE: Author's calculations.

trade, and geography coefficients are significant and have the expected sign, the most important finding pertains to the foreign-born share, which is positive and significant.

Interestingly, the RE result on the foreign-born share is not robust when we estimate an FE model instead of the RE model (col. 2). While institutions and trade continue to be significant (and have the expected signs), the foreign-born coefficient estimate is now much smaller in size and insignificant.[11] However, given the small time-series dimension ($T = 4$), the FE model suffers from overfitting and the corresponding decline in degrees of freedom.[12] In the next two columns, we thus revert to the FE specification but use different sets of instruments to account for the potential endogeneity of the institutions, trade, and foreign-born share. Initially (col. 3), we use internal instruments only for the institution and trade variables, while in the final specification (col. 4), we add internal instruments for the foreign-born share. The random effects/instrumental variables (RE-IV) estimates confirm the finding from the simple RE model (col. 1), namely that the foreign-born share has a positive impact on macroeconomic performance. Overall, the differences in the estimated coefficients between the RE and RE-IV models are small, with a small preference for the RE model (according to the Hausman test, we cannot reject the RE model at the 10 percent level).

Conclusions

To our knowledge, this paper represents the first attempt to integrate measures of migration into a framework that analyzes the economic impact of the so-called deep determinants of development: institution, geography, and international trade. Using both cross-section and panel-data estimation methods, we find that both measures of migration used in this study—remittances as a share of GNP (top half of receiving countries) and foreign-born relative to the total population—have a positive impact on economic development even after controlling for institutions, geography, and trade. The findings go beyond establishing correlations. Using instrumental variable methods to counter the estimation bias of the three potentially endogenous covariates (institutions, trade, and migration), the findings provide evidence for a causal link between external measures (migration and trade) and per capita income.

In terms of their economic impact, institutions appear to matter the most. This is especially true if we measure the quality of institutions by the extent of contract-intensive money in the economy, which has a high elasticity with respect to per capita income. Openness to trade (when measured as the average import tariff) and migration (when measured as the foreign-born share) exhibit point elasticities that are more than ten times smaller than the one for institutions. The (positive) economic impact of geography appears to be rather small.

This study can be extended in several directions. First, better measures of migration for both source and destination countries are desirable. As mentioned before, the migration measures used here cannot account for the negative brain drain or the potentially positive brain gain of migration in countries with liberal emigration rules. Similarly, the destination-country measure (foreign-born share) cannot differentiate between the positive and negative externalities associated with immigration. In addition to the "average" effect captured in this study, identifying the size of both positive and negative migration effects for the destination country would be desirable from a policymaking perspective. Second, methodologies could be improved. In addition to the extremes of random- and fixed-effects estimations, a middle-ground panel-data estimator such as Hausman–Taylor (1981) could prove to be a superior specification and, thus, may produce less-biased estimates.

Notes

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[1] See Easterly and Levine (2003) for a detailed overview of deep-determinant literature.

[2] See Gosh (2006) for a survey of the literature on remittances and development.

[3] See, for example, the study by the National Research Council (Smith and Edmonston 1997) for an assessment of the overall impact of immigration on the U.S. economy.

[4] Martin (2003) points to a similar conclusion, though his work is narrower in scope, focusing exclusively on Mexico following NAFTA.

[5] See Frankel and Romer (1999) for a more detailed discussion of this issue.

[6] Acemoglu, Johnson, and Robinson (2001) argue that settler mortality is a suitable instrument for institutions since it is not correlated with current income other than through current institutions. Settler mortality determined the colonization strategies, which, in turn, shaped past institutions and subsequently formed current institutions.

[7] The second central moment about the mean is commonly known at the variance of a random variable, while the third central moment is related to the skewness of a random variable; that is, the degree to which the *mass* of the distribution is concentrated on the left or right side of probability distribution.

[8] Furthermore, emigration ratio measures are unable to distinguish between the negative brain-drain and positive brain-gain effect, with the latter a result of increased human capital accumulation in emigrant countries (Stark, Helmenstein, and Prskawetz 1998).

[9] Note that in this study, income is measured in 2000, compared with 1995 in Rodrik, Subramanian, and Trebbi (2004).

[10] Note that while the paper discusses *migration flows* throughout, here we use *migration stocks* as the explanatory variable due to the nonavailability of data on migration flows for all but a small number of countries and time periods.

[11] As a time-invariant measure, distance from the equator is dropped from the equation in any FE specification.

[12] Note that the Hausman test rejects the RE null in favor of the FE model specification.

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Globalization and Mexican Labor Markets

Raymond Robertson

More than nearly any other phenomenon, globalization has had a profound effect on the Mexican economy. Mexican labor markets have been particularly affected. Globalization integrates labor markets through trade, capital flows, and migration. Recent studies that mainly focus on Mexico's manufacturing sector suggest that North American economic integration (particularly Mexico's integration with the United States since the North American Free Trade Agreement) has had potentially positive implications for Mexican workers. Rising trade has coincided with rising Mexican wages (relative to U.S. wages) and falling wage inequality within Mexico.

In terms of North American integration, the perceived competition between Mexican and U.S. workers may not be as accurate as popularly believed. Recent research suggests that Mexican and U.S. workers are complements rather than substitutes. Growing economic integration suggests that North America could and probably should be thought of as a unified market in terms of production.

As is increasingly understood, however, the net gains from integration may overshadow important losses for many workers. These losses explain persistent popular opposition to NAFTA and economic integration. The gains have been slow to arrive in many of Mexico's rural areas, affecting political support for candidates (López Córdoba 2006). Rising U.S. border enforcement also may hide NAFTA's benefits because the wages of Mexican workers decline when enforcement increases. Further, while integration may bring technology, increased demand, and trade, it also increases Mexican susceptibility to U.S. economic fluctuations. Mexican manufacturing employment closely followed the drop in U.S. manufacturing employment during the 2001 U.S. recession.

Three main policy recommendations emerge from these studies. First, Mexico would continue to benefit, on net, from increased economic integration. Second, to the extent possible, Mexico should work to reduce migration restrictions into the United States. Third, the Mexican government should continue to direct adjustment assistance to rural and less economically active areas. Recent research has shown that workers in these areas are especially susceptible to shocks and that workers in more economically dynamic regions suffer much less from adjustment and job loss.

North American Economic Integration

Despite their differences in development status, the U.S. and Mexican economies are closely integrated. Robertson, Kumar, and Dutkowsky (2006) analyze matched product-level prices and find strong cointegrating relationships in these narrowly defined goods markets. Factor markets are also closely integrated. Robertson (2000) demonstrated that Mexican and U.S. labor markets are closely integrated because wage shocks in the United States affect Mexican wages. Consistent with economic integration, these effects are strongest along Mexico's border region.

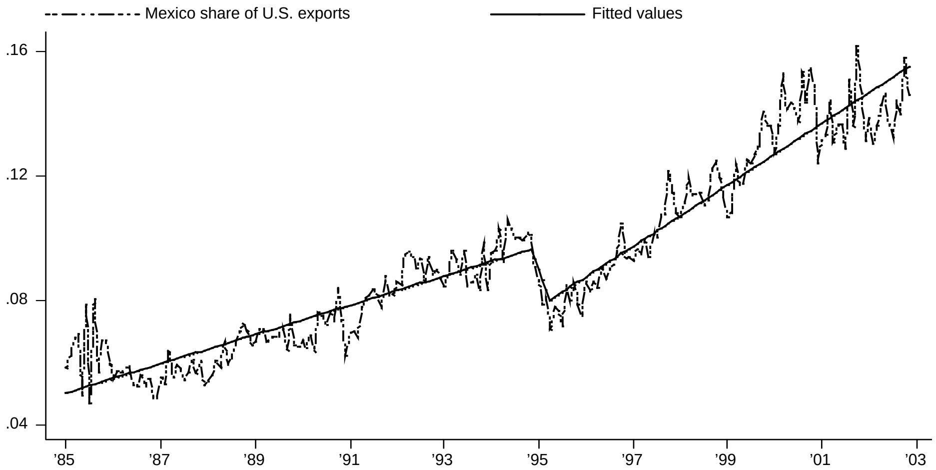
One goal of NAFTA was to deepen existing integration by fostering trade and capital flows. How successful it has been at these goals has been the subject of much debate. NAFTA studies are complicated by the December 1994 peso crisis. Nevertheless, there seems to be a distinct change in both the level and trend of imports, exports, and capital flows after NAFTA went into force on January 1, 1994.

Figures 1A and 1B are from Robertson (2005a). Figure 1A shows that Mexico's share of U.S. goods exports (the fraction of all U.S. goods exports that go to Mexico) rises relatively steadily until the peso crisis. The sharp devaluation of the peso increased the Mexican price of U.S. exports, and, as a result, U.S. goods exports to Mexico fell sharply. The fall did not last long, however. During the recovery, the U.S. share of Mexican exports resumed its rise. The estimated rate of growth, however, was statistically higher in the post-NAFTA period than before NAFTA.

Figure 1B presents the results for Mexico's share of U.S. imports (the fraction of all U.S. imports that come from Mexico). Like exports in Figure 1A, the Mexican share of U.S. imports rises prior to NAFTA. The peso crisis significantly affected this trend. The December 1994 crisis made Mexican exports cheaper for U.S. consumers, and imports rose. During the recovery period, however, there was a clear increase in the level of Mexico's share of U.S. imports. Furthermore, the rate of increase of this share was higher after NAFTA than before NAFTA.

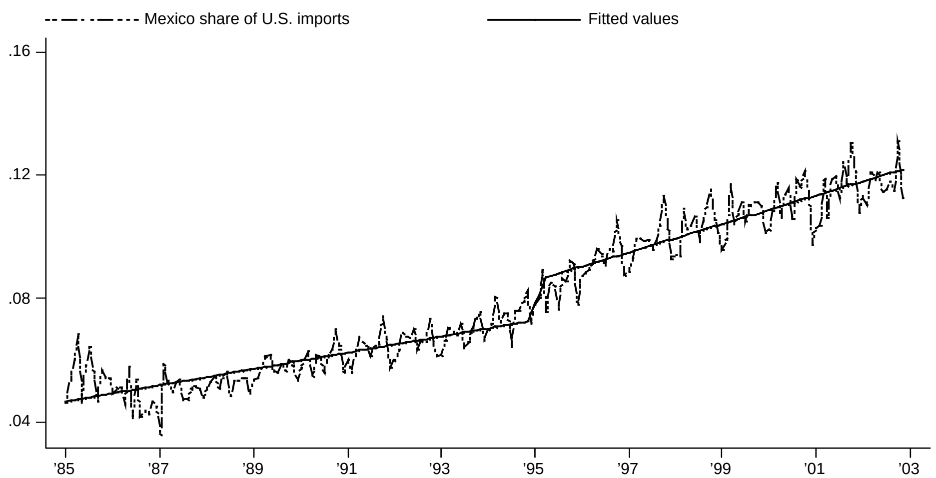
Another goal of NAFTA was to increase capital flows. Figure 2 illustrates the total change in capital flows into Mexico during the 1980–2005 period. The level

Figure 1A
Mexico's Share of U.S. Goods Exports



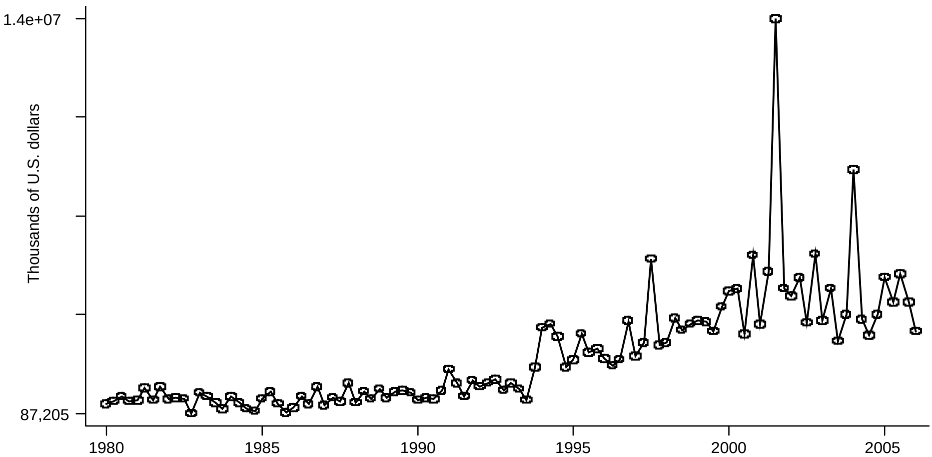
SOURCE: Robertson (2005a).

Figure 1B
Mexico's Share of U.S. Goods Imports



SOURCE: Robertson (2005a).

Figure 2
Total Foreign Direct Investment Flows into Mexico



SOURCE: Banco de México, Series SE37 (“pasivos Inversión extranjera Directa”).

and trend of flows into Mexico are higher after January 1, 1994. Several other reforms, such as capital account liberalization starting in 1989, facilitated these flows. The point is not that NAFTA per se explains this increase, only that flows into Mexico are higher in the NAFTA period.

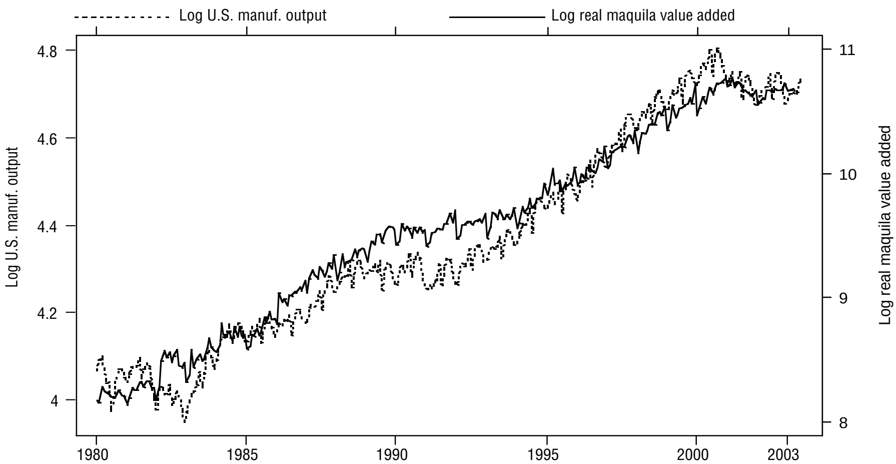
Another measure of capital flows is maquiladora investment. The key feature of maquiladoras in this paper is their close relationship with U.S. manufacturing. By definition, maquilas are designed to be closely related to U.S. manufacturing. Figure 3 illustrates this relationship. The growth in maquiladora value added and U.S. manufacturing output follow very closely together.

Labor Market Implications of Integration in Mexico

Absolute Wage Convergence

Revenga and Montenegro (1998) match industry-level data between Mexico and the United States and find that trade liberalization in Mexico lowered Mexican wages relative to their industrial U.S. counterparts between 1984 and 1990. Hanson (2004) analyzes the Mexican population census in 1990 and 2000 and finds little, if any, evidence of wage convergence between the United States and Mexico. These results are not consistent with rising trade and foreign direct investment (FDI) contributing to rising wages in Mexico. Although the labor mar-

Figure 3
Capital Market Integration



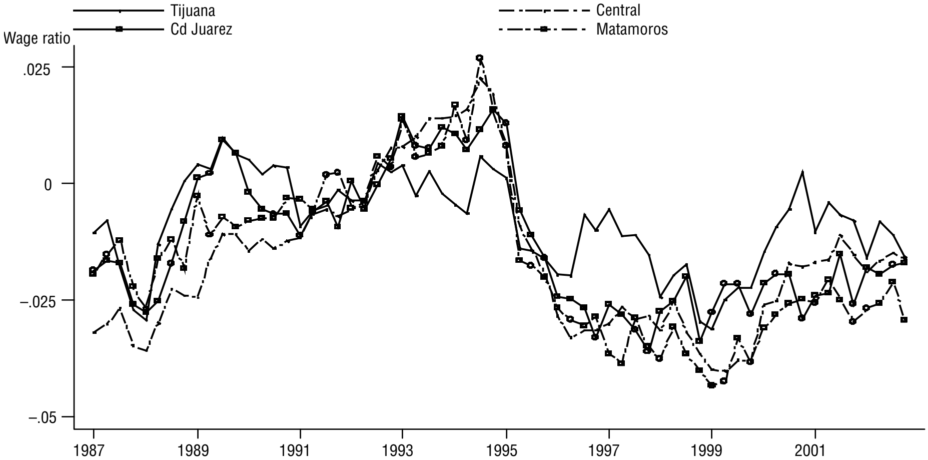
SOURCE: Hanson and Robertson (2005).

kets can be considered integrated, a substantial wage gap between Mexican and U.S. wages persists. To formally illustrate the gap and convergence, Robertson (2005b) matches the Mexican National Survey of Urban Employment (Encuesta Nacional de Empleo Urbano, or ENEU) and the similar U.S. Current Population Surveys (CPS). These data allow Robertson to control for individual-specific characteristics and to track the time path of relative wages.

Following Robertson (2000), the Mexican wages are converted to dollars using the nominal peso–dollar exchange rate. Then, to approximate a panel effect, Robertson (2005b) implements Deaton's (1985) pseudo panel approach. This approach generates wage averages for different groups in the population and tracks the wages of these groups over time. Workers in each city fall into one of forty groups defined by five education levels and eight age groupings.[1] The quarterly data run from 1987 to 2002. Average wages of each cell in Mexico and the U.S. are matched to generate relative wage measures that control for changes in demographic patterns.

Figure 4, from Robertson (2005b), illustrates the evolution of the average wage gap for similarly defined age–education groups in the United States and Mexico (that is, comparing twenty-five- to thirty-year-old workers with twelve years of education). Contrary to the findings of Revenga and Montenegro (1998), the wage gap was closing prior to NAFTA. The effects of the peso crisis are clearly

Figure 4
Mexican Convergence to U.S. Wages



NOTE: These series represent citywide averages of Mexican–U.S. wages for matched age-education groupings using the Mexican National Survey of Urban Employment (Encuesta Nacional de Empleo Urbano) and the U.S. Current Population Surveys. The ratios are based on indexed real wages, converted to real values using domestic national consumer price indicators.

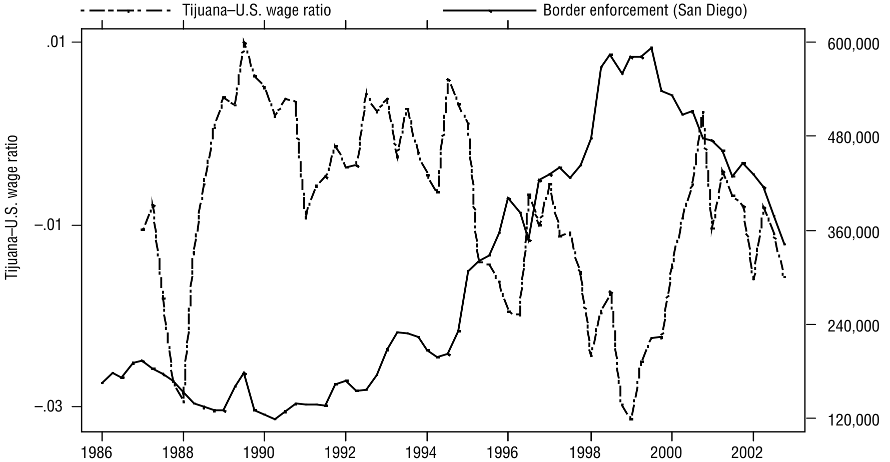
SOURCE: Robertson (2005b).

evident, but as Mexican wages begin to recover, the trend continues toward closing the gap. Figure 4 also illustrates Hanson's result of a lack of convergence. The 1999 level is very close to, if not slightly below, the 1989 level.

One of Robertson's (2005b) main findings is that the rate of convergence is not significantly (if at all) faster during the NAFTA period than before the NAFTA period. Given the rise in the trend and level of trade and foreign direct investment, this result is somewhat surprising. One possible explanation is that trade and FDI do not have a significant effect on the U.S.–Mexican wage gap. Another possible explanation is that there is a third factor affecting wages in ways that mitigate the otherwise positive effects of trade and FDI.

Robertson (2005b) presents evidence supporting the latter. Using border enforcement hours, he finds that U.S. border enforcement depresses Mexican wages. These results are consistent with Mishra (2006), which finds that emigration has large positive effects on Mexican wages. Furthermore, this effect is comparable to the estimated positive effect of trade. This result is illustrated in Figure 5, which graphs the U.S.–Mexican wage ratio and U.S. border enforcement in Tijuana. The two series exhibit a strong inverse relationship, suggesting that U.S. border enforcement depresses Mexican wages or raises U.S. wages. Since Hanson, Spilim-

Figure 5
Mexican Wages and U.S. Border Enforcement



NOTE: Enforcement is measured in line-watch hours. The wage ratio is the citywide average of the indexed wage ratio of matched age–education groups using Mexican Encuesta Nacional de Empleo Urbano and U.S. Current Population Survey data.

SOURCE: Robertson (2005b).

bergo, and Robertson (2002) find that changes in U.S. border enforcement do not affect U.S. wages, the more plausible explanation seems to be that U.S. border enforcement depresses Mexican wages.

Relative Wages

The effect of globalization on relative wages in developing countries has been a topic of much debate. In particular, Mexico was one of the first countries to have a documented rise in wage inequality following trade liberalization. Since then, several other papers have shown that a similar phenomenon occurred in other developing countries (see Wood 1997 and the excellent survey by Goldberg and Pavcnik 2007).

The literature contains several possible explanations for rising wage inequality, including, but not limited to, changes in industry-specific wage premiums (Revenga 1997; Cragg and Epelbaum 1996; Feliciano 2001), FDI (Feenstra and Hanson 1997), changes in tariffs that favored skilled workers (Hanson and Harrison 1999), changes in exchange rates that induced quality upgrading (Verhoogen 2007), skill-biased technological change (Cañonero and Werner 2002), and changes in relative output prices (Robertson 2004). These explanations are not mutually exclusive, and all could have played a role in rising wage inequality after

Mexico joined the General Agreement on Tariffs and Trade (GATT) in 1986.

After NAFTA, however, wage inequality falls (Airola and Juhn 2001; Robertson 2004; López-Acevedo 2006). The fall emerges in consumption surveys, household surveys, the Mexican Industrial Census, and the Monthly Industrial Survey (Encuesta Industrial Mensual, or EIM).

These papers illustrate that wage inequality falls through 2001, but the trend continues through 2005. To illustrate the recent evolution in the wage inequality trend, we draw from EIM. For the 1994–2005 period, aggregated data for 205 industries are available on the Internet.[2] The survey is designed to cover 80 percent of Mexican manufacturing production and is based on the Mexican Industrial Census, which is taken every five years. For the period in this paper, the survey covers about 6,000 establishments.[3] The survey excludes firms in the maquiladora industry, basic petrochemicals, petroleum refining, and firms with fifteen or fewer employees (*microindustria*). Variables include employment, hours, and wages for production (*obreros*) and nonproduction (*empleados*) workers, as well as the value of production and sales. Figure 6 shows the change in the employment-weighted, within-industry ratio of average nonproduction to production worker wages. The relative wage of skilled workers continued rising during the crisis, consistent with Verhoogen (2007). Once the recovery began, however, the relative wage of skilled workers (as a measure of inequality) started to fall.

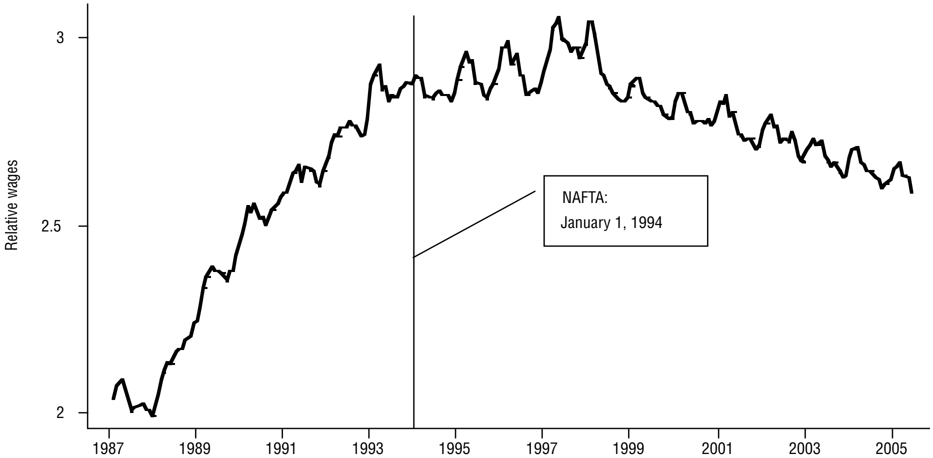
While the extent of technological change in Mexico may be debatable, Cañonero and Werner (2002) argue that skill-biased technological change (SBTC) is relevant for Mexico in the GATT period. Haskel and Slaughter (1998) argue that it is the *sector bias* of SBTC, rather than simply SBTC itself, that explains changes in relative wages.[4] To evaluate the degree of sector bias of SBTC, I use Mexican Industrial Census data and the methodological approach described by Haskel and Slaughter for industries indexed by k:

$$(1) \qquad \Delta S_k = a_0 + a_1 \Delta \log(w_s/w_u)_k + a_2 \Delta (K/Y)_k + \varepsilon_k,$$

in which ΔS_k is the change in the nonproduction employment share in the total wage bill, w_i (i = s,u) represents the wage of each worker type, K is capital, Y is real value-added output, and the final term is the error. Haskel and Slaughter suggest that SBTC in sector k can be represented by positive values of $a_0 + \varepsilon_k$. The estimates are positive, suggesting that all industries in all periods experienced SBTC (consistent with Cañonero and Werner). To evaluate the sector bias, Haskel and Slaughter assume that technology does not affect prices and regress their estimates of SBTC on the initial value of the nonproduction–production employment ratio.

The results, shown in Figure 7, suggest that the relationship between skill intensity and SBTC is weakly positive between 1985 and 1989, negative between

Figure 6
Mexican Relative Wages Before and After NAFTA



NOTE: Series is the industry-employment-weighted average relative hourly wage of nonproduction workers (*empleados*) to production workers (*obreros*) in the Mexican Monthly Industrial Survey. The series represents the three-month moving average of the relative wage. The survey excludes maquiladora employment and otherwise represents all of Mexican manufacturing.

SOURCE: Encuesta Industrial Mensual.

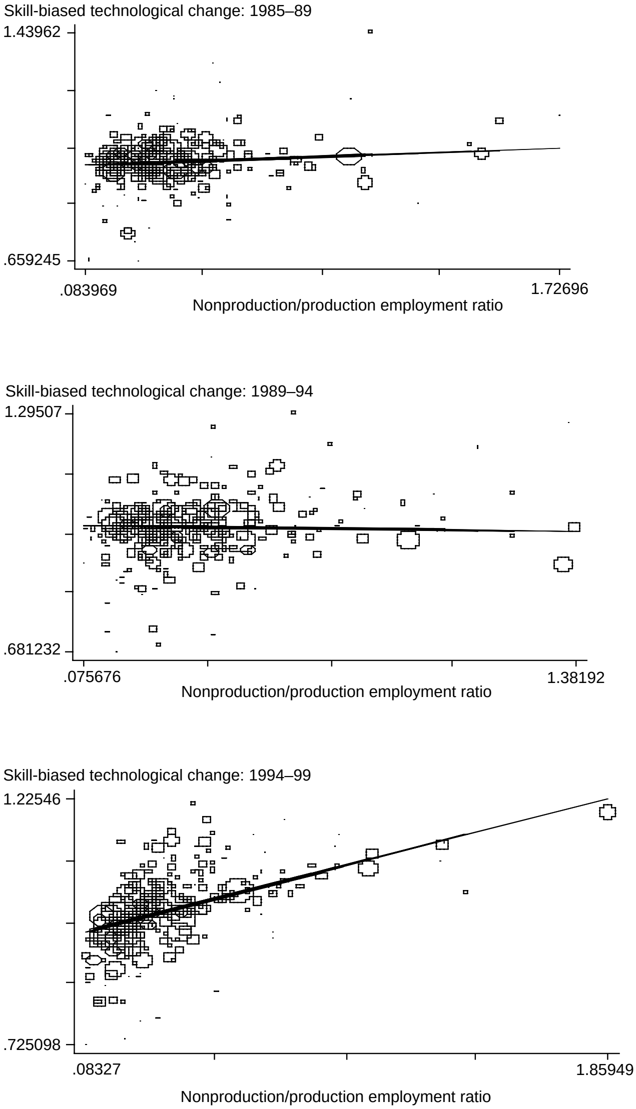
1989 and 1994, and strongly positive from 1994 to 1999. The implication is that the sector bias of SBTC is in the opposite direction than would be expected if sector bias mattered and SBTC explained the changes in wage inequality.

Other explanations have similar difficulty accounting for the rise and fall of wage inequality. Trade, foreign investment, and exchange rates all follow either the same pattern before and after NAFTA, or move in ways following NAFTA that are inconsistent with the fall in relative wages.

The only identified variable to move consistently with theory is relative prices, suggesting that Stolper–Samuelson forces play a potentially significant role in explaining wage inequality in Mexico. The fall in the relative wages of skilled workers is consistent with neoclassical trade theory (Heckscher–Ohlin), which, under very restrictive assumptions, predicts that liberalization between a labor-abundant and a skill-abundant country will induce an increase in the relative wages of less-skilled workers in the skill-scarce country.

Even so, the literature has been slow to accept the Stolper–Samuelson explanation for several reasons. First, price data are generally difficult to find. Very few papers use relative prices. Two notable exceptions are Beyer, Rojas, and Vergara (1999) and Gonzaga, Filho, and Terra (2006). Beyer et al. find a strong link be-

Figure 7
Skill-Biased Technological Change Using Census Data



NOTE: Shapes represent industries, with the size representing industry employment.

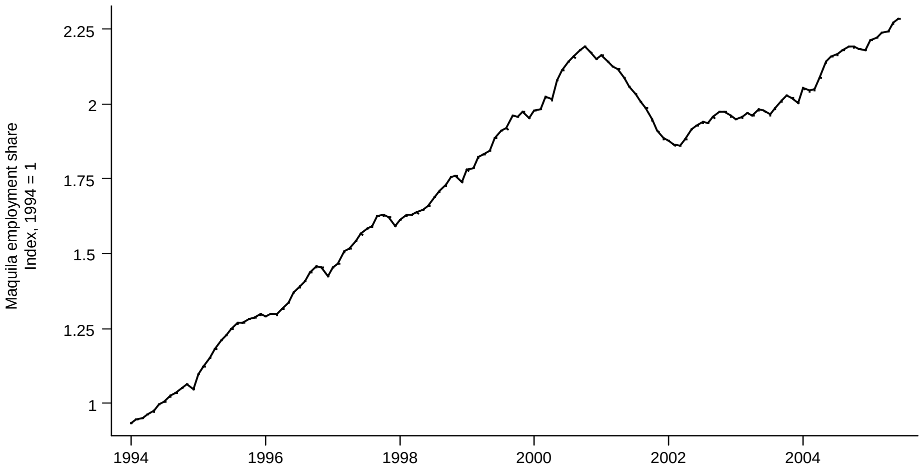
SOURCE: Instituto Nacional de Estadística, Geografía e Informática, Mexican Industrial Census 1985, 1989, 1994.

tween changes in relative prices and wage inequality in Chile, and Gonzaga et al. find a link between changes in relative wages and wage inequality in Brazil. Second, the literature tends to find few examples of significant between-industry shifts. The intuition behind the theorem suggests, although does not strictly require, that trade liberalization in a labor-abundant country will induce a shift toward less-skill-intensive industries. As resources move toward less-skill-intensive industries, the demand for unskilled workers increases, raising the relative wage of skilled workers.

Robertson (2004) shows that about 42 percent of the increase in demand for skill over the 1987–94 period is explained by between-industry shifts, and about 32 percent of the fall in demand for skill over the 1994–98 period was due to between-industry shifts.[5] One possible reason that the between-industry shifts are less than half of the total change (leaving more than half to be explained by within-industry shifts) is the shift toward the maquiladora sector. Figure 8 shows the rise in the ratio of maquila employment to the rest of Mexican manufacturing (using an index for both series). The data clearly show that maquiladora employment has been rising faster than employment in nonmaquila manufacturing.

This move would be consistent with an increasing demand for skill if maqui-

Figure 8
Maquila Employment Growth Relative to Nonmaquila Manufacturing Employment



NOTE: The maquiladora employment series represents total maquiladora employment as measured by Mexico's national statistics institute, Instituto Nacional de Estadística, Geografía e Informática (INEGI). The nonmaquila employment series is total employment in the Mexican Monthly Industrial Survey (EIM). Both series are normalized to 1 in 1994. The line in this graph is the ratio of the two indexed series.

SOURCES: INEGI; EIM.

ladoras were, on average, more skill intensive. Table 1, however, suggests that maquiladoras have a much lower nonproduction–production worker wage ratio than the same industries in the Mexican Industrial Census. The relative production-worker intensity of the maquiladora sector seems to suggest that its relative rise is consistent with a within-industry shift toward less-skilled production, which would be consistent with the change in relative prices in the NAFTA era.

Are Mexican and U.S. Workers Substitutes or Complements?

Several studies have suggested that immigrants to the United States are substitutes for generally less-educated U.S. workers and complements with higher-skilled U.S. natives (Grossman 1982; Orrenius and Zavodny 2003; Ottaviano and Peri 2005). The rise of trade and mobility of capital suggests that Mexicans may be either substitutes for or complements with U.S. workers while they are still in Mexico.

The question of whether U.S. and Mexican workers are substitutes or complements has been, implicitly, at the core of a great deal of political debate. One of the major fears of Mexican integration with the United States was that firms would flock to Mexico in search of low wages. It is certainly true that over the past 25 years, U.S. manufacturing employment has been falling. Figure 9 shows the evolution of U.S. manufacturing employment from 1979 to 2005. The graph shows that employment falls steeply during recessions and tends not to recover, leading to the cumulative decline. The most recent decline (since 2000) has been especially dramatic, renewing concern over the loss of relatively well-paying manufacturing jobs.

If Mexican workers are substitutes, clearly there is cause for concern with past and future integration. Neoclassical trade theory, in particular, suggests that workers in the two countries would be substitutes in the sense that U.S. workers would be at risk of losing their jobs to Mexico. On the other hand, there are good reasons to believe that U.S. and Mexican workers would be complements. Feenstra and Hanson (1997), in particular, show how less-skilled workers in the U.S. would be substitutes for skilled workers in Mexico. Robertson (2006) formally tests this hypothesis.

Robertson matches Mexico's EIM with U.S. Current Employment Statistics surveys. EIM was described earlier; the U.S. Current Employment Statistics program covers about 300,000 employer units (over 35 percent of total payroll employment). The survey is conducted by the U.S. Bureau of Labor Statistics with cooperation from individual states. The data include average hourly wages and employment for production workers but do not include value of production or earnings of nonproduction workers. As a result, monthly production value is not

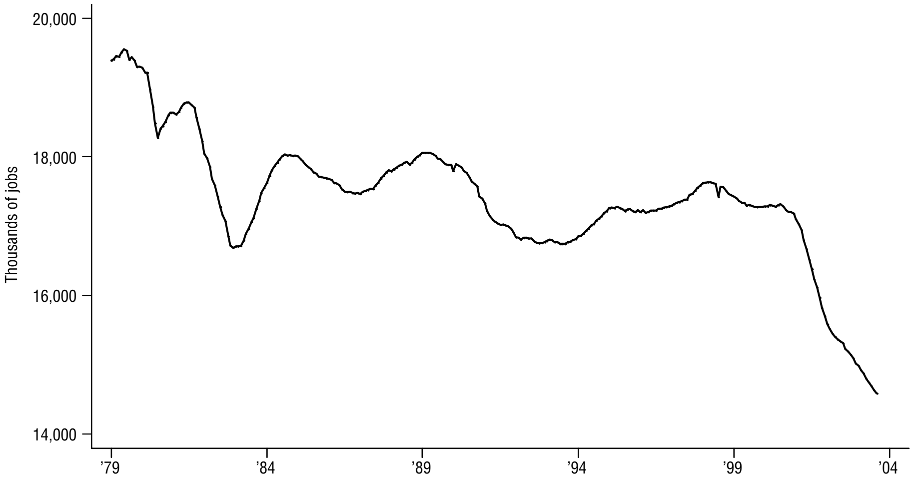
Table 1
Maquiladora Employment in 1998

State	Employment share maquila/census	N/P employment ratio: Census	N/P employment ratio: Maquila
Aguascalientes	0.286	0.261	0.041
Baja California Norte	0.868	0.153	0.078
Baja California Sur	0.226	0.319	0.031
Campeche	0.000	0.357	–
Chiapas	0.000	0.311	–
Chihuahua	0.742	0.152	0.084
Coahuila	0.485	0.217	0.056
Colima	0.000	0.423	–
Distrito Federal	0.004	0.506	0.108
Durango	0.340	0.170	0.052
Guanajuato	0.048	0.192	0.051
Guerrero	0.060	0.282	0.022
Hidalgo	0.008	0.186	0.069
Jalisco	0.087	0.323	0.126
México State	0.020	0.352	0.121
Michoacán	0.000	0.308	–
Morelos	0.023	0.348	0.092
Nayarit	0.000	0.316	–
Nuevo León	0.142	0.285	0.090
Oaxaca	0.000	0.311	–
Puebla	0.101	0.198	0.047
Querétaro	0.552	0.422	0.083
Quintana Roo	0.000	0.299	–
San Luis Potosí	0.073	0.308	0.027
Sinaloa	0.022	0.401	0.148
Sonora	0.644	0.212	0.065
Tabasco	0.000	0.390	–
Tamaulipas	0.769	0.239	0.086
Tlaxcala	0.103	0.243	0.068
Veracruz	0.000	0.310	–
Yucatán	0.227	0.266	0.055
Zacatecas	0.154	0.326	0.070
Average	0.242	0.293	0.073

NOTES: Maquilas include services as well as manufacturing. In 1998, and over the 1990–2003 period, services averaged 4 percent of total maquila employment. Instituto Nacional de Estadística, Geografía e Informática does not report data for all states. We presume this reflects an insignificant number of maquiladoras and, therefore, enter zero for these states. The employment ratio is the nonproduction/production worker ratio.

SOURCE: INEGI Industrial Census.

Figure 9
Evolution of U.S. Manufacturing Employment



NOTE: The series represents total employment in manufacturing, seasonally adjusted.
SOURCE: U.S. Bureau of Labor Statistics.

available at the industry level.[6] Hours and earnings data are available for about 850 industries.

The Mexican and U.S. data are matched industry by industry at the most detailed level possible. Eighty industries were successfully matched. The level of aggregation ranges from three- to six-digit NAICS codes, with forty-one industries matched at the four-digit level and thirty-one matched at the five-digit level.

Robertson applies a labor-demand approach to estimate whether Mexican and U.S. production workers are complements or substitutes. This paper evaluates the hypothesis before and after the NAFTA period. The main results indicate that during the NAFTA period, U.S. and Mexican production workers are complements, while U.S. production and Mexican nonproduction workers are substitutes. This has significant implications for North American labor market integration. The United States and Mexico seem to act more like a single production unit rather than competing units. One may conclude from this result that while some job displacement is inevitable as economies adjust, North American economic interests are closely tied and policymakers would do well to think of Mexico as an economic partner rather than a competitor.

Some Economic Concerns

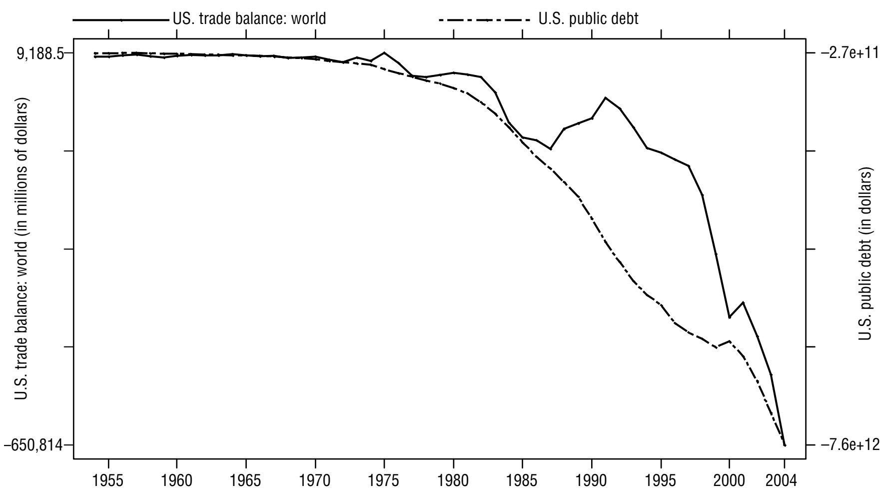
U.S. Economic Outlook

The finding that U.S. and Mexican production workers are complements brings good and bad news (in the normative sense). First, the degree of integration with the U.S. ties Mexico's fate to U.S. manufacturing. To some extent, this may help Mexico as competition from China increases. However, the recent decline in U.S. manufacturing employment can be closely linked to the decline in Mexican *nonmaquila* manufacturing employment. U.S. manufacturing employment has been falling for twenty-five years, and few economists predict the decline to reverse over the medium run.

Furthermore, the United States is facing several potentially serious economic challenges. Since 1980, the U.S. trade deficit has been rising, and as Figure 10 shows, the growth in U.S. federal debt is closely related to the U.S. trade deficit. The United States now has ratios of debt to gross domestic product greater than those of Turkey, Argentina, Mexico, and Brazil, all countries that have experienced debt-related crises.

Several prominent macroeconomists have suggested that a correction in the U.S. trade deficit, which they consider inevitable, could come in the next five to ten years. Several scenarios apply. The United States could experience a gradual

Figure 10
U.S. Trade Balance and Public Debt



SOURCES: U.S. Census Bureau, Foreign Trade Division; U.S. Department of the Treasury.

depreciation of the dollar and, therefore, a gradual fall in consumer imports. To the extent that Mexico is integrated into the U.S. production chain, however, this depreciation could potentially help Mexico by increasing the demand for U.S. finished-good exports. If so, this could increase demand for Mexican exports to the United States, which would be helpful during a time of otherwise falling U.S. imports. The more integrated Mexico is in the U.S. production chain, the more positive (or less negative) will be the effects of a gradual or sudden depreciation of the dollar.

The Chinese Threat

Hanson and Robertson (2006) apply a technique based on the gravity model of trade (as described in Hanson and Robertson 2005) to decompose Mexico's export growth into components associated with export-supply capacity, import-demand conditions, and other factors. Three main findings emerge. First, since the mid-1990s, Mexico's export-supply capacities have improved relative to the rest of the world. Second, Mexico is relatively exposed to export-supply shocks from China. Industries in which Mexico has strong export capabilities are also those in which China's capabilities are strong, and in most industries, China's capabilities improve over time relative to Mexico's. Had China's export-supply capacities remained constant from 1994 onward, Mexico's annual export growth rate would have been up to 1.5 percentage points higher during the late 1990s and up to 3 percentage points higher during the early 2000s. Third, while changes in Mexico's export-supply capacities have contributed positively to the country's export growth, changes in U.S. import demand in Mexico's key export industries have not. Mexico's exports are concentrated in sectors in which the United States has shown relatively weak growth in trade. Had U.S. GDP grown at the same rate from 2000 to 2004 as it did in the late 1990s, Mexico's annual export growth rate would have been up to 1.4 percentage points higher.

Hanson and Robertson describe several important caveats to their results. The framework and analysis are confined to manufacturing industries. This approach may not capture the effects of U.S. and China business cycles on Mexico's commodity trade. The counterfactual decompositions of export growth that we report do not account for general equilibrium effects. There could be feedback from a slowdown in China's export growth or an increase in U.S. GDP growth that would cause us to overstate the growth consequences of such shocks for Mexico. Also, Hanson and Robertson do not explicitly account for zero trade between some countries.

The results hold important lessons for policymakers. Mexico's ability to improve its export-supply capacities (through modernization of its infrastructure, education system, energy sector, and so forth) compares favorably when one takes the rest of the world as a benchmark. Given the relatively high exposure of Mexico to export competition from China, however, the country's improving export-supply capacities may come as small consolation. Mexico is vulnerable to export-supply shocks in China and, given slowly changing patterns of industrial specialization, is likely to remain so for the medium run. During the early 2000s, China's impact on Mexico was roughly twice that of the U.S. economic slowdown. If the U.S. economy continues to expand, there is scope for Mexico to recover some of the export growth it enjoyed in the 1990s.

The regression results suggest that for Mexico to continue to expand its export-supply capacity in the country's key export industries, it would need to expand the supply of labor, increase electricity production, reduce borrowing costs, and/or expand telecommunications infrastructure. Among the sample of countries that also export goods in Mexico's primary export industries, growth in these factors is positively correlated with increases in export-supply capacity.

Conclusion

The question of integration remains especially salient for Mexico. Engagement with the global economy even has political implications. For Mexico, engagement in the global economy means integration with the United States. The contraction of the U.S. economy has traditionally hurt the Mexican economy, and integration brings risks. These risks, however, must be weighted against alternative policies (less integration, in this case) that seem less promising than deepening integration with the United States.

Notes

1 The education levels are divided into the following categories: 0–6 years, 7–9 years, 10 years, 11–12 years, and more than 12 years. The age groups are five years apart starting at 15, except for the last group. The last group includes workers 50–65 in the first year.

2 See *Banco de Información Económica* at www.inegi.gob.mx.

3 Over the sample period, the survey covers between 5,587 and 6,884 establishments.

4 Xu (2001) finds that the elasticity of substitution may affect these results.

5 One problem with this simple calculation is that it abstracts from business-cycle effects. Robertson and Dutkowsky (2002) confirm that nonproduction workers have higher adjustment costs than production workers in Mexico. This finding implies that the aggregate nonproduction–production worker ratio will have a business-cycle component. The relative employment of skilled workers, however, rises over the sample period. This is consistent with a rising supply of skilled workers and a fall in the relative price of skill-intensive goods.

6 The Board of Governors of the Federal Reserve System releases monthly production indexes at the industry level. These indexes are not usually direct measures of output. Instead, for much of manufacturing, the output indexes are constructed functions of the Current Employment Statistics employment data.

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Commentary on Session I
The Migration, Trade, and Development Nexus

Kent H. Hughes

International trade has become a contentious topic in many industrial democracies, including the United States. In sharp contrast to earlier periods, President Bush was barely able to secure fast track or trade promotion authority in the Trade Act of 2002. In the end, the act survived three votes in the House of Representatives, twice by a one-vote margin and once by three votes. Trade has also become more complex. It is no longer possible to think in terms of a developing world with largely homogenous interests. As the *New York Times* once noted, the world is now made up of the haves, the have some, and the have nots. Even the Brazil-led Group of Twenty that includes key emerging-market economies has significantly varied interests.

Like trade, migration has also become a more controversial subject in the United States and much of Europe. The current debate in the United States revolves around the question of legal and illegal status and whether immigrants are highly educated or less well educated. Some observers are concerned about whether the traditional melting pot model will continue to work. In Europe, the debate includes the pace of internal, European Union immigration as well as the growing number of Muslim immigrants from Africa.

In the early twenty-first century, there has also been a renewed focus on the importance of fostering more rapid growth in the developing world. In November 2001, the World Trade Organization launched the Doha Development Agenda as the latest round of multilateral trade negotiations. The emphasis on development was, in part, recognition that many of the least-developed countries felt that they had gained little from the last set of negotiations, the Uruguay Round.

A growing ease of travel and improved communications have made global poverty a reality that can be easily broadcast around the world. There is increasing awareness that any country is only one plane ride away from any disease. In the case of the United States and many other countries, the September 11, 2001, attacks on the World Trade Center and the Pentagon linked poverty, stagnant economies, and repressive governments to the conditions that create pools of candidates for radical action.

For the United States, trade, development, and migration have all become factors in an ongoing debate about the economic impact of the North American Free Trade Agreement (NAFTA). In part, NAFTA was described as fostering growth in and reducing immigration from Mexico. While added flows of trade, investment, and technology were expected, there was little, if any, discussion of the role of Mexican migrants in supporting development through remittances, returning with new ideas, or creating Mexican–U.S. networks.

There has also been recent scholarship on the impact of immigrants on the receiving country. In the U.S. context, the debate has been particularly sharp over whether low-wage immigration has had a negative effect on the wages and job opportunities of Americans, particularly low-wage Americans. There has also been a growing debate over the impact of temporary and permanent highly skilled immigrants on the wages of competing U.S. workers. Other scholarship has noted the contribution of foreign-born scientists and engineers to U.S. innovation.

In the early twenty-first century, the United States began to face global competition for scientific and engineering talent. Developed and emerging-market economies are both factors in the new competition. As opportunities grow in China, India, and elsewhere, foreign-born scientists and engineers who have studied and worked in the Unites States have begun to return to their countries of origin. In response, the United States has made some adjustments in its visa policy and has also begun putting greater emphasis on math and science education in elementary, secondary, and university education. The best U.S. companies, laboratories, and universities also continue to recruit highly trained people from around the world.

The world looks less ambiguous for immigrants who go from developing to developed countries—the move is almost always an economic plus for the immigrant. Where the immigrant is less educated and poor, there is also less of an economic loss for the sending country. In recent years, more attention has been paid to remittances and their potential for fostering growth. Returning immigrants can bring with them not only capital but expectations of better governance, an added appreciation for education, and a capacity for entrepreneurship.

The highly educated immigrant from emerging-market countries is no longer always seen as a simple case of brain drain. As Philip Martin points out in his paper, emigration of African health professionals fits the classic definition. But similar emigration of Indian information technology professionals has had more positive effects. Long-term, permanent Indian immigrants are forming pools of venture capital in

Silicon Valley to invest in India. Temporary immigrants are returning to the homeland with contacts and know-how about the American way of doing business that have helped bolster growth in India.

The Tower Center for Political Studies, the Department of Economics at Southern Methodist University, and the Federal Reserve Bank of Dallas are to be congratulated for convening a timely and important conference.

These sponsoring organizations have assembled four panels of experts to look at the interrelationships among migration, trade, and development. Specific panels also put the relationships in historic perspective, explore the impact of remittances, and examine the increasingly contentious politics of migration and trade.

Summary of the Papers

On the first panel, Philip Martin, Thomas Osang, and Raymond Robertson present three very fine papers. Each takes a quite different approach to exploring the links among migration, trade, and development. Each paper reaches useful conclusions and directly or implicitly suggests a course for future policy.

In "External and Internal Determinants of Development," Osang uses cross-section data, a panel-data approach, and several econometric tools to test migration as an external determinant of the factors of production that can define a country's comparative advantage. Following the work of Dani Rodrick, his findings confirm institutions as the dominant internal factor. Under specific measures, trade and migration also emerge as positive, but much less important, factors. Osang adds that remittances appear significant only for the larger recipient countries (as measured by remittances relative to gross national product).

In "Globalization and Mexican Labor Markets," Robertson explores the impact on Mexican wages and wage inequality of economic integration into North America. In general, he finds that integration has been positive both in terms of raising wages and reducing wage inequality. But he notes that wages did not rise more rapidly in the post-NAFTA period despite increased flows of trade and investment. He concludes that it was increased border enforcement by the United States that slowed the wage gains in Mexico. In addition, Robertson draws on Mexican and U.S. data to make wage comparisons and finds that low-wage production workers in Mexico are actually complements to rather than substitutes for production workers in the United States.

Robertson makes three specific policy recommendations: First, Mexico should seek further integration into the U.S. economy; second, Mexico should push for easier migration to the United States; and third, Mexico should continue to focus adjustment assistance on rural areas where adjustment to increased trade will be most difficult.

In "The Trade, Migration, and Development Nexus," Martin examines how migrants from developing to developed countries affect trade and development in their home countries. He assesses the impact of immigration through the lens of recruitment, remittances, and the return of migrants to their sending countries. He finds that immigration is positive for the migrant and provides a win for the receiving country by "slightly expanding economic output by slightly depressing wages." The sending country may benefit through remittances and the impact of returning migrants but lose through classic brain drain. Martin distinguishes between the case of African health care workers, who are often permanently lost to the sending country, and India's IT professionals, who create export opportunities for the home country.

As part of his paper, Martin provides an overview of the differing approaches to immigration reform that passed the U.S. House and Senate. His paper, however, was completed before Congress adopted legislation to fund 700 miles of fence and other devices along the Mexican border.

Paper-by-Paper Comments

Thomas Osang

Osang's paper is very clear about its purpose—to assess the role of migration as an external determinant of a country's factors of production. He takes the reader through the more common proxies for institutions and other recognized determinants of growth. In developing his conclusions, he tries other proxies and finds they add useful insights.

Osang walks the reader through his reasoning in using a panel-data approach as well as cross-section data. He uses several different econometric techniques while also explaining the limitations of each. By making his assumptions clear, he allows interested readers to reach their own conclusions about a preferred approach. His fluency is dazzling—or at least dazzled this reader—but at times I found myself thinking back to President Harry Truman and his call for a "one-handed economist." I would have found it more useful for Osang to explain why he preferred a specific technique in addition to presenting the results of different approaches.

His use of contract-intensive money as a proxy for institutions was interesting and, I thought, useful. He went on to choose natural logs of lagged values, but I did not see an explanation of what the lags were or how they were determined.

The paper left me with at least two other questions.

First, he uses the foreign-born share in the population as a proxy for the impact of migration. That particular measure would not have much relevance for Mexico, which falls well down his list in terms of countries ranked by percentage of foreign-born population.

Second, he finds that remittances are important only for the top half of remittance-receiving countries (as measured by remittances to GNP). Again, that would mean Mexico isn't a significant beneficiary of remittances even though official figures show its remittances lag behind only oil revenues as a source of hard currency earnings.

Osang's finding that institutions far outpaced the contribution of other factors would be consistent with the emphasis of the United States' Millennium Challenge Corporation and with World Bank President Paul Wolfowitz's determination to fight corruption in the developing world. While Osang's paper is written at a more abstract level, I would have welcomed his comments on these two policy initiatives.

Raymond Robertson

Robertson beneficially reviews the literature on the degree of U.S.–Mexican integration, the impact of integration on wage rates, and whether or not wage inequality has been reduced. He finds that economic integration increased Mexican wages and, since adoption of NAFTA, reduced wage inequality. In addition, he finds that low-wage workers in Mexico are complements to and not substitutes for American production workers. In effect, his work validates the common justification for several decades of favorable U.S. tariff treatment for the importation of goods produced by the maquiladoras.

Robertson finds rising wages in the NAFTA period but also notes that the 1999 level of wages is still slightly below the 1989 level.

