

Policy Options

Skilled individuals will continue to flow from poor to rich countries as long as massive gaps in living standards persist and the latter see advantage in buttressing their talent and taxpayer ranks. As we hope the preceding chapters have made clear, the stakes are large for both migrants and receiving countries, but especially for those remaining behind (TRBs) in sending countries. All countries, receiving and sending alike, could improve the overall balance of effects on poor countries. Given the global nature of the problem, effective policy solutions to improve the overall balance of effects on countries losing their skilled workforce will lie in a concerted effort by rich receiving and poor sending countries and the help of international organizations.

At the risk of oversimplification, we offer a four-legged typology of policy responses open to both receiving and sending countries: it centers on control, compensation, creation, and connection (see table 10-1). *Control* policies relate to efforts to directly stem skilled inflows or outflows. *Compensation* policies relate to efforts to share the often-considerable spoils of emigration with those remaining behind in poor countries. *Creation* policies focus on the implications for the human capital policies of both rich and poor countries. And *connection* policies are concerned with strengthening economically valuable diasporic interactions and increasing the possibility of capital-enhanced return.

Two caveats are in order here, however. First, as mentioned earlier, data on human capital flows are woefully inadequate when compared

Table 10-1. Policy Matrix

Policies	Instruments		
	Rich countries	Poor countries	International organizations
Control	Shift balance toward unskilled immigration Curb skill-poaching programs unless compensation schemes are in place	Curb illegal migration Improve economic and political stability	Promote economic development
Creation	Avoid shortages in areas such as health and education due to poor human capital planning Transparent mechanisms for recognition of foreign credentials	Higher education reforms Liberalize skilled immigration	Increase support for higher education
Compensation	Share social security taxes Tie development aid to skilled emigration Firms pay headhunter fees to source country	Exit tax Tax foreign income	Improve migration-related data
Connection	Encourage circulatory migration Strengthen temporary migration programs	Develop systems of IRAs for migrants Dual citizenship	Develop network infrastructure

with data on all other transnational flows in goods, services, and capital. We reiterate this point because policies cannot accord with reality unless they are backed by strong data.

Second, the importance of policies will vary significantly across countries of different population sizes. The very small countries—with populations of less than a couple of million people—simply lack the capabilities necessary to be able to retain talent in many sectors. Just as small towns in rich countries find it extremely difficult to prevent their bright young people from leaving, so too do the small states that lack a critical population mass. This means, then, that public policy priorities are best directed to *facilitate* the movement of talent from these countries to proximate larger countries and regional integration of labor markets that can help build a critical mass of human capital. At the other end of the