In the midst of generally positive findings, Robertson notes that despite increased trade and investment in the post-NAFTA period, there has not been acceleration in the increase in wages. Robertson's explanation is an increase in U.S. border enforcement and, by implication, a reduction in emigration from Mexico to the United States. It would be helpful to have some estimate on whether or not immigration to the United States actually slowed or simply became more difficult and more costly.

Robertson could have disposed of three other possibilities. First, Mexico may still be at the point where past high birthrates are sending a still-rising flow of young adults into the labor force. Could that be holding wages in check? Second, Mexico is also a major conduit for undocumented workers from Central and South America. Have they stayed in Mexico for a sufficient time or in sufficient numbers to affect wage rates? Third, much of Robertson's analysis must rely on urban or industrial data. Could the flow of labor from the rural areas be holding down measured wages in the maquiladora or industrial sectors?

Robertson turns the reader's attention to two other important questions—China and the U.S. economy. Chinese competition has had a major impact on Mexican industry, with many maquiladoras closing as firms move their facilities to China and many U.S. and other foreign investors now looking east rather than south.

While favoring further Mexican–U.S. integration, Robertson asks whether “Mexico may be latching itself to a falling star.” He might have added a paragraph on the large, persistent trade and current account deficits that have affected the U.S. manufacturing sector. The United States is also the only major industrial country that developed a private-sector welfare system, which now puts several U.S. industries and, hence, their Mexican suppliers at a disadvantage in international competition. Finally, a U.S. policy of benign neglect with regard to the Asian practice of keeping their exchange rates competitive has also had negative effects on Mexico’s industrial prospects.

Philip Martin

Martin looks at migration from the sending countries’ point of view, puts migration flows in a long-term context, and discusses the current U.S. response to rising legal and undocumented immigration. By taking a closer-to-the-ground approach, Martin complements the paths taken by Osang and Robertson.

Martin looks at three different phases of emigration—recruitment, remittances sent home, and the eventual return of the emigrant. In discussing recruitment, he notes how formal recruiters and informal networks both play a role. There are also, of course, many intermediaries to facilitate undocumented immigration. Based on anecdotal reporting in the financial press, informal or illegal networks have become specialized enough that they can deliver specific skills to a specific firm in a relatively short period of time. Recruitment is an area that will require a mix of interviews and scenario modeling to analyze more fully.

Martin contrasts the average emigrant from a developing to a developed country with the distribution of skills in the receiving country. He also provides some institutional detail on the current U.S. approach to temporary workers and notes that the temporary high-skilled immigrant often finds a path to permanent residency and citizenship. Noncitizen students finishing their doctorates can usually work for a year in the United States. They can then become recipients of H1-B visas, reserved for temporary immigrants with a college education or comparable skills and experience. The initial three-year H1-B visa can be renewed for another three years. At that point, the employer often can credibly claim that no available American can do the specific job currently filled by the H1-B visa holder. With permanent residency status, the former student may go on to secure citizenship.

In discussing professional or high-skilled immigration, Martin contrasts the U.S. demand-driven approach with the supply-oriented approach. He notes that in Australia, Canada, and the United Kingdom, points are awarded to potential immigrants based on various criteria, such as language ability.

In addition to distinguishing between the losses implied by the emigration of African health care professionals and the gains from the emigration of Indian IT professionals, Martin briefly discusses the efforts of the International Organization for Migration to encourage the return of the African health diaspora to the continent. Martin does not explore the policy implications for Africa, but he made this reader wonder if African countries should focus more on the African equivalent of the Mao-era Chinese barefoot doctors and reduce their investments in medical schools based on industrial country standards. Some grist for a future paper.

In economic terms, Martin stressed the gains for both the low-skilled immigrant and the receiving country. As previously noted, he sees a win for the receiving country by "slightly expanding economic output by slightly depressing wages." Beyond that phrase, however, neither he nor the other authors take on the debate over whether, or by how much, low-skill immigration depresses the wages or reduces the economic opportunities of U.S. workers.

Martin provides useful detail on the growing volume of remittances, noting that they now exceed foreign assistance by a significant margin. He discusses determinants of the volume of remittances and notes that policy and technology can reduce the cost of sending money to the home country. By implication, Martin is positive about the impact of remittances but left to the later panel the question of how or how effectively remittances are applied by the receiving family, village, or country.

The potential return of emigrants to their home countries can bring the added benefits of capital, training, and ties to a developed economy. Martin notes that modern travel and communications can help keep emigrants in touch with their home countries. The adoption of dual citizenship by the sending country can also help keep home-country ties. Martin does not discuss if the dual-citizenship approach is a plus for the receiving country.

In turning his attention to the specifics of U.S.–Mexican immigration, Martin provides some valuable history and contrasts the U.S. approach with the freedom of movement adopted in the European Union. He also provides an illustration of what he terms "The Migration Hump" (see his Figure 1). The figure traces increased immigration after a period of displacement caused by economic integration and shows how it is eventually offset by faster economic growth and a return to the home country. He suggests that once the wage differential in the receiving to sending country falls to four-to-one, significant migration slows. He does not, however, estimate how soon the slowing might occur. At some point, given falling birthrates, Mexico may face the same kind of retirement-versus-working age challenge that is prominent in Europe, Japan, and, to a lesser degree, the United States. Might the burden of future Mexican taxes continue to drive younger Mexicans north to help meet the needs of elderly parents?

Added Observations

China did appear in the papers, but without sufficient weight. Economic prospects for Mexico and many other countries are bound to be affected by the continued rise of China and other Asian countries. Conference organizers might even consider adding a paper putting Mexico in the context of global forces that include the rise of Asia.

Martin contrasts the emigration of Indian IT professionals and their contributions to India's growing computer-related services industry with the classic brain drain of African medical professionals to the industrialized West. It would be useful to explore the degree to which Mexicans with technical and professional training seek opportunities outside their country and to have some sense of whether that pattern fits the Indian IT or African health care cases.

The papers did not touch on how Indian success in providing business services might affect future growth in Mexico. Yet, Mexico is increasingly caught between low-cost manufacturing in China and the difficulty of moving into traded services against stiff competition from India and others.

Robertson, in particular, suggests thinking about North America as an economic unit. In a future paper, Robertson could explore what such a North American economy might look like and what policies Canada, Mexico, and the United States could pursue to move the nations in that direction.

For the most part, discussion of technology and innovation is absent from the three papers. Robertson does discuss the degree to which skill-biased technological change can explain wage inequality in Mexico but does not address the drivers of technological change. No one discussed the development of Mexican institutions that would improve the country's ability to use or generate new technologies. Given the likelihood of decades of low-wage competition from Asia and elsewhere, Mexico should consider following the Korean example of becoming more and more of an innovative power.

Finally, Mexican and other immigration to the United States cannot be discussed without looking at the potential impact of large-scale, low-wage, and relatively low-skilled immigration on the United States as an economy, a political entity, and a culture. That, of course, is the subject for a conference all its own.

Session II: The Politics of Migration and Trade

U.S.–Mexican Migration Cooperation: Obstacles and Opportunities

Marc R. Rosenblum

Political Implications of U.S. Public Attitudes Toward Immigration on the Immigration Policymaking Process

Valerie F. Hunt

Commentary on Session II

Gary P. Freeman

U.S.–Mexican Migration Cooperation: Obstacles and Opportunities

Marc R. Rosenblum

On July 2, 2000, Vicente Fox became Mexico's first democratically elected opposition president. Within weeks, President-elect Fox scheduled a trip to the United States, and on August 17 he made good on his campaign promise to reexamine U.S.–Mexican migration relations by proposing that the countries of North America lay the groundwork to remove controls on regional labor flows. The idea of a common market fell on deaf ears within the United States, but President George W. Bush agreed with Fox that Mexican immigrants make essential contributions to the U.S. economy and that the core U.S. migration policy problem was the shortage of legal mechanisms to match willing Mexican workers with U.S. employers. Migration was one of two issues at the top of the agenda (along with energy cooperation) when Bush made Mexico his symbolically important first international destination, and many observers were optimistic that the former border-state governor would move quickly to adopt a radical new approach to bilateral immigration issues.

The presidents met three more times in the next three months, and optimism about an immigration deal was reinforced at the fifth Bush–Fox summit, in Washington, D.C., on September 5, 2001. Following the summit, which included a first-ever full joint cabinet meeting, Bush and Fox announced a framework for additional cabinet-level negotiations aimed at a bilateral immigration deal. At the heart of the framework agreement were a U.S.–Mexican guest-worker arrangement and the theme of "shared responsibility" for migration enforcement to preserve orderly migration flows (White House 2001). With the U.S. Senate passing legislation the following day to allow some undocumented Mexicans (and others) to adjust to legal immigrant status, an immigration deal seemed imminent.

The terrorist attacks of September 11 derailed this progress. Immigration negotiations were suspended while the United States turned its attention to homeland security and the October 2001 invasion of Afghanistan. Then relations became strained when the United States expanded its "war on terrorism" to include Iraq, and Mexico refused to support the U.S. position in the United Nations Security Council. Mexicans grew impatient with President Bush's failure to return to the negotiating table before the end of his first term. And after President Fox staked his personal prestige on an immigration deal, many analysts concluded that the countries' failure to advance the bilateral migration agenda had undermined the Fox presidency (see Castañeda 2003; Sullivan and Jordan 2002).

Nonetheless, immigration remains at the top of the political agenda in both countries. The Mexican House and Senate—divided on many issues—unanimously approved a Concurrent Resolution in February 2006 endorsing a report by a top-level public–private working group, which reiterated the principles underlying the earlier bilateral framework agreement (Hernández et al. 2005). In the United States, immigration dominated Washington's attention through much of 2005 and 2006, but the House and Senate passed widely divergent bills during the 109th Congress, neither of which responded directly to Mexico's concerns. Many analysts believe Republicans were punished at the polls in 2006 for their failure to pass meaningful migration reform, and Democrats returned to the issue during the 110th Congress, though reform efforts hit a road block in the Senate (see Wallsten and Gaouette 2006; Rosenblum 2008).

Thus, as 2007 draws to a close with a new Mexican president and the United States preparing for elections in 2008, familiar questions remain at the top of the regional relationship. Do the United States and Mexico share common interests in migration policy? Would the two countries benefit from a bilateral migration agreement? What shape might such an agreement take? It remains easy to identify potential areas of agreement: Both countries benefit from Mexican labor migration, both would benefit further if a higher proportion of cross-border flows occurred through legal channels, and both would benefit from bringing more order and security to the border. Yet substantial obstacles to a bilateral migration deal remain, including conflicting priorities about the details of a potential agreement, political obstacles to bilateralism within each country, ambiguity about the broader strategic costs and benefits of a bilateral migration deal, and institutional design problems.

This chapter begins by briefly reviewing theoretical issues regarding opportunities for migration cooperation. Immigration is an inherently multidimensional issue and differs from trade and other aspects of the bilateral relationship because of Mexico's unique ability to influence policy outcomes. Thus, simple asymmetric bargaining models are of limited utility for examining joint migration policymaking, and it is necessary instead to consider specific migration preferences in each country as well as the context in which migration negotiations occur. The remainder of the chapter therefore reviews the history of U.S. and Mexican preferences over migration policy, changes in the broader bilateral relationship, and the evolution of bilateral conflict and cooperation on migration policy. A final section evaluates contemporary preferences and context to identify obstacles and opportunities for migration cooperation at this time.

Immigration Cooperation: Theoretical Obstacles and Opportunities

In theory, U.S.–Mexican immigration regulation would appear to be a natural issue for bilateral cooperation. The traditional international relations literature on cooperation stresses the role of information asymmetries, weak institutions, and the costs of defection as barriers to cooperation. As in the classic prisoners' dilemma game, international cooperation is limited by each country's fear that the other will unilaterally defect, leaving the honest player with a high-cost "sucker payoff" (Axelrod 1985). Yet this analogy seems to apply poorly to immigration policymaking because the issue area is characterized by relative transparency: The United States can observe (at least roughly) whether Mexico is meeting commitments to enforce its side of the border or assist in the recruitment of temporary workers, and Mexico can easily observe U.S. policies regulating visa issuance. Prisoners' dilemma-like conditions are also ameliorated by the dense institutional structure surrounding bilateral issues between the United States and Mexico, by a broad set of shared norms, and by the long time horizons that neighbors sharing a 2,000-mile border are forced to adopt.

Migration policy also differs from other issues on the bilateral agenda because of the high degree of interdependence within the U.S.–Mexican migration system. U.S. efforts to regulate migration flows are inherently vulnerable to changing conditions within Mexico—for example, when changing Mexican economic conditions affect *emigration* pressures. And the migration relationship is structurally bound by a shared border and 500-year-old social and cultural networks, meaning that in contrast with other bilateral policy issues such as trade or investment, the United States has limited ability to opt out of bilateral migration relations by shifting its focus to other partners. As a result, migration relations are quintessentially characterized by complex interdependence (Keohane and Nye 1977; Manning 1977), rather than by the asymmetric bargaining dynamics characterizing other dimensions of the bilateral relationship.

In addition to interdependence, migration relations are characterized by multidimensionality. On one hand, migration is multidimensional in its substantive implications, sitting at the nexus of security, economic, and cultural policy, and potentially responsible for large-scale demographic changes. On the other hand, migration is also multidimensional in its policy implementation. Whereas rules governing international investment are mainly defined by restrictions on entry and exit, for example, migration regimes must define selection criteria and procedures for admission, the terms of entry (length of stay, rights and responsibilities within the United States), a wide range of enforcement issues, rules for return migration, and immigrant integration policies, among other questions.

A final area of complexity derives from the multiple nongovernmental actors within each country who perceive a direct stake in the debate, also in contrast with most other aspects of international relations. Immigration policy is contested not only by business and labor groups, but also by social conservatives and anti-population-growth groups, which oppose flows, and by human rights, religious, civil liberties, and ethnic interest groups, which support more generous policies. Thus, far from resembling a simple one- or two-dimensional coordination problem with a unique equilibrium point, migration negotiations are an extreme version of Krasner's (1991) multiple-equilibrium model in which the challenge is choosing among the many possible pareto-improving regimes that exist.

Similarly, traditional assumptions about unified states engaging in game theoretic negotiations are of limited utility in the case of U.S.–Mexican migration policy, suggesting a need for a more nuanced negotiation-analytic approach (Sebenius 1983). In this case, international relations theory directs attention to specific state preferences and the preferences of competing actors within each state, to the role of domestic and transnational interest groups and epistemic communities, and to the strategic environment in which migration policymaking occurs (Lake and Powell 1999; Moravcsik 1997; Sebenius 1992). The following section thus examines how Mexican and U.S. migration preferences have been mediated by the broader context to produce unilateral and collaborative migration policy responses during the twentieth century.

U.S.–Mexican Migration Policy: A Historical Perspective

What do Mexican and U.S. policymakers hope to accomplish through their migration policies? In general, state interests in migration policy reflect the relationship between migration and security, economic prosperity, foreign policy, and national identity. These broad concerns have produced shifting short-term policy demands in both countries, with the Bracero Program (1942–64) and the end of the Cold War in 1990 marking important turning points. While the two states have often had conflicting migration agendas, their goals during the contemporary period reveal substantial areas of common ground.

Mexican Preferences

In the Mexican case, the early part of the twentieth century was characterized by revolution and state consolidation, so migration preferences were necessarily *laissez faire*. Migration at this time followed traditional seasonal patterns—some of which predated the international border established in 1848—as industrialization and infrastructure development in the U.S. Southwest outpaced Mexican development and as land ownership patterns in Mexico limited employment options at home. Mexicans benefited from these jobs, which already paid twelve times more than jobs in Mexico (Lessard 1984, 98–99). And the postrevolutionary Mexican state quickly came to depend on emigration as a development strategy and a political safety valve, a position enshrined in Article 11 of the 1917 Mexican constitution, which forbids exit restrictions (Craig 1971, 18; Cardoso 1979, 20).

Nonetheless, this general economic preference for a free emigration regime was balanced by conflicting political and developmentalist ideas. First, Mexican thinkers had long expressed concern that the country was underpopulated and that both economic development and national security required investment in domestic manpower (Kirstein 1977). Labor-dependent state development goals were particularly embraced by the Lázaro Cárdenas (1934–40) and Manuel Camacho administrations (1940–46). At the same time, emigration to the United States in particular raised additional concerns, both on a security level in the wake of three U.S. incursions into Mexico during the previous century, and in light of the long record of discrimination against Mexican workers in the United States and the more recent record of harsh repatriation campaigns during the Great Depression (Lessard 1984). For all these reasons, "the majority of literate Mexicans were totally opposed to emigration" (Cardoso 1979, 20) at the start of World War II.

Regularization of flows during the Bracero guest-worker program radically altered migration politics within Mexico. On one hand, concerns about the mistreatment of Mexican workers intensified, and Mexican business, labor, and political leaders all resented the failure of U.S. officials to prevent undocumented migrant employment or to enforce other pro-labor Bracero provisions, especially in the program's later years. On the other hand, peasants strongly supported the program, voting with their feet by overwhelming Bracero recruitment stations (Craig 1971). And bureaucrats administering the program quickly became an influential pressure group supporting its continuation because they benefited from the $20–$50 worth of bribes that the typical Bracero worker paid to obtain his visa (Craig 1971; Pfeiffer 1979).

Mexican economic dependence on emigration intensified in the postwar period as development programs systematically kept rural wages down to subsidize state-led industrialization. Thus, Mexico lobbied successfully in 1961–63 to delay the termination of the Bracero Program (Rosenblum 2003) and spent much of the next decade pushing behind the scenes for a resumption of a formal bilateral visa program to ensure continued access to U.S. labor markets and to protect workers' rights. By the mid-1970s, however, it became clear that the United States lacked the capacity or the will to enforce immigration restrictions, and Mexicans accepted the new informal regime, which offered the benefits of market-based emigration without the costs of a formal acknowledgment of Mexico's failure to create jobs at home (Fitzgerald 2006; Rico 1992).

A final stage in the development of Mexican migration preferences began to take shape during the 1980s and '90s as the threat of migration enforcement loomed larger. Unilateral U.S. enforcement efforts failed to substantially affect Mexican access to U.S. labor markets, but the criminalization of undocumented migration and harsh anti-immigrant rhetoric offended Mexican sensibilities. With 80 percent of Mexicans having a personal connection to a current or former immigrant, the issue took on growing political importance in a newly democratic Mexico, and new emigrant rights groups (within Mexico and spanning Mexico and the United States) demanded government action (Fitzgerald 2006; Guarnizo, Portes, and Haller 2003). At the same time, the heavy U.S. focus on border enforcement had the perverse effect of increasing criminality and migrant deaths in the border region as migrants were more likely to rely on professional smugglers and as the U.S. "war on drugs" contributed to higher profits and more border violence. In this context, and learning from their successful effort to influence U.S. policy during the debate over the North American Free Trade Agreement (NAFTA), Mexican officials and others close to the government began an explicit effort during the 1990s to reframe migration as a regional problem demanding regional solutions rather than a domestic issue on which Mexico should defer to U.S. sovereignty (Rosenblum 2004a).[1]

More than a decade later, the combination of sustained attention to the human rights crisis at the border and within the United States, the strengthening of U.S.–Mexican economic integration, growing violence on the Mexican side of the border, and new concerns about the Mexican "brain drain" problem has contributed to a growing consensus within Mexico to abandon its historic "policy of no policy." As summarized by a high-level working group including legislators, current and former executive branch officials, academics, and representatives of nongovernmental organizations, the consensus centers around six principles: (1) the status quo regime has failed Mexicans and demands an active policy response; (2) that response should include collaboration between the United States and Mexico ("shared responsibility"); (3) emigration pressures will continue as long as Mexicans lack economic opportunities at home; (4) migration policy should protect the human rights of all migrants, regardless of their legal status; (5) border security, including antismuggling efforts, must be a top priority; and (6) Mexico should be sensitive to the broader regional context, including systemic pressures compelling Central American transmigration through Mexico (Hernández et al. 2005). In a rare example of multipartisan consensus, these principles and related policy recommendations—development in sending communities, collaborative enforcement efforts, replacement of undocumented with legal migration, reintegration programs for returning immigrants—were unanimously endorsed by both chambers of the Mexican Congress in February 2006. Broadly similar language appeared in the platforms of all three major parties during the 2006 presidential campaign.

U.S. Preferences

U.S. policymakers have typically viewed Mexican migration through an economic lens—as a source of cheap labor, for better or worse—but security and diplomatic concerns have also influenced the debate, especially during periods of U.S. overseas conflict. Each of these views of migration, along with cultural and national identity concerns, has intensified in the post-Cold War and post-9/11 period, raising the stakes of the debate for U.S. policymakers and the public (Rosenblum forthcoming).

Historically, the overall U.S. preference was for a stable and reliable—and occasionally deportable—workforce for southwestern agricultural jobs. Thus, the first immigration inspectors on the Southwest border—seventy-five agents on horseback, commissioned in 1904—mainly guarded against illegal Chinese immigration. An independent Border Patrol was not established until the Immigration Act of 1924, again primarily for the purposes of controlling unwanted Asian and European entries (Meyers 2005). With agricultural interest groups and other pro-migration groups enjoying organizational advantages over labor unions and opponents of liberal migration flows, U.S. officials often have been more concerned with ensuring access to needed labor than with preventing undocumented inflows (Freeman 1995; Tichenor 2002). These concerns became top priorities during World Wars I and II and the Korean War, when military planners warned that “food is as essential to victory as planes, tanks, ships, and guns” (U.S. Congress 1951, 39).

The preference for access to cheap labor was balanced by episodic concerns about border security (again, especially during wartime), the harmful effects of immigration on U.S. workers, and equity for other countries of origin. These concerns contributed to termination of the Bracero Program in 1964 and passage of the Immigration and Nationality Act amendments of 1965 and 1976, placing Mexico on equal footing with other countries by restricting Mexicans to 20,000 new permanent visas per year (plus an unlimited number of immediate-family-member visas).

These new restrictions on legal migration, along with boom–bust cycles in Mexico and growing hemispheric economic integration, contributed to a sharp rise in undocumented immigration beginning in the 1970s and persisting into the present period. Combined with the focus on border enforcement as part of the "war on drugs" beginning in 1969 and intensifying during the 1980s and the "war on terrorism" since 2001, sustained undocumented immigration has made gaining control of the border a top priority.[2]

If border security is a universally accepted priority, important divisions exist with respect to additional immigration policy goals at this time. On one hand, demographic changes within the United States (falling birthrates, rising education levels) mean that increased migration has also been associated with increased dependence on immigrant labor.[3] In a break with the past, many labor unions have embraced these flows, joining business groups to demand not reduced immigration, but rather a predictable and legal migrant workforce (Haus 2002). Pro-immigration business and labor interests are strengthened by the general integration of the U.S. and Mexican economies—Mexico is now the United States' second-largest trade partner—as most policymakers and analysts agree that border enforcement must not disrupt legal commerce. On the other hand, a significant minority questions the economic benefits of immigration and argues either for absolute reductions in inflows or, at a minimum, for de-emphasizing access to immigrant labor and focusing on tougher migration control.

Overall Bilateral Relations

The potential for translating these shifting migration preferences into collaborative policy outcomes depends not just on the extent to which preferences overlap but also on the broader strategic context in which policymaking occurs. Overall, the U.S.–Mexican relationship passed through roughly five phases during the twentieth century. The first decades were characterized by a high degree of conflict and mistrust, especially in the wake of 1914 and 1917 U.S. interventions in Mexico's revolution and civil war. Relations remained strained during the 1930s when President Cárdenas nationalized U.S. oil holdings within Mexico, and Mexico responded to the subsequent U.S. boycott of Mexican oil sales by increasing its exports to Germany on the eve of World War II. The oil controversy was resolved on terms favorable to Mexico in the context of Franklin Roosevelt's "Good Neighbor" policy toward Latin America, and Mexico joined the U.S. war effort.

The postwar period has been described as an era of "bargained negligence" (Domínguez and Fernández de Castro 2001). Under a tacit Cold War agreement, Mexican politicians distanced themselves from the Soviet Union and kept the Mexican Communist Party in check, and the United States turned a blind eye to Mexico's occasionally authoritarian style of governance. This benign neglect was strained during the 1970s as Mexican Presidents Luís Echeverría (1970–76) and José López Portillo (1976–82) adopted more stridently nationalist and anti-

American rhetoric in positioning Mexico as a leader of the nonaligned nations movement. And relations deteriorated further during the 1980s as the two nations clashed over Mexico's debt crisis, U.S. militarism in Central America and Mexico's support for the Contadora peace process, fraudulent Mexican congressional elections in 1985, and conflict over the U.S. war on drugs (Chabat 1996). The bilateral relationship hit a low point when U.S. Drug Enforcement Administration Special Agent Enrique Camarena was kidnapped and killed in Mexico in 1985. U.S. Customs Service Director William von Raab testified before the Senate Foreign Relations Committee the following year that high-ranking Mexican officials, including perhaps the family of Mexican President Miguel de la Madrid, directly participated in and profited from the drug trade.

Finally, the pendulum swung in the other direction beginning with the inaugurations of Mexican President Carlos Salinas in December 1988 and U.S. President George Bush in January 1989. The once-every-twelve-years double inauguration provided a chance for a fresh start, and the Bush administration recognized that rapprochement would improve the United States' ability to address each of the still-festering problems of the 1980s (Fauriol 1989/90; Thorup 1989). The two presidents met three times in 1988–89, and in 1989 Mexico abandoned its two-century struggle to escape the U.S. economic orbit by initiating bilateral free trade negotiations, a process that culminated with passage of NAFTA in 1993. Like Salinas and Bush, Presidents Bill Clinton and Ernesto Zedillo continued to make personal investment in the bilateral relationship, and with the resolution of most 1980s-era conflicts, the successful U.S.–Mexican trade deal seemed poised to be the cornerstone of the U.S. hemispheric integration agenda (Domínguez and Fernández de Castro 2001; Fishlow and Jones 1999).[4]

Bilateral Migration Relations

The bilateral migration relationship has been shaped by these shifts in the broader strategic relationship but has also taken on a logic of its own, especially when U.S. vulnerability to Mexican emigration pressures overlaps with other economic and security considerations, raising the stakes of a successful migration policy. Prior to World War II, conflicting preferences and strained overall relations caused both countries to pursue strictly unilateral migration policies. In the U.S. case, the free flow of Mexican workers was an unintended casualty of the U.S. effort to restrict Asian and European immigration at the turn of the century, including restrictions on the admission of contract workers and the imposition of a literacy requirement and head tax on immigrants. Policymakers recognized the importance of migrant labor for U.S. economic security and wartime preparedness and suspended these new restrictions for Mexican migrants by establishing a new guest-worker visa during World War I (Reisler 1976).

Yet Mexican officials opposed the new program, which was initiated without

Mexican participation and which conflicted with Mexico's postrevolution state-building and economic development program. The federal government in Mexico City actively discouraged outflows at the distant northern border, but the effort met with little success (Fitzgerald 2006). Immigration relations took a turn for the worse during the Depression, when roughly one million Mexicans—along with an unknown number of U.S. citizens of Mexican descent—were rounded up and deported, while others were harassed into self-deportation or chose to leave in response to the poor U.S. labor market (Jungmeyer 1988). Mexican Labor and Interior Ministry officials organized their own repatriation programs to protect their citizens from harassment. Thus, by the end of the 1930s, migration had become an independent source of bilateral conflict, and traditional circular flows had largely ground to a halt.

In this context, U.S. economic growth beginning in 1939 and the passage of the Selective Service Act in 1940 raised acute concerns about agricultural labor shortages as the United States prepared to enter World War II. Growers petitioned for a World War I-style guest-worker program in which Mexicans would be admitted on private contracts, but the Roosevelt administration—in the midst of the Cárdenas oil controversy—rejected these calls for diplomatic reasons. Then in 1942, Roosevelt directed diplomats and agricultural officials to approach Mexico about a bilateral guest-worker deal in which Mexican state actors would be responsible for labor recruitment. In the context of strained relations and fears about a German foothold in Mexico, negotiators were instructed to defer to Mexican concerns about the specifics of the deal (Gamboa 1990; U.S. Department of State 1943, 538–44). Under the resulting agreement, Mexican workers were guaranteed a minimum wage (unlike American agricultural workers) as well as transportation expenses, housing benefits, and basic health care. Mexico insisted that contracts be signed by the U.S. government, with agricultural employers acting as subcontractors. And Mexico also blacklisted the entire state of Texas, which had a particularly bad record of immigrant labor relations. As Lessard (1984, 42–47) observes, the overall agreement most closely resembled the Mexican Federal Labor Law of 1931, passed specifically to respond to abuses of earlier Mexican emigrants.

U.S. officials and growers were divided about the program. Growers pressed for more flexibility and twice (in 1943 and 1948) prevailed upon local border officials to admit Mexican workers to Texas in violation of the treaty. But the White House and State Department remained committed to their bilateral approach, intervening in both cases to prevent additional admissions. The Roosevelt and Truman administrations also resisted grower demands to renegotiate the treaty and angered members of Congress by holding growers accountable to the terms of their Bracero contracts. Nonetheless, contract enforcement weakened after the war, and state-to-state contracting and the prohibition on guest workers in Texas were both eliminated over Mexico's objections when Congress threatened to pass legislation authorizing a unilateral World War I-style program (Calavita 1992; Rosenblum 2003).

Two additional turning points were reached, in 1951 and 1954. First, with the United States entering the Korean War, Mexico threatened to obstruct emigration unless the United States agreed to resume state-to-state contracting. The White House agreed, but Congress rejected Truman and Mexico's additional demand that employers be prevented from hiring undocumented immigrants outside the program. Caught between a pro-grower Congress and a pro-agreement Mexico, Truman was forced to accept Congress' version of the bill, and the so-called Texas Proviso gave employers immunity from the new crime of "harboring or abetting" undocumented immigrants.

Second, with the signing of the Korean armistice in 1953 and the inauguration of the more pro-business Eisenhower administration in January 1954, the United States adopted a tougher bargaining position, insisting that Mexico contribute to migration control efforts by patrolling its side of the border and that guest-worker contract disputes be arbitrated by the United States rather than bilaterally. Negotiations broke down, and Mexico played its only remaining card by placing troops on the border to prevent Bracero exits. The move backfired, however, when U.S. border agents assisted illegal (from Mexico's perspective) crossers and gave them visas; and Mexico was forced to accept the U.S. terms or be excluded from any role in the program. Thus, if bilateral relations were generally characterized by benign neglect during the 1950s, immigration relations after 1954 came to be characterized by gross exploitation of Mexican immigrants during the mature phase of the Bracero Program (Rosenblum 2003).

Mexico's ability to manage guest-worker flows remained compromised thereafter, but bilateral relations still influenced the timing of the program's demise. Under pressure from the Democratically controlled Congress and from his domestic constituents to terminate the program, the pro-labor President Kennedy nonetheless agreed to Mexico's request that the program be extended for two years in 1961 and one year in 1963. Kennedy had a long voting record against the program as a member of Congress but explained his support for the extension on the grounds that "I am aware … of the serious impact in Mexico if many thousands of workers employed in this country were summarily deprived of this much-needed employment" (American Reference Library 1999, 639–40).

The possibility of a new bilateral guest-worker deal remained on the regional agenda for the next decade. Mexico petitioned the United States for a renewed guest-worker program throughout the 1960s, but the United States rejected the requests, and no formal talks were held. The 1973 oil shock reversed this dynamic, as the United States offered Mexico a new guest-worker deal in exchange for privileged access to Mexican oil reserves. Once again, no talks were held as the nationalist Echeverría administration, emboldened by the promise of robust oil-fueled growth, rejected the offers (Fitzgerald 2006; Rico 1992).

Migration relations deteriorated during the high-conflict 1980s. U.S. officials recognized that Mexico would bear the brunt of new enforcement measures contained in the 1986 Immigration Reform and Control Act (IRCA), but no bilateral talks were held on the legislation, and Mexico rejected a formal invitation to participate in U.S. Senate hearings leading up to IRCA's passage. Partly for these reasons, even though earlier legislation debated in 1983 and 1984 included language to expand legal Mexican visas to offset the new enforcement measures, these provisions were eliminated from the final version of the bill without discussion. Similarly, even when relations improved under Bush and Salinas, Mexican negotiators made an explicit decision *not* to raise migration issues as part of a new trade deal during NAFTA talks, and NAFTA's "labor chapter" regulates workplace rules but not labor flows.[5]

Immigration became a still greater source of conflict during the 1990s as California Governor Pete Wilson based his successful reelection campaign on the demonization of undocumented immigrants leading up to the passage of that state's Proposition 187 to deny undocumented immigrants access to education and health care. Republican House members made tough immigration restrictions a priority following their victory in the landslide "Contract with America" election in 1994, and Republican presidential candidate Patrick Buchanan took a similar message on the national campaign trail. The trend culminated in 1996 with the passage of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), which restricted immigrants' access to public services and strengthened migration enforcement. Meanwhile, the United States adopted a new policy of "prevention through deterrence" at the U.S.–Mexican border, dramatically expanding enforcement personnel and equipment to discourage attempted entries. In practice, however, the partial militarization of the border produced no measurable decline in attempted entries but led to a sharp increase in border-area violence and deaths as immigrants turned to professional smugglers and crossed the border in ever more remote areas (Cornelius 2001; Meyers 2005).

The contrast between steadily deteriorating immigration relations and improvements in other aspects of the bilateral relationship finally caused policymakers on both sides of the border to seek more collaborative solutions to the growing immigration crisis. The U.S.–Mexican Binational Commission, founded in 1977 by the Carter and López Portillo administrations but dormant during the 1980s, led the way by elevating its immigration subgroup to full working group status in 1990 and then received sustained cabinet-level attention during the Clinton presidency. The commission sponsored a major binational study of immigration, producing the first quasi-official consensus document on the causes of undocumented immigration and on basic demographic characteristics of immigrant stocks and flows (Binational Study on Migration 1997). Agreements were signed in 1996 and 1997 creating four separate programs to establish joint procedures for U.S. Border Patrol agents and Mexican consuls during deportation proceedings (Mechanisms of Consultation), standing links between municipal officials along the border (Border Liaison Mechanisms), and a program to target U.S. resources to migrant-sending communities—all Mexican priorities (Domínguez and Fernández de Castro 2001; Rosenblum 2004a; Sassen 1999). These border-level institutions produced significant improvements in the protection of immigrant rights, and the Clinton administration also responded to Mexican pressure by demanding important changes to the IIRIRA to mitigate some of its most harmful effects (Gimpel and Edwards 1999; Rosenblum 2004b).[6] Thus, even though Mexicans scorned the IIRIRA and new U.S. border enforcement strategies for "criminalizing" undocumented immigrants, they praised the Clinton administration for its bilateral approach to the issue (Rosenblum 2004a).

Evaluating the Historical Record

In sum, the United States and Mexico initiated a genuinely bilateral immigration regime for the first time in 1942, and both countries derived benefits from the Bracero Program during World War II. But this example is exceptional. In other cases, bilateral policymaking was limited by opposition from one or more policy actors in the United States or Mexico, as in 1951–53 when Congress agreed to Mexico's demand that guest-worker contracting occur on a state-to-state level but blocked Truman's effort to impose sanctions on noncooperative employers, and in the 1990s when congressional restrictionism ensured that Clinton's outreach to Mexico on migration issues was limited to midlevel institutional changes and small modifications to the IIRIRA. Even fewer opportunities for collaboration exist when policymakers in either country uniformly oppose bilateral migration policymaking, as was the case in both countries prior to World War II, in the United States in 1954 and 1986, and in Mexico in the 1970s.

Why has successful collaboration been such an unusual policy outcome? On one hand, policymakers in both states confront domestic political obstacles. In Mexico, the revolutionary state's founding mythology emphasizes economic nationalism and independence from the United States; and U.S.–Mexican migration cooperation remains particularly controversial. In the United States, even though pro-immigration interest groups have often dominated the policymaking process (Freeman 1995; Joppke 1998), they have rarely viewed Mexico as an ally in this fight; and nativists and other opponents of generous immigration policies are even more hostile to a bilateral approach.

More important, collaboration has offered limited substantive benefits to either country. While the Roosevelt and Truman administrations enforced pro-Mexican contract requirements over employer objections in the early years of the Bracero Program, for most of its history the program is correctly recalled as nakedly exploitative of immigrant workers, offering few benefits to Mexico beyond the veneer of a formal state role in emigration. Mexico's rejection of an oil-for-guest-workers deal in the 1970s was based on the correct assessment that its workers enjoyed access to U.S. labor markets with or without a visa, and on skepticism that legal access would bring additional concrete protections. Similarly, with the exception of the initial Bracero period when bilateral recruitment helped jump-start stalled labor flows, bilateralism has offered few tangible benefits to the United States. Once Mexico tried and failed to prevent outflows in 1954, the U.S. preference for access to labor was reliably satisfied via unilateral recruitment policies. Thus, migration cooperation has been undermined because unilateral migration policies have done an adequate job of protecting core migration interests without taking on the additional costs associated with a bilateral regime.

For these reasons, the best predictor of migration cooperation has not been variance in the underlying structure of the migration problem but rather in the broader bilateral, regional, and global context. U.S. military vulnerability in 1942 and 1951 substantially enhanced Mexican bargaining power not only because it increased the value of U.S. access to Mexican labor but also because U.S. planners saw linkages between a migration deal and their additional goals of a stable regional relationship and a damper on Mexico's flourishing relationship with Germany prior to World War II. Then when the anti-Bracero Kennedy administration confronted a Democratic Congress inclined to terminate the program, it was the administration's Latin American agenda that caused the president to intervene in favor of gradually phasing out the program, as Craig (1971, 189) explains: "To abolish Mexico's third-most-important source of foreign exchange on short notice would have been too much out of character with Kennedy's Alliance for Progress." Even during the 1990s, Clinton administration officials de-emphasized the migration-specific benefits of border-level institutions and argued that the administration sought to balance congressional hard-liners primarily to protect the fragile U.S.–Mexican relationship (Rosenblum 2004b, 88).

Conversely, strained relations have undermined opportunities for migration cooperation. Not only did Mexico perceive an immigration deal as unnecessary by the mid-1970s, but making such a deal would have been particularly difficult for the Echeverría and López Portillo administrations, which staked their domestic legitimacy on their independence from the United States. And during the 1980s, even though members of Congress sought Mexican input during the IRCA debate, the broader downturn in the bilateral relationship made it impossible for Mexico to accept Congress' invitation.[7]

Contemporary Opportunities and Obstacles to a Bilateral Migration Regime

The end of the Cold War and the 9/11 attacks may mark the beginning of a new era in U.S.–Mexican relations, and recent developments within the United States and Mexico signal the possible emergence of a new politics of migration within each country as well. While it is too early to reach conclusions about how these changes will affect bilateral migration relations, the following sections offer some tentative judgments about the potential for these changes to usher in a new era of cooperation and about remaining obstacles to bilateralism.

Opportunities for Collaboration

Have changes in the international context improved the prospects for a new bilateral migration regime? On their surface, the 9/11 attacks would seem to place a premium on collaborative enforcement efforts. Indeed, if Mexico was perceived as an indispensable ally during World War II and the Korean War by virtue of its ability to provide essential workers, it is similarly in the position today—when six out of ten new jobs are filled by immigrant workers (Sum et al. 2005)—to play a critical role in sustaining healthy U.S. economic growth. Moreover, with 80 percent of undocumented immigrants to the United States coming from Mexico and the Caribbean Basin, and with 12,500 trucks and 660,000 people legally crossing the U.S.–Mexican border each day, Mexico is uniquely positioned to contribute to U.S. counterterrorism efforts.[8]

In addition, Mexico remains a gateway for U.S. interests throughout Latin America. As in the 1990s, hemispheric economic integration remains a high priority for many U.S. policymakers of both parties. Any immigration deal could substantially strengthen U.S.–Mexican economic institutions and political ties and would likely deepen Mexico's commitment to pro-market economic policies favored by the United States but increasingly controversial in Mexico and throughout Latin America.[9]

Second, domestic political changes in each country also seem to reveal new opportunities for a collaborative approach. In the Mexican case, an immigration deal would be the next logical step in the process of integrating the transnational community within Mexican political life. This process began in earnest in 1990 when the Mexican Foreign Ministry established its Program for Mexican Communities Abroad (reorganized in 2001 as the Institute for Mexicans Abroad), which promotes linkages between Mexicans in the United States and public and private institutions within Mexico, seeks to improve the image and self-image of Mexicans within the United States, promotes social and political organizing within Mexican-American communities, and strengthens the role of the Mexican consular network as a supporting organization in this effort (Figueroa-Aramoni

1999; González Gutiérrez 1999). Mexican legislation in 1996 to permit "dual nationality," in 1998 to permit dual citizenship, and in 2002 to permit voting abroad reinforced this agenda, as did Fox's widely embraced pledge to "govern for 120 million Mexicans" (that is, 100 million in Mexico and 20 million in the United States).

There are also reasons to believe that political space for a bilateral migration deal may exist within the United States. Public opinion polls during 2006 registered greater interest in immigration reform than at any point in the previous two decades, and demand for reform was arguably higher than at any point since the 1920s. Most Americans believe that the U.S. economy depends on immigrant labor; and numerous polls conducted in the spring and summer of 2006 and in the spring of 2007 found that between 60 and 80 percent of respondents favored immigration reforms that included a new, large temporary-worker program. Labor groups that actively opposed new inflows during the 1970s and '80s (for example, the AFL-CIO) are now more focused on regularizing flows, and labor support for an immigration deal would be particularly strong if it also strengthened U.S. unions' ability to organize Mexican workers. Employers who previously dismissed the possibility of effective migration enforcement now confront labor shortages and would welcome a system that guarantees access to workers even at the cost of new labor rights. These labor and business concerns were at the heart of the left–right coalition supporting the Senate's Comprehensive Immigration Reform Act during the 2005–06 and 2007–08 sessions of Congress. Finally, top strategists in both parties see a long-term benefit to building support among Latino voters, who generally favor reform packages that include legalization and expanded legal migration and who likewise presumably would support a bilateral deal.

These contextual changes make it easy to describe the contents of a bilateral migration deal that could achieve widespread support in both countries. The first pillar of a new regime would be enhanced security on and around the U.S.–Mexican border and greater collaboration on regional security issues in general. For years, Mexico perceived border insecurity as a U.S. problem: border crime contributed to the flow of drugs and people into the United States but had few negative consequences for Mexicans per se. But border violence has begun to spread deeper into the Mexican interior, and in a democratic Mexico with an active, independent media, the failure to curtail border violence has become a liability for incumbents. For this reason, Mexican law enforcement agencies have already substantially expanded their efforts to prevent undocumented transmigration and to assist U.S. counternarcotics efforts.[10]

Existing Mexican enforcement efforts potentially represent the tip of the iceberg, and a bilateral agreement could substantially improve U.S. migration control if it expands existing interior repatriation programs (that is, deporting Mexican migrants to their hometowns, rather than to the U.S.–Mexican border), if Mexico plays a more active role in discouraging undocumented emigration by its citizens, and if Mexico increases enforcement against transmigration. Mexican assistance on other security priorities could be even more significant, including enhanced connectivity of U.S. and Mexican counterterrorism databases, greater U.S. access to Mexican *immigration* data, a direct U.S. enforcement role at Mexican ports of entry, and a direct enforcement role for U.S. counternarcotics agents on the Mexican side of the border. Mexico has rejected many of these ideas in the past, but current and former Mexican officials have signaled their willingness in recent years to place some of these long-desired (by the United States) concessions on the negotiating table as part of a comprehensive deal.[11]

The second pillar of a bilateral migration deal would be enhanced Mexican opportunities for legal migration and protection of Mexican immigrants' rights within the United States. Previous Mexican criticism of emigrants' loyalty to Mexico has given way to an embrace of the vital role of migrant remittances, which totaled $24.5 billion in 2006. Thus, Mexican politicians have spoken out in support of a new U.S. temporary-worker program even without the promise of privileged access for Mexicans. Yet there is an inherent tension between promoting *temporary* migration—that is, formally establishing a two-tier labor regime—and protecting workers' rights. Thus, to satisfy liberal and pro-labor allies within the United States, a temporary-worker program must also include significant new protections to guard against migrant exploitation.

Despite the Bracero Program's many flaws, the early years of the program offer important lessons about the value of bilateral enforcement. Indeed, Mexican oversight of guest-worker contracts between 1942 and 1947—during which time consular workers had the power to suspend contracts and blacklist abusive employers—contributed to a high level of contract compliance, which is why employer allies in Congress made elimination of Mexico's oversight role a top priority in 1947–48 and again in 1954 after state-to-state contracting resumed during the Korean War (Rosenblum 2003). Mexico's existing consular network and Institute for Mexicans Abroad are a natural resource for ensuring immigrant workers' rights; and Mexico would have great incentives in the context of a bilateral agreement to absorb some of the enforcement costs associated with contract oversight. In addition, Mexican labor officials could take responsibility for migrant screening and recruitment within Mexico, preventing exploitation by private labor contractors who would otherwise play such a role.

Finally, the third pillar of a new bilateral immigration deal could be restoring circular migration patterns and promoting development in Mexican communities of origin as a strategy for reducing long-term push factors. Mexican programs like Tres-por-Uno (three-to-one), which provides federal, state, and local matching funds to supplement migrant remittances targeting community development projects, offer one template; U.S. matching funds could easily be folded into such a program. Nongovernmental immigrant hometown associations have also funded development within sending communities, and a new immigration deal might emphasize public–private partnerships based on this model. Many U.S. actors recognize the logic of this approach, which has long been seen as the primary tool available to reduce emigration pressures (Commission for the Study of International Migration and Cooperative Economic Development 1990). Efforts to target remittances to local development projects could be combined with programs to encourage return migration by temporary workers, a priority for some supporters of comprehensive immigration reform in the United States and a trend that would ultimately strengthen bilateral relations. Under a bilateral regime, return flows would be encouraged through market-based incentives, such as return bonds, withheld wages, or a binational pension program, rather than through an enforcement-only approach.

Obstacles to Collaboration

Each of the contextual changes discussed above cuts both ways, raising obstacles to those who favor a bilateral approach, and specific proposals for bilateralism raise additional questions.

First, in terms of the broader international context, post-9/11 concerns about security make Mexico a more valuable ally, but they also raise new concerns about the "special peril of defection," raising barriers to cooperation for the reasons the traditional international relations literature predicts. That is, while U.S. security experts embrace a regional approach, they also worry that Mexican enforcement agents may be less committed to protecting U.S. security, less prepared, or more prone to corruption. And the evidence so far is not that the United States has reached out to Mexico as a valuable ally in the war on terror, as during World War II, but that the two nations have reentered a Cold War-style era of benign neglect.[12] An immigration deal would also have ambiguous implications for U.S. hemispheric integration goals, as any deepening of U.S.–Mexican economic integration immediately raises questions about "parity" for other Caribbean Basin and Western Hemisphere states: Why should Mexico receive privileged access to U.S. markets while CAFTA-DR countries are excluded, for example?[13]

Second, clear political obstacles to reform also remain in place in each country. Fox placed such a deal at the center of his presidency in 2001 and suffered the consequences throughout the remainder of his term from the definitive American withdrawal from bilateral negotiations. In a March 2006 poll, only 52 percent of Mexicans considered good relations with the United States important to Mexico's future (Zogby International 2006). The same poll found that a plurality of Mexicans (32 percent) believed they had been personally harmed by the NAFTA treaty and that a majority (53 percent) opposed the idea of linking tighter immigration restrictions to a "Marshall Plan" for Mexico—though this would not be the focus of an immigration agreement as described here.

On the U.S. side, opposition to a bilateral migration deal would come from the same actors who supported unilateral enforcement-only measures rather than comprehensive reform during the 109th and 110th Congresses. Indeed, House Republicans hardened their opposition to a temporary-worker program, legalization, and other benefits in the wake of the Senate's passage of the Comprehensive Immigration Reform Act of 2006. And large-scale marches and rallies in support of comprehensive immigration reform in the spring gave way to a backlash by anti-immigration single-issue groups, which brought significant grassroots pressure to bear on Republicans and Democrats alike throughout the summer of 2006 and lasting into the following year.

Finally, the details of the three-pillar structure would also raise a number of questions. First, working out a Mexico-specific temporary-worker program would be difficult, raising questions about the timing of new admissions relative to enhanced enforcement efforts, whether temporary workers should have the opportunity eventually to become U.S. citizens, and how to handle temporary workers' health and pension benefits, among other issues. Second, how would the agreement balance migrants' rights within the United States against the goal of stronger migration enforcement? Bilateral negotiations would have to resolve disputes over specific enforcement measures under consideration in the United States, including limits on migrants' access to the court system, expanded use of mandatory detention and expedited deportation, and the proposal to redefine undocumented status as a felony or misdemeanor criminal offense. The most fundamental questions regard the rights of undocumented immigrants within the United States: While a majority (often as many as three-quarters) of Americans polled in 2006 and 2007 favored proposals to allow undocumented immigrants who meet a range of requirements to earn legal status, a significant minority passionately opposes "amnesty" under any circumstances. Mexico would likely insist that a bilateral deal include realistic paths to legality for these Mexican citizens (Hernández et al. 2005).

Conclusion: Prospects for Reform

In sum, despite the uncertainty about the future of immigration reform within the United States, this review confirms that ample areas of agreement exist around which a bilateral agreement could, in principle, be negotiated. A bilateral approach enjoys especially widespread support among Mexican elites, and Mexico's apparent willingness to offer substantial new support to U.S. law enforcement efforts in exchange for privileged access to U.S. labor markets could be at the heart of a new deal. Any such arrangement would be controversial within the United States.

But a well-crafted bilateral deal based on expanded legal access for Mexican workers and protection of immigrant rights, joint enforcement to prevent undocumented migration and enhance U.S. security, and promotion of circular flows and Mexican regional development projects could achieve widespread support from the same left–right coalition of grassroots and elite groups and policymakers that supported comprehensive reform proposals in the Senate in 2006 and 2007 and the president's proposed migration reform in 2005. Moreover, there is little doubt that an agreement based around these three pillars could be of substantial mutual benefit to the United States and Mexico. Thus, whereas a bilateral immigration regime failed to generate serious discussion in the post-Bracero period because no basic consensus existed on areas of mutual concern, today's higher priorities on regional security and economic integration have changed these dynamics so that bilateralism offers the possibility of concrete benefits.

What is the likelihood that bilateral talks will resume and usher in major changes? In the short term, the political costs and benefits of a bilateral deal may turn on the election results of 2006 and 2008. House Republicans moved hard to the right on immigration reform during the summer of 2006, seeking to use migration as a wedge issue to mobilize conservative voters; but this strategy was unsuccessful at best, and may have backfired in many cases. Overall, exit polls found that a solid majority of midterm voters (57 percent versus 38 percent) wanted immigration reform to provide undocumented immigrants working in the United States a chance to apply for legal status rather than face deportation (Kondracke 2006). And while immigration was not at the center of most midterm races, pro-comprehensive reform candidates defeated hard-liners in thirteen of sixteen races in which the immigration debate was prominently featured.[14] Perhaps most important, Hispanic voters turned out in large numbers and voted overwhelmingly for Democrats, reversing gains made by the Bush administration during the 2004 presidential race and jeopardizing the president's highly touted plans for Hispanics to become a core constituency for Republicans in the future.[15] Even though the Democratically controlled Congress failed to produce immigration legislation in 2007—and many of the newly elected Democrats were lukewarm supporters of reform, at best—the early position-taking for the 2008 race suggests that comprehensive reform will remain an increasingly partisan issue, at least at the presidential level, with Democrats favoring a policy package that could lend itself to bilateralism and Republicans (with the exception of John McCain) coming out strongly for an enforcement-only approach.

As with any bilateral initiative—or any major immigration reform—a second key question concerns presidential leadership. Will President Bush find an opportunity to return to immigration reform during his final year in office? It would require strong presidential leadership in both countries to craft a multidimensional agreement and to sell it to skeptical publics. Despite his earlier outspoken support for a bilateral deal, Bush failed to keep immigration on the bilateral agenda, and his support for the Senate's comprehensive reform bill during 2006 was also less consistent than supporters had hoped. The president—along with Secretary of Commerce Carlos Gutierrez and Secretary of Homeland Security Michael Chertoff—was far more engaged during the 2007 Senate debate, but Republican opponents of the Senate bill and process ignored the administration's appeals for support. Following three years of congressional false starts, the inauguration of a pro-reform president in 2009 may see a bilateral approach, working with a like-minded Felipe Calderón, as an opportunity to jump-start the U.S. immigration debate just as Bush initially intended in 2001.

This raises a third question about the institutional venue for a bilateral deal. Many initiatives to enhance collaborative enforcement, streamline legal flows, and invest in Mexican communities of origin have already begun through the U.S.–Mexican–Canadian Security and Prosperity Partnership of North America (SPP). Important examples include voluntary interior repatriation agreements, the joint countersmuggling program OASISS, the SENTRI program to allow pre-approved entry for "trusted travelers" who undergo background checks and obtain radio frequency ID cards, and the bilateral Border Security Initiative in which U.S. Border Patrol and Mexican Grupo Beta agents work and train together. Their shared mission is reducing illegal entries while preventing border deaths and improving humanitarian conditions along the border. Further collaboration through the SPP would not require extensive public debate or cooperation from Congress, but the SPP does not offer the possibility of substantial additional Mexican access to U.S. labor markets, nor do the executive agreements and memoranda of understanding upon which the SPP is based offer an opportunity to use an immigration deal as a high-profile tool of hemispheric diplomacy. As in the 1990s, bilateral progress through modest executive branch institutional reforms is thus easier to contemplate than major legislative or treaty-based changes but offers more limited benefits.

Any prospects for a new bilateral migration agreement require continued political and economic stability in Mexico. Mistrust of Mexican enforcement capacity and integrity is a key obstacle to good-faith bargaining on the part of many U.S. policymakers, and the new security context raises the stakes associated with an unreliable negotiating partner. The protest tactics employed by Andrés Manuel López Obrador and his supporters following Mexico's disputed 2006 election represented a strong disincentive to risk-averse U.S. policymakers who might have considered investments in a more formal bilateral immigration regime, though by the middle of 2007, the Calderón administration had demonstrated an impressive ability to restore order to the Mexican capital and engender broader-than-expected support within the Mexican Congress. Even in the absence of additional conflict in Mexico, lingering questions about Mexico's future economic and political development and the breadth of support for López Obrador's radical critique of U.S.-backed economic policies highlight the potential gains from a new bilateral migration agreement—but also the barriers to negotiating one.

Finally, in the long run, the successful implementation of a bilateral migration deal will depend to a great extent on the ability of Mexican politicians and the U.S.–Mexican transnational community to complete the project of redefining the issue in those terms. Migration differs from the cross-border movement of goods and capital because the movement of people represents more than a simple shift in factors of production. But at the same time, a globalization regime that liberalizes only some types of flows is fundamentally asymmetric, penalizing owners of labor relative to other participants in the global economy. The United States and Mexico confront deeper challenges in resolving this tension than in the cases, say, of the European Union or Mercosur states, but the challenge will only intensify as the U.S. and Mexican economies otherwise continue their broader integration. In this sense, how the United States and Mexico define their bilateral migration problem may be an important predictor of how the United States defines its future relationship with the global economy.

Notes

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1 As a former Mexican executive branch official involved in the effort to develop a more aggressive migration policy explained, "It does not count as intervention in another country's affairs when you are doing it to protect the rights of your own citizens" (Rosenblum 2004a, 108).

2 The focus on counterterrorism at U.S. borders began during the 1990s in the wake of the 1993 World Trade Center bombing and the 1999 millennium bomber, intercepted at the U.S.–Canadian border (Meyers 2005).

3 Immigrants combined to account for 15 percent of the U.S. workforce in 2004 and over 50 percent of labor force growth since 1994 (Sum et al. 2005; Aspen Institute 2005).

4 Conflict over the Central American civil wars was resolved by the El Salvador peace treaty (1989) and Nicaraguan election (1990); conflict over Mexican democratization was resolved by free and fair elections in Mexico during the 1990s; conflict over Mexico's debt crisis was resolved by Mexico's commitment to "Washington Consensus" economic policies and the NAFTA deal; and conflict over narcotics was ameliorated by President Clinton's consistent support for Mexico on this issue, including his use of the veto threat to block a congressional proposal to "decertify" Mexico as an ally in the war on drugs (Rosenblum 2004a).

5 Ironically, the only way immigration entered the NAFTA debate was when NAFTA's supporters held out the promise of reduced Mexican emigration pressures as a reason for Americans to support the deal. Thus far the record suggests that NAFTA has had the opposite effect (Massey, Durand, and Malone 2002).

6 Clinton threatened a veto to eliminate the Gallegly amendment, which would have denied free public education to the children of undocumented immigrants; and the administration

also scaled back congressional limits on poor families' ability to sponsor family members for immigrant visas (the "deeming" requirement) and eased restrictions on immigrants' access to welfare.

[7] Senate Judiciary Chairman Alan Simpson (R-WY) traveled to Mexico and discussed migration legislation with officials there during the summer of 1986. Simpson supported efforts by the Foreign Relations Committee to invite Mexican officials to discuss migration issues at a June hearing on the "Situation in Mexico," but Mexicans boycotted the hearing in the wake of the inflammatory William von Raab testimony before the same committee just one month earlier.

[8] The border is *not* the weakest link in U.S. counterterrorism efforts; yet Mexico is still uniquely positioned to enhance U.S. security by assisting in the creation of a North American security perimeter, by screening cargo before it reaches the U.S. border, and by assisting in tracking terrorist mobility (Council on Foreign Relations 2005; Ginsburg 2006). Also see Flynn (2004).

[9] While U.S.–Mexican migration relations were not prominently featured in Mexico's 2006 presidential election, NAFTA, Mexico's position in the global economy, and structural reform of the Mexican economy were among the most significant issues distinguishing the top two candidates, Felipe Calderón and Andrés Manuel López Obrador. In Mexico and throughout Latin America, U.S. unilateralism on migration issues, especially the "*muro de muerte*" (wall of death) at the U.S.–Mexican border, has become an inflammatory example of U.S. hypocrisy (for example, British Broadcasting Corporation 2006; Cormier 2006). Few developments would silence these critics more effectively than a formal U.S.–Mexican (or U.S.–regional) migration agreement.

[10] According to the Mexican Embassy, Mexico arrested 57,000 individuals on drug trafficking crimes between 2000 and 2005; Mexico currently employs 38,000 civilian and military law enforcement personnel in its counternarcotics efforts; and Mexico detained 216,000 transmigrants in 2004 and 206,000 in the first ten months of 2005. New bilateral initiatives have also been launched, including the 2002 Border Partnership Accord, which provides U.S. screening technology to Mexican inspectors and coordinates shared data on airline passenger manifests; and the Security and Prosperity Partnership, which seeks to streamline legal border crossing within the NAFTA area by implementing common data and documentation procedures.

[11] For example, Mexican members of Congress unanimously agreed that "if a guest country offers a sufficient number of appropriate visas to cover the biggest possible number of workers and their families, which until now cross the border without documents because of the impossibility of obtaining them, *Mexico should be responsible for guaranteeing that each person that decides to leave its territory does so following legal channels*" (Hernández et al. 2005; emphasis added), a radical break with Mexico's previous position against the regulation of outflows. The same joint resolution suggests that in the case of a comprehensive immigration deal, "Mexico would be in a better position to exhort potential migrants to abide by the proper rules and to adopt measures in order to reduce undocumented migration." Also see Council on Foreign Relations (2005).

[12] As Castañeda (2003, 68) concludes, "the region, at least in terms of U.S. attention, has become once again an Atlantis, a lost continent."

[13] Still, these deepening-versus-broadening conflicts are not insurmountable, as there are ample historical and contemporary reasons to limit a migration deal to Mexico; and (as the CAFTA-DR example implies), a deal with Mexico could likewise be expanded to encompass other countries of origin in the future.

[14] Pro-immigration or pro-comprehensive reform candidates were victorious in House races in Arizona's Eighth District (defeating Randy Graf, founder of the anti-immigrant Minutemen group),

Indiana's Eighth District (defeating House Immigration Subcommittee Chairman John Hostettler), Colorado's Seventh, and Arizona's Fifth (defeating prominent immigration hard-liner J. D. Hayworth); in Senate races in Florida, New Jersey, Pennsylvania, and Washington; and in gubernatorial races in Arizona, California, Colorado, Kansas, and Wisconsin. Restrictionist Republican Senator Jon Kyl retained his seat in Arizona; and hard-liners won close races against pro-comprehensive-reform candidates in Pennsylvania's Sixth District and Florida's Thirteenth.

[15] Eight percent of all voters in 2006 were Hispanic, the highest level ever recorded, and Hispanic voters reversed a recent trend by supporting Democrats over Republicans by a margin of 69 percent to 29 percent, up from 65–35 in 2000, 62–38 in 2002, and 56–44 in 2004.

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Political Implications of U.S. Public Attitudes Toward Immigration on the Immigration Policymaking Process

Valerie F. Hunt

Policymakers and researchers alike are concerned about the political challenges that liberal states face when attempting to regulate immigration through policy reform amid increased migration and trade (Freeman 1994; Hollifield 1992). At times, U.S. immigration (and immigration policy) corresponds with the ebb and flow of economic conditions—namely that during times of economic prosperity, policy is more expansive, and during times of economic downturns, it tends to be more restrictive. However, there are times when the U.S. government passes expansive immigration measures in the face of economic downturns. Irrespective of real-world conditions that can be traced to increased globalization and trade and to increased levels of both illegal and legal immigration, governmental drives toward expansive or restrictive immigration policy are mediated by the public's acceptance of immigration and immigration policy.

I argue that liberal governments must take the public will into consideration when making policy. When does public opinion matter to the policy process? Anthony Downs (1972) tells us that not every issue that gains public attention gets addressed on the policy agenda. Indeed, the public, when confronted with the economic and/or social costs, may lose interest and cease pressuring the government to make policy reforms. For example, one policy option for curbing the hiring of illegal labor is to require both citizens and immigrants to carry a national identification card. Gallup polls show that, until recently, the American public has considered a national identity card too great a cost to pay for resolving the problem of identifying undocumented migrants (cited in Hunt 2003).

Immigration reform has long been a source of internal divisions in both the Republican and Democratic parties (Tichenor 2002). Because of the potential for policy stalemate, parties have an incentive to keep immigration off the policy agenda as much as possible. For example, negotiations around the North American Free Trade Agreement did not include provisions for regulating immigration from Mexico or Canada. The trade agreements were devoted to policy development for the transfer of goods and services.

Lawmakers were able to keep immigration issues off the government's policy agenda for two key reasons. First, opinion polls indicated that the American public considered immigration to be much less important than other issues, such as the state of the economy, crime levels, and, after the 9/11 attacks, the war in Iraq and terrorism. Second, the American public had seldom punished elected officials for immigration policy stances that may have been counter to public preferences.

Heightened public attention to immigration has exacerbated the polarization within and between parties over immigration reform. In addition, factors such as rising levels of illegal immigration since the mid-1990s, the effects of globalization on domestic labor markets, public uncertainty about individual and national economic well-being, and public concerns about national security due to the porous U.S. border have pushed out in the open the parties' internal divisions about the most appropriate policy alternative for addressing unauthorized and legal immigration.

Public Attitudes Toward Immigration Issues: Before and After 9/11

For decades, Americans have displayed ambivalence toward immigrants and immigration policy (Fetzer 2000; Simon 1985; Simon and Alexander 1993; Simon and Lynch 1999). At certain times, Americans profess appreciation for the presence of immigrants and even embrace the notion of immigrants' importance to the nation's development. For example, American national identity is often associated with the concept of being a nation of immigrants (Reimers 1992). Yet, Americans express animosity toward each new wave of migrants into the nation's social, political, and economic fabric.

As public opinion scholars Simon and Lynch (1999) demonstrate, the American public expresses positive feelings about immigrants who came to America in the distant past and negative feelings toward immigrants who came during whatever period the survey was conducted. Since the late nineteenth century, Americans have regarded each new wave of migrants as a threat to economic well-being and as a challenge to cherished touchstones of American identity. In a recent study, anthropologist Leo Chavez (2001) investigated the interplay of public discourse and media coverage of immigration on ten American national magazine covers from 1965 to 1999 and how the coverage coincided with real-world conditions such as economic upswings and downturns. Patterns of positive and negative depictions coincided with shifts in the economy. Positive depictions appeared during economic upswings, while negative images and stories of immigrants ran during economic downturns. Chavez finds that national magazines published positive depictions of immigrants on their covers during the Independence Day period, a time when Americans are open to embracing their immigrant heritage.

Three developments in U.S. public attitudes have emerged since the 2001 terrorist attacks. First, Americans have shifted their thinking about the salience or importance of immigration issues. Second, they have changed their level of attentiveness to immigration as a national problem. Third, as awareness of immigration issues and divisiveness in political parties have increased, they have begun to use immigration as an evaluative criterion for vote choice.

This study analyzes the causes and implications of these shifts in public attitudes toward immigration on the U.S. political landscape. Specifically, I address how changes in public attitudes have political implications for the 2006 midterm elections and on current policy reform efforts. Real-world conditions shape U.S. immigration policy and the country's ability to control unwanted migration. The impact of these real-world conditions cannot be understood without taking into consideration the role of U.S. public attitudes in the policy process. I argue that the impact of these real-world conditions on immigration is mediated by public perceptions of these factors.

Ebb and Flow of Public Attentiveness to Immigration Issues: Before and After 9/11

Before 9/11, the American public paid less attention to immigration than to other issues. When asked what they think is the most important problem facing the nation, Americans consistently rank immigration at the very bottom of public priorities, with crime, the economy, and the war in Iraq consistently polling as most important.

For example, political controversy over 1994 California Proposition 187 focused national public attention on illegal immigration issues. The California initiative sparked public debate over whether immigrants constituted a fiscal burden by overcrowding schools and hospitals, depressing wages, and using scarce social-service resources without paying into the public coffers. The public increased its attentiveness to immigration, particularly amnesty provisions for illegal migrants in the U.S., as well as guest-worker programs and the problem of unauthorized migration from Mexico.

Immigration moved from regional to national policy agendas. Congress addressed illegal immigration after the 1994 midterm elections, during which the Republican Party regained the majority of the House and Senate. It passed the 1996 Illegal Immigration Reform and Immigrant Responsibility Act and the Personal Responsibility and Work Opportunity Reconciliation Act.

After this flurry of legislative activity, public attentiveness to immigration waned for the rest of the 1990s. But after 9/11, Americans began to pay more attention to immigration. Several surveys conducted by the Pew Research Center for the People and the Press from 2005 to 2006 show that immigration moved to the top tier of most important problems facing the nation. Table 1 compares the results of five Pew surveys conducted between November 2005 and September 2006. The September survey shows that immigration ranks as one of the top six most important problems. The issues Americans considered most important were the war in Iraq (25 percent), terrorism (14 percent), the economy (9 percent), energy prices (7 percent), immigration and government (6 percent each).

Public Understanding of Immigration Issues: Before and After 9/11

The public exhibits fairly consistent and articulated opinions about immigrants and immigration policy. Prior to 9/11, Americans generally understood immigration issues primarily as economic, fiscal, or social problems. Problems tended to focus on job displacement issues (for example, whether immigrants take jobs away from native-born workers or take jobs that native-born workers do not want) and the impact of immigrants on social resources (whether immigrants act as a drain on social services or represent a net gain by way of paying federal taxes).

Two significant changes in public understanding about immigration and immigrant issues emerged after the 9/11 attacks. The first involves a shift in public perceptions of national security. Before 9/11, U.S. national security was often

Table 1
Most Important Problem (*Percent*)

Q: "What do you think is the most important problem facing the nation?"

	Nov. 2005	Jan. 2006	March 2006	May 2006	Sept. 2006
War in Iraq	29	23	20	18	25
Terrorism	6	6	8	5	14
Economy	11	11	7	7	9
Energy prices	4	5	5	14	7
Immigration	2	3	4	10	6
Government/politics	7	5	10	13	6

SOURCE: Pew Research Center for the People and the Press (2006b).

framed as an international or foreign-policy issue. After 9/11, Americans began to view security as a domestic issue. The second, related shift involves changes in the perceived threat that illegal immigration poses to the nation. Before 9/11, the threat of legal and illegal immigration was contextualized as threats to personal or national economic well-being or as threats to national identity. After 9/11, the public began to perceive immigration in general, and unauthorized immigration in particular, as threats to domestic security. Unauthorized migration became linked with terrorist infiltration of the U.S. through illegal border crossing.

These two shifts in the public's understanding or framing of immigration issues, coupled with increased public attentiveness relative to other issues, helped move immigration from the margins to the center of public and national governmental agendas.

Impact of Public Attitudes Toward Immigration on Voters' Decisionmaking: Before and After 9/11

A key implication of changes in the context and level of public attentiveness to immigration is the degree to which immigration now influences U.S. electoral politics. Until recently, there was little evidence that voters use their attitudes toward immigration as a factor for making electoral decisions. Several recurrent issues are high on the national policy agenda: crime, health care, the state of the economy, and unemployment (Baumgartner and Jones 1993). Presidential races have usually involved voters' evaluations of which candidate would be better on addressing crucial electoral issues such as crime, as in the 1988 Bush–Dukakis race (Mendelberg 2001); who is more fit to turn the economy around, as in the 1992 Clinton–Bush race; or who is more fit to handle terrorism or the war in Iraq, as in the 2004 Bush–Kerry race.

Tarrance Group and Lake Research Partners (2006a, 2006b) surveys of registered voters conducted March 26–28, 2006, and July 9–13, 2006, however, provide preliminary evidence that voters are connecting their evaluations of immigration with their prospective vote choices. The March 2006 survey asked voters: "What issue is the most important for your member of Congress to deal with?" The top response was the war in Iraq (15 percent). Next, tied with jobs and the economy at 11 percent, was immigration. The significance of this finding is that immigration ranks at the same level of importance as issues that voters traditionally use to make voting decisions.

A large percentage of the respondents viewed immigration as a problem of serious magnitude. When asked about the severity of the problem, 61 percent considered illegal immigration to be a very serious (28 percent) or extremely serious (33 percent) problem.

The Tarrance survey results suggest that this perception has a "priming effect" on voters' decisionmaking. In other words, when voters pay attention to immigration issues, they use their understanding of the issue to evaluate the performance of elected representatives (Iyengar and Kinder 1987). Table 2 displays the results of respondents' answers to the following question:

"What if there were a candidate who stood for most of the things you believe in, but took a stand on immigration that you really disagreed with? Would you probably/definitely vote for that candidate, or probably/definitely not vote for that candidate?"

Sixty-four percent of respondents said they would vote for a candidate who supports policy preferences with which the voter disagrees. One in three voters, or 30 percent, would *not* vote for a candidate who disagrees with the voter's policy preferences.

The July 2006 Tarrance survey asked respondents about their attitudes toward the very different congressional legislative reform bills debated in the House and Senate.[1] The House bill (HR 4437), referred to as the enforcement-only bill, provides resources for the deportation of unauthorized (illegal) immigrants with no option of returning to the U.S. The bill passed the House in December 2005 on a vote of 239–182, with 92 percent of Republicans favoring and 82 percent of Democrats opposing. The Senate bill (S 2611), referred to as the comprehensive immigration bill, provides expansive policy options for addressing the problem of illegal immigration and the presence of illegal immigrants already in the U.S. These include a guest-worker program and a process for unauthorized migrants who have been in the U.S. for at least two years to apply for permanent residence after payment of penalties and taxes (a pathway to citizenship). The Senate bill passed in May 2006 on a vote of 62–36, with 90 percent of Democrats approving and 59 percent of Republicans opposing.

Responses to several key survey questions about these bills give evidence for the shift of the immigration issue from the margins to the center of national politics (*Tables 3A and 3B*). A majority of respondents, or 62 percent, indicated that they felt illegal immigration was an important problem that Congress needs to resolve in 2006 (33 percent called it "extremely important" and 29 percent said it was "very important").

Table 2

Voter Attitudes on Immigration Reform (*Percent*)

"What if there were a candidate who stood for most of the things you believe in, but took a stand on immigration that you really disagreed with? Would you probably/definitely vote for that candidate, or probably/definitely not vote for that candidate?"

Probably/definitely vote for:	64
Probably/definitely not vote for:	30

NOTE: Number = 1,010; margin of error ± 3.1 percent.

SOURCE: Tarrance Group and Lake Research Partners (2006a), March 26–28, 2006.

Yet, respondents were ambivalent about the policy alternatives on the government's agenda. They were asked (*Q2, Table 3A*) if they would oppose or support legislation that would tighten borders, toughen penalties on employers and workers who violate immigration laws, create an expanded guest worker program, and make most current illegal immigrants ineligible for citizenship. Forty-six percent favored this restrictive measure, while 49 percent opposed it. In comparison, there was significant divergence in responses to the comprehensive bill (*Q1, Table 3A*). Seventy-one percent favored the comprehensive bill, while 23 percent opposed it.

The Tarrance study also polled respondents about the connection of their policy preferences on immigration with their prospective vote choices/support of candidates. Respondents were divided on whether they would vote for a candidate who supports the enforcement-driven policy option (*Q3, Table 3A*). Forty-

Table 3A

U.S. Voter Attitudes Toward Immigration Policy Reform Options (*Percent*)

Would you favor or oppose passage of this legislation?

Q1: "…Provide resources to greatly increase border security; impose penalties on employers who hire illegal workers; allow additional workers to come to the U.S. to work for a temporary period; create a system in which illegal immigrants could come forward and register, pay a fine and receive a temporary-worker permit; provide these temporary workers with a multiyear path to earned citizenship if they get to the end of the line and meet certain requirements for living crime free, learning English, paying taxes?"

Q2: "…Tighten the borders; put tougher penalties on employers and workers who violate immigration laws; create an expanded guest-worker program that allows people to work here only temporarily; and most current illegal immigrants would never be eligible for citizenship?"

Follow-up question asked after Q1 (comprehensive) and Q2 (enforcement only):

Q3: "…And, would you be more likely or less likely to vote for a candidate who supports this legislation?"

	Q1 Comprehensive ("provide resources")	**Q2 Enforcement only ("tighten borders")**
Favor	71	46
Unsure	6	5
Oppose	23	49
	Q3 Comprehensive	**Enforcement only**
More likely	66	45
Unsure	9	6
No difference	4	2
Less likely	22	47

NOTE: Number = 1,000; margin of error ± 3 percent.

SOURCE: Tarrance Group and Lake Research Partners (2006b), July 9–13, 2006.

five percent said they were more likely and 47 percent less likely to support a candidate who supports this legislation.

When asked about supporting a candidate who delays action or passes enforcement-focused legislation (*Q4 and Q5, Table 3B*), respondents were also divided. For example, 58 percent said they were less likely to support a candidate who supports restrictive legislation, compared with 38 percent who were more likely to do so.

Political Impact of Public Perception of Increased Levels of U.S. Immigration

It is important that we examine the relationship between increased immigration flows and U.S. public attitudes and the impact of that relationship on the policy process. The annual level of legal admissions had steadily increased beginning in the 1970s. Following the 9/11 attacks, legal admissions decreased from 1,059,356 in 2002 to 703,542 in 2003 but increased in subsequent years, from 957,883 legal admissions in 2004 to 1,122,373 in 2005 and to 1,266,264 in 2006.[2] According to 2006 U.S. Census reports, the foreign born compose 12.4 percent of the total U.S. population.[3]

The effects of increased levels of legal admissions on the potential for policy reform are mediated by public perceptions of the consequences. When the public connects increased levels of unauthorized immigration to specific costs borne by the public or state, it increases the likelihood that citizens will call for restrictive reforms. However, research provides mixed support for this thesis. Jack Citrin

Table 3B
U.S. Voter Attitudes Toward Immigration Policy Reform Options (*Percent*)

"Please tell me whether you would be more likely or less likely to support a candidate for Congress who supported that solution to the current immigration problem."

Q4: "Passing no legislation this year and taking a fresh look at this issue next year when election year politics will not be looming over the process."

Q5: "Passing legislation which only increases border security and enacts tougher penalties on employers but does not include a guest-worker program and does not include a path to citizenship for current illegal immigrants."

	Q4 **Pass no law this year**	**Q5** **Pass enforcement only law**
More likely	49	38
Unsure	5	3
No difference	1	1
Less likely	45	58

NOTE: Number = 1,000; margin of error ± 3 percent.

SOURCE: Tarrance Group and Lake Research Partners (2006b), July 9–13, 2006.

and colleagues (1997) examine the degree to which Americans' attitudes toward immigrants are based on their economic situations and concerns—namely, labor market competition, overall concern for the U.S. economy, and concerns due to increases in the percentage of foreign born. The researchers find that respondents in states with high levels of foreign born are no more likely than respondents in other parts of the country to support restricting immigration levels.

A 2006 Pew Research Center survey of voters in red (Republican) and blue (Democratic) counties shows similar responses in attitudes toward illegal immigration (*Table 4*). Red county residents have far less contact with the foreign born than residents in blue county areas. When asked if illegals should leave the country, 44 percent of residents in counties with higher concentrations of foreign born (blue) agreed, compared with 57 percent of red county residents. Voter partisanship and concentration of foreign born seem to matter. Sixty percent of Republican respondents in red counties who reported their personal finances as excellent agreed with the statement, while 39 percent of their Democratic counterparts believed illegal immigrants should leave the country.

What are the options for policy reform resulting from shifts in public perception about the negative consequences of either legal or unauthorized migration? The public seems responsive to enforcement policies for regulating illegal immigration and overall favors decreasing or at least maintaining current levels of legal admissions.

Table 4
Differences in Voter Attitudes in Red and Blue Counties in the U.S. (*Percent*)

	Red counties	Blue counties	Swing counties
"Illegals should leave the U.S."	57	44	54
Total personal finances			
Excellent/good	52	45	51
Only fair/poor	62	43	56
Among Republicans			
Excellent/good	60	51	59
Only fair/poor	72	65	71
Among Democrats			
Excellent/good	39	44	48
Only fair/poor	53	38	54

NOTE: The term "red counties" denotes counties where the majority of voters vote for Republican presidential candidates. "Blue counties" refers to those counties where the majority of the voters vote for Democratic presidential candidates. The terms are generally used to refer to states.

SOURCE: Doherty (2006).

Where We Are Now: Political Impact of Immigration and Public Opinion

Immigration Policy Reform in the 109th Congress (2005–06)

To some observers, immigration as a major issue seems to have come out of nowhere and captured the attention of the public, the media, and national government. Media pundits on all the major news networks regularly feature programs about "broken borders," invasions of illegal immigrants, and the threat of immigrants to job security for native workers. Cities such as Hazleton, Pennsylvania, have taken up immigration in their city council meetings. Hazleton's mayor and city council voted to fine landlords for renting to illegal immigrants and to withhold business permits to employers of undocumented workers. In Arizona, a group of citizens called the Arizona Minutemen has "volunteered" its services to the U.S. Border Patrol, its leader claiming that the efforts are necessary because the federal government has dropped the ball in protecting U.S. borders. Public protests and demonstrations by immigrant rights activists were joined by a body of newcomers, the immigrants themselves. Thousands of immigrants, legal and undocumented, took to the streets of major U.S. cities such as Dallas, Los Angeles, New York, and Chicago to protest the restrictive immigration-policy reform measures debated in Congress as well as in cities and states across the country.

Republican Party leaders in the House and Senate are divided over supporting enforcement-only over comprehensive efforts to curtail illegal immigration. However, the current state of affairs in immigration policy is due to a confluence of economic, political, and institutional factors at work in this highly contentious policy arena.

The current policy reform efforts are taking place in a very challenging political environment. I will identify and discuss each of the factors shaping these policy efforts. Next, I will discuss the policy reform alternatives in Congress.

The following factors are at play in the current immigration policy debates and policy process:

1. Internal divisions in the Republican and Democratic parties
2. Divisions between the House and Senate
3. Immigration's salience to the president's policy agenda
4. Increases in the percentage of foreign born in the U.S. and a shift in the destinations of the foreign born from traditionally high-impact states (Florida, California, and Texas) to new states (Indiana, Georgia, and North Carolina)
5. The return of highly negative public sentiment toward immigrants and public attentiveness to illegal immigrants

In 2005, Congress took up its first major efforts on regulation of illegal immigration since the 1996 Illegal Immigration Reform and Immigrant Responsibility Act. Table 5 reports the comparisons between the House and Senate bills. House members reported out a bill (HR 4437) that is more restrictive than the Senate bill. While both chambers focus on illegal immigration, the House focuses exclusively on efforts to curtail illegal immigration. HR 4437, the Border Protection, Antiterrorism and Illegal Immigration Control Act of 2005, deals only with border enforcement. The bill proposes to build a 700-mile fence along the U.S.–Mexico border. Instead of a "catch and release" policy, Border Patrol would be required to apprehend and immediately deport unauthorized migrants. Employers would be required by 2012

Table 5
Comparison of House and Senate Immigration Reform Bills HR 4437 and S 2611

	House HR 4437 Border Protection, Antiterrorism, and Illegal Immigration Control Act of 2005 Passed December 16, 2005 239 Y/182 N (13 not voting)	**Senate** S 2611 Comprehensive Immigration Reform Act of 2006 Passed May 25, 2006 62 Y/36 N (2 not voting)
Border enforcement	700-mile double-layer fence on U.S.–Mexico border. Mandatory detention of all non-Mexican illegal immigrants. Mandatory sentencing of smugglers of illegal immigrants.	370-mile triple-layer fence and 500-mile vehicle barrier. Authorize 14,000 more Border Patrol agents by 2011.
Employer sanctions	Starting in 2012, all employers required to verify Social Security identification of all employees.	Employment Eligibility Verification System
Fines	$40,000 maximum fines to employers of illegal immigrants.	$20,000 maximum fine for each violation and jail time for repeat offenders.
Pathway to citizenship		Legalization provisions through a deferred mandatory deportment status and blue card.
Guest-worker program		Create a new nonimmigrant temporary worker category (an H-2C guest worker visa); H-2Cs would increase the number of annual guest-worker admissions by 200,000.

SOURCE: Data for each bill are compiled from the online access of the Daily Digests of the *Congressional Record*.

to verify Social Security identification for all employees. Fines up to $40,000 would be imposed on employers of illegal immigrant workers along with prison sentencing. The bill does not include guest worker steps toward legalization.

S 2611, the Comprehensive Immigration Reform Act of 2006, also addresses border enforcement and employer sanctions. The bill calls for 370 miles of triple-layer fence, with a 500-mile vehicle barrier at the border. The measure would create the Employment Eligibility Verification System, under which all employers would be required to verify the status and documentation of all employees. The measure also addresses what to do with the 11.5 million undocumented migrants in the U.S. The Senate measure provides multiple “pathways to citizenship” for undocumented migrants who have resided in the U.S. for different year intervals. Undocumented migrants residing in the U.S. for five years or more would show verification of continuous employment, pay fines and back taxes, and take English-language courses to be eligible to apply for citizenship. Undocumented migrants residing in the U.S. between two and five years would be required to leave the U.S. and could apply for return upon receipt of a temporary work visa. As guest workers, they would be eligible to apply for citizenship status. Undocumented migrants with less than two years’ residency would be required to leave the U.S., with no guarantee of a work visa or eligibility for the citizenship pathway process. The measure also calls for a guest-worker program.

President Bush’s policy preferences for immigration reform are closer to the Senate measure than to the House measure. House Republicans did not shy away from being vocal about the policy differences between House leadership and the president. Some of the open opposition can be traced to concerns the Republican leadership has about the president’s low approval ratings with the public and the need to minimize possible negative repercussions of those ratings in the 2006 midterm elections. According to surveys conducted by the Pew Research Center for People and the Press (2006a) from September 6–10, 2006, 37 percent of people polled approved of the way the president handled his job, while 53 percent disapproved of the president’s job performance.[4] The president usually is a major positive factor in bolstering rank-and-file voter turnout for congressional candidates within his party. The president, as head of the party, can provide an electoral boost to candidates in contested races—*if* he has popular appeal. The Republican Party faced a midterm election year in which there was highly negative public sentiment toward Congress, Republican leadership, and presidential performance. The survey responses discussed in prior sections of this essay suggest that the public is predisposed to punishing or rewarding candidates according to their policy positions on immigration.

The open divisions between House and Senate Republican leadership, and between House leadership and the president, may have induced the Republicans to delay sending the two measures to conference committee, where differing bills from the two chambers are sent for resolution and final vote by the full Congress. Instead, Republican leadership held a series of public hearings on immigration in cities throughout the U.S. in the summer of 2006.

Upon Congress members' return to session in early September 2006, the House focused on passing a series of bills that were essentially pieces culled from HR 4437 (*Table 6*). The House passed HR 4844 (the Federal Election Integrity Act of 2006), requiring valid photo identification verifying U.S. citizenship for persons to register to vote in federal elections. A second measure, HR 6061 (the Secure Fence Act of 2006), authorizes the construction of a 700-mile, double-layer fence. A third measure, HR 4830 (the Border Tunnel Prevention Act of 2006), prohibits unauthorized construction of tunnels between the U.S. and its neighbors. These measures will provide Republican Party candidates with a legislative record of efforts to address public concerns about curtailing illegal immigration.

Immigration and the 2006 Midterm Elections

What are the implications of increased public attentiveness to immigration for the midterm elections of 2006? Congressional (and presidential) candidates have seldom developed electoral strategies that included immigration issues. The notable exception is the 1994 California governor's race, in which Republican incumbent Pete Wilson rode the negative public sentiment of California voters against illegal migrants and made illegal immigration a central theme in his successful bid for reelection. Conventional wisdom is that the political divisiveness engendered by immigration issues makes it hard to contain public furor over any particular stance. Indeed, the Republican Party expressed concerns over the potential political backlash from Hispanic voters. Census data show that the Hispanic population is the fastest-growing voting bloc. Polls of the Hispanic voting-age population show that Hispanics tend to lean more toward Republican parti-

Table 6
U.S. House Bills on Immigration Reform Acted On After Passage of HR 4437

House	**Measure**	**Vote**
HR 6061 Secure Fence Act of 2006	700-mile double-layer fence on U.S.–Mexico border.	September 14, 2006, 283–138 (11 not voting)
HR 4844 Federal Election Integrity Act of 2006	People registering to vote in federal elections required to show photo identification.	September 20, 2006, 228–196 (8 not voting)
HR 4830 Border Tunnel Prevention Act of 2006	Prohibits the unauthorized construction of tunnels between U.S. and any other country.	September 21, 2006, 422–0 (10 not voting)

SOURCE: Data for each bill are compiled from online access of the Daily Digests of the *Congressional Record*.

sanship and affiliation. Given the Republican Party's concerted efforts to recruit Hispanic voters and the trajectory of Hispanic voters figuring more significantly in future national electoral races (DeSipio 2006), the development of a coherent Republican national policy platform on immigration will be important.

Public perception of the degree to which immigration has specific public costs will determine the likelihood of public calls for policy reform. Many public policy and congressional scholars argue that when policy costs are diffuse and benefits are specific, the public and, thus, voters are less likely to connect the harms of a policy and call for legislative reform (Arnold 1990; Gimpel and Edwards 1999; Wilson 1980). Congressional scholars Gimpel and Edwards make a case for this in their study of immigration policy process in Congress. They contend that the costs of immigration are diffuse and the benefits are specific to particular segments within the economic and political realms. Specifically, agricultural and service-industry employers benefit significantly from a steady and reliable source of immigrant labor.

Immigration's appeal as an electoral issue has increased during the 2006 midterm election cycle. While a comprehensive analysis of all House and Senate races in 2006 is beyond the scope of this essay, it is helpful to review an illustrative case of how candidates have included immigration issues in their campaign strategies.

In border states such as New Mexico, Arizona, Texas, and California, national and state legislators have had to contend with the public's concerns about illegal immigration and have felt the repercussions of the public's shift in using immigration issues in vote choice. Of the estimated 11.5 million unauthorized migrants in the U.S., approximately 500,000 live in Arizona, a state that shares a 375-mile border with Mexico. From 2000 to 2005, Arizona experienced a 45 percent increase in unauthorized migration (U.S. Department of Homeland Security 2006). Arizona leans Republican in partisanship; the Republican presidential candidate from the 2000 and 2004 presidential elections carried the state.

Conclusion

Congressional scholar John Kingdon (1984) says that a political issue is an idea whose time has come. This observation rings true for immigration policy debate in the twenty-first century. Immigration has been on and off the national policy agenda. Throughout history, Americans have revisited the debate over what it means to be a nation of immigrants, to be a country that opens its doors to scientists, laborers, and refugees. However, the degree to which the nation has become attentive and involved in the policy debate is unlike any other period since the early 1920s. We now see immigration debated in city councils in tiny burgs and in municipalities of new destination states such as Iowa, Georgia, and

Indiana. Immigration is an issue whose time has come in almost all sectors of the American political and social landscape.

The political implication for the short term of this heightened attention is that immigration has gained a place that is high on the media, governmental, and policy agendas. The degree to which this heightened attention leads to policy change remains to be seen.

Notes

[1] At the time of writing this analysis in late 2006, the House and Senate were at a stalemate over resolution of the two bills. A conference committee to resolve differences on the bills had been postponed.

[2] The data for U.S. legal permanent residents are derived from Table 1 of the *2005 Yearbook of Immigration Statistics*. The category legal permanent resident comprises immigrants who had already been in the country and have been granted legal residence status (i.e., adjustment of status) and new arrivals of that given year. See *2005 Yearbook of Immigration Statistics*, Office of Immigration Statistics, Washington, D.C.: Government Printing Office.

[3] The 2006 total household population for the U.S. is 288,378,137. See U.S. Bureau of Census table.

[4] The Pew survey asked the following question: "Do you approve or disapprove of the way George W. Bush is handling his job as president?" The Pew Research Center has asked this same question of the American public in monthly surveys since 2001.

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Commentary on Session II
The Politics of Migration and Trade

Gary P. Freeman

The field of political economy has long produced theoretically informed empirical research on the politics of international trade. For example, few books have enjoyed a better reputation than E. E. Schattschneider's 1935 classic study of the Smoot–Hawley Tariff (*Politics, Pressures, and the Tariff*). Since that early date, trade politics has developed into a major subfield in political science. Immigration, on the other hand, hardly attracted the interest of political scientists of Schattschneider's generation. The Immigration Act of 1924 did not inspire a book capable of launching a new field of study as did Schattschneider's investigation of the tariff. Indeed, it took well over a half century for political scientists to turn to the analysis of the politics of immigration, and the literature is not nearly as strong empirically or theoretically as that on trade in goods, services, and money. Most work on the politics of immigration does not treat the movement of people across borders as a factor of trade at all. Whether ideas, methods, hypotheses, and analytical techniques employed by political economists of trade can be applied to the political economy of immigration is a question a disconcertingly small number of political scientists have asked.

Summary of the Papers

Trade theory predicts that an open migration system increases efficiency, productivity, and wealth but that "politics" rears its ugly head and imposes restrictions. Most political science models developed to explain why politics confounds the adoption of open immigration regimes focus either on material interests (the costs and benefits of migration, who wins and who loses from the competition and redistribution of income that migration always entails) or on cultural factors (the ethnic, religious, and other differences between migrant and native populations).

Both by the subjects they investigate and by implication, if not explicit argument, the papers on this panel provide interesting evidence on the question of the political dynamics of trade and immigration policies. Valerie Hunt investigates the development and evolution of mass opinion on immigration. Marc Rosenblum presents, in the context of a North American case study, an analysis of opportunities for and obstacles to multilateral agreements on immigration that, since Smoot–Hawley, have been a regular feature of international relations. Mexico, the United States, and Canada adopted a free trade agreement in 1994. Why have those same countries had such difficulty agreeing on a common migration regime?

Both Hunt and Rosenblum document how "politics" in the guise of security concerns in the wake of 9/11 derailed a process that appeared well on its way to the achievement of a migration agreement between Mexico and the United States.

Paper-by-Paper Comments

Valerie Hunt

Hunt's paper, "Political Implications of U.S. Public Attitudes Toward Immigration on the Immigration Policymaking Process," has two objectives: to tell us how and when the public cares about immigration and how and when what the public thinks matters. We are in a novel situation, as was indicated by the November 2006 midterm elections. The American public is thinking about immigration policy; what the public thinks about it appears to be affecting vote choices in congressional and gubernatorial races; and it is at least possible, as Hunt predicted, that the immigration records of public officials affected a few marginal races. This is unusual, to say the least, because public opinion on immigration in the U.S. normally has only the most insignificant effects on electoral outcomes. Immigration typically falls far down the list of voter concerns, and it rarely determines vote choice (Gimpel and Edwards 1999). The Tarrance Poll results (in Table 2 of Hunt's paper) show that about one-third of respondents say they would not vote for a candidate who stands for most of the issues they support except immigration. This is really quite a strong finding.

Hunt's paper deals directly with the effect of 9/11 and heightened concerns about terrorism on public attitudes toward illegal migration and the ways in which politicians and activists frame the issue. The direct connection of the terrorist attacks with people in the country under various immigration statuses, legal or illegal, was, depending on your view, either a stunning wake-up call for those who had been too complacent about immigration or a golden opportunity for critics of U.S. immigration policy to attach immigration restriction to the war on terror. In both cases, security became more of a focus of research and political debate. Nevertheless, it is important to recognize how much resistance there was among academics and policy wonks to conceding the legitimacy of analyzing immigration from a security angle.

Even after the terrorist attacks in the United States and Europe, resistance to a security focus persists, perhaps even growing in reaction to enhanced state policies to control and monitor migration here and abroad. A large literature in political science and related fields critiques the "securitization" of immigration, that is, turning an innocent economic and humanitarian phenomenon into a potentially criminal law enforcement matter. A popular line is that with the end of the Cold War, the police and intelligence services of Western states have nothing to do now that they aren't hunting down communist subversives. Dangerous immigrants, in this scenario, are a convenient pretext for maintaining and even expanding the budgets of security services (Bigo 2005).

A common criticism of trade-based interpretations of migration is that politics distorts the economic relationships trade theory predicts. This is because some groups that appear to be harmed economically by immigration support it anyway, and others that appear to gain nevertheless oppose it.

A book that relates to this problem is Mikhail Alexseev's *Immigration Phobia and the Security Dilemma*. Hunt talks about the connection, or disconnect, between "real world" conditions and public perceptions of these conditions. This is admittedly a difficult issue for the analyst. Alexseev offers one promising framework. He observes a number of cases he considers surprising or irrational—situations in which the negative reaction to immigration seems grossly disproportional.

How can such overreactions be explained? Alexseev employs the concept of the security dilemma, an idea developed in the international relations field to refer to the dynamics that emerge when state A decides to enhance its security by investing in defense, thereby alarming its neighbors, states B and C, which either expand their own armaments or launch a pre-emptive strike. As applied to ethnic conflict, it captures the competition that arises among proximate groups that obsess over their relative power, especially when the central government authorities appear to have lost their capacity to maintain law and order.

Alexseev identifies four general factors that shape perceptions of ethnic insecurity. Each, I think, has relevance to specific contemporary U.S. attitudes toward Mexican immigration.

Anarchy	(broken borders)
Intent	(*reconquista*, an invasion)
Groupness	(non-English speaking, refusal to assimilate)
Socioeconomic impact	(migrants depress wages, take our jobs, live on welfare)

Critics of illegal immigration from Mexico point out that the federal government has failed to assert its right to regulate national borders; that the fact that Mexicans have a unique historical claim to the American Southwest makes migration from Mexico especially problematic; that because of their numbers, concentration, and contiguity with their homeland, they have fewer incentives to learn English and embrace American culture and identity; and finally, that they constitute a major threat to the livelihoods of low-income Americans.

An interesting datum in Hunt's paper is found in Table 4, which reports Pew Research Center for the People and the Press survey results. These show stronger anti-immigrant sentiment in red counties than in blue, what you would expect. What is surprising and needs explaining is why negative sentiment is higher in counties with low proportions of immigrants and weaker in counties with more.

Alexseev's model may help with this. It's a pattern that will likely persist and become more prominent due to changing population patterns. Numerous observers have noted the growing tendency of Americans to cluster in residential areas where most of their neighbors share their socioeconomic and political characteristics. The resulting homogeneity makes even small numbers of immigrants highly visible.

Marc Rosenblum

Rosenblum provides a smart, detailed review of the major characteristics of the contemporary U.S.–Mexico immigration context in his paper, "U.S.–Mexican Migration Cooperation: Obstacles and Opportunities." His main question is what factors facilitate or impede cooperation between the U.S. and Mexico over immigration policy.

In his short theoretical discussion, he presents a lucid summary of the relevance of bargaining models from international relations scholarship to immigration regimes. He might have come at the problem a bit differently, and more directly linked the politics of immigration with the politics of trade, by asking why Mexico and the U.S. were able to negotiate a free trade agreement but not broker even a bilateral immigration deal, let alone a free movement regime. Does immigration produce the same sorts of coalitions as trade politics? The raw materials of an answer are in the paper.

Rosenblum presents a thorough and authoritative summary of the factors that affect migration agreements between the two countries—national preferences, domestic politics, and so forth—but he concludes that the key factor determining whether cooperation succeeds or fails is the general political context, the broad bilateral, regional, and global setting. Impulses to cooperate over immigration get swallowed up in the larger context, which most likely has little or nothing to do with immigration per se. This was certainly how the plans of Presidents Fox and Bush were sidetracked by the attacks in September 2001.

On first inspection, it would appear that the U.S. has little to gain from a bilateral immigration agreement with Mexico. The U.S. is interested, at least officially, in reducing the scale of illegal migration across its southern border. Mexico, on the other hand, has little interest in stemming the tide; indeed, it has every incentive to see it continue. Even if Mexican officials were more sympathetic to U.S. complaints, both human rights and civil liberties norms keep a democratic state, even a fledgling one, from preventing its citizens from exiting the country.

Unlike the U.S., Mexico has many concrete objectives in its cooperative agenda: a guest worker program, less enforcement at the border, fewer deportations, maintaining and facilitating the flow of remittances, and so on. All of these require politically costly concessions on the part of the U.S. government. (See the report of the Bilateral Commission [1989], which contains a laundry list of what the U.S. should do for Mexico and almost nothing that Mexico should do for the U.S.)

Rosenblum makes a strong case, however, that in the post-9/11 context, any immigration settlement between the two countries would entail substantial reforms on Mexico's part. These might include agreement by Mexico to accept and facilitate long-distance returns of illegal crossers to the interior of the country, serious efforts to create security on the Mexican side of the border, and active assistance in counterterrorism efforts. The bilateral relationship is still asymmetrical, with the U.S. facing the necessity of giving more than it receives, but it is more equitable than it has been in years, and that should support greater collaboration in the future.

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Keynote Address

The Circulation Migration of the Skilled and Economic Development

Mark R. Rosenzweig

The Circulation Migration of the Skilled and Economic Development

Mark R. Rosenzweig

Although there is much discussion of immigration's impact on the U.S. domestic economy, there is also renewed interest in immigration's effects on low-income, sending countries. However, in this latter discussion, there is an under-appreciation of two important features.

First, a significant proportion of the skill residing in low-income countries is produced in high-income countries. Four countries—United States, Great Britain, Australia, and Canada—provide over 525,000 student visas per year. In the U.S., over 250,000 student visas were issued in 2004, compared with 73,212 employment visas for permanent immigrants screened for skill. The United Nations Educational, Scientific and Cultural Organization (UNESCO) estimates that there are over 2.5 million foreign students in the world, and more than half are from low-income countries.

Second, many "permanent" skilled migrants—those entitled to stay for the rest of their lives in the receiving country—and those who migrate to acquire additional schooling (and get good jobs) return to their home country.

Little is known about the international net flow of high-skill human capital and its effects on developing countries. The immigration literature has three deficiencies in studying the determinants of who immigrates and who returns:

1. Existing frameworks and data are inadequate to appropriately describe measures of gaps in rewards to skill across countries.
2. Empirical analyses lump together immigrants selected via family reunification rules and those selected on the basis of skill and jobs. Decision rules

are likely to be quite different for the two groups. Indeed, permanent resident aliens in the U.S. are admitted mostly (over 90 percent) based on family criteria and subject to country ceilings. Standard economic models of self-selection may not be adequate to understand international flows of people, as they ignore networking and marriage markets.
3. No representative databases have tracked either foreign students or immigrants over time to enable estimates of return rates.

I will consider three questions. First, how inefficient is the global allocation of workers and how large are the gains from increased international migration? How do you measure these gains? We will see that standard GDP comparisons are not sufficient. Second, how would reallocating high-skill workers from low- to high-wage areas affect low-wage countries? Third, what is the relationship between the net international flow of skilled individuals and the development of low-income countries? Which countries benefit the most and least from skill migration?

I use simple analytics combined with new data on immigrants, foreign students, and out-migrants. Two main data sources are newly available:

- New Immigrant Survey (NIS): 4 percent sample of all U.S. adult (18+) permanent resident aliens who received their visas between April and November 2003 (number surveyed = 8,575).
- New Immigrant Survey–Pilot (NIS–P): smaller sample of all U.S. adult (18+) permanent resident aliens who received their visas in July and August of 1996 (number surveyed = 1,032).

Other sources I will draw on are an immigration survey of Australia, International Labor Organization (ILO) data on international wages, and databases on students in the U.S.

Two sets of mechanisms will be discussed for how international movements of the skilled affect sending countries:

- Direct short- and long-run effects on wages in sending countries: distinguishing between changes in prices of skill, skill composition effects, and skill upgrading incentives.
- Return migration: brain drain and brain gain issues and evidence. I will discuss the potentially large biases in recent World Bank estimates of the brain drain from low-income countries based on census data and look at determinants of foreign students' inflows and the return rates of foreign students and skilled "permanent" immigrants.

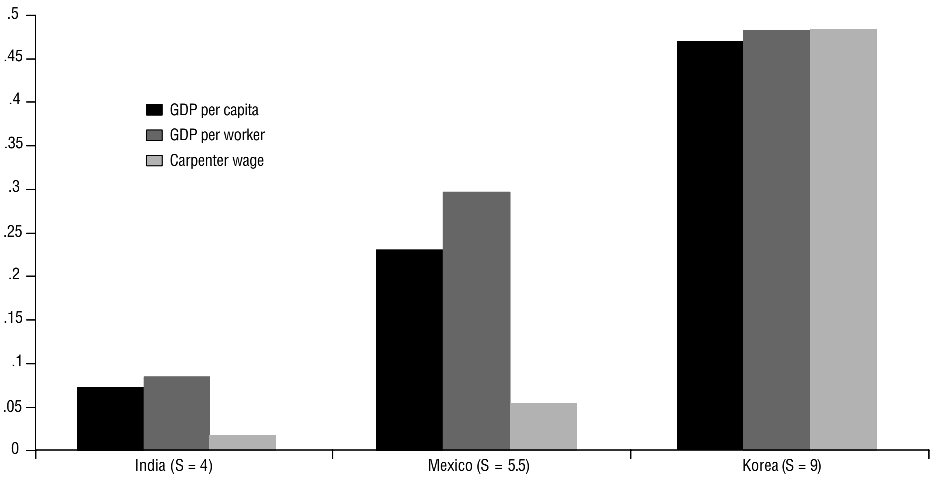
First, we will consider the principal source of the global migration/labor mis-allocation problem: differing cross-country rewards for skills.

What are wage differences for comparable workers across countries? One example: A construction carpenter's monthly wage is $42 in India, $125 in Mexico, $1,113 in Korea, and $2,299 in the U.S. (ILO 1995 data). The problem: Carpenters in India may have much lower schooling than carpenters in the U.S. or even Korea. This does not capture correctly the gains from the migration of a person of a given skill. Per capita GDP gaps are used in most analyses of the determinants of migration (*Figure 1*). But cross-country variation in GDP is due to differences in the proportion of the population in the labor force and in skill levels, not just rewards to skills. Per-worker GDP also is not adequate. Workers vary substantially in skill across countries. So we can't know how the rewards to skills differ across countries from the databases that have been available.

Skill-Price Model and Identification of Cross-Country Skill Rewards

The simplest economic model, a one-skill model, illustrates the main direct effects of migration and is key to understanding the migration of skills across countries.

Figure 1
Ratio of Sending Country to U.S. "Wages" for Three Sending Countries in 1996, by Measure



NOTE: S = average years of schooling.

SOURCES: World Bank and Occupational Wages Around the World.

Worker i's wage W_{ij} in home country j is

$$(1) \qquad W_{ij} = \omega_j x_i,$$

where x_i = the skill level of the worker (amount of skill units) and ω_j = the amount each unit of skill is valued in the economy in which the worker is located, referred to here as the skill price.

Variation in wages across workers *within* a country is due to variation in skill levels. Variation in the average wages of workers *across* countries is due to inter-country differences in (a) average skill levels x_i and (b) skill prices ω_j. Increasing incomes in a country thus entails increasing either (a) the price paid for skills or (b) skill levels.

Much attention has been given to raising skills in low-income countries (for example, greater access to education, improved school quality). But why skill prices—rewards to skills—differ across countries is really the key question of development economics, as difference in skill levels across countries is substantially smaller than differences in skill rewards. Some of the suspects are natural endowments (geography), population density, the level of technology, the amount of capital, the amount of aggregate skill, or, on a deeper level, the quality of institutions. The question today is how international migration affects skill levels, skill prices, and the determinants of skill prices.

The model has implications for the number and quality (skill composition) of immigrants from and to a country. The expected initial earnings that worker i in country j could earn in destination country u (ignoring for simplicity skill transferability) is given by:

$$(2) \qquad pW_{iu} = p\omega_u x_i,$$

where ω_u = the destination-country skill price and p = the probability of obtaining a permanent destination-country job.

The economic gain from migrating from j to u, G_{ij}, for worker i is

$$(3) \qquad G_{ij} = x_i[p\omega_u - \omega_j(1 + \pi_j)] - C_j,$$

where C_j = direct costs of migrating and $\pi_j W_{ij}$ = time costs of migrating.

Implications of the Skill-Price Migration Model

1. Higher-skill persons always have greater gains from out-migration, compared with lower-skill persons, for a given skill-price gap (selectivity). Thus, immigrants from high-skill-price countries will be more skilled on average than those from low-skill-price countries.
2. The higher the domestic skill price, the lower is the gain from out-migration. Thus, there will be fewer immigrants from high-skill-price countries.
3. Schooling acquired in the destination country may increase *p* and thus facilitate migration (and skill transferability, too).
4. The lower the domestic skill price, the more an increase in skill increases the gain from migrating. Thus, increasing access to schooling in low-skill-price countries can lead to higher rates of out-migration.

But how do we know what skill prices are around the world? And isn't using differences in per capita GDP good enough to gauge the gains from migrating (as used in almost all studies of the determinants of migration)? In fact, variations in the skill price and GDP per capita can have opposite effects on migration (*Figures 2 and 3*). For given direct migration costs, a rise in the skill price at home lowers the gain from migration. For a given skill price, higher per capita GDP may facilitate financing of the direct costs of migration.

And what about within-country inequality and its effects on emigration, as highlighted by George Borjas (1987)?

Estimating World Skill Prices

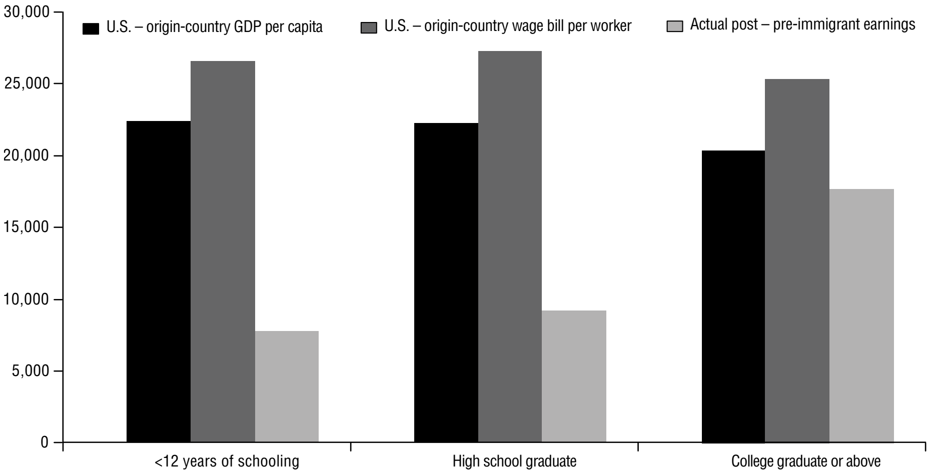
Estimating world skill prices requires comparable information on the earnings of workers of the same skill across all countries of the world. Three recently available sources of data are

1. New Immigrant Survey–Pilot (NIS–P), 1996 (Jasso et al. 2000): This data set provides the earnings of new U.S. immigrants in their last job in their home country.

   Advantages:
   - Information is obtained from a common questionnaire.
   - Information is obtained on workers' schooling, age, and work experience.

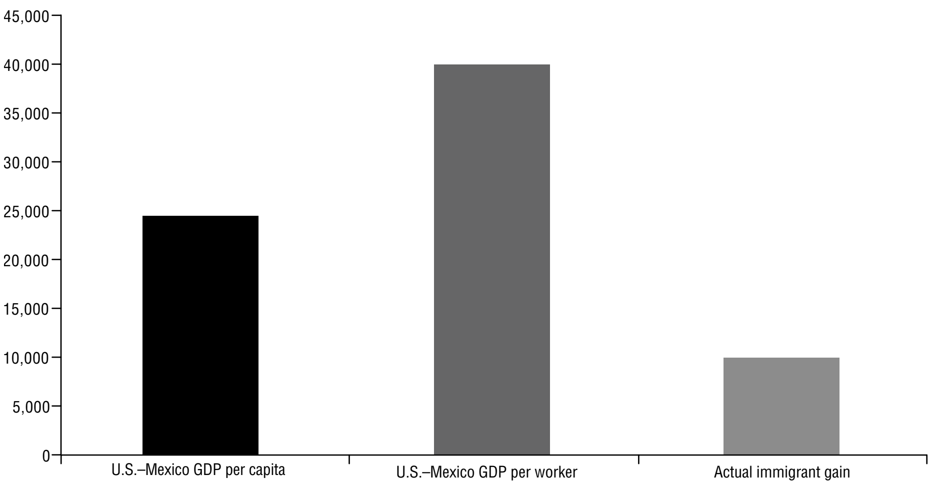
   Disadvantages:
   - This is a selective sample: The model implies immigrants are positively selected on unobservables.
   - The sample size is small: 332 workers for 54 countries.

Figure 2
Alternative Measures of the Net One-Year Benefit from the U.S. Immigration of One Person, by Schooling Level: All U.S. Employment and Spouse Immigrants, 1996



SOURCE: New Immigrant Survey–Pilot.

Figure 3
Alternative Measures of the Net One-Year Benefit from the U.S. Immigration of One Person: Adult *Mexican* Immigrants to the United States, 2003



SOURCE: New Immigrant Survey.

2. Occupational Wages Around the World (OWW) (Freeman and Oostendorp 2000): This data source provides monthly earnings (estimated) for workers by occupation, industry, and year.

   Advantages:
   - The sample size is large: 4,924 observations in a single year (1995).
   - It is meant to be nonselective.

   Disadvantages:
   - The information is not necessarily comparable across countries.
   - The number of countries represented is small in any one year: 67.
   - There is no information on the education, work experience, or age of workers (see carpenters example above).
3. New Immigrant Survey (NIS), 2003 baseline: Like the NIS pilot, this data set provides earnings of new U.S. immigrants in their last job in their home country.

   Advantages:
   - Information is obtained from a common questionnaire.
   - Information is obtained on workers' schooling, age, work experience, and occupation.
   - The sample size is over 2,200 workers for 130 countries.

   Disadvantages:
   - It is a selective sample: The model implies immigrants are positively selected on unobservables.

Table 1 shows some characteristics of these three data sets.

To estimate skill prices from microdata on wages "around the world," assume the number of skill units of a worker is a function of schooling, occupation, and an unobservable skill endowment. For example:

$$x_{ij} = \mu_{ij}\exp(\beta S_{ij} + \boldsymbol{I}_{ijk}\gamma_k), \tag{4}$$

where S_{ij} = schooling, β = schooling "return," μ_{ij} = skill endowment (schooling missing in OWW), $\boldsymbol{I}_{ijk}$ = a vector of occupation dummies for worker i in country j, and $\boldsymbol{\gamma}_k$ = a vector of occupation coefficients.

Then the log of worker i's wage in country j, from equation (1), is

$$\mathrm{Ln}(W_{ij}) = \mathrm{Ln}\omega_j + \beta S_{ij} + \boldsymbol{I}_{ijk}\gamma_k + \mathrm{Ln}\mu_{ij}. \tag{5}$$

The intercept in equation (5), which may differ across countries, provides the log of the skill price for each country represented in the data.

Table 1
Characteristics of Global Earnings Data Sets

Data set/variable	1996 NIS-P home-country workers	OWW, 1995	2003 NIS home-country workers
Mean annual earnings of respondents (U.S. $)	21,854[a] (77,608)	10,208[b] (13,289)	23,250[a] (54,596)
Mean age of respondents	34.6 (8.53)	–	33.5 (11.1)
Mean years of schooling of respondents	14.4 (4.5)	–	13.9 (3.7)
Number of industries	–	49	–
Number of occupations	–	161	363
Number of countries	54	67	130
Number of workers	332	4,924	2,823

[a] PPP-adjusted, full-time earnings
[b] Exchange-rate adjusted, country-specific calibration with lexicographic imputation.
NOTE: Standard deviations in parentheses.

What is the relationship between GDP and skill prices? Assume aggregate output Y in country j is produced according to Cobb–Douglas technology:

(6) $$Y_j = AL_j^{\alpha}K_j^{\gamma},$$

where K_j = country j's stock of nonlabor resources (for example, land, capital, minerals) and L_j = country j's aggregate stock of labor in skill, given by

(7) $$L_j = N_j\,[a(x_{ij})],$$

where N_j = the total number of workers in j and $a(\;)$ is an inverse function yielding the average skill units per worker in country j in terms of observables.

The skill price ω_j is the marginal product of an efficiency unit of labor, given by

(8) $$\omega_j = \alpha Y_j/N_j\,[a(x_{ij})].$$

Thus,

$$(9) \qquad \text{Ln}(\omega_j) = \text{Ln}\alpha + \text{Ln}(Y_j/N_j) - \text{Ln}[a(x_{ij})]$$

or, for the individual worker data on wages from the NIS–P, for example,

$$(10) \qquad \text{Ln}(W_{ij}) = \text{Ln}\alpha + \text{Ln}(Y_j/N_j) - \text{Ln}[a(x_{ij})] + \beta S_{ij} + \text{Ln}\mu_{ij}.$$

Equations (9) and (10) imply that aggregate output *per worker* is positively, and average skill levels are negatively, correlated with skill prices across countries. Estimating equation (9) or (10) should yield a coefficient of 1.0 on the log of output per worker and a coefficient with a minus sign for the log of the aggregate skill measure (*Table 2*).

In Jasso and Rosenzweig (2005), we used the NIS-P data and cross-country information on per-worker GDP and average education levels, based on equation (10), to estimate country-specific rewards to skill (ω_j), controlling for the skills of the individual workers from the different countries represented in the NIS-P. Figure 4 displays the estimated earnings of high school versus college graduates for five countries based on the estimates using equation (5), with a common β ("return" to schooling) estimated to be 0.07. There are two features to note. One is the enormous difference in rewards to skills across the world. Second, compared with the differences in earnings across these countries, differences in earnings by schooling level are relatively minuscule.

How well does the variation across countries in (estimated) skill prices predict the number and skill composition of immigrants by country? In Jasso and Rosenzweig (2005), the NIS and the Longitudinal Survey of Australian Immigrants were used to compute:

- The number of skilled immigrants (employment-based principal applicants) by country of origin coming to the United States and Australia in the survey years of each data set.
- The average schooling level of these skill/employment immigrants by country of origin for U.S. and Australian immigrants.

In addition, we can ask how well does the cross-country variation in estimated skill prices predict the number of student visas issued per country. We use State Department information on F-1 student visas issued by country, averaged over 2003–04 (excludes Canada). To answer these questions we also look at the roles of the distance from the sending country to the receiving country, GDP per adult-equivalent, measures of school quality, the number of universities, and the number of ranked universities (*Tables 3 and 4*). Not surprisingly, for both Australia and the U.S., the higher the skill price in the home country, the fewer the immigrants from that country. What is surprising is that, given the skill price, GDP

Table 2
Estimates of the Determinants of the Country Log Skill Price

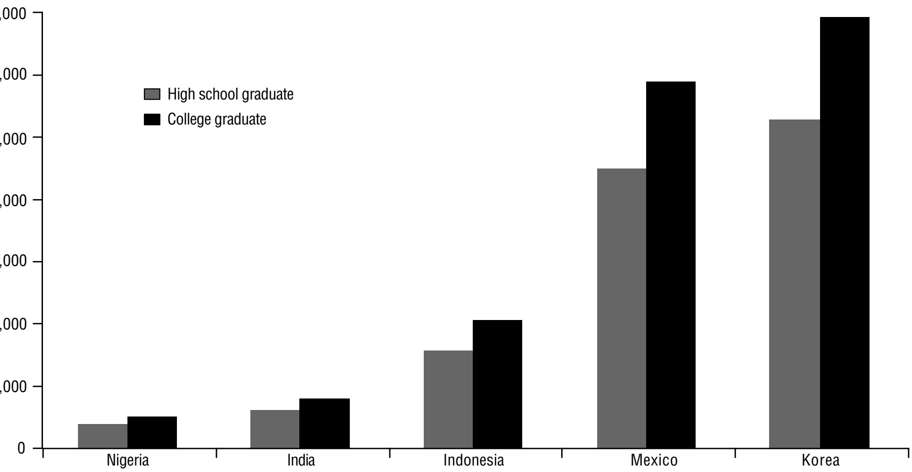
Sample	U.S. immigrant home wages (NIS-P)		OWW wages
Variable/estimation procedure	**GLS**	**GLS-SC**	**GLS**
Country characteristics:			
Log GDP per worker	1.41	1.35	1.10
	(5.01)	(5.21)	(10.4)
Log mean schooling	−1.77	−1.97	−.33
	(3.18)	(3.23)	(1.47)
Log teacher–pupil ratio, primary schools	−1.90	−2.17	−.509
	(3.68)	(3.80)	(1.83)
Log teacher–pupil ratio, secondary schools	1.44	1.36	.457
	(2.51)	(2.56)	(1.60)
Immigrant skill characteristics:			
Schooling	.0683	.0745	–
	(3.50)	(3.79)	
Age	.0428	.0436	–
	(4.32)	(4.50)	
λ	–	.800	–
		(1.46)	
Constant	−1.02	.713	−3.75
	(2.10)	(2.04)	(2.60)
Number of countries	54	54	57
Number of immigrants	332	332	–
R^2	.35	.36	.82

NOTES: GLS = generalized least squares; SC = selectivity-corrected. Absolute value of *t* statistics corrected for clustering at the country level in parentheses.

SOURCE: Rosenzweig (2006).

per adult-equivalent is positive. So, for a given skill price, if a country has higher income per capita, there is actually more out-migration. Why? One hypothesis would be that there are financial costs to migration and having more income for given rewards enables more people to take advantage of those gaps. Costs of migration are important, as distance is significantly negatively related to the number of migrants.

Figure 4
Estimated (Purchasing-Power-Adjusted 1996) Earnings of High School and College Graduates, Across Selected Countries Around the World



SOURCE: Author's calculations from Table 2.

Regarding student visas, the number of people who come from another country to study in the U.S. varies inversely with the rewards to skill in that country. Moreover, the larger the number and the higher the quality of universities in the home country, the more students come to the U.S. to study (*Table 5*). In Rosenzweig (2006), these results are shown to be supportive of the hypothesis that foreign students are attracted to the United States because of the rewards to obtaining jobs here and not primarily because of inadequate supplies of schooling opportunities at home.

What About Inequality and Immigration?

Using the "Roy model," Borjas has popularized the idea that inequality, and thus differences in the returns to schooling across countries, is an important determinant of immigration. However, the original Roy model assumes that wages are the same across countries! In the simple skill-price model outlined above, inequality has two sources: inequality in skills and the level of the return to schooling β. The higher β is, the greater the earnings difference between high- and low-schooled persons in the country. However, differences in returns to schooling (and inequality) across countries will only have second-order effects compared with differences in skill prices in determining the amount and selectivity of migration.

Table 3
Determinants of Employment-Visa Immigration Rates by Receiving Country: Sample Immigrants per Country Population ($x10^6$)

Variable/country	Australia	United States
Country skill price (NIS-P)	−20.9	−17.3
	(1.92)	(2.15)
GDP per adult-equivalent	3.03	.29
	(1.99)	(2.93)
Distance	−8.55	−1.22
	(1.38)	(1.50)
Population	−.0475	−.00178
	(1.43)	(.58)
Constant	75930	11659
	(1.41)	(2.26)
Number of countries	132	132
R^2	.11	.07

NOTE: Absolute values of robust *t* statistics in parentheses.

SOURCES: For immigrant characteristics: New Immigrant Survey and Longitudinal Survey of Immigrants to Australia 2, Wave 1 (Jasso and Rosenzweig 2005).

What is the effect of home-country relative “inequality” on the skill selectivity of immigration? In the one-skill model, higher inequality is due to higher “return” to schooling β. How does a rise in β in the sending country affect the differential gain of, say, high school and college graduates?

We can write the differential gain, high school and college graduates, as:

$$\text{Gain for college graduate} = e^{\beta USSC}(\omega_{US}) - e^{\beta MSC}(\omega_{M})$$

$$\text{Gain for high school graduate} = e^{\beta USSHS}(\omega_{US}) - e^{\beta MSHS}(\omega_{M}),$$

and compute the gains for $\beta = 0.07$ in the U.S. and Mexico. Then we can increase β to 0.10 in Mexico (more inequality) but keep average wages the same. The annual migration gain for high school graduates increases by \$269 (0.9 percent). The annual migration gain for college graduates decreases by \$329 (0.8 percent) (*Figure 5*).

Migration is trivially less selective compared with changes in the skill-price differential; inequality is second-order.

Table 4
Selectivity: Determinants of the Log Educational Attainment of Employment-Visa Immigrants in Australia and the United States (Combined)

Variable/specification	**Parameter estimates**
Log country skill price	.0266 (2.45)
Log GDP per adult-equivalent	−.0169 (1.71)
Log distance	.0172 (4.51)
Log population (x10^{-3})	21.2 (5.06)
Receiving country is the United States	−.0250 (1.99)
Constant	2.43 (21.4)
Number of observations	148
R^2	.34

NOTE: Absolute values of robust *t* statistics in parentheses.

SOURCES: For immigrant characteristics: New Immigrant Survey and Longitudinal Survey of Immigrants to Australia 2, Wave 1 (Jasso and Rosenzweig 2005).

Direct Effects of Out-Migration on Wages in Sending Countries

Short-Run Effects

General-Equilibrium Effect. This is basically supply and demand: If aggregate skill quantity decreases, skill prices (wages) rise. This will increase sending-country wages. Computable world general-equilibrium models show this.

Compositional Effect. If out-migrants are higher (lower) than average in skill compared with the home-country population, then average skill decreases (increases) in the home country due to out-migration.

Skilled out-migration thus has an ambiguous effect on sending country wages: It raises the skill price but reduces average skill. Some analysts confuse these two effects. Borjas (2002), in discussing the effects of creating greater opportunities in the U.S. for skilled migrants, writes:

"Such a drain of human capital would further widen the income gap between the United States and the rest of the world, creating more incentives for migration to this country...."

Table 5
Determinants of the Demand for (Log)U.S. Student Visas, 2003–04

Country characteristic	NIS-P skill price		OWW skill price	
Log of country skill price	−.361	−.234	−.947	−.883
	(2.42)	(1.32)	(2.41)	(2.23)
Log of GDP per adult-equivalent	.682	.692	1.35	1.35
	(2.95)	(3.00)	(2.95)	(2.96)
Log of number of universities	.218	.768	.266	.435
	(1.90)	(2.28)	(2.26)	(1.60)
Log of number of universities x log of country skill price	–	−.0796	–	−.0328
		(1.86)		(.67)
Any ranked universities (top 200)	.467	.630	.312	.381
	(1.72)	(2.20)	(1.10)	(1.36)
Log of students per teacher, primary schools	−.377	−.418	−.240	−.246
	(1.17)	(1.31)	(.77)	(.79)
Log of students per teacher, secondary schools	.783	.770	.659	.628
	(2.09)	(2.03)	(1.86)	(1.75)
Log of population	.476	.492	.487	.491
	(3.57)	(3.60)	(3.47)	(3.44)
Log of distance to nearest U.S. city of entry (miles)	−.293	−.289	−.313	−.315
	(1.98)	(1.92)	(1.95)	(1.94)
Constant	−.801	−1.73	−4.04	−4.19
	(.30)	(.66)	(1.30)	(1.34)
Number of countries	124	124	124	124
R^2	.733	.741	.729	.730

NOTE: Absolute values of robust *t* ratios in parentheses.

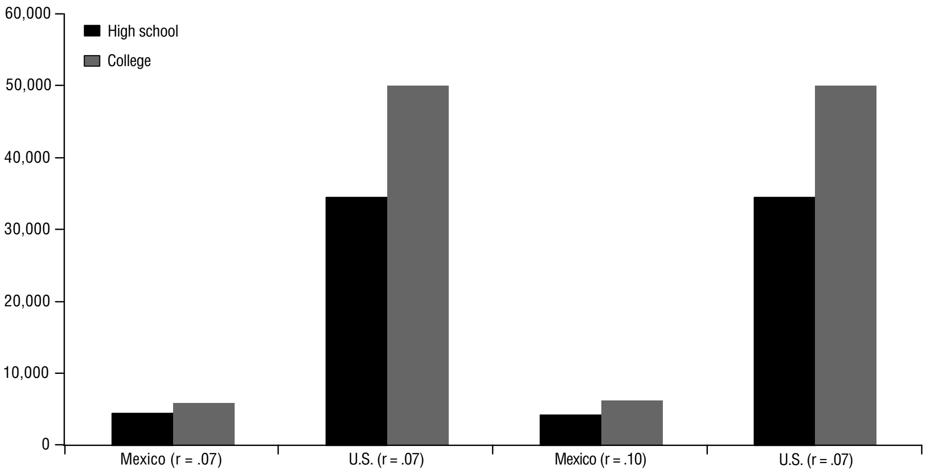
SOURCE: Rosenzweig (2006).

The skill price actually goes up in the sending country and the skill price gap, the incentive for migrating, narrows, so this is wrong.

Long-Run Effects

General-Equilibrium Effect. Changes in the skill price induced by the loss of skill raise the returns to skill investments—skills become scarcer and thus more valuable. Skills are not fixed but can respond to changes. Because the higher the out-migrants' skill level the greater the rise in the skill price, more

Figure 5
PPP-Adjusted 1996 Estimated Annual Earnings in Mexico and the United States, by Schooling Level and Schooling Return



NOTE: r = rate of return to schooling.
SOURCE: Rosenzweig (2006).

skilled out-migration will have a bigger effect on skill upgrading than less skilled out-migration. This long-run effect on incentives to invest in skills is ignored in the general-equilibrium models computing the consequences of migration. For evidence of responsiveness of school investments to change in returns in low-income countries, see the development economics literature.

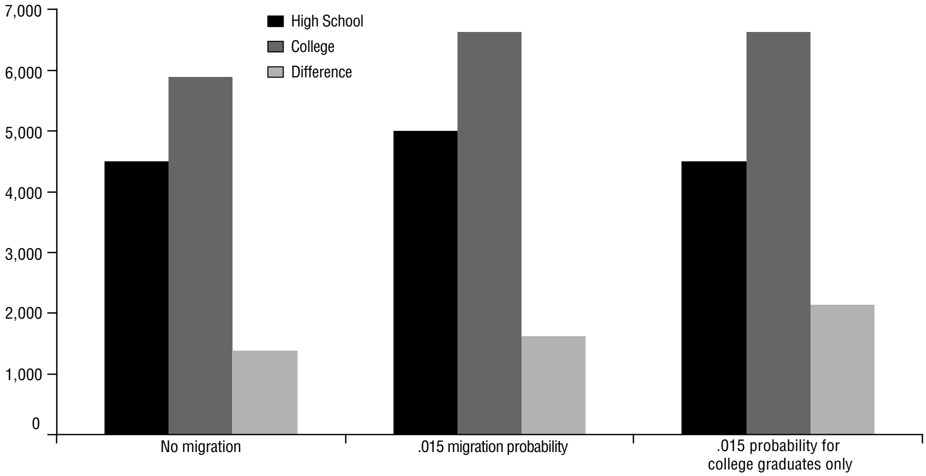
Migration Prospect Effect. Opening up the possibility of migration directly raises *expected* returns to skill investments. Assume that residents of a country face an exogenous probability p of being able to migrate to a higher skill-price country. Then residents respond to changes in the *expected* skill price:

(11) $$(1 - p)\omega_j + p\omega_k.$$

How large is the effect of increasing out-migration on the "return" to domestic schooling? Consider the case of Mexico, using NIS–P skill prices (*Figure 6*). The expected annual wage difference, college vs. high school in Mexico, given the skill price, and with no migration is

(12) $$E\,(W_C - W_{HS})_M = e^{\beta\Delta S}(\omega_M) = \$1{,}392,$$

Figure 6
Expected PPP-Adjusted 1996 Estimated Annual Earnings in Mexico, by Schooling Level and Migration Regime



SOURCE: Rosenzweig (2006).

where $\beta\Delta S$ = college – high school (four years).

The expected annual wage difference, college vs. high school, with an out-migration probability $p = .015$ is

(13) $$E\,(W_C - W_{HS})_M = e^{\beta\Delta S}[(1-p)\omega_M + p\omega_{US}] = \$1{,}623.$$

The expected annual wage difference, with out-migration probability $p = .015$ for college-educated only (only the college-educated can migrate), is

(14) $$E\,(W_C - W_{HS})_M = e^{\beta SC}[(1-p)\omega_M + p\omega_{US}] - e^{\beta SHS}(\omega_M) = \$2{,}137.$$

The total annual gain in the college vs. high school wage differential (A – C) = \$745 from taking into account the prospect of migration is small.

The Return of Skilled Immigrants. Returning immigrants may bring back to the home country increased skills and knowledge that could only be picked up abroad but are transferable to the home environment. And compared with low-skill migrants who work temporarily in low-skill jobs for a short period, high-skill individuals working in dynamic sectors of the economy are more likely to contribute, upon return, to the institutional development of the home country.

What are the magnitudes of return migration by skilled immigrants who have acquired significant skills in the receiving country and who were not required to return home? We have two ways to find this for U.S. immigrants:

1. Jasso and Rosenzweig (1982) combined Immigration and Naturalization Service administrative records at entry for the FY1971 cohort of legal permanent immigrants with their subsequent naturalization and address report records to estimate ten-year emigration rates: 30 percent, as high as 50 percent in some countries.
2. New Immigrant Survey: New 2003 ("permanent") immigrants were asked, "Do you intend to spend the rest of your life in the U.S.?"

The Training of Students in Developed Countries and Their Return. Many individuals come to developed countries for schooling. Borjas offers this "criticism" of the U.S. student visa program (Borjas 2002):

"The program is best viewed as yet another redistribution program, taking wealth away from native workers and taxpayers and redistributing it to universities *and foreigners* [italics mine]."

To the extent that schooling is publicly subsidized in receiving countries and foreign students do not remain in the receiving country, there is an important subsidy from receiving-country taxpayers going to immigrant-sending countries.

How Do We Measure Brain Drain?

Now turn to two final questions. First, how large is the brain drain and return migration? Second, what are the principal determinants of return migration by foreign students and by "permanent" immigrants? I present two alternative definitions (there are others).

The first is the proportion of highly educated persons born in a country living outside the country. Recent estimates of this definition of brain drain (BD) are based on census-type data, supported by the World Bank (Docquier and Marfouk 2006):

$$(15) \qquad BD_i = \Sigma FB_{ij}/(S_i + \Sigma FB_{ij}),$$

where FB_{ij} = tertiary-educated persons age 25+ born in country i residing in destination country j and S_i = tertiary-educated persons residing in origin-country i. For example:

- 82 percent of tertiary-educated Jamaicans reside outside Jamaica.
- 43 percent of tertiary-educated Ghanaians reside outside Ghana.

The second definition is the number or proportion of highly educated persons who leave low-income countries for high-income countries, that is, the emigration only of *those educated in the sending countries* (domestic brain drain):

$$(16) \qquad DBD_i = (\Sigma FBH_{ij})/(S_i + \Sigma FBH_{ij} - \Sigma SFB_{ij}),$$

where FBH_{ij} = foreign-born residents educated in i living in j and SFB_{ij} = home-country residents in i educated in j.

Although the first construct can be useful, the notion of skill out-migration is better captured by the second. The World Bank (BD) estimate thus overstates the outflow rate of skilled persons for a country for two reasons:

- Many foreign born (*FB*) in destination countries received their schooling there, not in their home country. Thus the numerator is biased upward.
- Some “stayers” (*S*) also received their schooling in the destination country and then returned to the home country. These educated-abroad native residents should be subtracted from the denominator.

How off are these estimates? We need to know:

- Where permanent immigrants in receiving countries are schooled—at home or in the host country?
- Where stayers in sending countries are schooled—how many were formerly foreign students?

Where are the highly educated foreign-born schooled? Some emigrants left permanently as children and received all their higher schooling in the destination country. According to Bureau of Citizenship and Immigration Services data (FY2003), 20 percent of permanent resident aliens in the U.S. arrived before age 18. For Jamaica, 38 percent arrived before age 20; for the Gambia, only 10 percent arrived before age 20.

Thus, *BD* overstates the migration of the already skilled, and the bias in the estimates varies by country. Beine, Docquier, and Rapoport (2006) recomputed their country-specific brain drain estimates to take into account those foreign-born who arrived before age 22 (and could not possibly have completed their tertiary schooling at home). On average, their corrected estimates of the brain drain are 68 percent of the ones published initially, with some as low as 51 percent of those reported in the earlier work.

There is a caveat: Can the census data be used to correct the bias—remove those who arrived as children using information on date of arrival? For the U.S. (the major receiving country by far), date of entry is based on answers to the ambiguous question: "When did you first come to stay?" This contains a subjective element. They might answer when they received a permanent visa (not student visa) or when they first came at all (and some who have "permanent" visas, as we will see, never intend to stay).

The Beine, Docquier, and Rapoport (2006) estimates still do not take into account the training and experience received abroad by those residing in the home country. They neglect the reverse brain drain.

To examine foreign student return rates, we can construct a return rate for each country using the NIS data by dividing the number of permanent immigrants in 2003 (NIS) who had ever held a student visa (stayers) by the total stock of foreign students in 2003 (Student Exchange Visa Information System).

Estimates indicate about 6 percent of the stock convert to legal permanent resident status, consistent with about 80 percent of students not becoming permanent resident aliens in the United States and presumably returning home with their new skills (Rosenzweig 2007). We would like to know how skill prices in the home country affect the proportion who stay as legal permanent immigrants. In Rosenzweig (2007), I looked at the relationship between the return rate of students and skill prices and found that return rates of students were significantly higher to countries with higher skill prices.

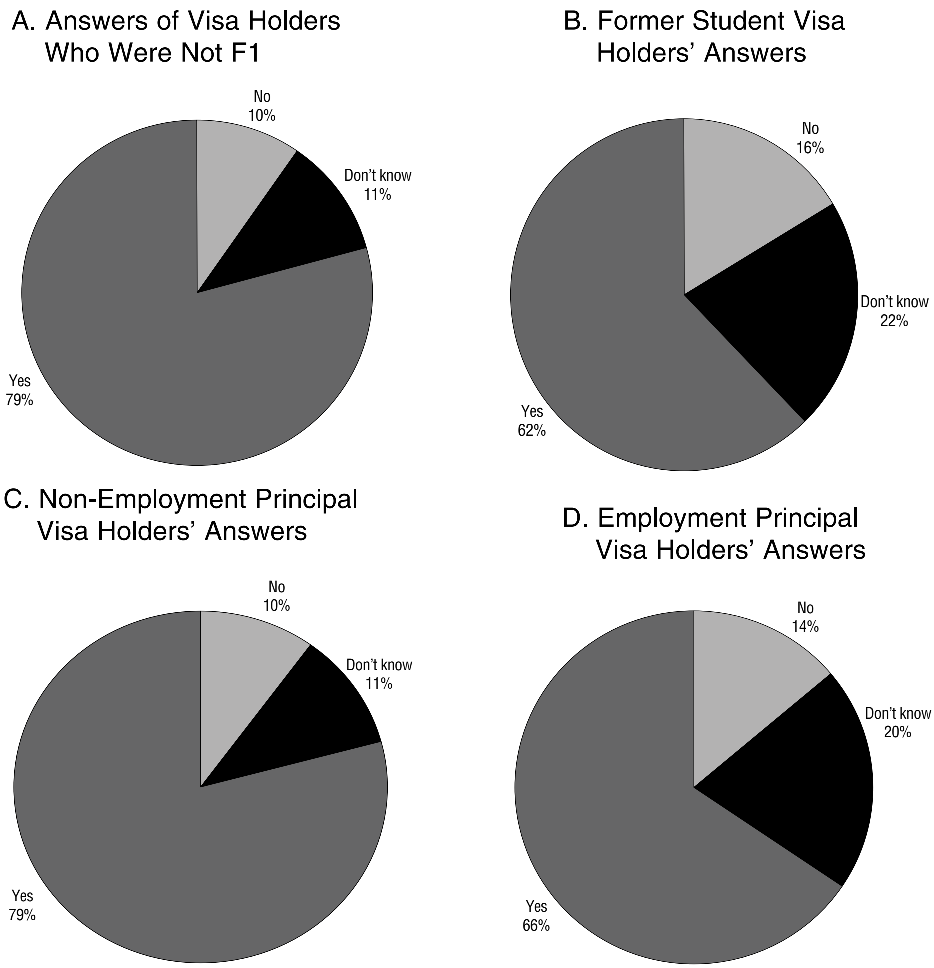
Without tracking immigrants over time, it is not possible to obtain an accurate measure of how many highly skilled permanent immigrants return to their origin countries. As noted, the first round of the NIS asked the new immigrants whether they intended to stay in the United States for the rest of their lives. Figure 7 displays the proportions of immigrants, by visa type, who answered no and don't know to this question. Among immigrants who never held a student visa (*Figure 7A*) or who had not obtained employment visas (*Figure 7C*), 21 percent did not say they intended to stay, and 10 percent of those indicated they would not stay.

However, among the highly skilled "permanent" immigrants who obtained their tertiary schooling in the United States (*Figure 7B*), 38 percent did not answer affirmatively—almost double the rate for those who did not receive their schooling in the U.S., with 16 percent saying no. Thus, the estimated return rates of students based on who immigrates among the students evidently understate the proportions who eventually return.

Among those who immigrated with an employment visa (*Figure 7D*), more than a third did not say they intended to stay in the United States for the rest of their lives, 50 percent more than immigrants outside this "skill" class. Thus it appears that more-skilled immigrants are more likely to return (or at least not stay).

How do skill prices in the home country affect the proportions of immigrants who say they will not stay, from the NIS question? Table 6 reports linear regression estimates of the effects of home-country skill price on the probabilities of not answering affirmatively to the "stay" question of the NIS, for the immigrants who had once held U.S. student visas and for all immigrants. Immigrants in both

Figure 7
"Do You Intend to Stay in the United States the Rest of Your Life?"



SOURCE: New Immigrant Survey.

groups from higher skill price countries were more likely to not intend to stay in the United States.

The estimates in Table 6 thus suggest that better-off countries on average attract back more immigrants. Moreover, the skill price effect is stronger for those immigrants with more education. Higher-skill immigrants are more likely to return to the better-off countries.

How large are these effects? Figure 8 displays the percentage increase in the probability of not staying associated with a doubling of the home-country skill price by the schooling level of the immigrant, based on the estimates in Table 6. These indicate that while a doubling of the skill price increases the probability of not staying by 5 percent for those with less than a high school education, among high school graduates the increase is 25 percent. And for college graduates the same doubling of the skill price leads to a 47 percent increase in those not intending to stay.

Another way of using the regression estimates is to compare the difference in the percentage of immigrants not intending to stay across college and high school graduates at different skill-price levels. Figure 9 shows these differences for three countries, based on their estimated skill prices. In the high-skill-price country, Great Britain, there is a 20 percentage point difference in the "return" of college versus high school graduates. This compares with a 7 percentage

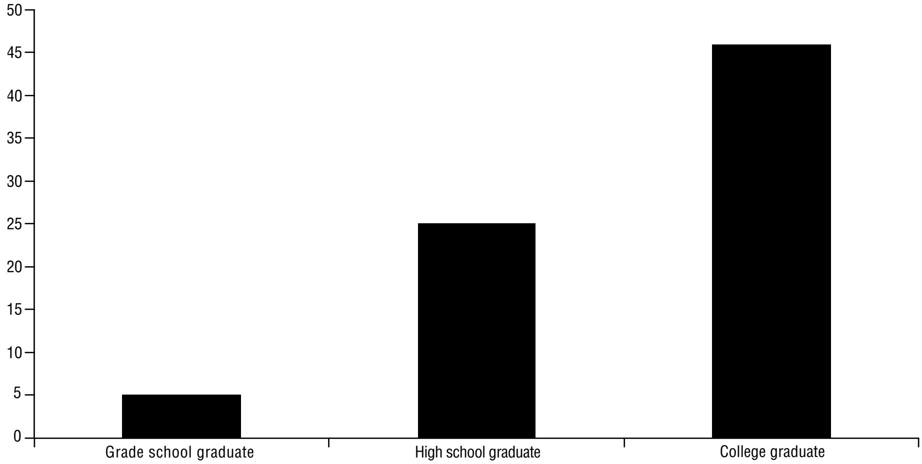
Table 6
Determinants and Selectivity of the Proportion of New "Permanent" Immigrants Intending to Leave, 2003

Country characteristics/immigrant type	Former U.S. student	All	
Log of country skill price (NIS estimate)	.0250 (3.26)	.0812 (2.39)	−.0355 (2.49)
Log of country skill price x years of schooling	–	–	.00509 (4.01)
Years of schooling	.0004 (.25)	.0015 (1.12)	.00854 (3.09)
Number of countries	59	121	121
Number of immigrants	212	3,879	3,879
R^2	.12	.03	.03

NOTE: Absolute values of robust *t* ratios in parentheses. Other variables included log of students per teacher, primary and secondary; age; age squared; gender; entry visa (employment principal, spouse of citizen); log of distance; any ranked universities; number of universities.

SOURCE: New Immigrant Survey.

Figure 8
Percentage Increase in the Proportion of "Permanent" Immigrants Intending to Return from Doubling the Home-Country Skill Price, by Schooling Level



SOURCE: New Immigrant Survey.

point difference for Korea. However, in a low-skill-price country like Mexico, high school graduates are more likely to return compared with college graduates.

Conclusions

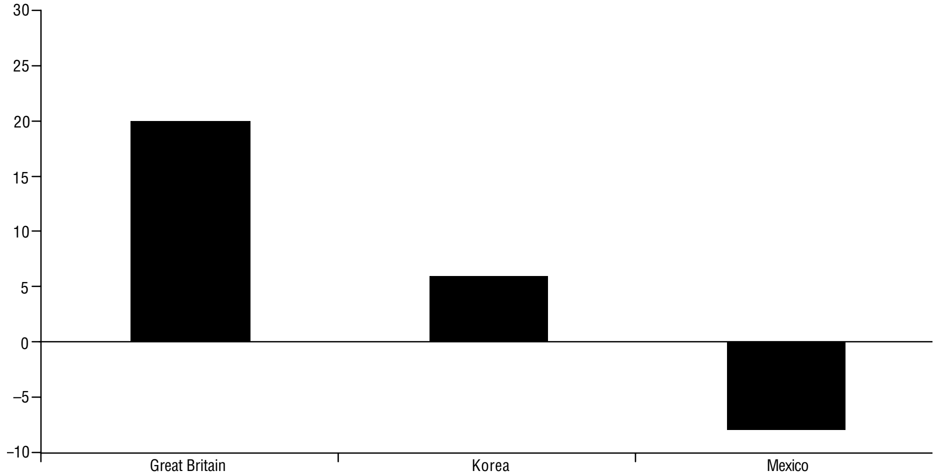
Some of the news about immigration's impact on sending countries is positive. In fact, the greatest impact of the international flow of skilled immigrants on low-income countries may lie in the return of individuals experiencing good institutions—working markets, high-quality educational organizations—in the destination country who then may have both the models and the means to effect institutional change in their home country. These will be returning students and skilled immigrants (for example, former President Ernesto Zedillo of Mexico).

In addition, the number of foreign-born skilled residing in developed countries substantially overstates the number of people educated in low-income countries who emigrated and especially overstates the net brain drain.

Further, a large number of people born in low-income countries receive their expensive, higher education in high-income countries, and the vast majority return to their home country despite the fact that the main motivation for acquiring education abroad appears to be wage improvements via migration.

Finally, a large fraction of "permanent" immigrants return to their home coun-

Figure 9
Percentage Difference in the Proportion of "Permanent" Immigrants Intending to Return Between High School and College Graduates, by Country (Skill Price)



SOURCE: New Immigrant Survey.

try. This rate is especially high among immigrants chosen on the basis of their skill.

On the negative side, the gaps between low-skill-price and high-skill-price countries, and thus the private gains from migration, are enormous, especially for the high-skilled.

And although high-skill out-migration is more prevalent in high-skill-price countries, both high- *and* low-skill immigrants leave low-skill-price countries in greater proportions.

Efforts to increase the number of domestic skilled persons through improving schools will be less effective in a low-skill-price country compared with a high-skill-price country because of out-migration.

Last, return migration rates of the schooled-abroad and immigrants are significantly lower and such returnees are significantly less skilled on average for low- than for high-skill-price countries.

The first-order issue is addressing why rewards to skills are low in low-income countries, for which high out-migration and low return-migration are important symptoms. The training of people in high-income, high-quality institutions may be the best assistance high-income countries provide.

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Session III: Migration and Development: The Role of Remittances

Leveraging Remittances for Development

Dilip Ratha

Migrant remittances have become a major source of external development finance. They can play an effective role in reducing poverty. And they provide a convenient angle for approaching the complex migration agenda.

Remittances are personal flows from migrants to their friends and families and should not be taxed or directed to specific development uses. Instead, the development community should make remittance services cheaper and more convenient and indirectly leverage these flows to improve financial access of migrants, their beneficiaries, and the financial intermediaries in the origin countries.

The Growing Importance and Development Impact of Remittances

Remittances received from migrants abroad are one of the largest sources of external finance for developing countries. In 2006, recorded remittances sent home by migrants from developing countries reached $206 billion, up from $193 billion in 2005 and more than double the level in 2001 (*Table 1*). The true size of remittances, including unrecorded flows through formal and informal channels, is believed to be even larger. They are almost as large as foreign direct investment and more than twice as large as official aid received by developing countries (*Figure 1*).

The doubling of recorded remittances over the past five years is a result of a combination of factors: better measurement of flows; increased scrutiny since the terrorist attacks of September 2001; reduction in remittance costs and expanding

Table 1
Global Flows of International Migrant Remittances (U.S.$ billion)

INFLOWS	2000	2001	2002	2003	2004	2005	2006 (est.)	Percent change 2005–06	Percent change 2001–06
All developing countries	**85**	**96**	**117**	**145**	**165**	**193**	**206**	**7**	**115**
Low-income countries	22	26	32	40	42	48	55	15	112
Middle-income countries	63	70	85	105	123	145	152	5	117
Lower middle-income	43	48	61	75	86	98	102	4	113
Upper middle-income	20	22	24	30	37	47	50	6	127
East Asia and the Pacific	17	20	29	35	39	45	47	4	135
Europe and Central Asia	13	13	14	17	23	31	32	3	146
Latin America and the Caribbean	20	24	28	35	41	48	53	10	121
Middle East and North Africa	13	15	16	20	23	24	25	4	67
South Asia	17	19	24	31	31	36	41	14	116
Sub-Saharan Africa	5	5	5	6	8	9	9	0	80
High-income OECD	46	50	52	59	66	68	68	0	36
World	**132**	**147**	**170**	**205**	**233**	**262**	**276**	**5**	**88**

OUTFLOWS	2000	2001	2002	2003	2004	2005	Percent change 2004–05	Percent change 2001–05
All developing countries	**12**	**14**	**21**	**25**	**32**	**38**	**19**	**171**
High-income OECD	76	83	88	98	111	119	7	43
High-income non-OECD	22	22	22	21	20	22	10	0
World	**110**	**118**	**131**	**144**	**163**	**179**	**10**	**52**

NOTES: Remittances are defined as the sum of workers' remittances, compensation of employees, and migrant transfers. Dollar amounts are nominal. The complete data set, including country-specific information, is available at www.worldbank.org/prospects/migrationandremittances.

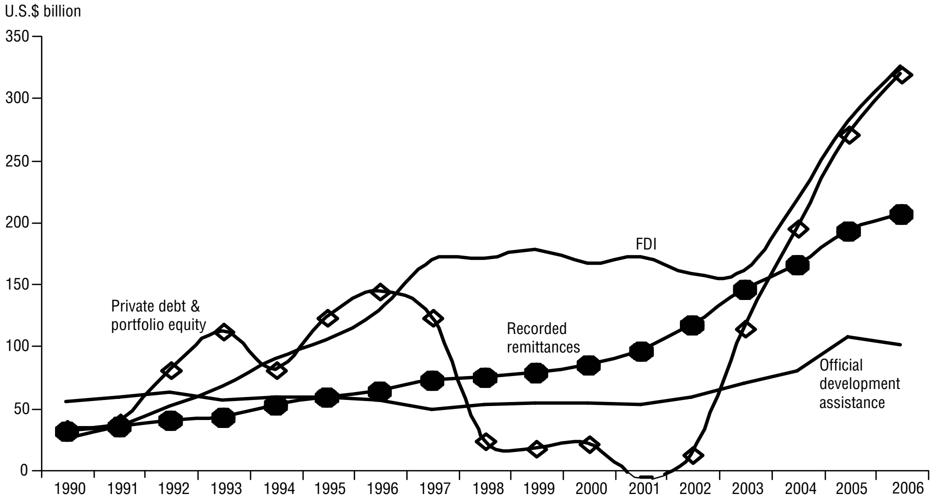
SOURCE: World Bank staff calculations based on International Monetary Fund's *Balance of Payments Statistics Yearbook 2007*.

networks in the industry; depreciation of the dollar (raising the dollar value of remittances in other currencies); and growth in the migrant stock and incomes.

Poor Countries Receive Relatively Larger Remittances

In 2006, the top three recipients of remittances—India, Mexico, and China—each received nearly $25 billion (*Figure 2*). But smaller and poorer countries tend to receive relatively larger remittances when the size of the economy is taken into account. Expressing remittances as a share of GDP, the top recipients were Moldova (30 percent), Tonga (27 percent), Guyana (22 percent) and Haiti (21 per-

Figure 1
Remittances and Capital Flows to Developing Countries



NOTE: 2006 data are estimated.

SOURCES: Author's calculations based on World Bank's *Global Development Finance 2007* and IMF's *Balance of Payments Statistics Yearbook 2006*.

cent). Remittances are thus more evenly distributed across developing countries than are private capital flows.

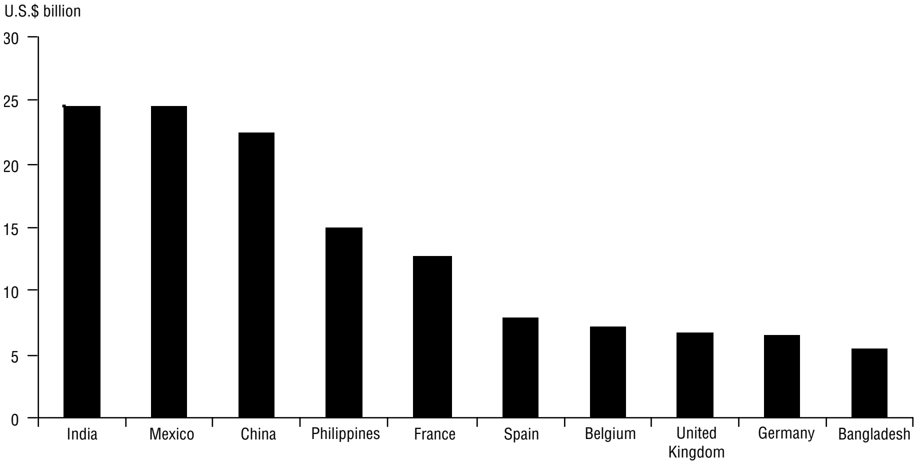
Remittances Are Stable or Even Countercyclical

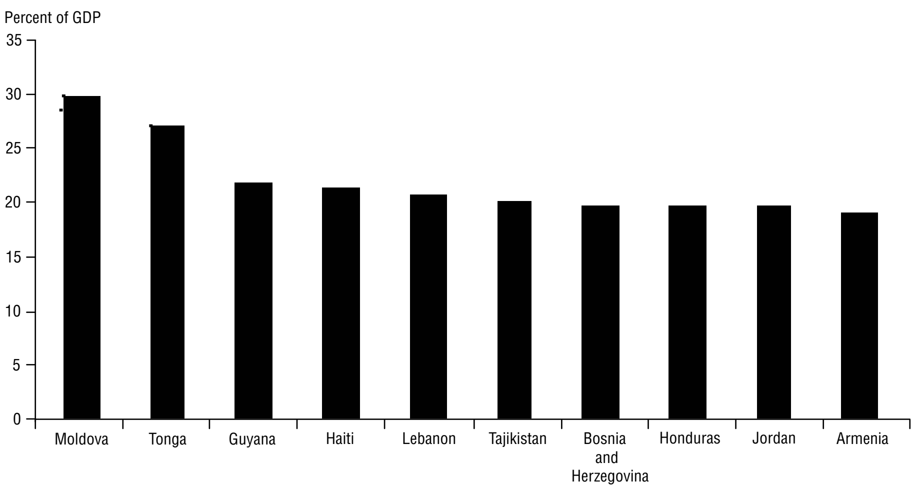
Remittances tend to be more stable than private capital flows and may even be countercyclical relative to the recipient economy. They tend to rise when the recipient economy suffers a downturn in activity, an economic crisis, natural disaster, or political conflict, as migrants may send more funds during hard times to help their families and friends. Remittances rose during the financial crisis in 1995 in Mexico and in 1998 in Indonesia and Thailand (*Figure 3*). They also increased following hurricanes in Central America. In Somalia and Haiti, they have provided a lifeline for the poor. In addition to bringing the direct benefit of higher wages earned abroad, migration helps households diversify their sources of income and thus reduce their vulnerability to risks.

Remittances Reduce Poverty

Remittances directly augment the income of the recipient households. In addition to providing financial resources for poor households, they affect poverty

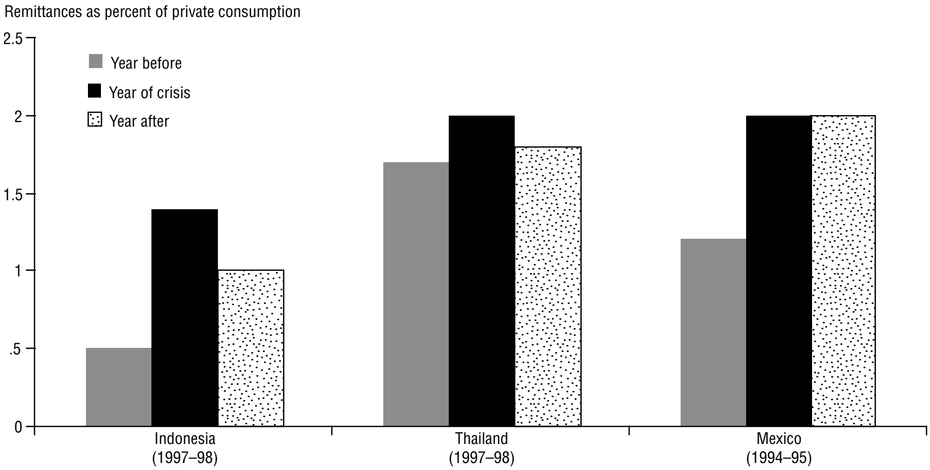
Figure 2
Top Recipients of Remittances, 2006





SOURCES: Author's calculations based on IMF's *Balance of Payments Statistics Yearbook 2007*, World Bank's *World Development Indicators* 2007, and World Bank Development Prospects Group data.

Figure 3
Remittances Rise During Crisis, Natural Disaster, or Conflict



SOURCE: World Bank (2005).

and welfare through indirect multiplier effects and also macroeconomic effects. Also, these flows typically do not suffer from the governance problems that may be associated with official aid flows.

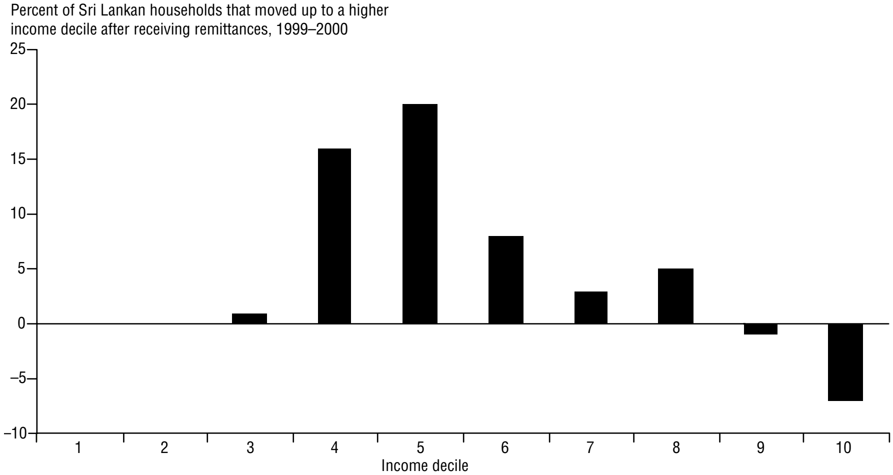
Cross-country regression analysis shows significant poverty reduction effects of remittances: A 10 percent increase in per capita official remittances may lead to a 3.5 percent decline in the share of poor people. Recent research indicates that remittances reduced poverty in sub-Saharan Africa and Latin America, although with heterogeneous effects across countries.

Household survey data show that remittances have reduced the poverty head-count ratio (percent of population below the national poverty line) significantly in several low-income countries—by 11 percentage points in Uganda, 6 in Bangladesh, and 5 in Ghana. In Nepal, remittances may explain a quarter to a half of the 11-percentage-point reduction in the poverty head-count rate over the past decade (in the face of a difficult political and economic situation).

The analysis of poverty impact of remittances must account for counterfactual loss of income that the migrant may experience due to migration (for example, if the migrant has to give up his or her job). Such losses are likely to be small for the poor and unemployed but large for the middle- and upper-income classes.

Very poor migrants may not be able to send remittances in the initial years after migration. Also, the remittances of the very rich migrants may be smaller than the loss of income due to migration. But for the middle-income groups, re-

Figure 4
Remittances Help Reduce Poverty



NOTE: A negative number indicates the percentage of households that moved down to a lower decile.
SOURCE: De and Ratha (2006).

mittances enable recipients to move up to a higher income group. In Sri Lanka, for example, households from the third through the eighth income decile moved up the income ladder thanks to remittances (*Figure 4*).

Remittances Finance Education, Health, and Entrepreneurship

Remittances are associated with increased household investments in education, entrepreneurship, and health—all of which have a high social return in most circumstances. Studies based on household surveys in El Salvador and Sri Lanka find that children of remittance-recipient households have a lower school dropout rate and that these households spend more on private tuition for their children. In Sri Lanka, the children in remittance-receiving households have higher birth weight, reflecting that remittances enable households to afford better health care. Several studies also show that remittances provide capital to small entrepreneurs, reduce credit constraints, and increase entrepreneurship.

Remittances May Cause Currency Appreciation

Large remittance inflows, like any other foreign currency inflows, can cause an appreciation of the real exchange rate and raise the international price of traditional exports. Although empirical evidence of such Dutch disease effects of remittances is still lacking, the impact is likely to be large in small economies. Several countries, including El Salvador, Kenya, and Moldova, are concerned about the effect of large remittance inflows on currency appreciation.

The traditional "sterilization" technique used to prevent currency appreciation due to natural resource windfalls, however, is not appropriate for addressing currency appreciation due to remittances. Unlike oil windfalls, remittances persist over long periods. Trying to sterilize their impacts year after year can be very costly. Countries have to learn to live with these persistent flows. Government spending on infrastructure and efforts to raise labor productivity can to some extent offset the currency appreciation effects of remittances.

The Effect of Remittances on Growth Is Mixed

To the extent that remittances finance education and health and increase investment, remittances could have a positive effect on economic growth. In the economies where the financial system is underdeveloped, remittances may alleviate credit constraints and act as a substitute for financial development. On the other hand, large outflows of workers (especially skilled workers) can reduce growth in countries of origin. Remittances may also induce recipient households to choose more leisure than labor, with adverse effects on growth.

Remittances may be more effective in a good policy environment. For instance, a good investment climate with well-developed financial systems and sound institutions is likely to imply that a higher share of remittances is invested in physical and human capital. Remittances may also promote financial development, which in turn can enhance growth.

Empirical evidence on the growth effects of remittances, however, remains mixed. In part, this is because the effects of remittances on human and physical capital are realized over a very long time. This is also partly due to the difficulty associated with disentangling remittances' countercyclical response to growth, which implies that the causality runs from growth to remittances, but the correlation between the two variables is negative. Finding appropriate instruments for controlling such reverse causality is a challenge. It would be easy to conclude that remittances have a negative effect on growth, but that would be erroneous. Also, to the extent that they increase consumption, remittances may raise individual income levels and reduce poverty, even if they do not directly impact growth.

Leveraging Remittances for Development

Governments in destination and origin countries can facilitate remittance flows and enhance their development impacts through the application of appropriate policies. However, some current policy practices pose pitfalls. Almost all developing countries offer tax incentives to attract remittances, but such tax exemption on remittances may encourage tax evasion. Matching-fund programs (such as Mexico's three-to-one program) may effectively leverage small volumes of collective remittances from migrant associations for small community development projects, but such programs may not be scalable and may divert funds from other local funding priorities. Efforts to channel remittances to investment have met with little success. Instead, efforts should be made to improve the overall investment climate in the origin countries. Some governments have been toying with the idea of taxing remittances. This would have an effect similar to that of raising remittance costs and would hurt the poor migrants and their families in origin countries. Taxation would also drive remittance flows further underground.

Remittances should not be viewed as a substitute for official development aid. Fundamentally, they are private money that should not be expected to fund public projects. Not all poor households receive remittances; official funding is necessary to address the needs of such households.

Leveraging Remittances for Financial Access of Migrants and Their Beneficiaries

Encouraging remittances through banking channels can improve the development impact of remittances by encouraging more saving and enabling better matching of saving with investment opportunities. Remittances received as cash are less likely to be saved than those received through a bank account.

For many poor households and migrants, remittances are the only point of contact with the formal financial sector. By providing remittance services, banks and other financial institutions can attract new customers for their deposit and loan products. Microfinance institutions can use the history of remittance receipts to judge the credit history of potential customers.

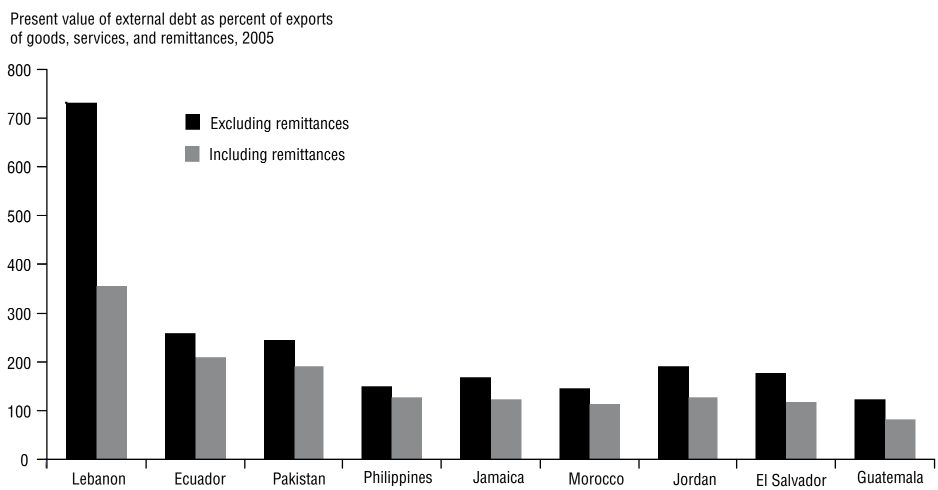
Both sending and receiving countries can increase migrants' banking access by allowing origin country banks to operate overseas and providing identification cards (such as the Mexican *matrícula consular*), which are accepted by banks to open accounts. Access to remittance services in rural and remote areas can be improved by encouraging the participation of microfinance institutions, credit unions, and saving banks (including postal saving schemes) in the remittance market. Existing regulations may need to be amended to allow these institutions to more fully participate in providing remittance services. In many countries, microfinance institutions would need legal permission to receive foreign exchange. In some cases, they may need limited access to national clearance and settlement systems.

Leveraging Remittances for Capital Market Access of Financial Intermediaries

Remittances can improve a country's creditworthiness and thereby enhance its access to international capital markets. Hard currency remittances, properly accounted, can significantly improve country risk rating. The ratio of debt to exports of goods and services, a key indebtedness indicator, would increase significantly if remittances were excluded from the denominator (*Figure 5*). Model-based calculations using debt-to-export ratios that include remittances in the denominator indicate that including remittances in creditworthiness assessments would improve credit ratings for Lebanon (by two notches) and result in implied sovereign spread (the difference in interest rates between a sovereign bond and comparable U.S. treasuries) reductions ranging from 130 to 334 basis points.

Future flows of remittances can be used as collateral to improve the rating of the subsovereign borrowers, allowing them to pierce the sovereign rating ceiling. Several banks in developing countries (such as Brazil, Egypt, El Salvador, Guatemala, Kazakhstan, Mexico, and Turkey) have been able to raise cheaper and longer-term financing (more than $15 billion since 2000) from international capital markets via securitization of future remittance flows. By mitigating currency convertibility risk, a key component of sovereign risk, the future flow securitization structure allows securities to be rated better than the sovereign credit rating. In the case of El Salvador, for example, the remittance-backed securities were rated investment grade, two to four notches above the subinvestment grade sovereign rating. Investment grade rating makes these transactions attractive to a

Figure 5
Remittances Improve Country Creditworthiness



SOURCE: World Bank (2005).

wider range of "buy-and-hold" investors (for example, insurance companies) that face limitations on buying subinvestment grade. As a result, the issuer can access international capital markets at a lower interest rate spread and longer maturity. Moreover, by establishing a credit history for the borrower, these deals enhance the ability and reduce the costs of accessing capital markets in the future.

Reducing Remittance Costs

Reducing remittance fees would increase the disposable income of poor migrants, boost their incentives to send more money home, and encourage the use of formal remittance channels.

The cost of sending remittances tends to be high and regressive. A typical poor migrant sends about $200 or less per transaction. The average cost through the top three money transfer operators (Western Union, MoneyGram, and Dolex) can be as high as $16 for $100 and $18 for $200. These fees are highly regressive because the smaller remittances sent by poor migrants cost more.

With increased awareness among policymakers and migrants and falling costs of technology, remittance costs have been declining in recent years. In the U.S.–Mexico corridor, for example, the cost of sending $300 fell by 54 percent between 1999 and 2004, from more than $26 to $12. Since then, however, costs have remained sticky, dropping only to $10.60 by the end of 2006.

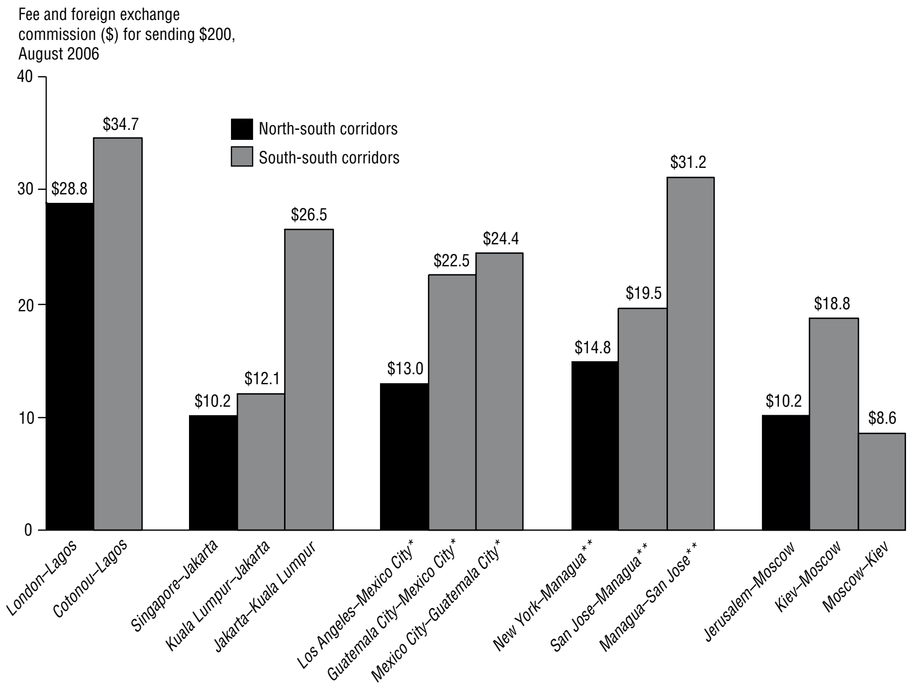
South–south remittance costs are even higher than north–south remittance costs (*Figure 6*). Nearly half the migrants from the south live in the south. Yet south–south remittances are either impossible due to capital and exchange controls, or they are prohibitively expensive because currency conversion charges have to be paid at both ends.

High remittance costs faced by poor migrants can be reduced by increasing access to banking and strengthening competition in the remittance industry. Banks tend to provide cheaper remittance services than money transfer operators. Entry of new market players can be facilitated by harmonizing and lowering bond and capital requirements, as well as avoiding overregulation such as requiring a full banking license for specialized money transfer operators.

Although regulations for anti-money-laundering and countering the financing of terrorism are necessary for security reasons, they should not make it difficult for money service businesses to operate accounts with correspondent banks. These regulations are currently unclear, and to make matters worse, they are not systematic or harmonized. Developing transparent compliance guidelines on anti-money-laundering and antiterrorism-financing regulations should be a policy priority.

Sharing payment systems would avoid duplication of efforts. Establishing partnerships between remittance service providers and existing postal and other retail networks would help expand remittance services without requiring large fixed investments. However, exclusive partnerships between post office networks

Figure 6
South–South Remittance Fees Are Higher Than North–South Remittance Fees



NOTES: *These fees are the average of Western Union and other agencies; **these fees and foreign exchange commissions are from Western Union only.

SOURCE: Ratha and Shaw (2007).

and money transfer operators have often resulted in higher remittance fees than when there are no such partnerships. Partnerships should be nonexclusive.

Requiring greater disclosure on fees from remittance service providers would help remitters make informed choices. Poor migrants would also benefit from financial education.

Summary: The International Remittances Agenda

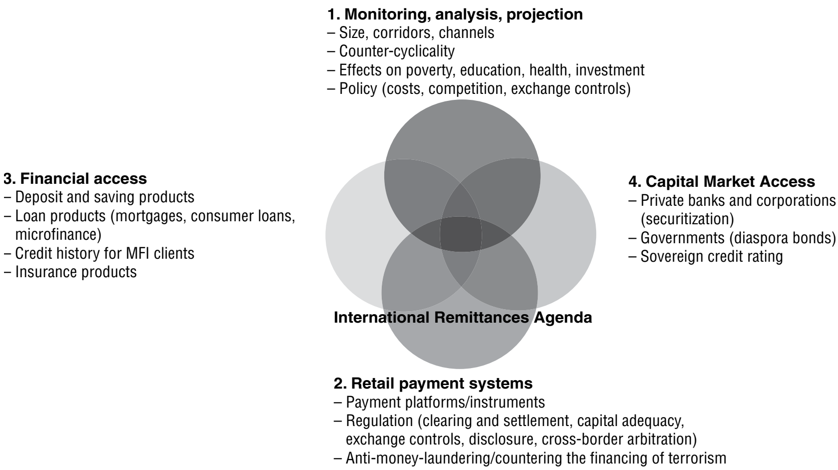
Remittances can contribute significantly to poverty reduction and other millennium development goals. Following the discussion above, the international remittances agenda can be summarized under four headings (*Figure 7*):

1. Monitoring, analysis, and projection
2. Retail payment systems
3. Financial access of individuals or households
4. Leveraging remittances for capital market access of financial institutions or countries

1. Monitoring, analysis, and projection. This includes understanding the size, corridors, channels, and costs of remittance (and migration) flows and the cyclical behavior of these flows; analysis of impacts on poverty, inequality, education, health, and investment in remittance recipient countries; and analysis of policy factors affecting remittance costs—for example, entry barriers and exclusivity contracts affecting market competition and exchange controls affecting foreign exchange commission. The effect of cost reduction on size and channels of flows also falls under this group.

2. Retail payment systems. The changes in the payment system relating to personal remittances impact all retail or small-value payments, including person-to-business and business-to-business payments. The items in this category include new payment platforms or instruments (including cell-phone-based, card-based, or Internet-based remittance instruments); prudential capital requirements and regulations governing access of remittance agents to clearing and settlement systems; compliance with anti-money-laundering and countering the financing of terrorism; disclosure of remittance fees; and cross-border arbitration in the event

Figure 7
The International Remittances Agenda



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that a remittance transaction is not delivered as per the service promise.

3. Financial access of individuals or households. While financial intermediaries such as banks, microfinance institutions, credit unions, and savings banks can help deliver remittance services, they can also benefit by offering remittance services that may attract new customers and then encourage them to save and invest. Besides encouraging saving out of remittances, these financial intermediaries can develop remittance-linked consumer or housing loans and insurance products. They can also use the history of remittance receipt to evaluate a recipient's creditworthiness.

4. Leveraging remittances for capital market access of financial institutions or countries. Large and stable remittance flows undoubtedly improve country creditworthiness and thereby creditworthiness of subsovereign entities as well. Banks in many countries have used future remittances as collateral for raising significant bond financing (sometimes billions of dollars) from international markets. The interest spread on these bonds was lower, and the tenor higher, than comparable plain sovereign bonds. Some estimates show that the potential for such bond financing remains untapped, especially in many poor countries that also receive significant remittances. The funds raised via these bonds can be targeted to specific development projects.

Notes

This paper draws heavily on Ratha (2003) and World Bank (2005). For more references, see World Bank (2005). Thanks to Uri Dadush and Sanket Mohapatra for extensive discussions and Zhimei Xu for research assistance. The views expressed are the author's own, not those of the World Bank.

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Remittances and Their Microeconomic Impacts: Evidence from Latin America

Catalina Amuedo-Dorantes

Remittances, defined as the money transfers made by migrants to their families and friends back home, have increasingly captured the attention of policymakers as their magnitude keeps rising and their role in economic development becomes more obvious. Nowhere is this more true than in Latin America and the Caribbean (LAC), a region in which growth in domestic incomes and capital flows has stagnated while private transfers in the form of remittances have reached $53.6 billion (Inter-American Development Bank 2006).

The flow of remittances to LAC countries is the highest and fastest growing in the world, exceeding foreign direct investment and net official development assistance to the region. Remittances surpass tourism income and almost always exceed revenues from the largest export in these countries, accounting for at least 10 percent of gross domestic product in six of them. Furthermore, remittances are the least volatile source of foreign exchange in many of these economies, thus playing a crucial role in economic development.

In what follows, I provide a general overview of the remitting patterns of migrants to the U.S. who are from Costa Rica, the Dominican Republic, Haiti, Mexico, Nicaragua, and Peru. Subsequently, I summarize some microeconomic evidence of the impact that remittances have on various spheres of economic development, as is the case with employment, business ownership, education, and health care investments in two LAC economies. These findings underscore the importance of remittances as a resource for the accumulation of human capital investments in education and health and as a determinant of employment patterns in remittance-receiving households in developing economies.

Data Sources

For the analysis of immigrant-remitting patterns, I rely on information from two companion data sets: the Mexican Migration Project (MMP) and the Latin American Migration Project (LAMP).[1] MMP started in 1982 to study the migration patterns of Mexicans within Mexico and to the United States. I use detailed social, demographic, and economic information from approximately 16,000 households in 93 communities in 17 Mexican states.[2] For each household, interviewers gather a complete life history for the household head that includes detailed information on past migration experiences in the United States. Afterward, interviewers travel to destination areas in the U.S. to administer identical questionnaires to households from the same communities in Mexico whose members have settled in the U.S. and no longer return home. Altogether, I work with a sample of 5,837 authorized and unauthorized Mexican immigrants.

LAMP, the companion set to MMP, uses the same methodology in a variety of other countries in Latin America and the Caribbean. Only one wave of data—collected between 1999 and 2003, depending on the country—is available so far. As such, I rely on data from immigrants who are from Costa Rica (192 respondents), the Dominican Republic (166), Nicaragua (161), Peru (61), and Haiti (36).

Latin American Immigrants' Remitting Patterns

What Percentage of Migrants Remits and How Much Do They Send Home?

Table 1 compares the percentage of immigrants sending money home across six Latin American and Caribbean countries. Of the 5,703 immigrants providing information regarding their remitting practices, 71 percent declare sending money home monthly during their last U.S. trip. This figure is in line with the more than 60 percent of immigrants from Nicaragua, Costa Rica, the Dominican Republic, Mexico, and Haiti remitting home. The portion of migrants sending money to their families monthly drops to 46 percent among the 52 Peruvian immigrants in the sample.

Table 1 also lists the average dollar amount ($302 a month) remitted home by immigrants from these LAC nations. Yet, there are significant differences in the funds sent by migrants from these countries. For instance, money transfers are the smallest among immigrants from the Dominican Republic ($179) and the largest among immigrants from Costa Rica ($493).

Who Remits?

A longstanding series of empirical papers have noted that remittances differ according to immigrants' ages, family responsibilities back home, earnings, and

Table 1
What Share of Migrants Remits and How Much?

	All countries			Costa Rica			Dominican Republic			Haiti		
Variables	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
Migrants remitting	5,703	.71	.46	167	.69	.46	154	.67	.47	19	.74	.45
Average amount remitted (monthly)	4,034	301.68	418.48	115	492.91	865.46	103	179.18	195.31	14	284.56	251.78

	Mexico			Nicaragua			Peru		
Variables	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
Migrants remitting	5,179	.71	.45	132	.61	.49	52	.46	.50
Average amount remitted (monthly)	3,698	300.43	403.35	80	223.18	255.03	24	376.55	371.75

NOTES: N = number of observations; SD = standard deviation. Amounts in U.S. dollars.

SOURCES: Author's tabulations using data from the Mexican Migration Project and the Latin American Migration Project.

temporary versus permanent status (Taylor 1999; de la Garza and Lowell 2002). Table 2 examines these characteristics as well as the variability of immigrants' remitting patterns and remitting purposes according to whether they were authorized upon entry, their educational attainment, decade of visit, and area of residence in the United States. Several findings are worth discussing.

A higher share of unauthorized immigrants (75 percent) than legal immigrants (64 percent) remits money home. Likewise, less educated immigrants appear more likely to remit than their more educated counterparts (59 percent versus 50 percent, respectively). Yet, by country, there are no statistically significant differences in the remitting likelihood of less and more educated immigrants.

Other interesting findings refer to remittance trends. According to Table 2, a higher fraction of Latin American immigrants has transferred money to family during the present decade than in the 1990s. This is indeed the case for Costa Ricans, Dominicans, Peruvians, and Mexicans. The opposite trend is observed among Haitians, though the limited number of observations for Haiti calls any conclusions into question.

A final result revealed by Table 2 is the change in remitting patterns according to where immigrants resided in the United States. Immigrants were more likely to remit (73 percent versus 67 percent) if they resided in smaller cities or rural areas rather than big cities. This finding is partially a by-product of the sample's larger number of Mexicans, most of whom were employed in the agriculture sector. However, in the case of Dominicans and Nicaraguans, the percentage of remitting immigrants was larger among those who last resided in a big U.S. city. This pat-

Table 2
Who Remits?

Variables	All countries Share	All countries t-stat	Costa Rica Share	Costa Rica t-stat	Dominican Republic Share	Dominican Republic t-stat	Haiti Share	Haiti t-stat
By documentation status:								
Legal	.64	–	.66	–	.68	–	.69	–
Unauthorized	.75	–8.36	.80	–1.76	.57	.75	1.00	–2.61
By educational attainment:								
Up to 15 years	.59	–	.60	–	.69	–	.75	–
16 years-plus	.50	2.37	.33	1.48	.73	–.35	.50	.48
By decade of visit:								
During 1990s	.67	–	.45	–	.58	–	.92	–
2000 and later	.79	–9.79	.81	–4.76	.83	–3.39	.33	2.63
By area where they stayed in the U.S.:								
Not a large city	.73	–	.68	–	.54	–	.70	–
Large city	.67	5.42	.78	–.86	.73	–2.28	.78	–.37

Variables	Mexico Share	Mexico t-stat	Nicaragua Share	Nicaragua t-stat	Peru Share	Peru t-stat
By documentation status:						
Legal	.66	–	.57	–	.44	–
Unauthorized	.75	–7.34	.80	–2.22	1.00	–7.90
By educational attainment:						
Up to 15 years	.58	–	.56	–	.56	–
16 years-plus	.50	1.44	.53	29.37	–	1.29
By decade of visit:						
During 1990s	.68	–	.56	–	.22	–
2000 and later	.79	–8.92	.67	–1.28	.64	–3.42
By area where they stayed in the U.S.:						
Not a large city	.75	–	.56	–	–	–
Large city	.66	6.56	.73	–1.82	–	–

NOTES: The null hypothesis being tested is whether the two shares are significantly different from each other. Information on migrant residency while in the U.S. is not available in the Peruvian survey.

SOURCES: Author's tabulations using data from the Mexican Migration Project and the Latin American Migration Project.

tern may be simply indicative of the location preferences of emigrants from these countries; for example, Dominicans may primarily concentrate in New York City.

For What Purposes Do They Remit?

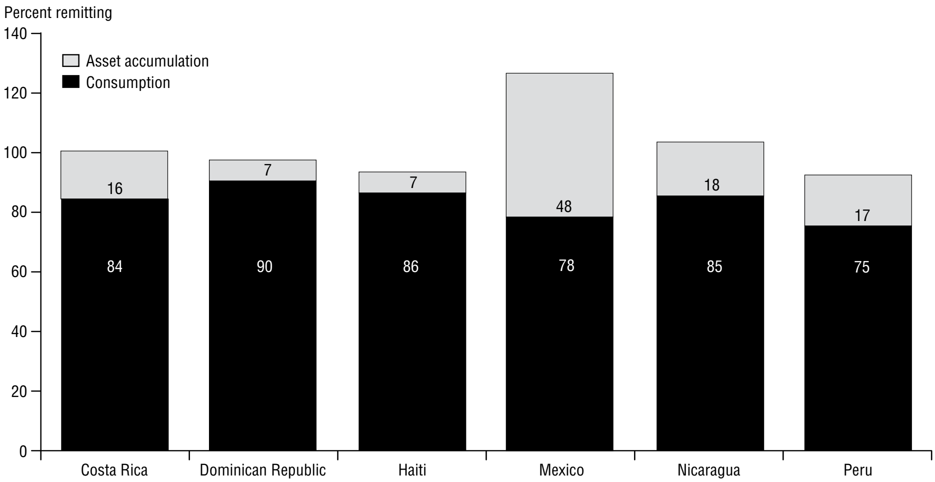
The literature has long examined immigrants' remitting motives (Amuedo-Dorantes, Bansak, and Pozo 2005). A variety of reasons have been identified, including altruism, exchange, investment, and co-insurance.

The altruism motive suggests that remittance payments made by migrants to their families increase with the needs of household members back home (Becker 1974). The exchange motive, or at least one of the motives, refers to existing evidence of immigrants repaying family members and friends back home for financing their trips (Cox 1987). Another motive discussed in the literature is investment, which occurs when immigrants remit money home to purchase assets with the intent of earning an economic return. Finally, Lucas and Stark (1985) brought attention to yet another motive for sending money home: co-insurance. Both immigrants and family members/friends provide monetary and in-kind transfers to each other to hedge against economic shocks.

MMP and LAMP ask remitters about the purpose for sending money home. Remitters are allowed to choose up to five motives. For practical purposes, these motives can be grouped into "consumption" or "asset accumulation/investment," depending on whether remittances are sent to cover the consumption needs of families and friends back home or to be invested in productive activities. Which expenditure categories should constitute consumption versus asset accumulation is debatable, particularly when it comes to assets such as housing. However, for this presentation, I group under the category of consumption the following expenditures: food and maintenance, purchase of a vehicle, purchase of consumer goods, financing a special event, recreation/entertainment expenses, and debt payments. Asset accumulation comprises the following: construction or repair of a house, purchase of a house or lot, purchase of tools, purchase of livestock, purchase of agriculture inputs, start/expand a business, education expenses, health expenses, and savings.

Figure 1 addresses migrants' remitting motives in a variety of countries. Because migrants can indicate up to five motives, the percentages of migrants sending money back home for consumption and asset accumulation purposes do not add to 100. According to Figure 1, consumption is the overwhelming purpose behind immigrants' remitting practices. Yet, a nontrivial fraction of remitters indicates asset accumulation as a reason for sending money home. Consumption appears to be a more pressing remittance motive for immigrants coming from the Dominican Republic, Haiti, Nicaragua, Costa Rica, and Peru. Only a small fraction of immigrants from each of those economies (not more than 18 percent) indicates sending money home for asset accumulation purposes.

Figure 1
For What Purposes Do Migrants Remit



NOTE: Percentages do not add up to 100 because more than one purpose may be reported.

SOURCES: Author's tabulations using data from the Mexican Migration Project and Latin American Migration Project.

Microeconomic Evidence: Implications of Remittance Inflows

One reason policymakers and development organizations are paying more attention to migrant remittances is that they constitute a significantly larger, less volatile, and more reliable source of financial-development aid than foreign aid and other public transfers. As such, much of the focus on remittances has been oriented toward measuring the impact of these money transfers on the receiving economies. In what follows, I summarize some of the key findings from my work with Susan Pozo regarding the implications of remittances on the employment, business ownership, education, and health care investments carried out by receiving households, using data from the Dominican Republic and Mexico. Overall, remittances have the potential to significantly alter household labor supply patterns.

Remittance-Receiving Households and the Labor Supply

Among the ways remittances can impact economic development is via their effect on the employment patterns of men and women in remittance-receiving areas (Funkhouser 1992; Rodriguez and Tiongson 2001). Amuedo-Dorantes and Pozo (2006a) examine the impact of remittances from Mexican migrants on the supply of working-age men and women in Mexico, using data from the Encuesta

Nacional de Ingresos y Gastos de los Hogares (ENIGH). ENIGH is a nationally representative income and expenditure survey carried out biennially by the Mexican statistical institute since the late 1980s. Using data on sixteen- to sixty-four-year-olds from the 2002 ENIGH—the most complete wave yet—we (1) account for the endogeneity of remittance income with respect to the labor-supply patterns of individuals in remittance-receiving households,[3] and (2) examine differences in the hours worked in various types of employment by men and women in urban and rural areas in response to this income. We find that remittances seem to be associated with variations in the allocation of the male labor supply across various types of employment. In contrast, remittances are accompanied by an overall drop in the female labor supply resulting from reductions in informal-sector and nonpaid work in rural areas.

What might account for these differences? One plausible explanation is that when measuring the labor-supply impact of remittances, the income effect from these monetary inflows is confounded by the disruptive effect of the preceding out-migration of family members. The income effect appears to dominate in the case of women in rural areas, who seem to be using remittances to purchase time away from informal and nonpaid work. Likewise, higher remittance incomes appear to be associated with reduced male labor supply in formal-sector work and urban self-employment. However, among men, the income effect seems offset by a higher incidence of informal-sector employment, possibly signaling the disruptive effect of household out-migration. Overall, remittances have the potential to significantly impact household labor-supply patterns in remittance-receiving countries.

Remittances and Business Ownership

The development literature has long emphasized the important role that remittance inflows can play in promoting microentrepreneurship by lifting budget constraints in areas with poor access to credit (Woodruff and Zenteno 2001). Using household-level data from the Dominican communities in LAMP, Amuedo-Dorantes and Pozo (2006b) examine the links between remittance receipt and business ownership. Recognizing their likely joint determination, we estimate a system of simultaneous probit models examining the likelihood of both events. In this manner, we are able to identify some of the determinants.

While it has been suggested that workers' remittances may loosen the capital constraints of households in developing economies with regard to business ownership, our findings do not support this hypothesis in the case of the Dominican Republic. Specifically, household remittance receipt appears to be associated with a lower household likelihood of business ownership. Why does this occur? One possibility is that remittances are used to fulfill basic consumption needs, contribute to the housing stock, increase the availability of health care for individuals, or contribute to the education of household members.

Although remittance receipt does not appear to enhance the household's likelihood of business ownership, business owners seem more likely than non-business owners to receive international remittances. One explanation is that the existence of a family business may signal to emigrants the availability of good investment opportunities in the home community. Another is that emigrants may send money home in order to claim household assets upon their return; that is, remittances may respond to a bequest motive.

Remittances and Educational Investments Back Home

Remittances can also influence economic development via their impact on educational investments (Edwards and Ureta 2003). Using LAMP's Dominican survey data, known as LAMP-DR7, Amuedo-Dorantes and Pozo (2006c) work with a sample of school-age children from 907 households who were interviewed in seven Dominican communities in 1999 and 2000. Our purpose is twofold: (1) to examine how remittances impact the household's decision to invest in education while attempting to account for the disruptive impact of household out-migration, and (2) to consider the differential impact of remittance inflows on the distribution of educational investments by gender.

We take advantage of the fact that only 44 percent of children in remittance-receiving households have family members abroad to examine the impact of remittances on the educational attainment of children in households without migrants relative to all other children. Specifically, we examine the effect of remittance inflows on the likelihood that children have an age-appropriate education, which we refer to as being "academically on target."

We find that the receipt of remittances has no discernible impact on the likelihood of achieving an age-appropriate education among children when we include in our sample households with, as well as without, migrants. However, remittance receipt is associated with a significantly higher likelihood of being academically on target among children in households without migrants. The difference suggests that among children in households with migrants, remittance income may help neutralize the disruptive effect of household out-migration on children's educational attainment.

We also look at the differential impact of remittance inflows on the educational attainment of boys as compared with girls. When we do not distinguish among children according to whether the household has migrants currently abroad, girls seem to benefit significantly more than boys from the receipt of remittances by the household. However, when we focus on children in households without migrants, the receipt of remittances benefits both boys and girls. Again, the difference suggests that the disruptive effect of household out-migration disproportionately falls on boys. Furthermore, the findings suggest that remittances help palliate the negative impact of household out-migration on the educational attainment of boys while also helping girls.

Remittances and Health Care Expenditures of Families in Mexico

Finally, remittances have also been deemed responsible for changes in health outcomes (Kanaiaupuni and Donato 1999; Levitt 1997; López-Córdova 2006; Duryea, López-Córdova, and Olmedo 2005). Using Mexico's 2002 wave of ENIGH, Amuedo-Dorantes and Pozo (2006d) examine the impact of remittance income on the health care of Mexican families by income strata.

We find that international remittances increase both the likelihood and level of spending on health care. We also find that the sensitivity of health care expenditures to variations in the level of international remittances by and large exceeds the impact of nonremittance income, thus hinting at the critical role played by remittances in this type of household expenditure. Finally, remittance income has significantly greater influence in shaping the health care expenditures of households in lower-income quartiles relative to those of households in higher-income quartiles. In particular, a one-peso increment in remittance income raises the health care expenditures of households in the bottom income quartiles by 21 percent, whereas a similar increment in remittances increases the health care expenditures of households in the top income quartiles by only 4 percent. As such, remittance income has the potential to significantly impact health care expenditures among poorer households.

Hence, our findings add to the existing evidence on remittances as a valuable resource for human capital investments among lower-income households in developing economies.

Concluding Remarks

This presentation covers the similarities and differences in remitting patterns of Latin Americans in the United States. About 70 percent of immigrants in the sample declare remitting money home on a monthly basis during their last U.S. trip. On average, migrants remitted just over $300 a month. Yet, these figures significantly varied across countries, with Dominicans sending an average of $179 and Costa Ricans as much as $493.

The data confirm that consumption is the overwhelming and increasingly more important motive for sending money home. However, a non-negligible fraction of immigrants indicates asset accumulation as one motive for transferring money to their families, particularly in Mexico.

I also summarize previous findings that show how remittance funds can significantly impact the employment, education, and health care use of their recipients and, in this manner, help shape the economic development of receiving areas. Altogether, given the role of remittances in shaping household decision-making, the findings suggest that policymakers take the differences in remittance patterns across various Latin American countries into consideration when designing policies that maximize the economic potential of these money flows in improving the livelihoods of their recipients.

Notes

[1] The Mexican Migration Project and the Latin American Migration Project are collaborative research projects based at Princeton University and the University of Guadalajara, supported by the National Institute of Child Health and Human Development (NICHD). Their website can be found at http://mmp.opr.princeton.edu.

[2] The sample covers communities in the states of Aguascalientes, Baja California Norte, Chihuahua, Colima, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Michoacán, Nayarit, Nuevo León, Oaxaca, Puebla, San Luis Potosí, Sinaloa, and Zacatecas.

[3] One source of this endogeneity is in the potential for reverse causality between remittance flows and labor-supply patterns in the country of origin. In particular, while remittances may impact the labor-supply decisions of individuals in the receiving household, it is also true that the employment or unemployment patterns of individuals at home may drive migrants' remitting patterns. As such, the causality runs in both directions.

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The Relationship Between International Migration, Trade, and Development: Some Paradoxes and Findings

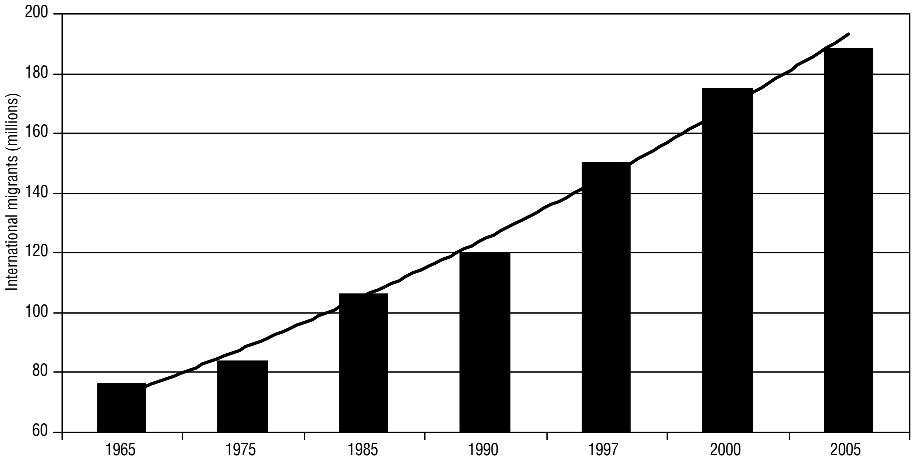
J. Edward Taylor

The interactions among trade, international migration, and economic development in migrant-sending areas are complex, and paradoxes abound. This paper summarizes global trends in world migration and remittances, discusses some paradoxes surrounding the trade–migration–development relationship, and reports findings from new research on Mexico-to-U.S. migration, using data from rural Mexico. It concludes with some thoughts about designing policies to raise the development potential of remittances in migrant-sending areas.

Trends in International Migration and Remittances

The international migration of labor is critical to how globalization and economic development are experienced by many less developed countries (LDCs). The number of international migrants, or people residing in a country other than their country of birth, has increased more or less linearly over the past forty years, from an estimated 76 million in 1965 to 188 million in 2005, as illustrated in Figure 1. About one half of the world's international migrants are women. However, some international migrant flows are dominated by males, others by females. For example, more men than women immigrate to the United States from India and El Salvador, but U.S. immigration from China and South Korea is dominated by fe-

Figure 1
Upward Trend in Total International Migration, 1965–2005



SOURCE: International Organization for Migration (2005).

males. The differences in international migration between the genders are just now becoming a focus of international migration research.

International migration creates both losses and gains for the LDCs from which international migrants originate. LDCs lose millions of highly educated people where human capital often is already scarce (e.g., see Özden and Schiff 2005). LDCs also lose significant numbers of relatively low-skilled workers whose productivity and wages are far higher abroad than at home.

International migrants send substantial amounts of remittances back to their countries of origin. The flow of international migrant remittances has increased more rapidly than the number of international migrants themselves: from an estimated US$2 billion in 1970 to US$216 billion in 2004.[1] While the growth in international migration has been linear, the growth in remittances has been nonlinear, as one can see in Figure 2. In other words, on average, each of the world's international migrants is sending home more remittances today than in the past. There is not a single convincing explanation for this phenomenon. Nearly 70 percent of all remittances go to LDCs. It is likely that remittance figures understate true international remittance flows, which include an unknown amount of cash that does not enter countries through formal banking channels as well as goods that migrants send or carry home. There is evidence, however, that more migrants are using formal channels to remit today than in the past.

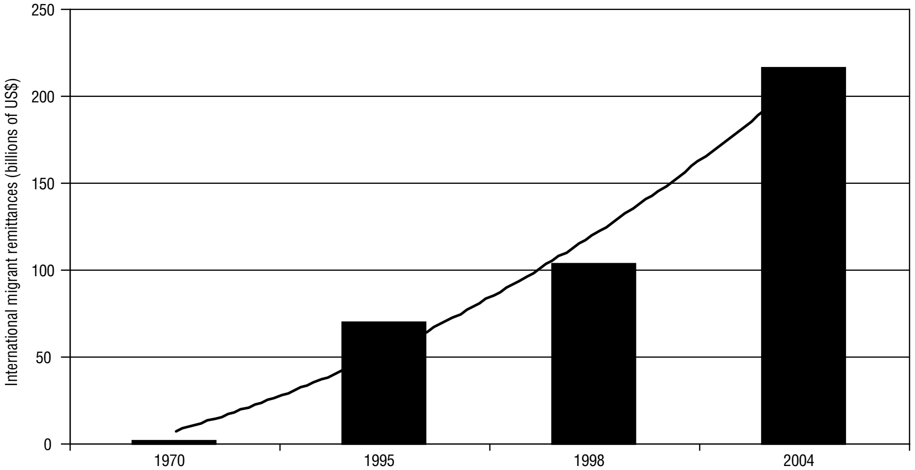
Remittances make people the most important "export" of many LDCs in terms of the foreign exchange they generate. In 2004, remittances were equivalent to 78 percent of the total value of exports in El Salvador and 108 percent in Nicaragua. International migrant remittances are also an increasing share of *national income* in many countries. For example, in 2004, remittances represented 11 percent of the gross domestic product of Guatemala, more than double the share in 2001. In the same year, remittances constituted 16 percent of the total GDP of El Salvador.

There is little information on where, within countries, international migration originates and remittances flow. Data from the limited number of national and regional surveys that include migration reveal that both migration and remittances are concentrated within, as well as among, LDCs. This means that international migration affects some countries and some regions within these countries more than others.

International Migration and Development Puzzles and Paradoxes

Recent economic studies suggest that migration and development—and thus, trade integration affecting development—are closely linked to one another.

Figure 2
Increasing Total International Migrant Remittances, 1970–2004



SOURCE: International Monetary Fund (2005).

Development shapes migration, and migration, in turn, influences development, sometimes in ways that are surprising and not recognized by researchers and policymakers.[2] Paradoxes and puzzles abound.

Does Migration Affect Development or the Reverse?

A big problem for researchers trying to test whether migration affects development is that underdevelopment also drives emigration. One usually does not see streams of migrants leaving economies that are dynamic centers of employment. If migration and underdevelopment seem to go hand in hand, it might be because the loss of people to migration retards development, as pessimistic studies of migration and development assert (and new research findings contest). Or it might be that people migrate away from underdeveloped areas, which have little to offer them if they stay. Naturally, both may be true; the question is which dominates. It is difficult to separate cause from effect.

Do Higher Incomes Mean Less Emigration?

Low incomes create an incentive for people to emigrate, but paradoxically, there are many cases where both incomes and international migration are increasing in poor regions of LDCs. Usually it is not the poorest households that send migrants abroad. The very poorest households have an incentive to send migrants abroad and reap the reward of remittance income that is higher than what family members could earn at home. However, international migration is costly and risky, and the poorest households often cannot afford the costs and risks. At the other extreme, relatively well-off households in poor regions have the liquidity to pay the international migration bill and are often more willing to assume risks (or else have ways to insure themselves against risks). However, while they are more likely to have the means to migrate abroad, they are less likely to have the will. As a result, in poor areas of LDCs, international migrants tend to come from the upper-middle part of the income distribution, not from the poorest households. This raises some questions about the effectiveness of remittances at reducing poverty.

When There Is No Brain Drain (and Maybe a Brain Gain)

The loss of human capital to international migration, commonly known as the brain drain, is well documented.[3] If individuals who migrate abroad are more skilled and highly educated than those who stay behind, productivity and incomes in migrant-sending areas can fall. Some research suggests that the opposite may be true. In some cases, migration creates a brain gain instead of a brain drain. One study found evidence that the migration of highly educated individuals from developing countries has had a positive impact on aggregate human capital formation in those countries. This is because the possibility of someday migrating abroad induces children to go to school. Another study found that internal migration by relatively skilled villagers in Mexico raised, rather than depleted, average schooling levels in villages. No study of the dizzying growth of India's information technology industry would be complete without mentioning migration connections with Silicon Valley and the incentives they create for Indian youth to go to school.[4]

International migration does not always select the most educated, however. In theory, more highly educated people should take their schooling to wherever its economic returns are highest. For a Mexican villager with above-average education (i.e., seven or more years of completed schooling), this is not likely to be in the United States. It is more likely to be at an internal migrant destination. Studies find that education does not stimulate international migration from rural Mexico, but it significantly increases the likelihood of internal migration.

A Self-Perpetuating Process

By far the most important variable driving international migration is migration networks, or contacts with family members and perhaps also with neighbors who have previously migrated. "Pioneer" migrants send home not only remittances but also information about how to migrate, where to look for work, which labor recruiters or smugglers to trust, what wages to expect, and how to overcome migration costs and risks. Past migrants also may support new migrants at their destination. They may even be willing to help finance the migration costs and insure against the risks.

The value of networks depends on where they go; networks can negatively affect migration to destinations to which they do not lead. It also depends on gender. Recent findings suggest that the value of networks may be higher for women than for men because female migrants appear to be more deterred by risky border crossings, uncertain prospects abroad, and concerns for personal safety.[5] Research also suggests that the benefits created by networks are not limited to just those households that have already sent family members abroad: Access to networks eventually spreads to benefit other households. For example, the more households in a village that have migrants, the more likely it is that other households in the village eventually will send migrants abroad.[6] Networks with international labor recruiters play an important role in shaping international migration from some, but not all, LDCs.

Regional Trade Integration and International Migration

It is many LDCs' hope that new trade opportunities will stimulate income and employment at home. One would think that this might deter emigration, but history suggests that often this is not the case in the short run. The final report of the Commission for the Study of International Migration and Cooperative Economic

Development concluded that "expanded trade between the sending countries and the United States is the single most important remedy" for unwanted migration (U.S. Commission for the Study of International Migration and Cooperative Economic Development 1990). That is, in the long run, trade and migration are substitutes. However, the Commission also warned that "the economic development process itself tends in the short to medium term to stimulate migration." It concluded that the same policies that accelerate economic growth—including privatization, land reform, and freer trade—temporarily increase migration pressures because of the displacement and disruptions that accompany development. The fact that trade and migration may be complements in the short run may create a short-run versus long-run dilemma for countries concerned about migration (Martin 1993).

Emigration may increase in the short run if trade reforms spur imports that compete with labor-intensive production. In the long run, if export activities expand and remittances create income and investment multipliers, emigration pressures may subside.[7]

There is empirical evidence that economic growth is accompanied by temporary increases in emigration. The 48 million people who emigrated from Europe between 1850 and 1925 represented about one-eighth of Europe's 1900 population, suggesting that "large scale emigration was quite common during Europe's period of industrialization" (Massey 1991). When southern European nations such as Italy and Spain industrialized and were integrated into the European Community (EC, today the European Union, or EU), they, too, experienced significant emigration pressures. However, these countries had to wait six to ten years before their citizens were permitted to search freely for jobs in other EC countries. In the meantime, economic gaps narrowed enough that once Italians and Spaniards had the right to work elsewhere in the EC, few did.[8]

In Asia, South Korea has experienced one of the world's fastest migration transitions in the context of its export-led economic growth. In 1982 alone, more than 200,000 Korean workers emigrated. Korea sent 25 percent more immigrants to the United States during the 1980s than it did during the 1970s, despite rapid economic growth at home.[9] By 1994, the South Korean government was debating how to deal with its *immigration* problems, including 20,000 legal foreign "trainees" and 50,000 to 100,000 illegal alien workers.

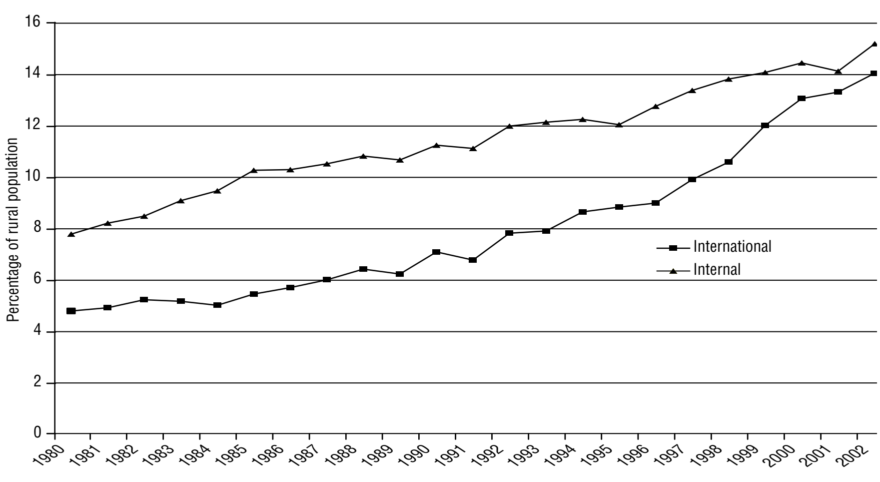
The most comprehensive data on international migration over time are from the 2003 Mexico National Rural Household Survey. This survey compiled retrospective migration histories for all family members (regardless of whether they were present at the time of the survey) from a nationally representative sample of rural households between 1980 and 2002. With this information it is possible to reconstruct migration trends from rural Mexico over a period spanning years both before and after the implementation of the North American Free Trade Agreement (NAFTA) in 1994. These trends are illustrated in Figure 3. There is no obvious break in the migration trend after 1994, only a continuation of an upward trend that started years earlier. When we use a dynamic econometric model to test for a NAFTA effect, we find that this effect is small or insignificant. There is some evidence that NAFTA had a slightly negative effect on male migration and a positive effect on migration to U.S. farm jobs, but no clear influence one way or another on total migration from rural Mexico to the United States.[10]

The Ambiguous Effects (and Gender Bias) of Immigration Policies

The effects of immigration reforms and border enforcement on immigration are almost always ambiguous. Only an empirical analysis can tell us whether the Immigration Reform and Control Act (IRCA) increased or decreased the probability of migration from, say, Mexico to the United States, or whether heightened border enforcement has increased or decreased the number of unauthorized immigrants in the U.S. In the case of IRCA, there is now strong evidence that the legalization effect (a positive for immigration) dominated the employer sanctions effect (a negative for immigration). The intent of increased border enforcement is to deter new unauthorized immigration. However, border enforcement also may deter return migration.

Our analysis of migration from rural Mexico finds that IRCA did not significantly affect overall migration and may have increased migration to U.S. farm

Figure 3
Labor Migrants as Percentage of Mexican Village Populations, by Migrant Destination, 1980–2002



SOURCE: Mexico National Rural Household Survey.

jobs. It also finds that U.S. expenditures on border enforcement have not reduced the probability of Mexico-to-U.S. migration, and they may have increased it.

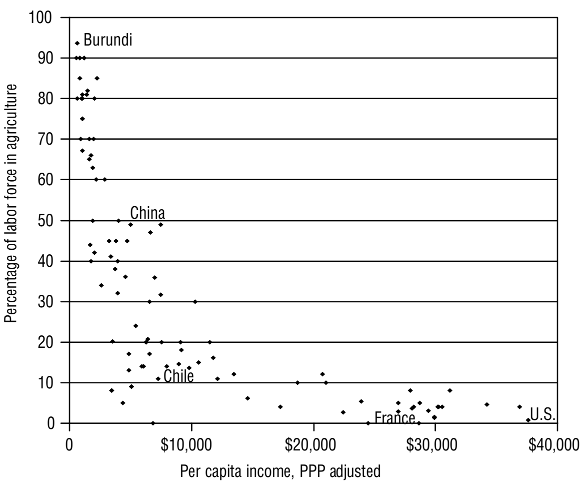
The Alternative to International Migration Generally Is Not to Stay at Home

One often hears of investing scarce resources (including remittances) in stay-at-home development of rural areas. Yet the alternative to international migration usually is not staying at home—it is migrating somewhere else. Figure 4 illustrates that as per capita incomes increase, the share of the workforce in agriculture not only goes down—it plummets. In 2004, in Burundi, Burkina Faso, Niger, Malawi, and Rwanda, with a per capita income (PPP adjusted) of US$620 to $1,230, 90 percent or more of the national workforce was in agriculture.[11] Between 79 percent and 94 percent of the population lived in rural areas. China, at $4,980 per capita PPP, had 49 percent in farm jobs and 63 percent living in rural areas, and these percentages were falling fast. Rich countries typically have less than 5 percent of their workforce in agriculture and 25 percent or less of their populations living in rural areas. Remarkably, per capita income alone can explain 85 percent of the variation in the percentages of country workforces in agriculture.

Enormous differences in rural development policies seem to have little effect on whether people stay in agriculture or not. Economic mobility requires

Figure 4

Percentage of Country Workforces in Agriculture and Per Capita Income, PPP Adjusted



SOURCES: World Bank, http://devdata.worldbank.org/dataonline; *The World Factbook 2005,* www.cia.gov/cia/publications/factbook/fields/2048.html.

geographic mobility, and for most farmers and their children, the question is not whether to migrate but where. It is instructive to look at some of the world's rural development success stories. China, where agriculture production has risen sharply and international migration is generally not an option for the rural population, is one. Between 1990 and 2004, the percentage of China's workforce employed in farm jobs plunged from 72 percent to 49 percent. Chile, despite its famous agricultural export boom, saw the share of its agricultural workforce fall from 19 percent to 14 percent.

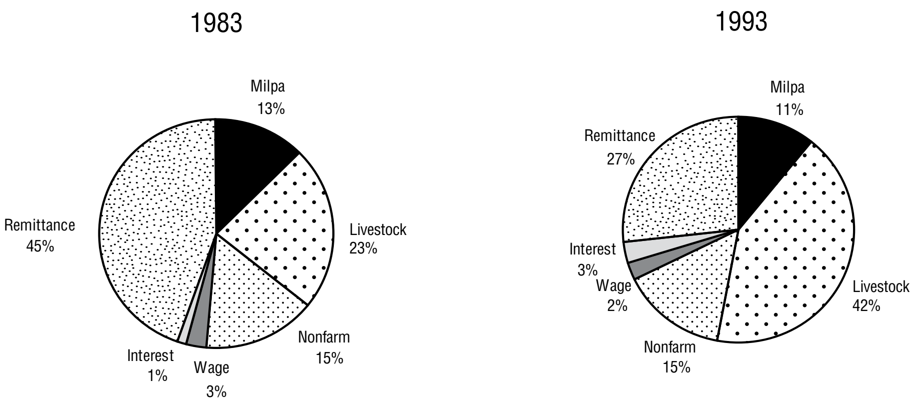
In Japan and France, despite expensive agricultural support programs, agriculture's share of the workforce today is 5 percent and 4 percent, respectively. In the United States, where farm support programs are legendary and the question of emigration is academic (but immigration is huge), less than 2 percent of the workforce is in agriculture (nearly all of the farm workforce is foreign-born), and 23 percent of the population is rural (this includes many high-income people for whom rural living is an amenity and the Internet transforms rural homes into offices). In the U.K., 2 percent of the workforce is in agriculture and 11 percent of the population lives in rural areas.

Many or Most of Migrations' Impacts Are Not in the Migrant-Sending Households

Migration transforms the economies of the households that send migrants abroad and receive remittances from them. Studies find that the loss of labor to migration can discourage household production activities that require large amounts of labor, particularly where hired workers are not readily available. However, remittances can enable household to overcome credit and other constraints and invest in new production technologies and activities. There is evidence that when one controls for lost labor, the effects of remittances on production in migrant-sending households are positive. As a result, the activities of households that send migrants abroad change.

This is illustrated in Figure 5. Households in a village in Michoacán, one of Mexico's major migrant-sending states, were surveyed in 1983 and again in 1993. During the interim, migration from this village to the United States increased sharply, as did remittances. However, the average share of remittances in household incomes went down, from 45 percent in 1983 to 27 percent in 1993, because total income also increased. The principal income driver was livestock. The average share of livestock income in household total income rose from 23 percent to 42 percent. In this village, livestock was an ideal complement to international migration. Land for grazing was abundant in the hills surrounding the village, remittances provided the financing households needed to invest in their herds, and livestock production uses little labor; in many cases, children tend the animals, while their older siblings migrate to destinations in Mexico or abroad.

Figure 5
Average Household Income Composition in a Michoacán Village, 1983 and 1993



SOURCE: Fletcher (1999), 43.

Despite the far-reaching impact migration and remittances can have on households that send migrants, it appears that most of migration's effects are found outside these households. When a migrant-sending household's income increases as a result of remittances and the activities they stimulate, its spending also increases. New demand for goods and services, from bricklayers to butchers, is created inside and outside the village, and income in the households that offer these services increases. They, in turn, spend their new income, creating additional rounds of income increases. The result is the creation of income multipliers inside and outside the rural economy, akin to the fiscal multipliers made famous by John Maynard Keynes' seminal work. Economywide models are required to estimate the size of remittance multipliers. Findings from such models indicate that each additional dollar remitted increases Mexico's GDP by between $2.69 and $3.17, depending on which households in Mexico receive the remittance.[12]

The Importance of Gender

International migration affects men and women differently. Since at least the 1960s, the number of female international migrants has been nearly as large as the number of male migrants. Today, the share of females in the world's total international migrant population is close to one half. However, some LDCs send more men than women abroad, while others send more women. Developed countries attract more men than women from some LDCs but more women than men from others.

Recent research finds that both the determinants and impacts of international migration are different for women than for men. A new study from Mexico finds that migration experience and networks raise the likelihood of international migration more for women than for men (Richter and Taylor 2006). It also finds that U.S. border enforcement expenditures decrease the likelihood of female migration, but they have no significant effect on male migration. More educated women (but not men) are more likely to migrate from rural Mexico to the United States. Male (but not female) migration may have been slightly lower after NAFTA.

Conclusions

Our brief discussion of trends and paradoxes of international migration leads us to the following conclusions:

- Underdevelopment drives migration, but migration also affects underdevelopment.
- Income gaps between rich and poor countries create the incentives for international migration, but they are a necessary—not a sufficient—condition. Most people do not migrate, even when incomes are far higher abroad than at home.
- Income growth in migrant-sending areas often is associated with more international migration, not less. In all countries that experience rapid income growth, the share of people in farm jobs and rural areas goes down.
- International migration is driven by networks. Once international migration from a particular region reaches a certain point, it tends to take on a life of its own.
- Half of the world's international migrants are women, whose motives for migrating, constraints, concerns, and impacts on sending areas often are different from those of males.

These findings point to a rich set of potential policy implications. First, it is probably not a good idea to make "keeping people on the farm" a policy priority. This might seem controversial and provocative, but it is really common sense. History teaches us convincingly that trying to keep people at home is not only very costly, it is futile. Increased mobility is a concomitant part of economic success: As per capita incomes grow, people leave the agricultural sector (they also move out of rural areas). Even in countries with the biggest rural development success stories, the share of the workforce in agriculture is decreasing. The countries that have been most successful at keeping population in rural areas have been precisely those that have been least successful at raising their people's living standards and developing their agricultural base.

This does not mean that governments should be passive or not try to promote development in migrant-sending areas, for at least two reasons. First, when low incomes are compounded by poor access to markets for inputs, outputs, credit, and insurance, there may be too much migration. Second, many of the world's migrants come from rural areas, and it is now well known that in countries where agriculture is not growing, the rest of the economy usually does badly, too. However, occupational migration away from farm jobs and geographic migration from rural areas are, if anything, likely to be higher when incomes are growing.

The challenge for policymakers is how to make migration a development tool and part of a dynamic process of income growth instead of a response to limited opportunities in migrant-sending areas. The ability of countries to create an environment that is conducive to broad-based economic growth *generally* can shape the economic landscape in migrant-sending areas, the contributions of migration to development, and the nonmigration options available to those who stay behind.

Notes

I am grateful to the United Nations and the William and Flora Hewlett Foundation for supporting parts of this research, to Veronica Hernandez for her excellent research assistance, and to Peri Fletcher and Catherine Taylor for their valuable comments and editorial assistance.

[1] Part of this sharp increase is probably due to an improved accounting of migrant remittances; however, the actual amount of remittances probably is higher than these numbers indicate, for reasons detailed below.

[2] A few surveys are Massey et al. (1998), Taylor and Martin (2001), and Stark (1991).

[3] For example, see the World Bank's recent study (Özden and Schiff 2005).

[4] See Stark and Wang (2002); Beine, Docquier, and Rapoport (2001); and Boucher, Stark, and Taylor (2005).

[5] For example, see Richter and Taylor (2006) and Curran and Rivero-Fuentes (2003).

[6] A number of studies show this, including Woodruff and Zenteno (2001) and McKenzie and Rapoport (2005).

[7] See recent work on CAFTA and migration by Taylor and Yúnez-Naude (2006).

[8] Straubhaar (1988) and Martin, Hönekopp, and Ulmann (1990).

[9] U.S. Immigration and Naturalization Service (1990), 50.

[10] See Boucher et al. (2007) and Richter and Taylor (2006). It is not known whether the same can be said for emigration from urban Mexico to the United States because the data to do such an analysis are not available.

[11] PPP refers to purchasing power parity. This is a better way to compare standards of living because it takes into account differences in the purchasing power of a given unit of income across countries.

[12] The remittance multiplier is larger for households that spend a larger share of their new income on locally produced goods and services with a low import content. See Taylor et al. (1996).

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Commentary on Session III
U.S.–Mexico Remittances: Recent Trends and Measurement Issues

Jesus Cañas, Roberto Coronado, and Pia M. Orrenius

International migration can be costly to a country in terms of the loss of human capital. In the case of massive out-migration, such as what Mexico has experienced over the past thirty years or so, the losses can be staggering. It is estimated that about 8 million Mexican-born workers—15 percent of the Mexican-born labor force—are in the United States.

The loss of labor results in a smaller economy, and aggregate income falls. However, it is not clear whether income per capita declines as a result of out-migration. That depends largely on who leaves. Remittances—migrants' money transfers to the families they have left behind—provide a migration offset that helps maintain income and consumption in the home country.

As the papers from this panel illustrate, remittances offer many benefits, both to recipient households, as Catalina Amuedo-Dorantes' work shows, and to the larger local economy, as Ed Taylor demonstrates. Taylor studies migration and remittances in a general-equilibrium context and finds that the multiplier effects of remittances are large (Taylor et al. 1996). This finding partly answers critics who complain that remittances that go to consumption do not have the same beneficial impact as remittances directed to investment. New research has even shown that remittances can help build financial markets. In the Mexican case, the process of remitting has sown the seed of financial intermediation in small communities that might otherwise have little access to banking and other formal financial services (Demirgüç-Kunt et al. 2007).

Dilip Ratha argues that given the benefits of remittances, taxing or otherwise creating barriers to legal international money transfers makes for bad public policy.

The rest of this commentary explores recent trends in U.S.–Mexico remittances, explaining how they are measured and comparing them with forecasts of remittances based on an econometric model and with trends in other developing countries.

Growth in U.S. Remittances to Mexico

The panel's compelling research on the development impact of remittances relies overwhelmingly on microdata collected through household surveys in migrants' home countries. For data on total remittance flows between countries, however, researchers, the government, and the media rely on official statistics. In the case of Mexico, the central bank is the best source of remittance data.

Banco de México data indicate both high levels and growth of remittances in the past decade. In fact, the volume and growth rate seen in these official data are much higher than what is implied by household survey data on senders and receivers and by other measures, such as remittance estimates from the U.S. Department of Commerce.

According to Banco de México, remittances totaled $20 billion in 2005 and by 2006 had grown to $23.1 billion. The 2006 level was 375 percent higher in real terms than 1995 remittances. In the post-2000 period, average annual growth was a remarkable 20.4 percent.

Many factors drive remittance growth, while others curtail it. As migrants spend more time away from home, for example, remittances generally fall, particularly if migrants take their families with them or form new families in the destination country. Drivers of growth, on the other hand, include increases in the migrant population and its income, declines in money transfer costs, and a currency depreciation or an economic crisis in the home country.

Several of these factors have been pushing up Mexican remittance totals, but they can't fully explain the recent growth. As real remittances grew 170 percent between 2000 and 2005, for example, the Mexican-born population in the U.S. grew 20 percent and real median weekly earnings of U.S. Hispanics rose 18 percent. Meanwhile, migrant inflows are estimated to have fallen in 2001, 2002, and 2003 as the U.S. economy entered recession and then experienced a weak labor market recovery (Passel and Suro 2005). In addition, in-migration in 2005 was estimated to have been below 2000 levels, and the dollar rose only 7.4 percent against the peso during these years. For remittance drivers, the biggest change came in the transaction cost of money transfers, with average costs falling more than 50 percent since 2000 (Orozco 2006).

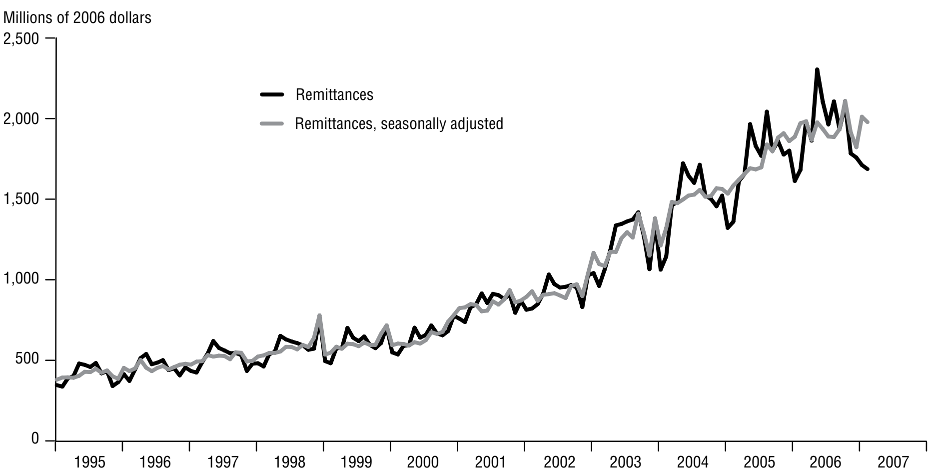
In sum, with the possible exception of transaction costs, it is difficult to reconcile the remittance growth pattern with underlying economic and demographic variables. But there is a third factor that may be the single most important determinant of the increases in observed remittances: better measurement.

Measuring Remittances

In 2000, Banco de México launched a major overhaul of the collection and recording of remittance data. Efforts initially focused on better recordkeeping within the central bank and then on better collection from sources outside the bank (Cervantes 2007). To this end, in October 2002, Banco de México issued rules under which all banks and money transfer companies had to register with the central bank and report monthly remittances by Mexican state of destination. Before 2003, monthly remittance levels were inferred from a 1990 census of financial institutions, money exchange houses, and wire transfer companies. The result of the reporting requirement was much improved data collection and a clear break with past trends in remittance numbers.

Figure 1 shows monthly U.S.–Mexico remittance data in 2006 dollars. In line with the measurement changes, the growth rate of remittances appears to have roughly three phases: 1995 to 2000, 2000 to 2002, and 2002 to 2006.[1] After 2002,

Figure 1
Measured Remittances Climb Faster After 2000



SOURCES: Banco de México; authors' calculations.

the series clearly shows more rapid growth and greater seasonality.

In addition to mandatory direct reporting by money transfer firms, Banco de México also incorporates remittances that go through informal channels. Every December, the central bank conducts a border survey that asks returning migrants questions about cash and goods they are bringing to relatives.

With the border survey and migrants' increased use of formal channels for transmitting remittances, the cash migrants carried home in the past is now being captured by the official statistics. So better measurement of remittances has itself contributed significantly to the growth rate observed in recent years.

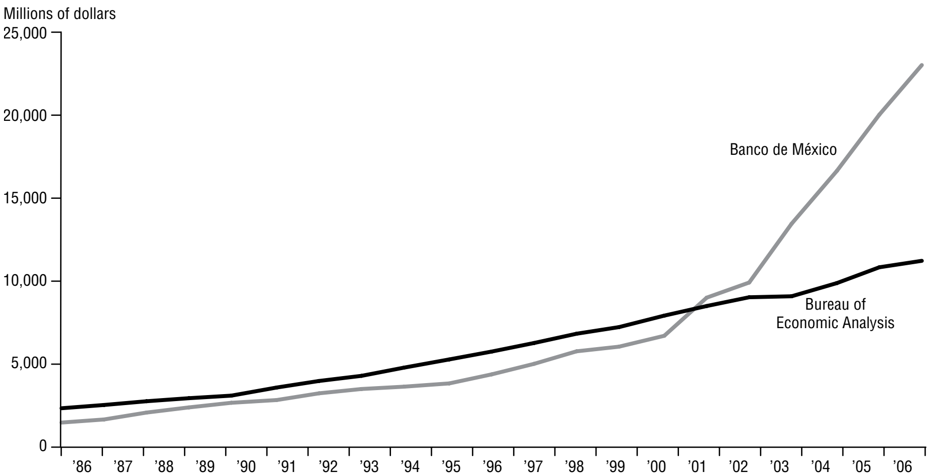
The main reason for the move from informal to formal channels has been the decline in transaction costs for both senders and recipients (Freund and Spatafora 2005). Greater competition and enhanced technology have driven down costs. More than 100 money transfer organizations served Mexico in 2005, compared with only five in 1995 (Mascaró 2007). Technological innovations like debit and credit cards and low-cost options like the Federal Reserve's automated clearinghouse system (Directo a México) have further reduced costs. As a result, electronic transfers rose from 53 percent of remittances in 1996 to 85.8 percent in 2003 and 93 percent by 2006 (Cervantes 2007; Coronado 2004).

U.S. Government Data on U.S.–Mexico Remittances

There are other sources of information on remittance flows to Mexico, and some of their estimates differ starkly from the Banco de México's numbers. The U.S. Commerce Department's Bureau of Economic Analysis (BEA) estimates that remittances were $10.7 billion in 2005 and $11.1 billion in 2006—roughly half the official volume. Figure 2, which compares annual remittance data from the BEA and Banco de México, shows the two series diverging after 2002. The timing coincides with the central bank's adoption of the new measurement methodology, but the BEA and Banco de México have always used different remittance estimation techniques.

BEA estimation is not based on direct reporting by banks and other fund transfer companies but on a model built on assumptions about remittance behavior and estimates of the size and characteristics of the migrant population. The BEA methodology has the advantage of being low cost, and it includes transfers sent through both informal and formal channels. However, it is highly sensitive to assumptions about who is remitting and how much they are sending. In addition, while the BEA defines remittances as transfers by migrants who have been in the U.S. for at least one year, one report suggests the BEA model may capture some of the initial transfers (U.S. General Accountability Office 2006). In any case, the exclusion is not large enough to account for the difference between the BEA data and the official, Banco de México numbers. And given recent growth rates in such fundamental measures as population and income of Mexicans in the U.S., any

Figure 2
U.S., Mexico Remittance Data Diverge After 2002



SOURCES: Banco de México; U.S. Department of Commerce.

model-based estimate will clearly not generate the double-digit growth official measures have documented.

Microdata on Remittances

In addition to government, or macro, measures of remittances, there are survey-based, or micro, measures of remittances by senders and receivers. Esquivel and Huerta-Pineda (2005) discuss recipient-based measures from a large, nationally representative household survey in Mexico called ENIGH (Encuesta Nacional de Ingresos y Gastos de los Hogares). ENIGH data report that in 2002, 1.4 million households received an average of $2,560. Based on this, remittances to Mexico totaled $3.6 billion in 2002, only 37 percent of the official estimate.

Some Mexican officials have questioned the discrepancy between the microdata, from such sources as ENIGH, and official remittance estimates. They contend the Banco de México methodology does not do enough to exclude illicit business transactions, such as payments to human smugglers and drug traffickers, or legitimate nonfamily transfers, such as donations to nonprofit organizations (Muñoz 2006).

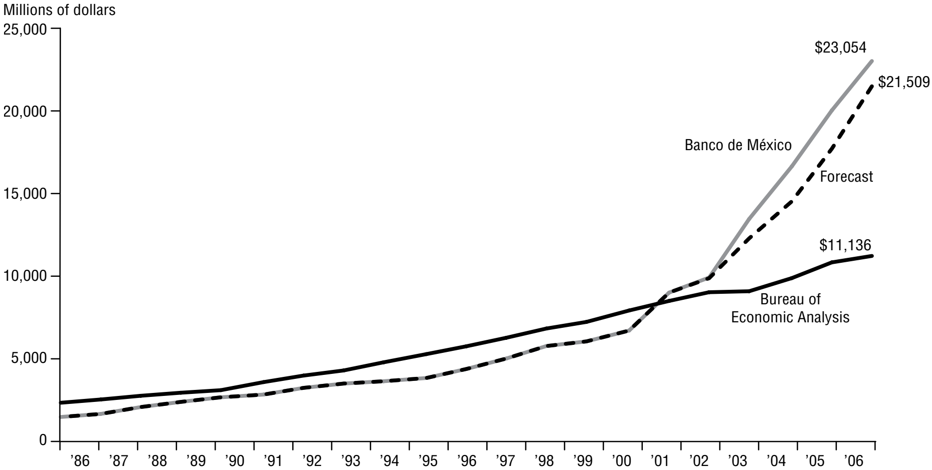
Sender-based microdata on the quantity of remittances also differ from official estimates. Amuedo-Dorantes finds that in Mexican Migration Project (MMP) data, 79 percent of Mexican workers in the U.S. remit an average of $350 per month. If migrants in the MMP were representative of Mexicans in the U.S., these numbers would be consistent with official remittance estimates of more than $20 billion. Of course, MMP is a survey of return migrants with characteristics that distinguish them from Mexican immigrants in general. MMP migrants tend to be experienced migrants who maintain households in Mexico while they work temporarily in the U.S. and send or carry very large percentages of their incomes back home. They are poorer and have less education than Mexicans on average and tend to come from states with established migrant networks in the U.S. In sum, it would not be prudent to apply the characteristics of MMP migrants to the Mexican population in the U.S., which is more affluent but also has fewer ties to home.

A Model of Remittances

The BEA and microdata cannot replicate the trends found in the remittance data from Banco de México in the post-2002 period. What would a macroeconomic forecast based on official data before the measurement changes predict for this period? To explore this question, we construct an autoregressive integrated moving average model (ARIMA) of quarterly remittances as a function of several macroeconomic variables, including U.S. and Mexican GDP, the dollar–peso exchange rate, the U.S. Consumer Price Index, and maquiladora employment. We difference the data to ensure stationarity and use autocorrelation functions to estimate the lagged structure of each variable and the residuals vis-à-vis remittances. Then we run the model of remittances on its determinants and lagged values of itself, including current and lagged values of independent variables and allowing for the appropriate ARIMA structure of the residuals. A forecast is generated by projecting the fitted values of remittances as of fourth quarter 2002.

The results, together with remittances and BEA estimates, are shown in Figure 3. Interestingly, macroeconomic determinants plus lagged remittances can explain most of the gap between BEA and Banco de México estimates. The model predicts that remittances would have been $21.5 billion in 2006, only about $1.5 billion short of the actual number. The central bank's new methodology, discussed above, and the decline in transactions costs more than account for the shortfall. Adding control variables to capture the effect of the post-2002 change suggests the impact of the new methodology amounted to $700 million at most in 2006.[2] Estimates of the cost elasticity of remittances suggest that the decline in transfer costs between 2000 and 2005 likely boosted 2006 transfers by $1.5 billion.[3]

Figure 3
Model Captures Most of Post-2000 Surge in Remittances



SOURCES: Banco de México; U.S. Department of Commerce; authors' calculations.

Comparing Remittances Across Countries

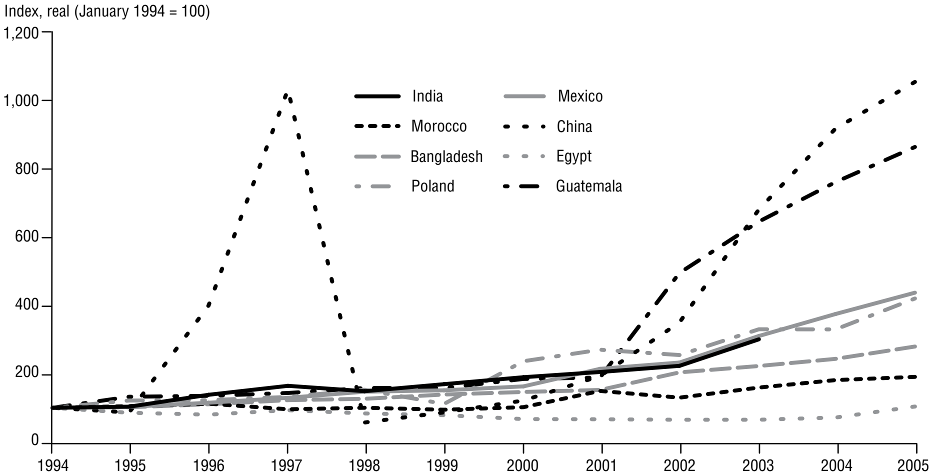
Remittances have been rising worldwide, and other countries' experiences are helpful for putting the Mexican case into context. Mexico's double-digit annual growth rates are not unusual. Figure 4 shows an indexed series of real remittances from 1994 to 2005 for a group of developing countries, many of which have experienced growth rates as high as or higher than Mexico. According to International Financial Statistics data, remittances more than doubled in real terms in India, Mexico, the Philippines, China, Bangladesh, Poland, Colombia, Guatemala, El Salvador, the Dominican Republic, Nigeria, Ecuador, Indonesia, Sri Lanka, and Jamaica, among other countries.[4]

Conclusion

There is no doubt that remittances to Mexico are high and have grown quickly. What factors are driving the rapid growth are less well known, particularly since microdata and other sources are out of line with official statistics. This situation is not unique to Mexico. As we have seen, remittances to many developing countries have more than doubled over the past decade, far outpacing changes in demographic or economic fundamentals.

Better measurement is the most important factor underlying changes in the data. At the same time formal transfers are being better measured, informal trans-

Figure 4
Remittances Rising for Many Countries



SOURCE: International Monetary Fund, International Financial Statistics database.

fers are shrinking as migrants increase their use of formal channels. The switch is due to many factors, but none as important as the sharply falling cost of remitting.

Remittance data have historically been of poor quality and grossly underestimated migrant transfers. To remedy this, a global effort is under way to standardize the definition and measurement of remittances. This will facilitate cross-country comparisons and analysis as well as appropriate policy responses to growing transfer flows.

Given the significance of remittances to the home country, precise measurement is extremely important. Governments need accurate measures of where remittances are going and how large they are to track the impact on the poor and better target social programs, infrastructure improvements, and financial industry regulation. In Mexico, several government matching programs leverage the power of remittances to improve conditions through investment in schools and infrastructure.

Remittances give rise to policy issues in the host country as well. A crucial issue is financial access for immigrants, particularly those who are undocumented. Governments struggle with trying to block illicit money flows that may go to terrorist groups or other criminals, while at the same time allowing immigrants access to banks. As measurement and standardization issues are resolved, the policy issues will surely come to dominate the debate over remittances.

Notes

The views expressed are those of the authors and do not necessarily reflect those of the Federal Reserve Bank of Dallas or Federal Reserve System.

[1] The average annual growth rate in each period was 10.3 percent, 16 percent, and 20.6 percent, respectively.

[2] To approximate the effect of the change in methodology, we fully interacted the model with a postchange dummy variable that takes the value 1 starting in fourth quarter 2002.

[3] The cost elasticity of remittances is assumed to be −0.4, as reported in Freund and Spatafora (2005).

[4] Data for India are available only through 2003.

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Session IV:

The Historical Relationship Between Migration, Trade, and Development

Inequality and Schooling Responses to Globalization Forces: Lessons from History

Jeffrey G. Williamson

Given the intensity of the current debate about the impact of globalization on brain drain in the Third World and inequality in the First World, it might be useful to look at these forces during the first global century, ending in 1914. This paper reviews what we know about the impact of trade and mass migration on low-wage, labor-abundant European economies and high-wage, labor-scarce overseas New World economies.[1] It reviews the distribution impact everywhere in the Atlantic economy, the extent of the European brain drain, and the schooling responses in both Europe and the United States.

The Impact of Globalization on Income Distribution in the Pre-1914 Atlantic Economy

The Heckscher–Ohlin Prediction

Shortly after the First World War, Eli Heckscher and Bertil Ohlin looked back on the nineteenth century and pondered the distributional consequences of globalization. They argued that trade and labor migration must have had important income distribution consequences in both Europe and the New World (Flam and Flanders 1991, 90–92). The high-wage New World countries must have become more unequal, while the low-wage European countries must have become more equal, ceteris paribus. After all, trade would use abundant land and skills in the New World—lowering unskilled labor's income relative to that of landlords and skilled workers—and abundant unskilled labor in Europe—raising unskilled labor's income relative to that of landlords and skilled workers. The emigration of unskilled and poorly schooled Europeans to the New World should have reinforced the trade impact. These Heckscher–Ohlin predictions were formalized by Wolfgang Stolper and Paul Samuelson (1941) to become central pillars of modern trade theory.

The insights of Heckscher and Ohlin still inform public debate today, as evidenced by the ongoing controversy about the causes of the late twentieth century rise in inequality in Organization for Economic Cooperation and Development (OECD) nations. Has globalization led to an increase in wage inequality in the rich, skill-abundant First World, while reducing it in the poor, unskilled-labor-abundant Third World? Does immigration to the First World displace native unskilled workers, leading to wage inequality? And does Third World emigration raise wages and reduce inequality?

Given the intensity of the current debate over these questions, it might be useful to review what we know about nineteenth century globalization experience—the first global century. Since Heckscher and Ohlin thought that trade and mass migration worked together to make factor prices converge, what did that imply for changes in income distribution more generally? Labor's wage should have fallen relative to land rents in the New World. Since landlords were at the top of the distribution pyramid, skilled labor in the middle, and unskilled workers at the bottom, globalization (trade and migration) should have contributed to rising inequality in the resource- and skill-abundant New World. Similarly, globalization should have contributed to rising wages relative to land rents and skill premia in Europe, and thus to falling inequality there. Were Heckscher and Ohlin right?

The Historical Inequality Facts

The evolution of relative factor prices has been documented for the late nineteenth century Atlantic economy, so we can explore whether the big globalization winners were New World land and European labor and whether the big losers were European land and New World labor. Were nineteenth century globalization forces strong enough to leave their inequality mark? After all, the Heckscher–Ohlin predictions are based on a static trade theory that assumes trade and mass migration were the only shocks affecting the world economy. Nothing could be further from the truth. This was a period of dramatic industrialization, technological change, and demographic revolution—forces that also must have had an impact on real wages, farm rents, and income distribution more generally. In particular, economic growth meant that wages in the New World were rising rapidly, so

American and Australian unskilled labor certainly did not lose in absolute terms. In the expanding world of the late nineteenth century, trade and mass migration meant that European real wages grew more rapidly than they otherwise would have, and it meant that New World real wages grew less rapidly than they otherwise would have. Clearly, factor price trends cannot by themselves tell us whether these counterfactual predictions were fulfilled, but recent empirical analysis has shown the predictions to be accurate.

There are four questions that we can sensibly ask of the historical data. First, did real wages converge in the late nineteenth century Atlantic economy? Second, did land rents converge? Third, was there *relative* factor price convergence? That is, did the ratio of wages to rents rise in Europe and fall in the New World? Finally, if there was relative factor price convergence, did it translate into rising inequality in the New World and falling inequality in Europe?

Elsewhere, the first question has been examined using real wages adjusted for purchasing power parity, and the answer was an unambiguous yes (Hatton and Williamson 2005, Chapter 6). There *was* real wage convergence within the Atlantic economy during the late nineteenth century, and the bulk of this convergence was accounted for by convergence between Europe and the New World.

To answer the second and third questions, we need rent data for land of comparable quality across countries and over time. Alas, such data are unavailable. Nevertheless, if we make the plausible assumptions that European quality-adjusted land was initially more expensive than New World quality-adjusted land and that land rents moved like land prices, land rent convergence during this period is a certainty. Between 1870 and 1910, real land prices increased in Australia by 400 percent and in the U.S. by 250 percent, far greater than the biggest real land price increases we can document for Europe (Denmark, where land prices increased by only 45 percent: O'Rourke and Williamson 1999, Figures 4.1–4.3). Moreover, in three important European countries—Britain, France, and Sweden—land prices actually fell, in Britain by over 50 percent. Land rents and values rose in the American Midwest, the Australian outback, and the Argentine pampas relative to those in Europe, as predicted.

It is the third question that is really central to any test of any globalization theory, especially in the context of a growing economy and especially because the theory relies so heavily on *relative* factor endowments and *relative* factor prices. The second column of Table 1 documents the evolution of the ratio of wages to land rent for three New World immigration countries—Argentina, Australia, and the United States; for four European free trading and high-emigrating countries—Denmark, Britain, Ireland, and Sweden; and for three European protectionist and low-emigrating countries—France, Germany, and Spain.[2] Relative factor price convergence certainly characterized the period from 1870 to 1913. In the New World, the wage–rental ratio plunged. By 1913, the Australian ratio had

Table 1
Relative Economic Performance of the European Periphery in the Late 19th Century: Growth Per Annum (Percent)

	(1) Real wage per urban worker 1870–1913	(2) Wage–land rental ratio 1870–1910	(3) Real GDP per capita 1870–1913	(4) Real GDP per worker-hour 1870–1913
Denmark	2.63	2.85	1.57	1.90
Finland	n.a.	n.a.	1.44	1.80
Norway	2.43	n.a.	1.31	1.65
Sweden	2.73	2.45	1.46	1.74
Italy	1.74	n.a.	1.28	1.33
Portugal	.37	n.a.	.69	1.10
Spain	.44	–.43	1.11	1.52
Austria	n.a.	n.a.	1.46	1.76
Ireland	1.79	4.39	n.a.	n.a.
The European Periphery	1.73	2.32	1.29	1.60
Belgium	.92	n.a.	1.05	1.24
France	.91	1.80	1.30	1.58
Germany	1.02	.87	1.63	1.88
Great Britain	1.03	2.54	1.01	1.23
The Netherlands	.64	n.a.	1.01	1.34
Switzerland	n.a.	n.a.	1.20	1.46
The European Industrial Core	.90	1.74	1.20	1.46
Europe	1.39	2.10	1.25	1.54
Argentina	1.74	−4.06	n.a.	n.a.
Australia	.14	−3.30	.87	1.08
Canada	1.65	n.a.	2.29	2.31
U.S.	1.04	−1.72	1.81	1.93
New World	1.14	−3.03	1.66	1.77

SOURCE: O'Rourke and Williamson (1999, Table 2.2).

fallen to one quarter of its 1870 level, the Argentine ratio had fallen to one-fifth of its mid-1880 level, and the U.S. ratio had fallen to less than half its 1870 level. In Europe, the ratio boomed. The British ratio in 1910 had increased by a factor of 2.7 over its 1870 level, while the Irish ratio had increased even more, by a factor of 5.5. The Swedish and Danish ratios had both increased by a factor of 2.3. This increase was less pronounced in protectionist and low emigrating economies. The ratio increased by a factor of 1.8 in France and 1.4 in Germany and not at all in Spain.

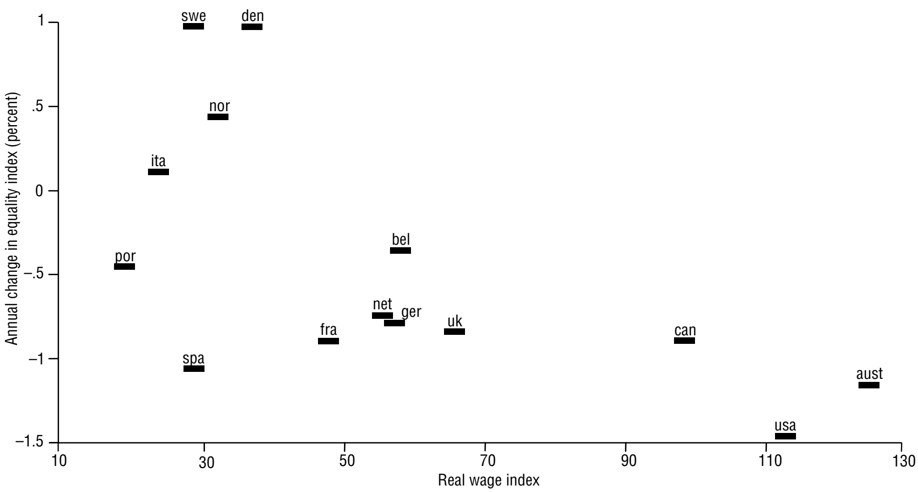
Of course, correlation is not causation. Just as rising inequality in the OECD after the 1970s may have plausibly been due to technical change rather than globalization, so, too, other forces may have affected nineteenth century income distribution independent of any globalization-induced shocks. But what factor price evidence we have seems to offer support for the predicted impact of mass migration and the trade boom on late nineteenth century income distribution. While real wages grew everywhere before 1913, they grew faster in labor-abundant Europe than in the labor-scarce New World. Rents surged in overseas land-abundant countries and plunged in land-scarce European countries. And the wage–rental ratio increased dramatically in Europe, especially in free-trading and high-emigrating countries, while it declined equally dramatically in the frontier economies overseas. All in all, globalization had exactly its predicted impact on relative factor prices around the Atlantic economy from the mid-nineteenth century to World War I (O'Rourke, Taylor, and Williamson 1996).

What about trends in inequality more generally? Complete income distributions are unavailable before World War I, except for a few countries and a few benchmark dates. But even if they were available, it is not obvious that we would want to rely on them when considering the impact of mass migration. Like economists involved in debates about more recent distributional experience, our interest is in the structure of factor prices and factor rewards—the size of the average income gap between the upper and lower classes. Indeed, if rising inequality was explained by more unskilled workers who were all new immigrants, the rising inequality would be far less interesting and certainly less dangerous politically. But suppose the immigrants also lowered the relative incomes of the poor native-born with whom new immigrants competed? Inequality trends of this sort are far more interesting *and* have more dangerous political implications.

How, then, did the typical unskilled worker do relative to the average income recipient—that is, how did the ratio of the unskilled wage (w) to GDP per worker hour (y) trend over time? Changes in the ratio w/y measure changes in the economic distance between the working poor near the bottom of the distribution and the average-income recipient in the middle of the distribution. When the index is normalized by setting w/y equal to 100 in 1870, we get the following: Powerful Danish and Swedish equality trends establish the upper bound (the index rises from 100 to as high as 154), and powerful Australian and U.S. inequality trends establish the lower bound (the index falls from 100 to as low as 58). An alternative way to standardize these distributional trends is to compute the annual percentage change in the index relative to its 1870 base. The per annum rates of change range from 0.98 for Sweden to –1.45 for the United States.

This measure of the annual rate of change in inequality is plotted against the 1870 real wage in Figure 1, and it offers a stunning confirmation of the globalization–inequality hypothesis. Between 1870 and 1913, inequality rose dramatically in rich, land-abundant, labor-scarce New World countries like the United

Figure 1
Initial Real Wage Versus Equality Trends, 1870–1913



SOURCE: Williamson (1997, Figure 6).

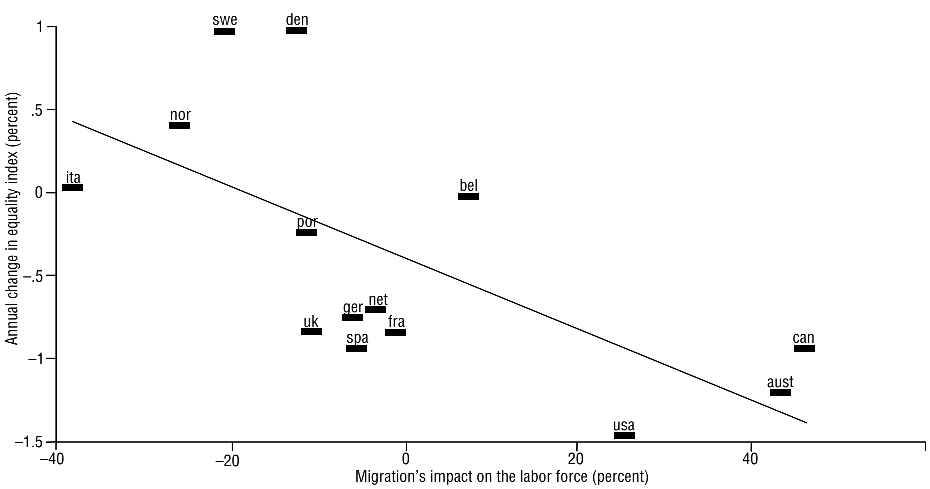
States; inequality fell dramatically in poor, land-scarce, labor-abundant, newly industrializing countries like Norway, Sweden, Denmark, and Italy. Inequality was more stable in European industrial economies like Belgium, France, Germany, the Netherlands, and the United Kingdom. And inequality was also more stable in the poor European economies that failed to play the globalization game, like Portugal and Spain.

When Simon Kuznets gave his presidential address to the American Economic Association in 1955, he hypothesized that inequality should rise in early stages of modern development, reach a peak during what we have come to call the newly industrialized-country stage, and fall thereafter. Since then, the thesis has taken a beating, most recently by a newly constructed late twentieth century database (Deininger and Squire 1996). What is surprising about this Kuznets curve literature, however, is that it treats a very complex problem so simply. A number of forces can drive inequality in the long run: mass migration, trade, demography, schooling, and technology. The technological forces Kuznets thought were pushing his curve cannot by themselves explain the trends in Figure 1, because while inequality should have been on the rise in newly industrializing but poor European countries, it was not. And while it should have been on the decline in richer, more mature industrial economies, it was not.

It appears likely that globalization was producing those late nineteenth century Atlantic economy distribution trends. Furthermore, I think that mass migration was the most important part of that globalization-distribution connection. As I already noted, the mass migration significantly influenced labor supplies in sending and receiving countries. I also noted that migration's impact on the labor force was highly correlated with initial labor scarcity, causing the biggest reductions in low-wage emigrating countries and the biggest increases in high-wage immigration countries. Figure 2 plots the migration–inequality connection. Where immigration had a large positive impact on the labor force, inequality underwent a steep rise. Where emigration had a large negative impact on the labor force, inequality underwent a steep fall.

Mass migration appears, therefore, to be the leading candidate in accounting for the distribution trends we observe in the Atlantic economy. I stress the word *appears* since it is impossible to decompose globalization effects into trade and migration, given that the correlation between migration's impact, trade's impact, and initial labor scarcity is so high. Yet, an effort has been made to finesse this problem by constructing a trade-globalization-impact variable as the interaction of initial labor scarcity and openness (Williamson 1997). The former is proxied by dummies for the labor-scarce New World (d_1), the labor-abundant European periphery (d_2), and the core European industrial leaders making up the remainder of countries. Openness is proxied by trade shares (*trade*). The per annum rate of

Figure 2
Migration's Impact on Inequality Trends, 1870–1913



SOURCE: Williamson (1997, Figure 7).

change in the equality index, here called e, is explained by ($R^2 = 0.72$, t statistics in parentheses):

$$\text{(1)} \qquad \underset{}{e = -52.07} - \underset{(2.56)}{.31 mig} + \underset{(1.00)}{.25 trade} + \underset{(0.36)}{.55(d_1 * trade)} + \underset{(3.38)}{2.42(d_2 * trade)},$$

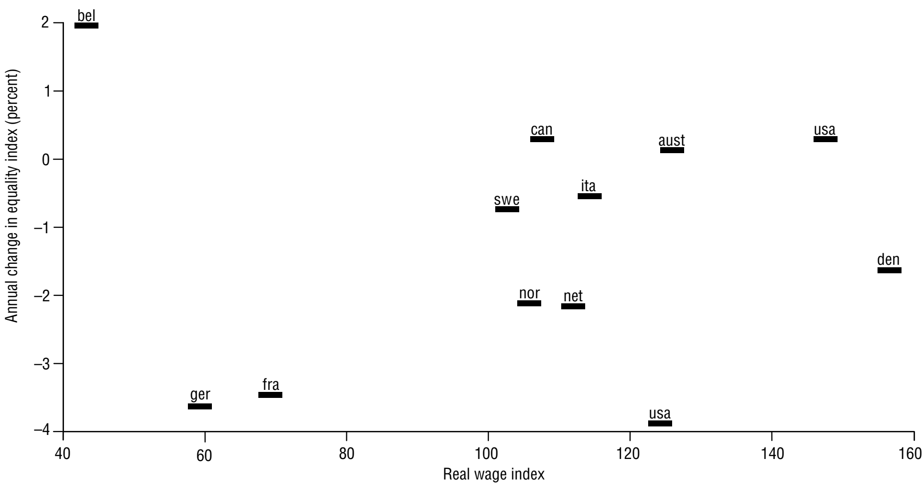
where *mig* stands for the impact of net migration on labor supplies. The impact of mass migration is powerful, significant, and of the right sign. When immigration rates were big, *e* was small and inegalitarian trends were strong. When immigration rates were small, *e* was bigger, and thus inegalitarian trends were weaker. And when emigration rates were big, *e* was even bigger, and thus egalitarian trends were strong.

Around the European periphery, the more-open economies had more egalitarian trends (bigger *trade* implying bigger *e*, [.25 + 2.42] * *trade*). It appears that the open, industrializing "tigers" of that time enjoyed benign egalitarian trends, while those opting for autarky did not. Furthermore, the coefficient 2.42 on (d_2 * *trade*) passes conventional significance tests. In the European industrial core, the effect was far less powerful since the smaller coefficient 0.25 on *trade* does not pass any significance test. It appears that open-economy effects on income distribution were ambiguous among the European industrial leaders with moderate initial income levels. In the labor-scarce New World, however, the more open economies also had more egalitarian trends ([.25 + .55] * *trade*), which is certainly *not* what Heckscher and Ohlin would have predicted. The result is not statistically significant, however.

Overall, I read this evidence as strong support for the impact of mass migration on distribution trends. The effects were big everywhere in the Atlantic economy where the migrations were big. The evidence offers weak support, however, for the impact of trade on distribution trends, except around the European periphery where trade lowered inequality. This econometric exercise explains about two-thirds of the variance in distributional trends across the late nineteenth century.

The globalization–inequality connection in high-wage countries was broken after 1913. Figure 3 shows the correlation between distributional trends as measured by changes in w/y and a 1921 real wage measure of labor scarcity. The late nineteenth century inverse correlation has completely disappeared, replaced by a positive correlation. In the interwar period of deglobalization, the poorer countries experienced sharply increasing inequality while the richer countries experienced more moderate increases or, in four cases, egalitarian trends. This finding is consistent with both the cessation of the mass migrations *and* with the Stolper–Samuelson theorem: Protection should raise demand for the scarce factor, thus improving the position of the unskilled in rich countries and contributing to egalitarian trends while eroding the position of the unskilled

Figure 3
Initial Real Wage Versus Equality Trends, 1921–38



SOURCE: Williamson (1997, Figure 9).

in poor countries and contributing to inegalitarian trends. Whether it really was deglobalization that precipitated this dramatic switch in distribution trends has yet to be established with firmer evidence, but there seems to be no doubt about the switch itself. The pre-1913 egalitarian trends in Scandinavia and Italy disappeared and were replaced by post-1921 inequality trends. The pre-1913 inequality trends in the New World disappeared and were replaced by post-1921 egalitarian trends. This change, seen as a revolutionary leveling at the time, has been confirmed by better data since (Goldin and Margo 1992; Goldin and Katz 2001). And the relatively stable pre-1913 distribution trends in industrial France and Germany were replaced by dramatic post-1921 inequality trends (Piketty and Saez 2003).

A Closer Look at the Impact of Immigrants on High-Wage Labor Markets

The impact of immigrants on labor markets obsessed contemporary American observers. Here we confront two questions as relevant today as when they were posed almost a century ago, when the Immigration Commission published its 1911 report: Did immigrants crowd out natives and reduce their wages? It appears they did.

Claudia Goldin (1994) estimates the correlation between immigration and wage changes across cities between 1890 and 1915, finding that a 1 percentage point increase in the foreign-born share reduced unskilled wage rates by 1 to 1.5 percent. Another study estimates the impact of immigration on the real (unskilled) wage by looking at the wage adjustment mechanism from time-series data. By altering labor supply and unemployment in the short run, immigration should have driven down the wage along some long-run Phillips curve. The long-run solution to one such model estimated for 1890–1913 suggests that holding output constant, an increase in the labor force of 1 percent lowered the real wage in the long run by 0.4 or 0.5 percent (Hatton and Williamson 1998, Table 8.6). Based on the stock of foreign-born and their children enumerated in the 1910 census, immigration after 1890 accounted for about 12 percent of the 1910 labor force and immigration after 1870 accounted for about 27 percent of the 1910 labor force. These magnitudes suggest that the real (unskilled) wage would have been 5 to 6 percent higher in the absence of immigration after 1890 and 11 to 14 percent higher in the absence of immigration after 1870.

Both the cross-section and time-series results are consistent with those based on computable general-equilibrium models. The first effort to apply a computable general-equilibrium model to the late nineteenth century United States estimates that immigration after 1870 lowered real wages in 1910 by 11 percent (Williamson 1974, 387), almost identical to the time-series estimate. A more recent computable general-equilibrium experiment gets pretty much the same result: Immigration reduced urban real wages in 1910 by 9.2 percent (O'Rourke, Williamson, and Hatton 1994, 209).

In short, it appears that there were powerful crowding-out forces at work in immigrant countries before World War I and that they contributed to the rising inequality observed there.

The Impact of Anti-Immigration Policy on the American Labor Force

The United States was the biggest immigrant labor market, so our focus is there. Whether due to a switch to restrictive immigration policy, war, the Great Depression, or all three in concert, did the labor force and population growth rate slow down in the three decades after 1913? If so, how much of the decline can be attributed to declining immigration? Only if we can show that a decline in immigration contributed to a labor force slowdown can we ask whether it had an impact on developments within the U.S. economy.

Three studies have explored the impact of immigration on U.S. population and labor supply in the interwar years, but I believe that all three ask the wrong question. Kuznets and Ernest Rubin (1954) adopt a foreign-born measure and count net migrants of labor force age but also immigrant children born abroad as they reach employment age. Richard Easterlin's (1968) measure is narrower and excludes the impact of immigrant children. More recently, Henry Gemery (1994) extends the analysis using the Easterlin measure, the narrow definition that I also use in what follows. However, all of these scholars only measure the share of the *actual* labor force or population increase accounted for by immigrants. While such accounting decompositions are useful, they do not assess the impact of the demise of mass migration on labor force or population growth. What we want instead are estimates of a *counterfactual* world where the mass migrations continued. Only then can we identify the role of the demise of mass migration.

Consider first the extent of the labor force slowdown. Table 2 documents a dramatic fall in the U.S. labor force growth rate from 2.29 percent per annum over the three decades 1880–1910 to 1.14 percent per annum over the three decades 1910–40. This slowing in the rate of labor supply growth amounted to 1.15 percentage points—a massive regime switch in which the growth rate was cut in half. Whether we would find similar large numbers for other, less-adequately documented immigrant countries would depend on two factors.

First, which economies were most dependent on immigration prior to the Great War? The answer to that question has been reported elsewhere for both sending and receiving countries (Hatton and Williamson 2005, Table 6.2). Immigration between 1870 and 1910 served to raise the 1910 labor force of Argentina by 86 percent, Canada by 44 percent, Australia by 42 percent, and the U.S. by 24 percent. Emigration between 1870 and 1910 served to lower the 1910 labor force in Ireland by 45 percent, Italy by 39 percent, Norway by 24 percent, and Sweden by 20 percent.

Second, which economies experienced the biggest fall in mass migration? With that evidence in hand, we would then predict that the biggest labor force slowdown occurred in economies where net migration had the biggest impact

Table 2
U.S. Labor Force Growth, 1910–40: Some Counterfactuals

	Labor force growth rate (percent per annum)	Percentage due to net immigration
Actuals		
1880–1910	2.29	40.1
1910–1940	1.14	11.6
Counterfactuals for 1910–1940 with immigrant participation rate of 1910–1940		
Net immigration rate for 1919–1940	1.14	11.6
Absolute net immigration of 1880–1910	1.38	30.9
Net immigration rate of 1880–1910	1.66	44.1
Counterfactuals for 1910–1940 with immigrant participation rate of 1880–1910		
Net immigration rate for 1910–1940	1.17	14.5
Absolute net immigration of 1880–1910	1.48	35.6
Net immigration rate of 1880–1910	1.82	50.4

SOURCE: Hatton and Williamson (2005, Table 9.3).

on prewar labor force totals and where across-border net migration underwent the biggest decline after 1913. Australia would be one such candidate; indeed, the rate of labor force growth in Australia fell by 1.41 percentage points between 1870–1913 and 1913–38 (Maddison 1994, 266). The other immigrant countries are harder to document, but similar magnitudes seem likely.

Next, does the demise of mass migration explain the big slowdown? Table 2 poses the following counterfactual: What would have been the labor force growth rate between 1910 and 1940 had the 1880–1910 immigration experience persisted? The counterfactuals are calculated to take account of two forces. First, immigration into the U.S. fell after 1910. So, what would have been the impact over the 1910–40 period if, on the one hand, the immigration *rate* had maintained the 1880–1910 average thereafter and if, on the other hand, the *absolute level* of immigration had maintained the 1880–1910 average thereafter? The pre-1910 *rate* sets an upper bound, while the pre-1910 *level* sets a lower bound on the counterfactual impact. These counterfactuals are reported in the second panel of Table 2. Second, the age and sex distribution of the immigrants changed dramatically—partly induced by immigration policy—thereby serving to lower the labor participation rate of the interwar immigrants. So, what would have been the impact on pre-1910 labor force growth if, in addition, the immigrant labor participation rate had maintained its pre-1910 average thereafter? These counterfactuals are reported in the third panel of Table 2.

The bottom line is this. The observed decline in the rate of labor force growth between the pre- and post-1910 periods was 1.15 percentage points, but the no-mass-migration-demise counterfactual decline would have been only 0.47 (2.29 – 1.82, panel 3) or 0.63 (2.29 – 1.66, panel 2) percentage points. The demise of mass migration accounted for 45 to 59 percent of the massive slowdown in U.S. labor force growth around World War I, or about half. Since the immigrants were more unskilled than the native-born (Hatton and Williamson 2005, Chapters 5 and 15), it seems likely that the demise of mass migration contributed even more than half to any unskilled labor force growth slowdown.

The demise of mass migration wasn't the only force at work, of course, since the crude birthrate in the U.S. also fell, from about 37 per thousand in the 1880s to about 18 per thousand in the 1930s. But the demise of immigration accounted for about half the changing demographic and labor supply growth events during the interwar years when the world went antiglobal.

Rising Schooling Supplies, Falling Immigrant Supplies, and the Great Leveling in America

When Paul Samuelson published the sixth edition of his famous *Economics* textbook in 1964, he made the following statement: "After World War I, laws were passed severely limiting immigration. Only a trickle of immigrants has been admitted since then. … By keeping labor supply down, immigration policy tends to keep wages high" (Samuelson 1964, cited in Borjas 2003, 2).

Writing in the same year, Stanley Lebergott, in *Manpower in Economic Growth*, joined Samuelson with this statement about the impact of the immigration quotas: "It [is] most unlikely that the rate of productivity advance or the nature of productivity advance changed so [much in the 1920s] as to explain [the spurt in real wage growth]. Instead we find that halting the flow of millions of migrants … offers a much more reasonable explanation" (Lebergott 1964, 27).

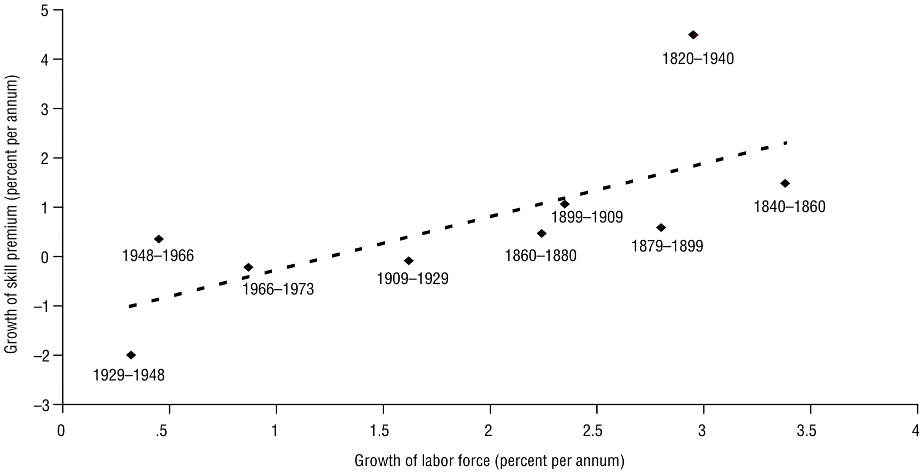
The economics underlying both statements is straightforward, and it goes back to the Dillingham Commission reports in 1911 and before. A glut in the labor supply lowers the wage relative to the returns to capital and rents on land. Since capital and land are held by those at the top of the distribution pyramid, immigration-induced labor supply growth should create more inequality and the demise of immigration should create less, ceteris paribus. Since immigrants were more unskilled than the native-born, immigration should also have raised the premium on skills as they got scarce relative to unskilled labor, and the demise of immigration should have reduced the premium on skills as they got relatively abundant, ceteris paribus.[3]

Not everyone has agreed with this traditional argument, mostly because of the ceteris paribus: Many other forces were driving the American economy, thus offering potential offsets to any measured immigrant glut or scarcity. Potential offsets invite debate. For example, Vernon Briggs (1984, 50) thought that the premise of the traditional argument was false, since he believed that immigration was still substantial in the 1920s and that productivity advance was very different in rate and factor-saving bias. Others have argued that immigration generates accumulation responses, forces that would mute the immigration impact. I will not try to resolve this debate here but only pose the arguments and present an impressive and suggestive correlation in the historical time series.

We have already seen that during the mass migrations between 1870 and 1913, rich labor-scarce countries with big immigration rates underwent rising inequality and poor labor-abundant countries with big emigration rates underwent falling inequality. During the antiglobal and immigrant-restricted interwar years 1921–38, the correlation disappeared. Indeed, some previously emigrating countries like Italy underwent rising inequality, while some previously immigrating countries like Australia, Canada, and the United States underwent falling inequality. This is only a correlation, of course. Immigration policy may have been correlated with some omitted variables, and the omitted variables may have been driving this change. Still, the correlation keeps the immigration-breeds-inequality hypothesis on the table.

Now consider Figure 4, where I plot the correlation for the U.S. only, but over 150 years. The figure is taken from a book that was published some time ago

Figure 4
Labor Supply and the Skill Premium in the U.S., 1820–1973



SOURCE: Williamson and Lindert (1980, 205).

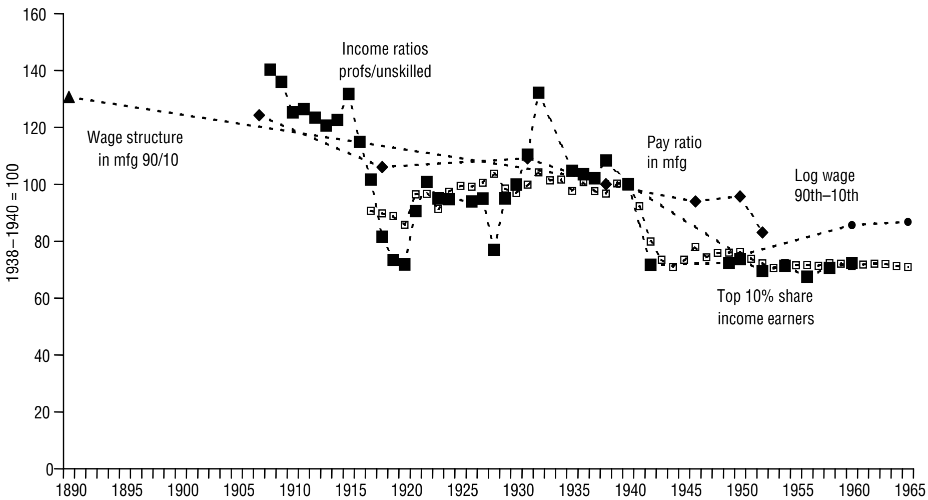
(Williamson and Lindert 1980), and the underlying data have been revised many times since. Still, those revisions have not overturned the correlation—namely, rapid rates of labor force growth in the United States took place during episodes when earnings inequality was on the rise and the skill premium was increasing, while slow labor force growth rates took place during episodes when earnings inequality was decreasing and the skill premium was falling. And note the observations that are the focus of this section: 1909–29 and 1929–48 in the lower left quadrant, where the skill premium was falling and the growth rates of the labor force were slow; and 1899–1909 in the upper right quadrant, where the skill premium was rising and the labor force growth rates were fast. Correlation is not causation, but Figure 4 is certainly consistent with the immigration-breeds-inequality hypothesis.

The twentieth century evidence on the evolution of U.S. inequality has improved over the past decade or so, and it confirms a great egalitarian leveling in American incomes between the first and second thirds of the century (*Figure 5*). The ratio of wages in the top to the bottom 10 percent in manufacturing fell by almost a third between 1890 and 1940, a period of labor force slowdown, half of which can be attributed to the demise of mass migration. Pay ratios of skilled to unskilled labor fell by two-thirds between 1907 and 1952. The ratio of college professors' incomes to those of unskilled workers was cut in half between 1908 and 1960. Weekly-wage dispersion measures among white men fell by more than a quarter between 1940 and 1965, as did the share of the top 10 percent of income earners.

Among the authors contributing to the evidence in Figure 5, Goldin and Lawrence Katz have made the greatest effort to explain the great leveling (Goldin and Margo 1992; Goldin and Katz 1998, 1999a, 1999b, 2001), and the relative demand and supply of skills is central to their story: "[The] long-run change in the distribution of earnings is shaped by a race between the demand for skill, driven largely by industrial shifts and technological advances, and the supply of skill, altered by changes in educational investments, demographics and immigration" (Goldin and Katz 2001, 68).

While they are cautious, Goldin and Katz appear to favor the view that an exogenous and revolutionary change in the supply of secondary and tertiary schooling must have overwhelmed the skill-using bias that characterized twentieth century economic progress. Such schooling forces would, of course, help erase the skill premium, compress the wage structure, and level incomes. But what about exogenous and revolutionary changes in unskilled labor supplies as-

Figure 5
American Inequality Trends, 1890–1965



NOTES AND SOURCES: Wage structure in mfg 90/10 = wage ratios, male production workers, top 10% relative to bottom 10% (Goldin and Katz 2001, Table 2.1); income ratios profs/unskilled = ratio of earnings of college full professors to low-skilled (Goldin and Katz 2001, Table 2.3); log wage 90th–10th = wage dispersion of white men, log weekly wages 90th–10th percentiles (Goldin and Margo 1992, Table 1); pay ratio in mfg = pay ratios, skilled to unskilled in urban manufacturing (Goldin and Margo 1992, Table VII); top 10% share income earners = income share of the top 10% of earners (Piketty and Saez 2003, Table II). Hatton and Williamson (2005, Figure 9.4).

sociated in large part with the demise of mass migration? These policy-induced immigration forces would reinforce the policy-induced schooling forces. As the growth of the unskilled labor force slowed down, unskilled labor would have become scarcer relative to skilled labor.

If mass migration before the Great War contributed to high and rising inequality and skill scarcity in New World host countries, while its absence there after the quotas contributed to less equality and the decline in skill scarcity, we should see opposite trends in the European sending countries. While both sides of the Atlantic may have shared the same technological events and perhaps even the same schooling events (see below), the boom and bust in mass migration must have left different inequality marks on labor markets on either side of the Atlantic. Much more work remains to be done on this issue, but what evidence we have at hand seems to be consistent with the hypothesis. Two recent papers have documented skilled versus unskilled wage-gap trends for Europe and North America between 1870 and 1960, and they show the following.

First, the U.K. skilled-wage premium started falling in 1880, thirty-five years before it did in the U.S. and Canada in 1915 (Anderson 2001, 96; Betrán and Pons 2004, 39). Second, while the skilled-wage premium declined very dramatically after 1915 in the U.S. and Canada, it declined only very modestly in the U.K. (Anderson 2001, 96; Betrán and Pons 2004, 39). And third, what is true for the Anglo–American comparison was also true for those involving Denmark, France, Germany, Italy, Spain, and Sweden (Anderson 2001, 94; Betrán and Pons 2004, 39). The mass migration boom and bust appears to be a good candidate to help explain the asymmetric inequality trends between Europe and the New World.

A good illustration of how policy-induced immigration forces created greater unskilled labor scarcity and lower inequality in the United States is not hard to find, and it involves disadvantaged black Americans. Did European immigrants crowd out southern blacks from northern jobs that offered much better earnings and living standards than did sharecropping in the South? This is an old question that until recently was illustrated only by compelling correlations. Thirty-five years ago, Brinley Thomas (1972, 130–34, Chapter 18) noted the striking inverse correlation between black migration out of the South and European migration into northern cities. The problem left unanswered by these correlations, however, was causation. William Collins (1997) recently unraveled the issues of causation and supplied the answers. While only about a half-million southern blacks left for the urban North in the four decades before 1910, seven times that—about 3.5 million—left in the four decades after 1910. By 1950, about 20 percent of all the blacks born in the South lived in the North, while the figure was only a little more than 4 percent at the turn of the century (Collins 1997, 607), or only a fifth of the 1950 figure. Not only did those who moved improve their economic lives, but those who stayed behind gained, too, since the wage gap between North and South declined sharply as the Great Black Migration served to better integrate what had been regionally segmented labor markets (Wright 1986). Collins concludes that the mass migrations from Europe did indeed crowd out southern blacks from better jobs in the urban North, and, symmetrically, the demise of the mass migrations crowded them in. A very large share of the Great Black Migration can be explained by the disappearance of new European immigrants in northern U.S. cities after 1914. Since the Great Black Migration greatly improved the relative income position of blacks between 1910 and 1950, it helps account for the great leveling of incomes in the middle third of the twentieth century and offers one important channel through which exogenous changes in European mass migration contributed to the leveling.

Did the Presence of Immigrants Contribute to the Schooling Revolution in America?

Consistent with the evidence of the great leveling in the United States in the middle third of the twentieth century, Goldin and Katz (1999a, Tables 6 and 7) have documented a decline in the returns to schooling from World War I to the 1960s. For young men, the return to a high school degree fell from 11–12 percent in 1914 to 7 percent in 1959, while the return to a college degree fell from about 15 percent to 9 percent over the same period (Goldin and Katz 2001, Table 2.4). How much of this was due to a policy-induced scarcity of unskilled and poorly schooled immigrants who lowered the rate of return to schooling by raising the opportunity costs of staying in school and out of the labor market? How much of it was due, instead, to a schooling glut that lowered those rates? If it was a schooling glut, how much of that glut was triggered by exogenous policy changes and how much was an endogenous response to the observed skill scarcity created, at least in part, by the open immigration policy before 1914?

It is important to stress that the immigrant-scarcity and schooling-glut hypotheses are not competing. Instead, they are mutually supporting. The exogenous and endogenous schooling hypotheses also need not be competing, since both forces might have been operating. Still, we would like to know which was most important.

Goldin and Katz clearly favor the exogenous-schooling hypothesis. There is no doubt that secondary school enrollment soared in the United States from 1910 to 1940, rising from about 14 percent to 71 percent (Goldin 1998; Goldin and Katz 2001, 59–60, Figure 2.5), and an increasing number of the graduates took white-collar office and factory jobs. More and more high school students were using their diplomas in the marketplace, rather than solely as a way to gain entrance to college, and secondary schools increased the number of terminal degrees granted: "The increase in high school enrollments and graduation served to flood the market with literate and numerate workers whose skills enabled them to move into white-collar office jobs. It also increased the supply of those capable of filling blue-collar positions that required the reading of manuals, deciphering of blue-prints, computing of formulae, and use of elementary science" (Goldin and Katz 2001, 61).

Moreover, "'mass' secondary school education was unique to the United States at that time. Most European countries did not have mass non-vocational, non-industrial secondary school education that was fully publicly funded until the post-World War II era" (Goldin and Katz 1999a, 15).

But why did the U.S. high school movement begin around 1900 or 1910? Why not later, as was true of Europe? We may agree that the schooling supply response helped erase schooling scarcity and inequality in America, but surely previous schooling scarcity played a role in triggering that supply response. Goldin and Katz think not and believe instead that it was the relative cultural and wealth homogeneity of the early twentieth century that explains the timing and location of the schooling boom. For them, the key was social and economic egalitarianism in America that supported the belief in externalities—especially in New England and the West, where the high school movement led the nation. Perhaps, but some part of the schooling boom must have been an endogenous response to the large skill premium, schooling scarcity, and a high return to education in the late nineteenth century, when mass migration reached its crescendo.

The issue has not been resolved, but Rodney Ramcharan (2002) has offered some evidence supporting the schooling-endogeneity hypothesis, although his evidence also offers some support for the alternative offered by Goldin and Katz. Ramcharan's results are reassuring for those, like me, who believe that schooling endogeneity and exogeneity forces were both at work.

Needless to say, the payoff to future research on the schooling-endogeneity hypothesis will be great, since it speaks to modern brain drain debates and whether and how human capital formation responds to mass migration in host and source country.

Brain Drain and Schooling Responses in Europe

Was There a European Brain Drain?

Fearing brain drain, there were legal restrictions in the eighteenth century on the emigration of artisans and engineers from Britain to the European continent. But public concerns about losing vital skills through emigration seem to have vanished by the late nineteenth century. There may have been good reasons for this. First, where positive selection was weak, it would not have made a major dent in the per capita skill base at home. Second, much of the human capital embodied in the emigrants who disappeared across the Atlantic had not been financed by the public purse. Third, immigrant remittances from abroad may have offset the forgone income at home.

So was there a big brain drain from Europe during the age of mass migration? While there certainly was some within-country positive selection, it probably did not translate into big brain drains. Table 3 shows literacy rates (in any language) for five European countries among adult immigrants to the United States between 1899 and 1909, as well as the literacy rates of the adult home populations in 1901 (those who stayed behind). Literacy rates among immigrants were generally higher than they were among the source populations, implying positive selection. Perhaps this was inevitable: Immigrants were younger adults than the source adult populations, and, as I discuss below, there was a schooling revolution taking place in late nineteenth century Europe, raising literacy among the young movers compared with the old stayers (Easterlin 1981). Italy may appear to be an exception to this rule, but the observed lower literacy among immigrants relative to the Italian population simply reflects the dominance of poor southern Italians in the immigrant inflow.[4] The third row of Table 3 reports the outflow of literate emigrants (over the decade) as a proportion of literate adults in the 1901 source population. For Britain and France, the decade's loss to the United States was small in relation to the stock, less than 2 percent. It was larger for Italy because of its higher emigration rates. Spain's and Portugal's out-migration numbers would be higher if the flows to South America were included. But even then, the totals would be small.

Even if the human capital losses were small for Europe when measured in terms of education and literacy, they may have been larger in terms of unobservable "best and brightest" characteristics. One piece of evidence supporting this view comes from Swedish clergymen's evaluations of the intellectual abilities of their parishioners. Comparison of those who subsequently emigrated with those

Table 3
Literacy in Europe and the Brain Drain

	France	Britain	Italy	Spain	Portugal
Literacy rate of adult immigrants to the U.S. 1899–1909 (percent)	94.6	99.0	47.0	85.4	31.8
Literacy rate, adult stayers, 1901 (percent)	83	97	52	44	22
Literacy loss (outflow of literates as a percentage of literate stayers)	.4	1.6	8.6	.6	2.0
School enrollment as a percentage of literate adult stayers, 1901	25.9	23.4	24.2	31.3	29.5

SOURCE: Hatton and Williamson (2005, Table 5.3, 93).

who did not reveals that the former had a higher intellectual level, did better at school, and had a wider view of the world (Hvidt 1975, 109). On these grounds, one might have expected that immigrants to the New World were more likely than the native-born to become entrepreneurs and business leaders. Consistent with that prediction, it turns out that among those born between 1816 and 1850, immigrants were overrepresented among the top businessmen in the United States (Ferrie and Mokyr 1994). This evidence of positive selection and brain drain was much less apparent among those born between 1850 and 1890, reflecting the declining quality of U.S. immigrants as origin countries shifted.

Were There Schooling Responses in Europe?

If a supply glut of poorly schooled and poorly skilled immigrants helped raise the relative scarcity of skills in the United States before the quotas and thus helped create a high school revolution in America, why wouldn't the same skill scarcity encourage schooling at home in Europe, at least at the primary level?

The 1917 Literacy Act imposed a literacy test that was precisely the mode of restriction Congress had debated since 1895. The idea was that the literacy requirement would ensure a rise in the quality of immigrants, a change in their source (favoring more advanced Western Europe), and a reduction in their numbers (Hatton and Williamson 2005, Chapter 8). Congress was to be disappointed. The literacy test (in English or some other language) proved ineffective in stemming the inflow at the end of the Great War, mainly because a revolution in the provision of free and public elementary education had spread east and south to backward and illiterate Europe from the 1880s onwards (Easterlin 1981; Lindert 2003).

As one of the biggest immigrant sources by 1910, Italy illustrates the European schooling revolution well. Between 1881 and 1931, Italian regional literacy rates soared, from less than 20 percent to more than 60 percent in southern Italy, Sicily, and Sardinia; from less than 35 percent to almost 80 percent in central Italy; from about 40 percent to about 85 percent in Venice and Emilia; and from almost 60 percent to more than 95 percent in the northern industrial triangle (Kirk 1946, 183–85). The literacy rate for Italy as a whole was about 80 percent by 1931. Of course, the rate for young adults is much more relevant for any prediction regarding the effectiveness of the 1917 Literacy Act, because these were the individuals most responsive to labor market signals. The literacy rate in poor European source countries (including Italy) for those aged 15 to 29 ranged from 80 to 83 percent in 1931 (Kirk 1946, Table 12, 189). No wonder the literacy criteria failed to effectively bar immigrants from poor European countries.

Just as it might be doubted that the U.S. high school revolution was exogenous to labor market skill scarcity, it might also be doubted that the European literacy revolution was exogenous to labor market demands, both being driven in part by mass migration.

Comparative Economic History and the Present

The first global century before 1914 had profound effects on both low-wage, labor-abundant Europe and the high-wage, labor-scarce New World. Trade and especially mass migration contributed to a reduction in unskilled labor scarcity in the New World and to a rise in unskilled labor scarcity in Europe. Thus, globalization contributed to rising inequality in the United States and falling inequality in most of Europe. Falling unskilled labor scarcity in the U.S. meant rising skill scarcity, which contributed to the high school revolution there. Rising unskilled scarcity in Europe also contributed to the primary schooling and literacy revolution there.

Under what conditions would we expect the same responses to globalization in today's world? The magnitude of the migrations matters. The skill-selectivity of the migrations matters. And the governmental response to market signals matters. It seems to me that we would gain considerable insight into the inequality and schooling responses to modern globalization forces by doing serious comparative analysis, and that analysis should include history.

Notes

This paper draws from a recent book with Timothy J. Hatton, *Global Migration and the World Economy: Two Centuries of Policy and Performance* (MIT Press, 2005). It has also been influenced by participants' comments at the Center for Global Development Workshop on Emigration's Impact on the Third World (September 11, 2006).

[1] Other surveys can be found in O'Rourke and Williamson (1999); Bordo, Taylor, and Williamson (2003); Williamson (2006); and Hatton and Williamson (2005).

[2] The modern economist may find it odd to discuss changing distribution without referencing the wages of skilled workers, while stressing land rents. Yet land and labor were the dominant factors of production a century ago, not skills and capital, as is true today.

[3] The premium on U.S. skills relative to the unskilled was 53 percent in 1890, greater than Great Britain (33 percent) and Germany (35 percent), and much greater than the poorer parts of Europe (Hatton and Williamson 2005, Table 5.2, 90).

[4] Among the northern Italian immigrants to the U.S. in 1899–1909, 88 percent were literate, whereas only 46 percent of southern Italian immigrants were literate (Hatton and Williamson 2005, 407).

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Trade, Migration, and Economic Development: The Risks and Rewards of Openness

James F. Hollifield

From the founding of the Bretton Woods exchange rate system in 1944 through the conclusion of the last round of General Agreement on Tariffs and Trade/ World Trade Organization (GATT/WTO) talks in the 1990s, the postwar international order has been marked by multilateralism and the building of liberal regimes for trade and finance. These regimes have reduced the risks of openness for national economies and stimulated international exchange across the board. Like portfolio and foreign direct investment and trade, international migration increased dramatically in the postwar period. Yet, with the notable exception of refugees, no liberal regime for migration has emerged. Why has migration continued at such high levels in the absence of a regime and in the face of cyclical downturns, and why have states been willing to risk openness to migration?

Economists have long argued that exposure to trade leads to increased competition and efficiency, resulting in greater specialization in production and a wider and cheaper range of goods available to consumers. Likewise, mobility of productive factors (labor and capital) and the reduction of transaction costs are seen as essential to the smooth functioning of markets. In the case of trade, the GATT/WTO regime was constructed through a multilateral process, with most favored nation status (MFN), nondiscrimination, and reciprocity as the organizing principles. In the case of international finance, exchange rate stability has been pursued unilaterally by the U.S. during the early Bretton Woods period and multilaterally through the International Monetary Fund (IMF) and World Bank. Both institutions have worked to solve problems of liquidity and adjustment as they arise. In each case, the international community seems to have accepted these goals/goods as indivisible, and herculean political efforts have been made to maintain openness and solve free-rider problems.

Even though similar economic efficiency arguments can be made in favor of international migration, no liberal regime for migration has emerged. States are reluctant to expose their economies and societies to exogenous, competitive pressures, more so in the area of migration than in the areas of trade and finance. It is only at certain points in time and under certain political-economic conditions that states have been willing to risk openness to migration. How can we explain the opening and closing over time, and does openness to migration covary with openness to trade and investment? Is international migration simply a function of the ongoing globalization of economies and societies, or is it linked to changes in international and domestic politics?

This paper argues that openness to migration is heavily dependent upon (1) ideational and institutional factors, especially the willingness of states to guarantee a minimum basket of rights for migrants; (2) domestic political coalitions and alignments that are driven in part by factor proportions and intensities; and (3) the structure of the international system, including the presence or absence of international regimes. In contrast to transnational or globalization arguments about the weakening of state sovereignty, this paper offers evidence in support of a neoliberal argument that stresses the role of institutions and rights, but without abandoning the central precepts of realist theory. Realist theory asserts that states are unitary rational actors and will pursue their interests within the confines of an international system structured by anarchy and distribution of power. Finally, the paper proposes a model of strategic interaction to specify the conditions under which (developed and developing) states will risk migration.

Regulating Trade and Migration

The first rule of political economy is that markets do not and cannot exist in the absence of regulation. This is true at the national as well as the international level. But intervention to establish and maintain markets for goods, services, capital, *and labor* is more complicated at the international level because no central authority exists to guarantee contracts, ensure exchange rate stability, maintain free trade, and protect the rights of migrants. Kindleberger (1973) was one of the first to point out the importance of having a leader in the international economy willing to shoulder responsibility for establishing and maintaining a free-trading system.[1]

Another difficulty of sustaining international markets arises from the collective-action problem of finding a basis for cooperation in a dynamic international system.

With the collapse of the Bretton Woods system, the decline of American hegemony in the 1970s, and the Cold War in the 1990s, multilateralism has replaced reliance on American political and economic power as the cornerstone of the international political economy.[2] As Rogowski (1989) and others (Milner 1997) have demonstrated, economic openness can have a dramatic effect on domestic political alignments, making it difficult to maintain support for trade even in the most outward-looking states, including Great Britain in the nineteenth century (Pax Britannica) and the U.S. in the post–World War II period (Pax Americana). In some respects, migration carries even greater risks (of political and social instability), especially for receiving societies.

Powerful liberal states have found ways to overcome these hurdles, primarily through multilateralism and the building of international institutions that help to lock even the most protectionist states into a more open world economy. Constant political battles are fought to prevent and defeat isolationist and protectionist coalitions. Why do states and their political leaders do this? Simply put, because they recognize the enormous advantages of trade and open investment regimes. In the 1990s, many recalcitrant Third World states jumped on the free trade bandwagon (the so-called Washington consensus), despite the tremendous asymmetry in the world economy between developed and developing economies.

But if the logic of trade and finance is one of openness, the logic of migration tends to be one of closure, especially for the receiving societies. *From a political standpoint, migration is the mirror image of trade and finance*. The wealthier states push hard to keep the lines of trade and investment open, while the poorer states are more skeptical, fearing dependency. With migration, it is the opposite: By and large, the wealthier states push hard to keep foreigners out, usually for reasons of national security or identity, whereas many poorer states want to export people, to reap the benefit of remittances and return migration or simply maintain a social safety valve.

Yet from a historical and economic standpoint, it is exceedingly difficult to separate trade and capital flows from migration. Historically, the movement of goods, services, and capital increasingly is highly correlated with the movement of labor, both skilled and unskilled. Conventional economic wisdom (Heckscher–Ohlin and Stolper–Samuelson) has it that in the long run, trade can substitute for migration through a process of factor price equalization.[3] But in the short run, empirical studies demonstrate that trade leads to increased migration, especially when disparities in wages and incomes are very high, as they are between the U.S. and Mexico (P. Martin 1995). Although paradoxical, the reasons for this are simple: When backward economies are exposed to strong exogenous competitive pressures, the agricultural sector can collapse, leading to a rural exodus, swelling the population of cities, and increasing pressures to emigrate. Likewise, increased trade in services leads to high-end migration because technical and professional staff are integral parts of the service. The relationship between trade and migration is, in fact, very complex, and restrictions on one can lead to increased pressure on the other.

Sorting out winners and losers is at least as complicated in the case of migration as in the case of trade. We can start from the basic premise that migration is heavily dependent on factor proportions and intensities and that groups will support or oppose migration depending upon whether they represent scarce or abundant factors. This is the political corollary of economic push–pull arguments, which hold that cross-border movements of people have a strong economic dimension and that such movements are basically a function of demand-pull and supply-push factors.[4] There is little doubt that people move in search of better opportunities—however defined—and the existence of markets and information or kinship networks is a necessary condition for migration to occur. *But the sufficient conditions for migration are political.* States must be willing to open their borders for exit and entry, and such openness is not simply a function of interest-group politics or cost–benefit analyses. Ideas and institutions play a crucial role in determining openness or closure.

Since 1945, there has been a continuous increase in the world migrant population, both in developed and developing countries and across regions. This increase parallels similar increases in the volume of world trade and foreign investment, despite the absence of an international migration regime.[5] It would be tempting to conclude, as many sociologists and anthropologists have, that migration is simply a part of the inexorable process of the globalization of societies and cultures and states have little control over these movements of people.[6] The corollary of this globalization thesis is that migration will continue as long as there are imbalances in the international economy or until the process of factor price equalization is complete. But I argue that such a conclusion is not only simplistic and premature but wrong. We must look more closely at political factors that govern international migration, mindful that economic pressures for migration (demand-pull and supply-push) are strong and will remain so for the foreseeable future. To understand how politics affects the willingness of states to risk migration, I review several arguments for openness and closure, drawn from international relations theory, to develop a typology of international political economy that will help us understand the conditions under which states can cooperate to manage migration.

Realism and National Security Arguments

The most venerable theory of international relations is political realism. Keohane (1986, 7) succinctly summarizes the assumptions of this theory as follows: "(1) states… are the key units of action, (2) they seek power, either as an end in itself or as a means to other ends, and (3) they behave in ways that are, by and large, rational and, therefore, comprehensible to outsiders in rational terms." At first blush, political realism would seem to tell us little about international migration other than the fact that states are sovereign, power-seeking units that act in their own self-interest. As such, one would expect states to protect their sovereignty and maximize their power by opening or closing their borders when it is in the national interest to do so. But this argument is not only dangerously close to being a tautology, it begs the question of why states at certain points in time open or close their borders.

As is often the case with such pure realist arguments, we are thrown back onto an ad hoc analysis of state rationality, seeking to determine, for example, when it is in a state's national interest to open its borders and when it is not, or whether out- or in-migration will enhance the state's power and contribute to its national security. Neorealist theory, which builds upon the basic assumptions of political realism, may offer us more insight into why states open and close their borders. Waltz (1979) places great emphasis on the systemic nature of international politics and the fact that the system is structured by anarchy. State behavior is conditioned by the distribution of power within this anarchic system. States, according to Waltz, are caught in an inescapable security dilemma. Any policy that touches upon national security must be made in response to the structure of the international system if a state is to survive in a world characterized by anarchy and the "war of all against all." Using this perspective as a starting point, we must ask ourselves (1) whether or not international migration has a national security dimension and (2) to what extent migration and migration policy are determined by the structure of the international system.

The second question may be easier to answer than the first because in the twentieth century, we have seen massive shifts in the structure of the international system that have included the end of World War II, which ushered in a new era (1945–) of globalization (increased international exchange), and the end of the Cold War (1989–90), which marked a return to a more multipolar world, albeit one characterized by U.S. dominance. If Waltz is correct, such dramatic shifts in the system's structure should have an impact on the willingness of states to risk openness.

What hypotheses can we derive from this theory? The intense rivalry between the U.S. and U.S.S.R. divided the world into two competing camps: communist and noncommunist. One result of this struggle was to create great incentives for cooperation among the Western democracies, institutionalizing openness to trade, finance, and migration. The abrupt end of the Cold War removed this geostrategic incentive for cooperation and has made it more difficult (in political terms) to sustain policies of openness.

Prior to the end of the Cold War, Western democracies, led by the U.S., constructed a liberal regime for refugees built on the 1950 Geneva Convention and the United Nations High Commission for Refugees (UNHCR). The principles of this regime are well known. They are (1) asylum (based on a well-founded fear of persecution), (2) *nonrefoulement*, (3) protection, (4) nondiscrimination, (5) international cooperation, and (6) a commitment to search for solutions to the problem of refugees. Arguably, this regime was created in response to the horrors of World War II, which left millions of refugees and displaced persons scattered throughout Europe. But it was also a construct of the Cold War, designed in the late 1940s and early 1950s to facilitate the flight of individuals from communist regimes.[7] From roughly 1950 to 1990, much of the openness of liberal democracies to migration can be attributed to the bipolar structure of the international system. Liberal states in particular felt compelled to cooperate in the building and maintenance of the refugee regime. The creation of the International Organization for Migration (IOM) also was a by-product of this policy.

Following the realist logic, we would expect liberal states to back away from some of their more liberal commitments, especially in the area of human rights and asylum but also trade and migration. Certainly, there is evidence in the 1990s that the commitment of liberal states to the refugee regime, if not to international labor migration, weakened. The Schengen Agreement in Europe suspended *nonrefoulement* for asylum seekers who passed through a "safe" third country. The 1993 amendment of Article 16 of the German Basic Law/Constitution eliminated the blanket right to asylum in that country. The 1996 immigration reforms in the United States restricted due process and equal protection for asylum seekers, and the special status of Cuban refugees under American law has been attenuated. All of these changes indicate that liberal states are adjusting to new geopolitical realities and attempting to restrict migration from formerly communist states. It is no longer in the strategic interest of liberal states to promote refugee migration, but levels of labor migration continued to rise throughout the 1990s and into the twenty-first century.

If we return to the more difficult question of whether migration can be defined as a national security issue, we quickly run into the limitations of realist and neorealist arguments. Perhaps the most eloquent argument in favor of treating migration as a national security issue has been made by Weiner (1995), who contends that migration can destabilize societies and regimes, especially in weaker Third World states but also in the more advanced industrial democracies. Third World states are particularly vulnerable because their legitimacy may already be precarious and they do not have the political or economic capacity to absorb large numbers of immigrants in short periods of time. Of the 191 million international migrants in 2005, 61 million, or 32 percent, were in the southern (or less developed) countries where state capacity for managing migration is weakest. The refugee crisis in the Great Lakes region of central Africa in the mid-1990s resulted in the destabilization of the Mobutu regime in Zaire, demonstrating how threatening such massive refugee flows (in this case, Hutus fleeing Rwanda) can be for some states.

Weiner extends his national security argument to the advanced industrial democracies by pointing out that the fear of immigration among native populations should not be dismissed as merely irrational or xenophobic. Immigration, he contends, threatens many groups and individuals in these countries, whether on economic grounds (foreigners take jobs from natives) or cultural grounds (foreigners threaten the political and cultural cohesion of society and the nation). It is accurate to say that more international migration is happening in the developed countries of the north; 62 million, or 32 percent, of migrants in 2005 moved from south to north, and 53 million, or 28 percent, moved within the Northern Hemisphere from one developed country to another. The numbers alone may contribute to xenophobia and nativism.

From Weiner's national security perspective, immigration can lead to crises of absorption wherein societies can be further divided and destabilized. He cites the example of racist violence in the newly unified Germany as an example of the dangers of too much migration in too short a time. Looking at the U.S., Schlesinger (1992) and Huntington (1996, 2004) echo Weiner's concern for the solidarity and stability of Western democracies when faced with large waves of immigration.[8] In addition to this "cultural threat," migration raises concerns about terrorism and drug trafficking as well as environmental degradation that may result from overpopulation. Each of these threats can and has been used by politicians in Western democracies as a justification for restricting international migration.

Some human capital arguments reflect the same national security logic, namely a concern for the power, wealth, and sovereignty of the nation-state. A classic example is found in the work of Borjas (1990), who poses the question succinctly in the title of his best-known book, *Friends or Strangers?* His argument is that immigration policy should be driven by national economic interests, and these should determine whether migrants are friends or strangers. As an economist, Borjas uses a strict cost–benefit calculus to determine if migrants have the requisite skills (human capital) needed by the national economy. He goes on to argue that the American economy no longer needs a large pool of unskilled and uneducated (largely Mexican) immigrants, and every effort should be made to restrict the entry of this group. The argument suggests that waves of low-skilled immigration will contribute to inequalities in American society and further weaken the national economy. The realist element in this type of economic reasoning is not as clear as in Weiner's political formulation. If we adopt a strictly cost–benefit rationale, the interests involved in making immigration policy begin to look more like they belong in the realm of low rather than high politics, and it becomes increasingly difficult to make a national security argument for restriction.

For every economist like Borjas who argues against immigration, we can find another, like the late Julian Simon (1989), who argues in favor of increased immigration. Like any public policy in a democracy, immigration policy is to a large extent interest-driven. A political scientist, Freeman (1995), has constructed a rational-choice/pluralist framework for explaining the difficulties liberal democracies encounter in their attempts to restrict immigration. He argues that even though it may be in the national interest to restrict low-skilled immigration, this has been difficult because powerful business interests, ethnic lobbies, intellectuals, and others have captured the state, making it virtually impossible for governments to carry out what is (in his view) clearly in the interest of the nation and society as a whole and what is demanded by the electorate and public opinion.

All of these interest-based arguments (Borjas, Simon, and Freeman) point to the difficulties of reducing migration to a national security issue. They also indicate the extent to which national security itself is a social construct. From the "constructivist" perspective, the interests and identities of states are heavily influenced by a range of sociological factors and are constructed by the actors involved.[9] They are not—as realists would have us believe—purely a function of international systemic or structural factors such as the distribution of power within the system. This would be twice as true for international migration as it would be for trade and finance because migration involves the movement of animate rather than inanimate commodities. People are not shirts. Unlike goods and capital, people/foreigners have the potential to immediately and radically transform the culture and politics of societies in which they arrive.[10]

Hence, as Weiner has pointed out, migration can threaten the national security (and identity) of the nation-state. It is, therefore, not surprising that political debates over defining the national interest with respect to migration can be intense and emotional. But, no matter how hard we try in liberal democracies, it is impossible to remove cultural and social factors completely from these debates or reduce the terms of the debate to a cost–benefit calculation. As Weber (1947, 158) and Lévi-Strauss (1966) remind us, all actions are not strictly economic or instrumental. Subjective and normative elements figure heavily in the construction of interests and national security.

Does this mean we can dispense with realist perspectives on international migration? I argue that we cannot, for two reasons. First, we must recognize the constraints structural factors impose upon states in their formulation of migration policies and their willingness to allow entry or exit. Migration policies are inextricably linked with foreign policies and (from the perspective of weaker states in the south) with strategies for economic development. The end of the Cold War and its impact on the international refugee regime is a case in point. Formerly communist states of the East stopped restricting exit, which compelled liberal democratic states in the West to impose new restrictions on entry. Second, we must recognize the primacy of sovereignty in international relations. With few exceptions, since the Peace of Westphalia in 1648, sovereignty and noninterference in the internal affairs of other states have been the central organizing principles of international relations—principles that are codified in international law. States have a sovereign right to prohibit the entry or exit of non-nationals into or from their territories. Even asylum seekers, covered by the Geneva Convention, have no right to enter and reside in the territory of signatory states. Under the convention, states are obliged to give asylum seekers a fair hearing and to abide by the principle of *nonrefoulement*; they are not required to admit asylum seekers to their sovereign territory. Realism remains the rule, not the exception, in international relations.

The Globalization Thesis

The globalization thesis stems largely from works in economic sociology and the sociology of international relations, although some economists subscribe to it.[11] Globalization arguments stand at the other extreme from realism, which stresses the role of the nation-state as the primary decisionmaking unit in international relations. The globalization thesis comes in a variety of shapes and sizes, but all versions share a common assumption: The regulatory power (and sovereignty) of the national state has been weakened by transnational, social, and economic forces ranging from the internationalization of capital to the rise of transnational communities to the increasing importance of human rights in international relations. The nation-state is no longer the sole, legitimate actor in international relations, if it ever was. Rather, the tables have been turned against the state, which is unable to control either transnational corporations—especially banks that move vast sums of capital around the globe—or migrants who move in search of employment opportunities. The internationalization of capital, we are told, has provoked a radical restructuring of production as national economies move up (or down) the international product cycle. Production itself has been decentralized with the rise of new centers of power and wealth, which Sassen (1991, 22; 1996) dubbed "the global city."

According to Sassen and others, the rise of transnational economies has resulted in the creation of transnational communities as workers are forced to move from one state to another in search of employment, often leaving family members behind. Such communities can be found at both the high and low end of the labor market as individuals move with more or less ease from one national society to another. A great deal of research has been done to document this practice among Mexican immigrants to the United States. Massey was one of the first to point out the importance of transnational social networks in linking communities in the country of origin to those in the country of destination. These kinship and informational networks helped instill confidence in potential migrants, thus raising their propensity to migrate and, in effect, lowering transaction costs for international migration.[12] Portes (1997; Portes and Bach 1985) argues that migrants have learned to use this "transnational space" as a way to get around national regulatory obstacles to their social mobility. He goes on to point out that changes in Mexican law to permit dual nationality may reinforce this type of behavior, leading to ever larger transnational communities.

The decline in transaction costs and the ease of communication and transportation have combined to render national migration policies obsolete. Indeed, the entire regulatory framework of the state with respect to labor and business has been shaken by the process of globalization.

To compete in the new international marketplace, business and governments in Organization for Economic Cooperation and Development (OECD) countries have been forced to deregulate and liberalize labor and capital markets, whereas less developed states have been thrown into debt crises, leading to painful policies of structural adjustment that, in turn, have caused more migration from poor to rich states.[13] A case in point is the Mexican financial crisis in the mid-1990s that led to the devaluation of the peso and a surge in emigration to the United States in the latter part of the decade (U.S. Commission on Immigration Reform 1997). Likewise, developing states such as Mexico and the Philippines are forced to rely increasingly on migrants as a source of foreign exchange. The remittances that migrants send home are a source of hard cash for countries across the Third World, from Latin America to the Middle East, Africa, and Asia. In the globalization framework, migration, like trade, leads only to growing inequalities and dependence within and between countries of the south.

Politics and the state have been factored out of international relations in these types of globalization arguments, most of which are inspired by world-systems theory (Wallerstein 1974). Following on this apolitical logic, both trade and migration—which are closely linked—are largely a function of changes in the international division of labor. States at best play only a marginal role in determining economic and social outcomes. The prime agents of globalization are transnational corporations and transnational communities, if not individual migrants themselves.[14] If states have such a minor role, any discussion of national interests, national security, sovereignty, or even citizenship would seem to be beside the point. But at least one group of sociologists has tried to bring politics and law, if not the state, back into the picture.

Works by Soysal (1994) and Jacobson (1996) focus on the evolution of rights for immigrants and foreigners. Both authors posit the rise of a kind of postnational regime for human rights wherein migrants are able to attain a legal status that is outside the bounds of national citizenship. Jacobson, more than Soysal, argues that individual migrants have achieved an international legal personality by virtue of various human rights conventions, and both authors view these developments as presenting a distinctive challenge to traditional definitions of sovereignty and citizenship. But Soysal in particular is careful not to use the terms *postnational citizenship* or *transnational citizenship*, opting instead for the expression *postnational membership*. Wrestling with the contradictory nature of her argument, Soysal writes: "Incongruously, inasmuch as the ascription and codification of rights move beyond national frames of reference, postnational rights remain organized at the national level ... the exercise of universalistic rights is tied to specific states and their institutions."

Another sociologist, Bauböck (1994) is less circumspect. He argues simply that, given the dynamics of economic globalization, a new transnational/political citizenship is necessary and inevitable. Bauböck draws on political and moral philosophy, especially Kant, in making his argument in favor of transnational citizenship. Like Soysal, he relies heavily on the recent history of international migration in Europe and the experience of the European Community/Union to demonstrate that migration has accompanied the process of economic growth and integration in Europe and that these migrants, many of whom were guest workers, have achieved a rather unique status as transnational citizens. What all three of these authors (Soysal, Jacobson, and Bauböck) attempt to do is give some type of political and legal content to world-systems and globalization arguments. But like Sassen, they see the nation-state as essentially outmoded and incapable of keeping pace with changes in the world economy.

What do these theories tell us about migration policy (the opening and closing of societies) and the willingness of states to risk migration? At first blush, they would seem to account rather well for the rise in migration. Even though the globalization arguments are neo-Marxist in orientation, they share many assumptions with conventional, neoclassical (push–pull) theories of migration.

The first and most obvious assumption is that migration is caused primarily by dualities in the international economy. As long as these dualities persist, there will be pressures for individuals to move across national boundaries in search of better opportunities. But whereas many neoclassical economists (like Simon) see this as pareto optimal—creating a rising tide that will lift all boats—globalization theorists (like Sassen, Piore, and Portes) view migration as further exacerbating dualities both in the international economy and in national labor markets. This variant of the globalization thesis is very close to the old Marxist argument that capitalism needs an industrial reserve army to surmount periodic crises in the process of accumulation.[15] As migration networks become more sophisticated and transnational communities grow in scope and complexity, migration should continue to increase, barring some unforeseen and dramatic fall in the demand for immigrant labor. Even then, some globalization theorists like Cornelius (1998) would argue that the demand for foreign labor is "structurally embedded" in the more advanced industrial societies, which cannot function without access to a cheap and pliable foreign workforce.

The second (crucial) assumption that globalization theorists share with neoclassical economists is the relatively marginal role of the state in governing and structuring international migration. States can act to distort or delay the development of international markets (for goods, services, capital, and labor), but they cannot stop it. With respect to migration, national regulatory regimes and municipal law in general simply must accommodate the development of international markets for skilled and unskilled workers. To talk about the opening and closing of societies is simply a nonstarter in a "global village" where the world is flat (Friedman 2006). Likewise, citizenship and rights can no longer be understood in their traditional national contexts. If we take the example of postwar West Germany, nationality and citizenship laws date from 1913, and until the reforms of 1999/2000, these laws retained kinship, or blood (*jus sanguinis*), as the principal criterion for naturalization.[16] But this very restrictionist citizenship regime did not prevent Germany from becoming the largest immigration country in Europe. Globalization theorists like Sassen, Portes, and Soysal explain this anomaly by pointing to the structural demand for foreign labor in advanced industrial societies, the growth of networks and transnational communities, and the rise of postnational membership. Postnational membership is closely tied to human rights regimes—what Soysal calls universal personhood. National citizenship and regulatory regimes would seem to explain little about the variation in migration flows or the openness (or closure) of German society.

A more fully developed critique of these arguments is provided in the conclusion. But what can we retain at this point from globalization, as opposed to realist, arguments? The biggest shortcoming of the globalization thesis—in contrast to realism—is the weakness or, in some cases, the absence of any political explanation for migration. The locus of power and change is in society and the economy. There is no place for the state in this theoretical framework. Almost everything is socially and economically determined. The next section reviews neoliberal arguments, which combine economic and political theories to explain why states are willing to risk free trade.

Neoliberalism and International Regimes

Neoliberal arguments, often referred to among international relations theorists as liberal institutionalism, are heavily rationalist and have some things in common with neorealism. Both schools of thought stress the primacy of interests, the major difference being that neoliberals want to disaggregate "national interest" and look at the multiplicity of social and economic groups that compete to influence the state. For neoliberals, both national and international politics can be reduced to an economic game and ultimately to a problem of collective action. To understand this (means–ends) game, all that is needed is to correctly identify the interests and preferences of social, economic, and political actors.[17] Not surprisingly, neoliberal theorists focus heavily on politics and policy in developed democracies, where the competition among groups is relatively open and unfettered by authoritarianism and corruption. Studying competition among groups at the domestic level, as well as the allocational and distributional consequences of policy, presents a clearer picture of why (liberal) states behave the way they do in the international arena, whether in the areas of trade, finance, or migration.

Since this approach incorporates both economic and political analysis, it has come to be called international political economy (IPE). IPE theorists are interested in the connections between domestic and international politics. In addition to focusing on domestic interests, they also stress the importance of institutions in determining policy outcomes. For one of the original IPE theorists, Keohane, institutions hold the key to explaining the puzzle of conflict and cooperation in international relations, especially with the weakening of American hegemony in the last decades of the twentieth century. Keohane and Nye (1977) argue that increases in economic interdependence in the postwar period have had a profound impact on international relations, altering the way states behave and the way in which they think about and use power. In the nuclear age and with growing interdependence, it became increasingly difficult for states to rely on traditional military power to guarantee their security because security was tied increasingly to economic power and nuclear weapons fundamentally altered the nature of warfare. The challenge for liberal states post-1945 was how to construct a new world order to promote national interests that were tied ever more closely to international trade and investment, if not to migration.

In the first two decades after World War II, this problem was solved essentially by the United States, which took it upon itself to reflate the world economy and provide liquidity for problems of structural adjustment. This approach to international political economy was dubbed "hegemonic stability."[18] But with the gradual decline of American economic dominance in the 1970s, the problem arose of how to organize world markets in the absence of a hegemon. The answer would be found, according to Keohane, Ruggie, and others, in multilateralism and the building of international institutions and regimes (like GATT and IMF) to solve the problems of international cooperation and collective action.[19] As the Cold War waned in the 1980s, the entire field of international relations shifted dramatically away from the study of national security toward the study of international economics, especially issues of trade and finance. In the last decades of the twentieth century, even domestic politics, according to IPE theorists, was thoroughly internationalized (Keohane and Milner 1996).

Despite the fact that international migration would seem to lend itself to neoliberal arguments (migration has a strong political-economic dimension and clearly contributes to the internationalization of domestic politics), very little has been written about it from this perspective.[20] The reasons are fairly simple. Until recently, there was little demand for international policy in the area of migration, with the major exception of refugees. Even for the refugee regime, the numbers were relatively modest until the 1980s, and incentives for cooperation among liberal states were closely linked to the Cold War and the bipolar structure of the international system. From the late 1940s through the 1970s, liberal states had little incentive to cooperate or build regimes for managing labor migration because an unlimited supply of (unskilled) labor could be recruited through bilateral agreements with the sending countries. The German Gastarbeiter (1960s) and the American Bracero (1940s to 1960s) programs are classic examples of these types of bilateral accords. We did, however, see more innovation in the area of refugee policy, especially in Europe, where states came together to find ways to slow the influx of asylum seekers. The Dublin Convention and the Schengen Accords have helped to harmonize asylum policy in Western Europe, creating a border-free Europe but one in which every member state is responsible for policing a common external border.

But the situation with international labor migration did not change that much in the 1980s and 1990s, despite the end of the Cold War. Today, there is still an unlimited and rapidly growing supply of cheap labor available in developing countries. What has changed, however, are the goals of immigration and refugee policies of the OECD states. The demand now is for policies to control, manage, or stop migration and refugee flows. The Cold War refugee regime, specifically the United Nations High Commissioner for Refugees, has come under enormous pressure to manage various refugee crises, including the Cambodians in Thailand, Kurds in Iraq, Hutus in Zaire (now the Republic of Congo), and Albanians fleeing Kosovo. Existing international organizations for dealing with economic migration, such as the IOM and the International Labour Office (ILO) in Geneva, have not been besieged by demands for action. With the major exception of Western Europe, which has developed a regional regime for migration, there has been little effort to regulate international labor migration on a multilateral basis. Even a clause in the General Agreement on Trade in Services (GATS) dealing with international labor migration (Mode 4) has done little to promote cooperation in the area of migration. Most OECD countries, especially the United States, are uninterested in the creation of an international guest-worker program, and attempts to link trade regimes with migration have been resisted tooth and nail by both the Americans and Europeans.[21]

What can neoliberal theory tell us about the development of international migration and the willingness of states to risk migration? The *first hypothesis* we can derive from neoliberal theory is that states are more willing to risk opening their economies to trade (and by extension, migration) if there is some type of international regime (or hegemonic power) that can regulate these flows and solve collective-action and free-rider problems. However, as I have pointed out, there is no regime for regulating migration that comes close to the type of regime that exists for trade (GATT/WTO) or for international finance (IMF/World Bank). Yet we know that migration has increased steadily throughout the postwar period in the absence of a regime or any type of effective multilateral process. The EU and Schengen group are partial exceptions. If we accept the realist assumption that states are unitary, rational actors capable of closing as well as opening their economies, other (political) factors must be driving the increases in migration and maintaining a degree of openness to migration, at least among advanced industrial democracies.

The *second hypothesis* that can be derived from neoliberal theory focuses on domestic coalitions. The maintenance of a relatively open (nonmercantilist) world economy is heavily dependent on coalitions of powerful interests in the most dominant, liberal states. In *Resisting Protectionism*, prominent neoliberal theorist Helen Milner (1988, 18–44) demonstrates how advanced industrial states in the 1970s were able to resist the kind of beggar-thy-neighbor policies that were adopted in the 1920s and 1930s. She argues that growing interdependence (multinationality and export dependence) helped to solidify free trade coalitions among the OECD states in the postwar period, thus preventing a retreat into protectionism following the economic downturns of the 1970s and 1980s. Government leaders in a range of industrial nations were willing (and able) to resist strong political pressures for protectionism in the 1970s in large part because a powerful constellation of business interests contributed to a substantial realignment within these societies. In some cases, polities themselves were (creatively) redesigned by political entrepreneurs to facilitate the maintenance and strengthening of these new (free trade) coalitions.[22] Of course, free trade interests were bolstered by the existence of an international trade regime (GATT) in the 1970s.

Therefore, from a neoliberal perspective, the central questions with respect to migration are: How did pro-immigration coalitions in the key OECD states form? And will they be able to maintain legal immigration regimes with the end of the Cold War and in the absence of a strong international migration regime? We should not discount the importance of international systemic constraints such as the end of the Cold War, which clearly has had an impact on political coalitions and alignments in all of the liberal democracies. The end of the Cold War had a profound impact on coalitions supporting open migration policies, even more so than on trade. The major difference between trade and migration is in the nature and types of the coalitions that form to support or oppose them. Although related, in the sense that strong economic liberals tend to support both free trade and more open migration policies, there is a much stronger ideational and cultural dimension to pro-migration coalitions than free trade coalitions.[23]

Free trade policies clearly have important political and social effects, but the arguments about comparative advantage and tariff policies tend to be heavily economic, and interest groups are organized along sectoral or class lines. With respect to trade, individuals and groups tend to follow their market interests, but in the making of migration policies, this is not always the case. If a state can be sure of reciprocity—that other states will abide by nondiscrimination and the MFN principle—it is easier to convince a skeptical public to support free trade. With migration, on the other hand, economic arguments (about the costs and benefits of migration) tend to be overshadowed by political, cultural, and ideological arguments that cut across class lines. National identities and founding myths—what I have called national models—come into play in the making and unmaking of coalitions for admissionist or restrictionist migration policies (Hollifield 1997a, 1997b). Debates about migration in the liberal-democratic (OECD) states revolve as much, if not more, around issues of rights (see next section) and national identity than around issues of markets or social class. The coalitions that form to support more-open migration policies are often rights-markets (left–right) oriented, and debates about sovereignty and control of borders are reduced to debates about national identity—a fungible concept that reflects values, morality, and culture rather than a strictly instrumental, economic calculus.

If we take a neoliberal approach to understanding the rise of migration in the postwar era, we are thrown back into an analysis of three factors that together drive national migration policy.

The first of these factors is ideational, historical, and cultural. Migration policy, especially in the biggest liberal republics (the United States, France, and Germany), is heavily influenced by national (or founding) myths, which are codified in citizenship and nationality laws (Brubaker 1992, 165). These myths and national identity are subject to manipulation and involve strong elements of symbolic politics. They are reflected in constitutional law and can be analyzed from a historical, sociological, legal, and political standpoint.

Citizenship, like society or the economy, is subject to exogenous shocks. Immigration—as Weiner (1995) and Koslowski (1996) have pointed out—can change the composition of societies, alter political coalitions, and transform citizenship and national identity. The argument, therefore, can be made that migration contributes to the internationalization of domestic politics and economics. Multiculturalism is the functional equivalent of multinationalism. If the rise of multinational corporations has contributed to the creation of new free trade coalitions, as Milner and others have argued, then the rise of immigration and multiculturalism has contributed to new pro-immigration coalitions. As foreigners gain a legal foothold in liberal societies, rights accrue to them and they become political actors capable of shaping both policy and polity.[24]

But there is clearly a second factor involved in building pro-migration coalitions. As Freeman argues, businesses that are dependent on foreign labor—whether skilled, as in the case of the software industry, or unskilled, as in the case of construction trades or agriculture—can form powerful lobbies and, under the right conditions, capture parts of the state to maintain access to a vital input.[25] The political and economic history of Western states since the late nineteenth century, when the transaction costs of migration were lower, is replete with examples of businesses working with, around, through, or against the state to import labor.[26] Economic interests are always at play in the making of migration policy because the profits to be had from importing labor are great (demand-pull forces are strong) and an abundant supply of cheap labor is available. Cutting off access to foreign labor for businesses that are heavily dependent upon it is the same thing as imposing high tariffs on imported raw materials. The industries affected will howl. Both policies are protectionist and have profound allocational effects, often leading to increases in irregular migration.

In the postwar period, the third and most important factor in building promigration (as opposed to free trade) coalitions is institutional. Perhaps the most famous and oft-quoted statement about European guest-worker programs was made by Swiss novelist Max Frisch, who said, "We asked for workers, and human beings came." Unlike capital or goods, migrants—as individuals and sometimes as groups (Cubans in the U.S., ethnic Germans and Jewish immigrants in Germany)—can acquire legal rights and protections under the aegis of liberal constitutions and statutory law. Even when they are not admitted immediately to full citizenship, migrants acquire the rights of membership, which can, depending upon the state, include basic civil rights, a package of social, or welfare, rights, and even political, or voting, rights. What is important to keep in mind, however, is that these rights are anchored in national legal systems, and although they may flow from constitutional law, they also depend upon increasingly fragile political coalitions involving left- and right-wing liberals. With the end of the Cold War, these "strange bedfellow" coalitions have become more difficult to sustain, even in the area of political asylum, a principle that is supported in international law.[27] As the coalitions weaken, we would expect to see a concomitant decline in support for admissionist immigration and refugee policies.

But rights have a very long half-life in liberal democracies. Once they are extended and institutionalized, it is extremely difficult to roll them back. Most democracies—especially those, like the U.S., France, and Germany, with republican traditions and strong elements of separation of powers—have a variety of judicial checks that limit the ability of executive and legislative authorities to alter civil, social, and political rights. To understand the "limits of immigration control" in liberal democracies, as well as the mix of internal and external strategies for control, we must have a clear understanding of the evolution of rights-based politics and of the way in which rights are institutionalized.[28] Even if rights-markets coalitions supporting immigration weaken, this does not mean that migration and refugee policies will change overnight or that liberal states can quickly and effectively seal their borders.

To conclude, the neoliberal approach requires us to look first at international institutions and regimes and second at the types of coalitions that form to support more-open migration regimes. I have identified three factors that influence coalition building: (1) ideational and cultural, which are closely linked to formal, legal definitions of citizenship, (2) economic interests, which are linked to factor proportions and intensities such as land, labor, and capital ratios, and (3) rights, which often flow from liberal-republican constitutions. The following sections develop this neoliberal framework, offering a critique of realist and globalization arguments.

Risking Migration and the Centrality of Rights

Of the three analytical perspectives on migration and international relations we have reviewed so far—realism, globalization, and neoliberalism—neoliberalism comes closest to explaining why states risk migration. But, as I have indicated, we cannot ignore structural or systemic factors, such as the end of the Cold War, that can influence the propensity of states to support liberal international regimes. In the absence of a threat or hegemon to unite liberal states and help them overcome collective-action problems, multilateralism is one way for states to cooperate and build a migration/refugee regime.

Following the work of Ruggie (1993a, 3–47), we can identify three tenets of multilateralism. The first is *indivisibility*, which is another way of saying that multilateral regulation should take the form of a public good. Unless it is a hegemon, a single state or even a small group of states cannot provide this good for the international community. The costs and benefits of its provision must be shared relatively equally among states. The second tenet is *principles,* or *norms of conduct*, which can alter the behavior of states. The fewer principles or norms there are, the greater the likelihood that states will respect them and change their behavior. The most difficult problem in any multilateral regime is to find a single compelling principle (or at least a very small number of interrelated norms or principles) "around which actor expectations can converge."[29] Third, Ruggie points to *diffuse reciprocity*, meaning that states must be convinced everyone will respect the rules of the game, making it possible for governments to persuade a skeptical or even hostile public to accept the short-term political and economic costs of establishing the regime in order to reap the long-term gains.

Using this neoliberal framework, we can ask: What are the possibilities of building an effective international migration regime? What would be the incentives to participate in such a regime? Can states overcome their misgivings, which may include loss of sovereignty, threats to national security and identity, and changes in the composition of the citizenry?

On the first point, indivisibility, we must ask if migration can be defined as an international public good. As noted earlier, this is problematic, especially if we compare migration and trade. During the postwar period, a consensus emerged—based on American leadership and the doctrine of comparative advantage—that an open trading regime would promote global welfare and advance the cause of peace. The motto of the immediate postwar period was "Peace through trade." The GATT system was created to ensure that the costs and benefits of free trade would be shared equally, and this allowed the leading liberal states (especially the U.S.) gradually to overcome the hostility and skepticism of weaker developing states. Free trade would lead not only to specialization in production, increased output, and pareto-optimal economic outcomes, it also would promote interdependence and a more peaceful world.

This type of economic reasoning, however, does not work well in the area of migration because the asymmetry between developed and developing countries is too great. It is only at certain points in time (such as the turn of the twentieth century in America, the period of reconstruction in Europe after World War II, and the period of very high growth in Asia in the 1970s and 1980s) that the interests of developing and developed states converge. Developing states almost always have an incentive to export surplus populations, whereas developed states only periodically have an interest in admitting large numbers of foreign workers. The history of south-to-north migration has tended to be one of fits and starts, of peaks and valleys that tended to follow the business cycle. But there is strong evidence this dynamic may have been broken in the postwar period, at least for certain "core" liberal states in America and Europe (Hollifield and Zuk 1998). We can see this in the rates of world migration, which have been rising continuously since 1945.

So, if migration does not mirror the business cycle, what is driving it? The answer, in a word, is rights. As the world becomes more open, more democratic, and more liberal, people are freer to move than ever before. This has placed great strains on liberal states, especially on the institution of citizenship. Liberal states are caught on the horns of a dilemma or, what I have called a liberal paradox (Hollifield 1992a, 222; Weiner 1995, 112). In liberal political and economic systems, there is constant tension between markets and rights, or liberty and equality. Rules of the market require openness and factor mobility, whereas rules of the liberal polity, especially citizenship, require some degree of closure, mainly to have a clear definition of citizenry and to protect the sanctity of the social contract —the legal cornerstone of every liberal polity. Equal protection and due process cannot be extended to everyone without undermining the legitimacy of the liberal state itself. How can states solve this dilemma and escape from the paradox? Constructing an international migration regime, as European Union members have done, is one way.

But if migration is to be defined as an international public good, it cannot be defined purely in economic terms, even though mobility of productive factors (like free trade) is recognized in economic theory to be pareto optimal. To regulate migration on a unilateral basis, liberal states must adopt draconian (illiberal) policies that may threaten the foundations of the liberal state itself. It is not efficient or desirable in a liberal state to close or seal borders. This would be the ultimate strategy for external control. Likewise, strategies for internal control—including heavy regulation of labor markets, limiting civil rights and liberties for foreigners and citizens, and tampering with founding myths (for example, weakening birthright citizenship in the U.S.)—also threaten the liberal state. Such measures can fan the flames of racism and xenophobia by further stigmatizing foreigners. Establishing a multilateral process for regulating and controlling immigration offers one way out of this dilemma, but to accomplish this, control must be redefined on a multilateral basis as the "orderly movement of people" (Ghosh 1998, chap. 5). Orderly movements imply respect for the rule of law and state sovereignty, which are fundamental principles in every liberal state.

The problem remains of how to set up generalized principles of conduct in the area of migration. Various conventions exist, many put forward by the UN and its agencies (the UNHCR, IOM, and ILO) to safeguard the rights of migrant workers and establish standards for the treatment of these workers and their families.[30] Likewise, Mode 4 of GATS includes provisions for migration (Bhagwati 2004). But none of these agreements has achieved the status of a full-blown international migration regime capable of altering the behavior of states. It is only with asylum that a quasi-effective international regime has emerged in the postwar period, with a single guiding principle—a well-founded fear of persecution. The freedom-of-movement clauses of the various European Union treaties have resulted in the construction of a regional migration regime for EU member states, and the Schengen group has developed rules for dealing with the migration of third-country nationals, specifically asylum seekers.

In such a regional context, where the asymmetry is less pronounced than in the international system, it is easier to solve the problems of reciprocity and collective action. Rules can be adopted and formalized through already established institutional procedures. At the international level, what we have seen instead is a proliferation of very weak rules, norms, and procedures, resulting in a kind of fragmented and ineffective regime (Ghosh 1998, chaps. 4 and 5). Moreover, the primary concern of the most powerful liberal states is not to facilitate the orderly movement of people (even paying tourists) or promote international factor mobility. Rather, the concern is for control, which has as many different meanings as there are states.

The challenge for any state or organization attempting to construct an international migration regime will be to define control in such a way that it is indivisible, can serve as a generalized norm or principle of conduct, and can lead to diffuse reciprocity. This is no mean feat because, heretofore, international migration has been regulated almost exclusively on a bilateral basis, if not through some type of imperial hierarchy. In fact, we still see both regulatory systems at work today. It is only among the OECD states that freedom of movement (but not settlement) has been more or less achieved, especially for the highly skilled. Between the core liberal states in the international system and the less developed countries, movement of populations is still governed by a system of imperial hierarchy, which is in many ways more one-sided today than it was during the colonial era.[31]

To better understand the difficulties of international cooperation to regulate migration, I have constructed a typology of international regimes. This typology, depicted in Figure 1, points to a clear distinction between the regulation of capital, goods, and services on one hand and migrant labor or refugees (people) on the other. When it comes to regulating trade and capital flows—an essential function of the international political economy—multilateralism is strongest and most heavily institutionalized in the area of finance. Even though the institutions dealing with international finance are far from perfect, the IMF and World Bank have become the bulwarks of stable exchange rates, without which international

Figure 1
A Typology of International Regimes

		Institutions	
		Weak	Strong
Multilateralism	Strong	Refugees and political asylum (UNHCR)	Finance (IMF and World Bank)
	Weak	International labor migration (ILO and IOM)	Trade (GATT and WTO)

trade and investment would be difficult and extremely risky. The GATT/WTO regime for trade also is heavily institutionalized, but the multilateral basis of this regime is, I would argue, weaker than that for finance. The need for strong currencies and stable exchange rates is felt much more acutely by states than the need for free trade. Nonetheless, both of these institutions have evolved together in the postwar period. Powerful market incentives, as well as formal enforcement mechanisms in the case of the WTO, compel states to "play by the rules" (Goldstein 1993, 201–32).

Of the two "regimes" dealing with migration, one for labor migrants and the other for refugees, clearly the refugee regime, which is institutionalized through the UNHCR, is the more effective, for reasons I have spelled out. I put the term regimes in quotes because the labor regime is quite ineffective. The rules for entry and exit of economic migrants are controlled by nation-states, not by international organizations like the UN, IOM, or ILO. Again, the major exception is the EU, but the EU regime for international labor migration functions only for nationals of the member states, not (or at least not yet) for third-country nationals (Guiraudon 1998, 657–74).

Even for the Schengen states—referred to in the British press derisively as Schengenland—third-country nationals do not have freedom of movement. Only Schengen nationals have this right. Schengen does, however, function as a multilateral regime for asylum and is designed to help member states restrict refugee migration and prevent "asylum shopping." Refugees have the right to request asylum in the first Schengen state in which they arrive—consistent with the Geneva Convention—but if they transit through a "safe" third country, they can be *refoulés* (sent back to that third country). The result has been to forge a more or less common asylum policy in Schengen and turn all adjoining states into buffer states. The important point is that these Western European states, together with the U.S. and other liberal democracies, are respecting the letter, if not the spirit, of international refugee law.

Although the principles of the refugee regime are widely recognized, the UNHCR as an institution remains weak and heavily dependent on a few "client states," especially Sweden, the Netherlands, and other small European social democracies. The Japanese contribute a lot of money to the UNHCR, and the Americans support it and use it as a tool for managing refugee crises around the world, especially when American national interests are involved.

The regime for international labor migration is weakly institutionalized with no central norm (*Figure 1*), and its principal organs, the ILO and IOM, based in Geneva, have little regulatory or institutional capacity. For developed states in particular, the costs of participating in a regime for international migration would seem to outweigh the benefits, and a short-term strategy of unilateral or bilateral regulation of migration is preferred to a long-term, multilateral strategy. This is less true for the refugee regime because the more powerful liberal states need this regime for situational exigencies—to manage massive refugee flows that can destabilize governments and, in some cases, entire regions. When such crises strike close to home, as in the 1999 Balkan war, the utility of the refugee regime goes up exponentially. But when the crisis is past, it drops again.

To date, unwanted labor migrations might be considered more of a nuisance, especially from a political standpoint, but they are not fundamentally threatening and, therefore, can be handled unilaterally and on an ad hoc basis. The payoff from international cooperation in the area of unwanted labor migration is negative, and opportunities for defection are numerous. The possibilities for developing, monitoring, or enforcing some principle of nondiscrimination are minimal at this point. That brings us back to the domestic level in our search for an explanation of why states risk migration. The three factors driving migration policies—cultural and ideational, economic interests, and rights—must be studied on a case-by-case basis.

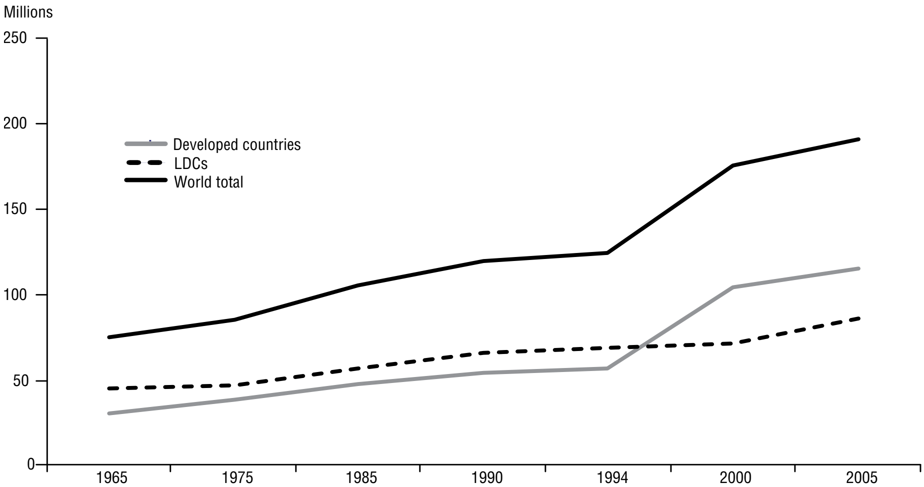
Yet an international market for labor exists and is growing. If the first rule of political economy is that markets beget regulation, some type of international regime is likely to develop. What will the parameters of such a regime be and how will it evolve? International relations theory, especially neoliberal/rationalist arguments, offers some clues.

Migration, Trade, and Development: The Coordination Problem

One of the principal effects of economic interdependence is to compel states to cooperate (Keohane and Nye 1977; Milner 1988). Increasing international migration (*see Figure 2*) is one indicator of interdependence, and it shows no signs of abating. As the international market for skilled and unskilled labor grows in the coming decades, pressures to create an international regime will increase. Following the work of L. Martin (1993, 91–121) and drawing on the preceding review of international relations theory, we can identify two ways in which states can overcome coordination problems in the absence of trust and reciprocity (developed states do not trust less developed states to help control borders and deter irregular migration): (1) through the centralization of regulatory power and pooling of sovereignty, and (2) suasion or, as Martin (1993, 104) puts it, "tactical issue linkage."

We already have seen an example of the first strategy at the regional level in Europe. The EU and, to a lesser extent, the Schengen regimes were built through processes of centralization and pooling of sovereignty. But, as I have pointed out, this was fairly easy to do in the European context because of the symmetry (of interests and power) within this region and the existence of an institutional

Figure 2
World Migration, 1965–2005



framework (the European Community or EU). It would be much more difficult to centralize control of migration in the Americas or Asia, where the asymmetry (of interests and power) is much greater and levels of political and economic development vary tremendously from one state to another. It is unlikely that regional trade regimes like the North American Free Trade Agreement (NAFTA) and Asia–Pacific Economic Cooperation (APEC) will lead quickly to cooperation in the area of migration. But the beginnings of collaborative arrangements are there, just as they were with the European Coal and Steel Community (ECSC) in the early 1950s. The regional option—multilateralism for a relevant group of states—is one way to overcome collective-action problems and begin a process of centralization.

Most international regimes have had a long gestation period, beginning as bilateral or regional agreements. It is unlikely, however, that an international migration regime could be built following the example of the International Trade Organization/GATT/WTO. It is too difficult to fulfill the prerequisites of multilateralism: indivisibility, generalized principles of conduct, and diffuse reciprocity. The norm of nondiscrimination (equivalent of MFN) does not exist, and there are no mechanisms for punishing free riders and no way of resolving disputes. In short, as depicted in Figure 1, the basis for multilateralism is weak, and the institutional framework is very weak.

With the asymmetry of interests and power between developed (migration receiving) and less developed (migration sending) countries, suasion may be the only viable strategy for overcoming collective-action problems, whether at the regional or international level. L. Martin (1993, 104–06) points to a number of ways in which suasion can help solve coordination problems.

Step one is to develop a *dominant strategy*, which can be accomplished only by the most powerful states, using international organizations to persuade or coerce smaller and weaker states. From the standpoint of receiving countries, the orderly movement of people, defined in terms of rule of law and respect for state sovereignty, would be the principal objective of hegemonic, liberal states. From the standpoint of the sending countries, migration for development, taking advantage of remittances and return (brain gain) migration, would be the principle upon which an international regime could be based.

Step two is to persuade other states to accept the dominant strategy. This will necessitate *tactical issue linkage*, which involves identifying issues and interests not necessarily related to migration (such as MFN, for example) and using these as leverage to compel or coerce states to accept the dominant strategy. This is, in effect, an "international logroll." Such tactics will have only the appearance of multilateralism, at least initially. Tactical issue linkage was considered in negotiations between the U.S. and Mexico on NAFTA, and migration issues have figured prominently in negotiations between the EU and prospective EU members in East Central Europe. At the EU summit in Seville in 2002, the British and Spanish attempted to link official development aid and trade concessions for African states to migration control, but this initiative was blocked by the French and the Swedes.

In such instances, reciprocity is specific rather than diffuse. Individual states may be rewarded for their cooperation in controlling emigration. Again, we have seen many bilateral examples of this type of strategic interaction between the states of Western and Eastern Europe. The post-unification German governments have cut a number of deals with East Central European states to gain their cooperation in the fight against irregular migration. In the case of Poland, this has involved investments and debt relief as well as greater freedom of movement for Polish nationals in Germany. But liberal-democratic states may face a problem of credibility in pursuing these types of strategies. They need international organizations to give them greater credibility (cover) and facilitate these logrolls.

The third step for hegemonic states is to move from what is an essentially one-sided, manipulative game to a multilateral process and eventually to *institutionalize this process*. The long-term benefits of such a strategy for receiving states are obvious. It will be less costly to build an international regime than to fight every step of the way with every sending state, relying only on unilateral or bilateral agreements. This may entail some short-term loss of control (such as a larger number of visas or higher quotas for the sending states) in exchange for long-term stability and more orderly migration. The ultimate payoff for liberal states is the establishment of a liberal world order based upon rule of law, respect for state sovereignty, ease of travel, and the smoother functioning of international labor markets. The payoff for sending states is greater freedom of movement for their nationals, greater foreign reserves and a more favorable balance of payments (thanks to remittances), increased prospects for return (brain gain) migration, and increases in cultural and economic exchange, including technology transfers.

However, changes in the international system with the end of the Cold War have altered this game in several ways. First, it has made defection easier. Since 1990, states have been more likely to pursue beggar-thy-neighbor policies by closing their borders and not cooperating with neighboring states in the making of migration and refugee policies. The Schengen process itself is a kind of beggar-thy-neighbor policy on a regional scale. Second, the new post-Cold War configurations of interests and power, both at the international and domestic levels, make it more difficult to pursue a multilateral strategy for controlling international migration. Rights-markets coalitions have been breaking apart in the dominant liberal states, increasing polarization and politicization over immigration and refugee issues. Yet liberalization and democratization in formerly authoritarian states to the east and south have dramatically reduced the transaction costs for emigration (Hollifield and Jillson 1999). Initially, this caused panic in Western Europe, where there was a fear of mass migrations from east to west. Headlines screamed, "The Russians are Coming!"[32] Even though these massive flows did not materialize, Western states began to hunker down and search for ways to reduce or stop immigration. The time horizons of almost all Western democracies suddenly were much shorter because of these changes in domestic and international politics. Migration came to be perceived as a greater threat to national security (Huntington 2004).

If the U.S. were to defect from the liberal refugee and migration "regimes," such as they are, it could mean the collapse of these regimes. In game theoretic terms, such a defection would fundamentally alter the equilibrium outcome, and it would be potentially costly to all states and the international community. At least as far as migration is concerned, the process of globalization of exchange could be quickly and dramatically reversed.

To prevent the collapse of liberal migration and refugee regimes, the U.S. and other liberal states must pursue an aggressive strategy of multilateralism, taking the short-term political heat for long-term political stability and economic gain. This happened in the areas of international finance, with the collapse of the Bretton Woods system in the early 1970s, and trade, with the Latin debt crisis of the 1980s and Asian crisis of the 1990s. Without the kind of leadership exhibited in international trade and finance, irregular migrations will increase and become ever more threatening, leading more states to close their borders.

Conclusion

The two central questions this paper poses are (1) how can we explain increasing migration in the face of strong political opposition and (2) why are states willing to risk migration? Several hypotheses, derived from international relations theory, are advanced. The first is the realist, or national security, argument that states open and close their borders in response to changes in the structure of the international system. The problem with this argument is that such structural changes (for example, shifts in the distribution of power) are relatively rare. But this type of change did occur in 1990 with the end of the Cold War, and there is considerable evidence that the willingness of (liberal) states to risk migration declined dramatically in the 1990s. Coalitions of left- and right-wing liberals—what I term rights-markets coalitions—that had flourished during much of the Cold War period suddenly came under pressure and fell apart in many liberal societies. But we have not seen a concomitant decline in the rate of international migration.

An alternative hypothesis is offered by what I call globalization theory, derived largely from world-systems arguments. According to this thesis, migration is largely a function of changes in the international division of labor and restructuring of the global economy, which entails rapid and massive movements of productive factors, including capital and labor. Globalization is a social and economic imperative, and even the most powerful states are incapable of regulating flows of capital, goods, services, information, and people. The result has been the rise of new global centers of production, what Sassen calls the "global city," which is outside the regulatory reach of the state. The demand for (skilled and unskilled) foreign labor is embedded in the economies of the advanced industrial societies.

In such pure globalization arguments, it makes little sense to study either domestic or international politics as a way of understanding increases in international exchange, whether in finance, trade, or migration. Sovereignty is an antiquated concept, and we must think about the global economy in terms of postnationalism. Soysal, Jacobson, and Bauböck have argued that, with respect to migration, globalization of the economy has created a new kind of postnational membership, or in Bauböck's terms, a transnational citizenship. Rights, according to Jacobson, now extend across borders. Such political developments are the logical counterpart of globalization.

The globalization thesis, in which outcomes are socially and economically determined, stands at the opposite extreme of realism, in which outcomes are politically determined. A third perspective, neoliberalism, accepts the continuing importance of the nation-state in international relations. But neoliberals argue that economic interdependence has altered the way in which states think about and use power. Rather than relying on traditional military means to pursue national interests, liberal states are increasingly drawn into "collaboration games" to regulate the international economy and reduce the risks associated with trade in particular. This desire to reduce risks and lower transaction costs has led the most powerful states to construct international regimes for trade and finance. Unlike neorealists, neoliberal theorists do not consider the unitary-actor assumption to be sacrosanct, and they are willing to look at domestic politics, especially at coalitions and institutions that may facilitate openness and increase demand for international cooperation.

Following neoliberal and neorealist thought, I have argued that the rise in migration in the postwar period is closely linked to three factors: (1) the structure of the international system, including the distribution of power and the presence or absence of international regimes; (2) domestic political coalitions, based on economic interests (factor proportions and intensities) and rights (which flow from liberal constitutions and laws); and (3) ideational, cultural, and legal factors, or what Brubaker calls "traditions of citizenship and nationhood."

During the Cold War, liberal states were more willing to risk migration because of the bipolar nature of the international system, which prevented large-scale emigration from communist states and helped solidify rights-markets coalitions in liberal states. The end of the Cold War has radically altered the configuration of power and interests, at both the national and international levels, and changed the dynamic of collaboration games, especially with migration. States are still willing to risk trade, and coalitions of liberal states led by the United States support the institutions for maintaining stable exchange rates, especially the IMF. There is evidence, however, that multilateralism in these areas is under increasing political pressure, especially in the U.S. Isolationism and protectionism are stirring anew.

The logic of cooperation is different for trade than for migration. Liberal states work hard to keep trade and investment flowing in the world economy and increasingly work hard to keep migration, including refugees, bottled up in less developed (sending) countries. The international trade regime (WTO) is based squarely on the doctrine of comparative advantage and the principle of nondiscrimination (MFN). Free trade has come to be accepted by a wide range of states as an international public good. Ironically, following the Stolper–Samuelson theorem of factor price equalization, trade and foreign direct investment are often touted as the solution to the problem of unwanted migration. According to this theorem, trade can substitute for migration in the long term. Nevertheless, migration continues in the short term and may actually increase when less developed economies are exposed to strong exogenous shocks of trade and foreign investment.

No organizing principle has emerged as a basis for international cooperation to regulate migration. The exceptions are the international refugee regime, based on a well-founded fear of persecution, and the EU regime, based on freedom of movement for nationals of member states. The primary reason for the lack of cooperation and the absence of an international regime for migration is the tremendous asymmetry between interests and power in the international system. The challenge for proponents of an international migration regime is to find (1) an organizing principle and (2) a strategy for overcoming collaboration problems. In the penultimate section of this paper, I suggest a principle—namely rule of law and the orderly movement of people—and several strategies for overcoming the asymmetry of interests and regime building. These strategies include the centralization of authority to promote trust and provide information and enforcement mechanisms. The problem with this strategy is that it requires continuous and strong intervention by a hegemon or group of hegemonic states. A more likely strategy is suasion, which involves tactical issue linkage and international logrolls that link unrelated issues to cooperation in controlling emigration.

The central argument in this paper is that states will not continue to risk migration in the post-Cold War era without some type of international regulatory framework. If migration is closely linked to trade and investment both economically and politically, as I and many others have argued, any weakening on the part of liberal states in their commitment to support orderly movements of people could threaten the new liberal world order. This argument is at odds with the globalization thesis, inasmuch as I see politics and the nation-state as crucial to the stability of the global economy, especially with the end of the Cold War. To paraphrase Polanyi (1944, 140), without the "continuous, centrally organized, and controlled intervention" of the most powerful liberal states, the "simple and natural liberty" of the global economy will not survive. Globalization is a myth, insofar as it ignores the imperatives of politics and power, which are still vested in the nation-state.

Notes

[1] Kindleberger's argument evolved into what is now called "hegemonic stability theory," where, in the words of Keohane, "hegemonic structures of power, dominated by a single country, are most conducive to the development of strong international regimes whose rules are relatively precise and well obeyed ... the decline of hegemonic structures of power can be expected to presage a decline in the strength of corresponding international economic regimes." Quoted in Gilpin (1987, 72).

[2] Ruggie (1993a) defines multilateralism in terms of three criteria: indivisibility, generalized principles of conduct, and diffuse reciprocity.

[3] This is the Stolper–Samuelson theorem. See Stolper and Samuelson (1941). Also see Mundell (1957).

[4] For a more in-depth discussion of the political economy of international migration, see Hollifield (1992a) and Cornelius, Martin, and Hollifield (1994, 6–11).

[5] For trends in trade, foreign direct investment, and migration, see United Nations Conference on Trade and Development (1996). Also see Rogowski (1989).

[6] On the globalization thesis, see Sassen (1991, 1996). On migration, globalization, and the rights of foreigners, see Soysal (1994) and Jacobson (1996).

[7] The origins of the asylum regime date from the period immediately following World War I and the creation of the League of Nations. See Goodwin-Gill (1996).

[8] As Huntington writes, "Promoting the coherence of the West means ... controlling immigration from non-Western societies, as every major European country has done and as the United States is beginning to do, and ensuring the assimilation into Western culture of the immigrants who are admitted."

[9] For a summary of the constructivist theory of international relations and national security, see Katzenstein (1996), especially the introduction, 1–32.

[10] As Shain (1989) and Koslowski (1996) have pointed out, international migration can create divided loyalties and transnational political communities. Shain stresses the rise of political diaspora, whereas Koslowski focuses on the emergence of dual nationality as a sign of the weakening of the nation-state.

[11] A good example of globalization arguments can be found in the works of Strange (1998).

[12] See Massey et al. (1987). For a cogent review of transnationalism and migration theory, see Portes (1997).

[13] See Sassen (1996). For a critique of the globalization perspective on migration, see Joppke (1998b).

[14] Rosenau (1990) takes the globalization argument to its logical extreme, postulating the "individualization of the world" and the rise of "postinternational politics."

[15] A version of the industrial reserve army argument can be found in Castles and Kosack (1985) and Piore (1979). For a critique of this argument, see Hollifield (1992a, 19).

[16] On this point, see Brubaker (1992, 165).

[17] A representative example of neoliberal theorizing can be found in Milner (1997, 33–66).

[18] See note 2 and Gilpin (1987).

[19] See Keohane (1984). Also see Ruggie (1993a), especially the chapter by Goldstein, 201–25.

[20] For an early attempt to use international political economy (IPE) framework for understanding migration, see Hollifield (1992b, 568–95). For a more recent and purely IPE study of migration, see Kessler (1997).

[21] Among those promoting the linkage of trade and migration and advocating the creation of a world migration organization similar to the WTO are Bhagwati (2004) and Ghosh (2000).

[22] This argument, similar to Milner's (1988), is made by Lusztig (1996).

[23] For more evidence on the relationship between free trade and pro-immigration coalitions in the U.S., see Hollifield and Zuk (1998). Also see Kessler (1997).

[24] Here, the early, path-breaking works of Miller (1981) and Schmitter (1979) are very instructive.

[25] See the argument by Freeman (1995) and Joppke (1998b).

[26] See the various country studies in Cornelius, Martin, and Hollifield (1994).

[27] Zolberg (1990) was one of the first to point to the "strange bedfellows" phenomenon. Also see Tichenor (1994).

[28] On this point, see the introduction in Cornelius, Martin, and Hollifield (1994). Also see Hollifield (1999, 59–96).

[29] Multilateralism is obviously closely related to the notion of an international regime, as defined by Krasner (1982).

[30] See International Organization for Migration (1994) and *International Migration Review* special issue (1991).

[31] In the case of the British Commonwealth, for example, freedom of movement for colonial subjects was greater prior to the granting of independence. From the 1960s until the passage of the British National Act in 1981, there was a gradual restriction of immigration from the so-called New Commonwealth states. The act effectively shut out people of color from British citizenship. See Layton-Henry (1994). Certainly, the same could be said of the relationship between France and its former colonies in Africa, except for the fact that the French have never completely shut former colonial subjects out of French citizenship de jure, although de facto one could argue that it is extremely difficult for North and West Africans to immigrate and naturalize. See Hollifield (1994).

[32] This was a leader in *The Economist*, for example.

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Migration, Trade, Capital, and Development: Substitutes, Complements, and Policies

Gustav Ranis

The postwar era is not the first experience the world has had with globalization in all its dimensions. The current episode can, however, be distinguished from its nineteenth century predecessor by its scale—a world of six billion inhabitants, massive movements of goods, services, and capital—as well as by continuously falling communication and transport costs and the instantaneous nature of information flows and stakeholder reaction possibilities. When war and interwar autarky ended in 1945, international trade was first to pick up, followed by a renewal of public capital movements, initially to Europe and subsequently to developing countries. Next came private portfolio capital and foreign direct investment (FDI), quickly dwarfing public capital flows, known as Official Development Assistance (ODA).

The economic migration of people, excluding refugees and asylum seekers, has lagged substantially behind. That's largely because barriers to the movement of people remain high—despite calls and considerable action for increased freedom of trade, capital, and associated technology mobility. This dimension of globalization tends to cause the strongest political resistance; when domestic workers are seen to be threatened by some combination of technology change, imports, and immigrants, it is invariably the last of these that generates the largest rhetorical and policy response.

Nevertheless, pressures for enhanced migration are rising, certainly in the less-developed origin (O) countries but also in some quarters of the more developed destination (D) countries. The very fact that migration has lagged substantially behind the other dimensions of globalization also makes it the largest opportunity for additional global welfare gains—especially today, when further multilateral trade liberalization is in considerable doubt. We will, therefore, focus on migration and its interactions with the other elements of globalization as they impact development. In this context, we will find it useful to distinguish between the costs and benefits to the O and D countries while differentiating between the movement of skilled and unskilled migrants. The first section concentrates on the movement of the unskilled and its relation to the other dimensions of globalization, while the second attempts the same with respect to the skilled. The final section suggests some conclusions for policy within the same broad globalization framework.

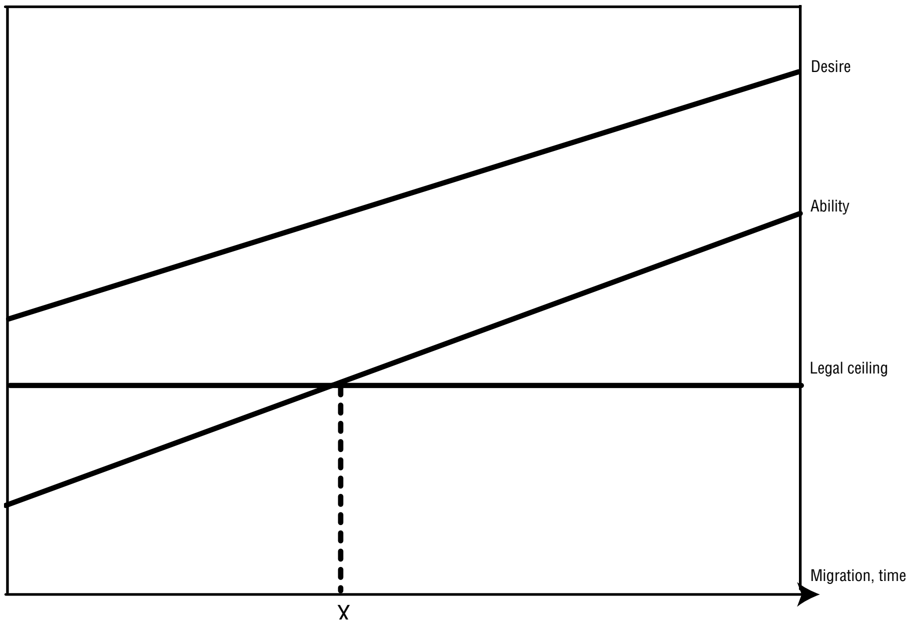
Migration of the Unskilled

The unskilled migrant represents the largest potential benefit to global welfare even as the distribution of gains between O and D countries remains controversial. The desire to migrate by the unemployed, underemployed, and those employed at very low incomes in developing countries is a function of the availability of information, geographic distance, gaps in prospective lifetime incomes, and the perceived probability of gaining employment in the D country. The ability to migrate, on the other hand, depends on some combination of family income levels, access to credit markets, government support, the extent of diaspora corridors abroad, and the level of entry barriers erected by the D countries. As indicated in Figure 1, picturing Mexico as a typical case, we can expect the desire to migrate to dominate both the private ability to do so and the D countries' barrier levels. In some O countries, such as the Philippines, the government may step in by providing both information and financial support in return for the promise of enhanced remittances, which tends to shift up both the desire and ability curves. However, to the extent that immigration barriers remain the dominant constraint (X marks the actual level of migration), there will be increasing pressure to attempt illegal entry.

The benefits of unskilled migration are clear to the O country. Given that the O country is likely to find itself in a labor surplus condition, the withdrawal of even substantial numbers of unskilled workers from meager-paying rural or, more likely, urban informal business sectors is not likely to affect output significantly. Indeed, given the probability of family subsidization of underemployed relatives, plus positive adjustments in technology as a consequence of such departures, productivity is likely to rise and poverty to decline.

The O country accrues other substantial benefits. Chief among these is the receipt of remittances, which not only substantially enhance family incomes but also have important dynamic spillover effects. Such receipts are likely to encour-

Figure 1
The Mexican Case



SOURCE: Author's calculations.

age additional entrepreneurial and investment activities by those left behind and, probably as important, innovative activities by returning migrants who have had new windows and contacts opened to them while abroad. This is especially true since the D country is likely to be a more advanced market economy. But even in relatively advanced, developing O countries such as Pakistan, which has sent temporary migrants to the Middle East, evidence from its North-West Frontier Province has shown that returned migrants make important entrepreneurial, human capital as well as financial capital contributions.

Mexico, for example, receives $20 billion to $25 billion in remittances annually, exceeding FDI flows ($18 billion in 2004) and providing an estimated 20 to 30 percent of its microenterprise capital (Woodruff and Zenteno 2007). In 2000, unskilled workers in the U.S. earned roughly six times more than unskilled workers in Mexico (Freeman 2006). An individual's average annual gain by moving to the U.S. is thus estimated at $10,000, which, over a working life, amounts to a roughly $250,000 differential—clearly undergirding the desire to migrate, substantially above either the ability to migrate or the legal barrier put up by the U.S. The Philippine case is not too different, except that the government has been more directly involved in supporting emigration via the provision of information and credit advances. Between 1975 and 1986, the number of Philippine contract workers moving to other parts of Asia increased from 4,200 to 76,650, and those moving to the Middle East rose from 1,552 to 262,758.[1] In 2003, remittances amounted to 10.2 percent of GDP, up from 2.7 percent in 1990.[2] Globally, remittances reached $150 billion in 2004, almost three times ODA, with an estimated additional $50 billion underreported (Maimbo and Ratha 2005). In some O countries, remittance flows have risen to 40 percent of export earnings and 20 percent of GDP. These flows have clearly helped reduce poverty rates and had an equalizing effect on the distribution of income.

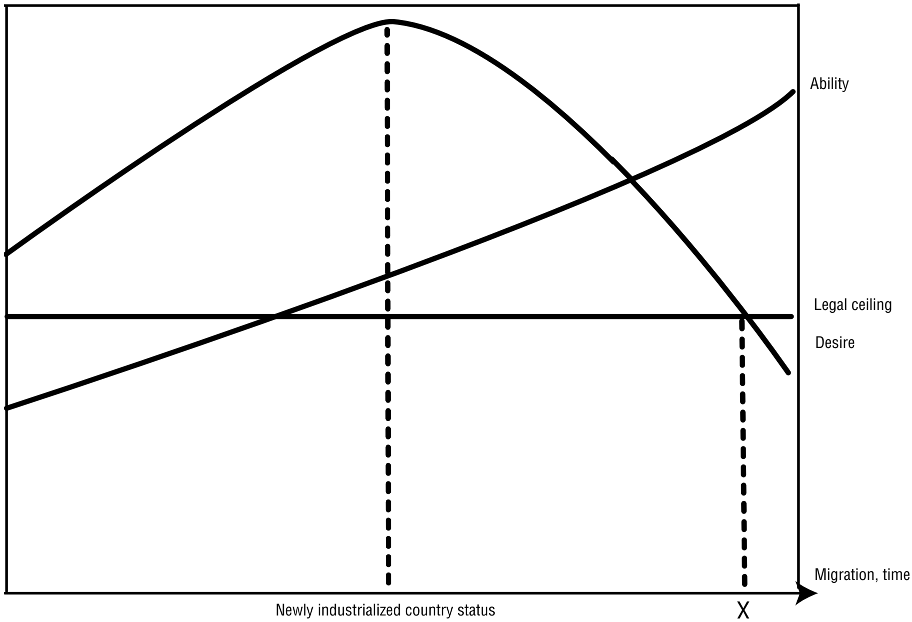
Remittances, as well as capital inflows such as ODA and private capital, substitute for unskilled labor migration. To the extent such inflows generate equitable growth, the income gaps between the O and D countries will decline and the desire to migrate will fall even as the ability rises. If after some time the country is successful in reaching East Asian newly industrialized country status, or Kuznets' (1973) epoch of "modern economic growth," the D country's import barriers will at some point, beyond X, no longer be binding (*Figure 2*).

Remittances have additional advantages in comparison with other types of capital inflows. For one, they are likely to be more dependable, fluctuating less. For another, they are likely to be countercyclical, increasing in times of economic decline or natural disasters, while other types of private capital often act cyclically. Moreover, remittances are less likely to cause Dutch disease problems, either of the narrow or the extended variety,[3] because they typically are broadly dispersed and frequently end up in the hands of rural and urban-informal sector families. With respect to the traditional, narrow variety, that means remittances are less likely to cause a strengthening of the currency and a shift from exportable to nontraded goods—especially if they are used for entrepreneurial investment rather than purely consumption activities. Turning to the extended variety, which we define as the political economy consequence of capital inflows that tend to take the pressure off and permit governments to avoid reforms, remittances again are much less likely than foreign aid to be a source of reform obstruction and the object of rent-seeking and corruption.

The most important substitute for unskilled labor migration is trade, which incorporates such labor in the form of labor-intensive commodities that are sent to the D country under the radar. Unfortunately, while trade has virtually exploded in the postwar era, early liberalization efforts have recently tended to run out of steam, and neoprotectionist measures such as antidumping provisions and exemptions from preferences, targeted especially at textiles, shoes, and other labor-intensive commodities, have been on the rise.

In addition to capital and trade movements, a substitute for unskilled mi-

Figure 2
The East Asian Case



SOURCE: Author's calculations.

gration is the inflow of technology, especially if it is adaptable to the more labor-abundant environment of the O country and thus enhances the potential of keeping unskilled labor productively employed at home or embodied in exports. Indeed, I would place much more weight, whether discussing the impact of migration, trade, or capital, on such dynamic dimensions rather than on static comparative-advantage and efficiency criteria.

In summary, various other dimensions of globalization can act as substitutes for unskilled labor migration. Moreover, the economic benefits of such migration for the O country are overwhelmingly clear. On the negative side of the ledger, we can record the not-inconsiderable social costs incurred as a result of prolonged family separations as well as the risks of exploitation and ill treatment of migrants, temporary or permanent, in the D country.

Turning to the benefits and costs of unskilled migration with respect to the D country, the situation is somewhat less clear. The arrival of "cheap labor" from abroad is usually greeted by much more political flak than the arrival of "cheap goods" incorporating "cheap labor." Yet both serve the interests of dispersed D country consumers because the former may encourage the survival, at least for a time, of relatively sick or defensive industries, while the latter directly enhances consumer welfare. The other benefit, increasingly recognized, especially in rich D countries suffering from low birthrates, is that large-scale migration by overwhelmingly young workers is necessary to help support the welfare and safety-net packages of the indigenous elderly population. We can safely assume that such pressures in the future will be even greater because of continuously falling birthrates and rising life expectancies. It is, moreover, a fact that there are jobs at the lower end of the occupational totem pole, mostly in agriculture and personal services, which D country workers are reluctant to take and which have been increasingly filled by unskilled immigrants. In this important sense, unskilled immigrants are substitutes for capital, increase labor force participation rates, and thus enhance the D country's productive capacity.

Nevertheless, resistance to the admission of unskilled migrants continues to be formidable in almost all D countries. The key objection, emanating mainly from unions and their political allies, focuses on the cost in terms of lowering indigenous unskilled worker wages, as we would expect from economic theory. Nevertheless, what empirical evidence we have casts doubt on the robustness of this effect. David Card (2001), for example, examining such national experiments as the Mariel boatlift and Algerian inflows into France, finds only relatively minor negative wage impacts on earlier migrants and virtually none on indigenous unskilled workers. All in all, from a global welfare point of view, unskilled migration from poor to rich countries seems to have large benefits for both sides; yet, it is clearly the most controversial and most restricted of all globalization flows. Here, politics and both intentional and unintentional misperceptions decidedly trump economics.

Migration of the Skilled

When we attempt to examine the costs and benefits for both the O and D countries of high-talent labor migration, the story is quite different. The benefit to the O country is still the contribution such migrants make to the volume of remittances, although the spending pattern of these somewhat more well-to-do left-behind families is likely to be somewhat different—more oriented toward additional consumption than investment. Still, on the benefit side, skilled migrants are likely to stimulate others in the O country to seek additional education in preparation for future migration, thus increasing the average level of education. Moreover, there is a good chance that such migrants will ultimately return once the home country has reached a certain level of income and opportunity. This has certainly proven to hold in the cases of Korea, Taiwan, and India, with engineers, information technology specialists, and others leaving Silicon Valley and its equivalents, returning home—sometimes after many years—and contributing in a major way to the growth of high-tech industries in the O countries.

But there are also costs to be considered, especially in the short run, when a poor O country loses valuable human capital in which it has invested substantial educational expenditures. This perverse movement of human capital—from poor to rich countries—has occasioned much discussion and policy debate in the past, including Bhagwati's (1976) suggestion of an exit tax and equally unimplemented efforts to restrict long-term stays abroad by legal/contractual means.

While high-talent manpower is clearly needed to support the O country's development efforts, all too frequently the educational structure's yield is not suited to the needs of the contemporary economy, creating a mismatch with potentially explosive political consequences. A well-known case is the highly skilled unemployed in Sri Lanka. In such circumstances, unless the domestic educational production function can be reformed so that the output is better suited to the developing country's needs, emigration may provide the only possible escape valve. On the other hand, there are cases, including the Philippines, where it is official policy to generate skilled labor—in this instance, doctors and nurses—specifically for purposes of export and remittances. This is seen not as a cost but as a benefit to society.

In the D country, where unskilled immigrants can generally be viewed as substitutes for capital, skilled labor is likely to constitute a complement to the rich country's capital, both physical and human. While D country immigration barriers are therefore usually friendlier to skilled immigrants than to the unskilled, empirical evidence indicates that the negative impact of such arrivals on the incomes of their indigenous counterparts is likely to be larger than what we find for the unskilled.

Unless the skilled arrivals fill a particular, relatively poorly serviced, noncompetitive niche or, in a dynamic context, are in a position to help generate new economic activities, they ultimately represent a greater threat to the income levels of their domestic counterparts than the unskilled do. Nevertheless, given their modest numbers and a relative absence of union opposition to their arrival, skilled immigrants are likely to meet much lower political resistance. Moreover, the recognition that they help overcome specific shortages and/or provide entrepreneurial energy and generate precious technology change, especially in the knowledge industries, is more likely to carry the day, certainly in the more dynamic D countries. In the case of the U.S., for example, it has been estimated that a 10 percent increase in the number of foreign graduate students raises patent applications by 4.7 percent, and we all know of the contribution of Chinese and Indian migrants to the science and technology explosions in Silicon Valley.

Conclusions for Policy

It should be abundantly clear that the enhanced south–north migration of both unskilled and skilled individuals would not only increase global welfare but would almost certainly benefit both the O and D countries. At present, since migration is clearly the most constrained of the various dimensions of globalization, it also offers the greatest potential for future gains. This potential emanates not only from the fact that it is a static substitute for or complement to the other elements of globalization but also because, as we have noted, it has a potentially important, dynamic catalytic impact.

International trade has exploded since 1950, rising twenty-five fold, much faster than per capita income. Even if the Doha Round cannot be resuscitated, we can expect trade to continue to grow—if at somewhat lower rates—since it is generally recognized to represent a positive sum game even if the gains are not equitably distributed, as between north and south. The arrival of foreign capital, shifting from ODA in the immediate postwar era to private flows, can also be expected to continue to expand. The same can be said of the transfer of technology, even though trade-related property rights issues do still need to be sorted out.

The most obvious policy conclusion, but also the most difficult to implement, would be for the D countries to lower their barriers to migration, especially those curbing the unskilled labor variety. When domestic producers and labor unions in the so-called sunset industries feel threatened by a combination of technology change, competitive imports, and the arrival of migrant workers, it is usually the last—more visible and threatening—that is likely to bear the brunt of restrictive actions. While politics here is usually in a good position to trump rationality—just as it is with the traditional emphasis on reciprocity in trade liberalization negotiations—nowhere else is the problem as pronounced as in the realm of international migration. The resistance is usually more modest to the flow of skilled immigrants because they can be defended as net helpful to the local economy. Even as pressures mount to accept more immigrants, whether for demographics, business interests, entrepreneurial renewal, or job characteristics, most rich D countries, including Japan and the U.S., prefer to close one eye to illegal immigration rather than lower official barriers. This holds generally in spite of the serious humanitarian and rule-of-law-related side effects. The recently passed U.S. immigration legislation, focused on penalties and border fences, can be seen as a response to this general attitude.

Multilateral negotiations to reduce migration barriers have never been tried. Given the convergence of issues relating to trade and immigration, such a function might sensibly be lodged in the World Trade Organization. With services now included in WTO negotiations, this would represent a rational extension—especially when migration is increasingly perceived as a potential benefit to both rich and poor countries. Though there are legitimate worries about further overloading that body, this would appear to be a better option than working with the toothless International Organization for Migration—or creating yet another new look-alike institution.

A second policy option, emphasized in the 2005 report of the United Nations Global Commission on National Immigration, would be to generalize member countries' "best practice" related to guest worker arrangements. For example, it recommended multilateral consideration of a South Korean program forcing temporary migrants to deposit a proportion of their earnings in a special savings account that is forfeited if "temporary" threatens to become "permanent."

A third policy option would be the installation of a much more effective trade adjustment-assistance program in D countries so that, given the simultaneous arrival of immigrants and imports, affected domestic workers could be retrained and moved into "sunrise industries." Discussion during the WTO Hong Kong Ministerial Conference in December 2005 suggested focusing ODA more on the facilitation of trade. Such an initiative could include moving toward a global trade and migration adjustment-assistance program that is administered by the World Bank or the WTO, financed mainly by D countries' ODA contributions, and follows multilaterally negotiated rules of the game. Foreign aid spent at home in this fashion is likely to yield a higher return to D country taxpayers. Inevitably, when all is said and done, elements of globalization can lead to some job losses in the D countries. The reaction has varied from minimal state intervention in the form of a rather ineffective adjustment-assistance program, plus a rather flexible labor market, in the U.S. to substantial public purse support combined with strict government controls over the labor market in France. Perhaps the best model may be found in Denmark, which combines a generous public safety net with a relatively flexible labor market. But since all, especially emerging, countries will not have the same budgetary capacity, assistance from outside may be warranted. Even in the absence of major changes in the international rules of the game, O countries can provide systematic information and even financial support to potential migrants, both temporary and permanent, as in the case of the Philippines. Improving credit access may serve to reduce the demand and simultaneously enhance the ability of unskilled would-be migrants to move—thus reducing the potentially explosive gap previously referred to.

One way to be helpful in this regard is by facilitating the flow of remittances, which can make important financial as well as entrepreneurial contributions to the O countries' development while incurring much smaller risks than other capital flows with respect to either the narrow or broad definition of Dutch disease. Given the rapidly increasing realization of remittances' importance to both parties, special efforts should be made to reduce exorbitantly high remittance transfer fees in the D countries.

But, ultimately, the only reliable way to reduce expected lifetime income gaps between individuals in the O and D countries is to enhance participatory, or labor-absorbing, development in the former. With Mexican immigrants to the U.S. benefiting to the extent of approximately $250,000, a reduction of such huge expected income gaps for an individual Mexican and, as important, for his or her children, undoubtedly is required. And that, in turn, requires successful development in the O country—mainly a domestic affair but one that can be assisted from the outside. How to do this effectively extends beyond the scope of this paper.[4]

Notes

1 Philippine Overseas Employment Administration, www.poea.gov.ph/default.htm.

2 International Organization for Migration, www.iom.int/jahia/jsp/index.jsp.

3 In general, the term Dutch disease refers to the case where a sudden appreciation of a country's currency renders the (tradable) manufacturing sector less competitive and leads to a decline in manufacturing output and employment (de-industrialization). This phenomenon was first observed in the Netherlands in the 1970s, where the discovery of a major natural gas field caused a sudden and strong appreciation of the Dutch exchange rate and subsequent decline in manufacturing activity.

4 See, however, Ranis (forthcoming).

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Commentary on Session IV
The Historical Relationship Between Migration, Trade, and Development

Barry R. Chiswick

The three papers in this session, by Jeffrey Williamson, Gustav Ranis, and James Hollifield, focus on the interconnections between migration, trade, and economic development, but they are quite distinct in terms of period covered, conceptual framework, and methodological approach. They are individually well argued and well written, but each also complements the others so that the whole of the three papers is greater than the sum of the individual parts.

Paper-by-Paper Comments

Jeffrey Williamson

Williamson, an economic historian, brings his skills in economic theory, data analysis, and historical insights to his study of the "Inequality and Schooling Responses to Globalization Forces: Lessons from History." Using a model with two countries (the New World and Europe) and three factors (unskilled labor, skilled labor, and land/capital), Williamson analyzes the effects of immigration during two periods, the period of mass migration pre-1914 and the period of minimal migration and immigration restrictions that followed.

While the two world wars and the Great Depression were exogenous to the trans-Oceanic migration flows, Williamson recognizes that the immigration restrictions in the countries of overseas settlement were endogenous to the supply of immigrants.

The period of mass migration was dominated by positively selected but largely unskilled flows from Europe's low-skilled labor surplus to the low-skilled, labor-scarce countries in the New World, in particular the U.S., Canada, and Australia. These flows raised low-skilled workers' wages in Europe and lowered them in the destinations, compared with what otherwise would have occurred. This tended to reduce the real wage gap between Europe and the New World but also reduced income inequality in Europe and raised it in the New World. The absence of significant migration after 1914 resulted in a change in labor supplies that increased relative wage differentials, and hence inequality, in Europe but reduced relative wage differentials in the U.S., since low-skilled labor became more scarce as native-born workers increased their levels of skill.

Williamson also argues that these changes in labor supply due to international migration were responsible for changes in rates of return from schooling that led to changes in the educational attainment of the labor force. This was one factor; other influences on the growth of schooling were the impacts of changes in technology and school policies. The late nineteenth century technological revolution in manufacturing played an important role in increasing the rate of return from schooling, particularly in the United States, and thereby increasing the demand for secondary and tertiary schooling. Enrollments were increased by the lobbying success of school teachers and others in propagating the idea of free (no charges for attending) public secondary schooling and its eventual spread across the country. In the United Kingdom, binding minimum-school-leaving-age laws raised schooling levels.

In reading Williamson's account of events in the age of mass migration, if you replace the New World with the advanced, high-technology OECD countries of today and replace Europe with the developing countries of Asia, Africa, and Latin America, and perhaps the transition countries of Russia and Eastern Europe, it strikes me that Williamson's text could be describing the current period. While there is much migration of high-skilled workers today, migration to the U.S. and Western Europe is now dominated by low-skilled workers from the less-developed countries. One consequence is increased inequality in the advanced economies as their native-born, lower-skilled workers pay the price of the large-scale influx of the low-skilled.

Gustav Ranis

In his paper, "Migration, Trade, Capital, and Development: Substitutes, Complements, and Policies," development economist Gustav Ranis brings the analysis explicitly into the contemporary period and models the incentives for migrating and the effects of legal barriers. As the potential supply of migrants exceeds the legal limits, incentives exist for illegal migration. These incentives are realized if the enforcement mechanisms are insufficient.

Liberal democracies have enacted provisions to enforce immigration law, including border enforcement and interior enforcement, typically in the form of penalties against employers who knowingly hire illegal aliens ("employer sanctions"). Yet, liberal democracies have difficulty enforcing these laws in the presence of employer groups, immigrant/ethnic constituencies, and civil libertarians who fundamentally endorse open borders.

The argument that free trade advocates should favor open borders misses an important point. Migrants are different from shirts. When migrants cross borders, they acquire, de facto even if not de jure, political and economic rights that neither shirts nor the shirtmakers in less-developed countries acquire from the destinations. My shirt was made by Bangladeshi workers. If they made it in the U.S., their children would be entitled to schooling here, and given their low skills, their low wages would entitle them to subsidized medical care, perhaps subsidized housing, the Food Stamp Program, the Earned Income Tax Credit, and so on. If they make the shirt in Bangladesh, they receive no such benefits from the U.S. taxpayer.

Ranis also correctly reminds us that the simple two-country, three-factor model does not tell the full story regarding the economic development of the country of origin. The developing countries benefit directly and indirectly from emigration. There are emigrant remittances—funds that go to families back home rather than to bureaucrats in the capital. Return migrants bring back skills (including entrepreneurial skills), technology, and connections acquired in the West. Because of the reduced supply of low-skilled workers, higher wages and employment for low-skilled workers reduce inequality and poverty. However, Ranis does not mention that if the emigration is positively selected, it may be the most able, the "best and the brightest," who leave and do not return.

This raises a question seldom asked. If we are concerned about the economic well-being of a developing country, how should we measure economic welfare? Conventional measures focus on those living in the country. But if we are concerned with people rather than countries, the emigrants should be considered as well. The positive effect of international migration on the economic welfare of Mexicans or Algerians, as distinct from Mexico and Algeria, must include the welfare of those who emigrated. If they move voluntarily, their welfare must have increased.

I am reminded of Harberger's triangles in reading Ranis' paper. Barriers to voluntary exchange reduce economic exchange and thereby reduce economic welfare. Ranis reminds us that the barriers to international capital flows have been virtually eliminated and the barriers to trade in goods and services have been sharply reduced. The social welfare gains from further reductions in these barriers, while positive, are likely to be relatively small. Yet, in contrast to the preceding century of largely open migration, the recent century of restrictions on international migration has, in principle, created opportunities for welfare gains by removing these barriers. The greatest contributions to economic development, though, have come from advances in technology. These productivity-enhancing changes may originate in one country, but in the modern world the knowledge is quickly available worldwide. Which international migration regimes foster technological advancement? The free flow of high-technology workers to technology centers (for example, Silicon Valley and its equivalents elsewhere) may be the answer.

James Hollifield

So, the next questions are, why were these barriers enacted? and, could an international regime be created to better manage international migration? Political scientist James Hollifield focuses on the latter question in his paper, "Trade, Migration, and Economic Development: The Risks and Rewards of Openness."

Part of the answer as to why barriers were enacted is that people are not like shirts. As mentioned above, migrants acquire political and economic rights in the destination that the shirtmakers in the country of origin do not obtain from the destination. These include economic benefits such as medical care, schooling for their children, and income transfers for the poor. They also include political rights, both explicit (voting) and implicit (people do matter even if they do not vote), which can be used to change the distribution of power, wealth, and property rights. Impacts on the culture also matter, and while some may view these as positive, others may not.

There are interconnections between immigration policy and domestic policy. As landless, lower-skilled workers in the New World grew in number and especially as they acquired political rights in the nineteenth century, the balance of power changed between owners of land and capital on the one hand and low-skilled workers on the other. The latter, fearing competition from low-skilled immigrants, favored restrictions and enacted them when they could in coalition with nativist elements and others.

Perhaps the most recent example was the 1996 welfare reform, which, among other provisions, barred recent immigrants from receiving certain federal income transfers. I believe that this welfare reform was legislated in part because of the 1986 Immigration Reform and Control Act, which established a process by which nearly 3 million low-skilled illegal aliens were the direct beneficiaries of an amnesty and perhaps several million more were indirect beneficiaries.

It might be argued that the gain in income to natives who benefit from immigration exceeds the loss in income to the low-skilled natives from low-skilled immigration and that natives as a whole are better off. Moreover, in principle, the gainers could compensate the losers so that everyone gains (Pareto optimality). In practice, however, the transfers might never take place. And if the income transfer system requires that low-skilled immigrants and natives be treated equally, the immigrants get these transfers as well. Then, it is easy to show that natives as a whole would lose as a result of equal treatment for low-skilled immigrants.

An interesting distinction arises between the direction of international trade and international migration. International trade is necessarily, over the long run, a two-way street. Imports must be paid for in some way. When comparing countries or regions with similar wage levels across skill groups, migration also tends to be a two-way street (for example, compare Canada and the U.S., the Nordic countries, or Illinois and Indiana). When this is the case, it is easier for countries to form international agreements on the free mobility of workers. Political concern arises most intensely when migration is a one-way street, especially when those using the street are low-skilled workers. It is under these circumstances that nation states have divergent interests regarding the number, characteristics, and expected length of stay of the migrants. Under these circumstances international agreements are more difficult to establish. As an example, consider the agreement on the free mobility of labor in the initial European Union, where the differences in incomes across countries were small, compared with the current anxiety over the admission of the much-lower-income Turkey and the transition economies of Eastern Europe.

There is perhaps an irony that liberal democracies, having learned the hard way that there is no such thing as a group of *temporary* workers from less-developed areas, have become much more reluctant to enter into international agreements regarding the acceptance of low-skilled guest workers. Autocratic regimes that can confine them in foreign worker enclaves, impose severe penalties on those who do not depart when their contract expires, and have severe visa restrictions would have less reluctance.

Hollifield would like to see a more ordered world in which international agreements help regulate the international flow of workers. A wide consensus can be reached on some issues, such as against the sex trade and forced (slavery) migration. On some matters, there can be bilateral and multilateral agreements, for example, across countries with similar income levels and income distribution. Yet, for much international migration from low-income to high-income countries, there is a wide divergence in interests. While issue-specific bilateral agreements might be negotiated, the prospects seem remote for nation states to turn over sovereignty to some international organization for regulating migration between low-income and high-income countries or even among countries at the same level of economic development. Moreover, if the international organization were to be captured by autocratic regimes, repression against potential emigrants and even immigrants might increase.

About the Contributors

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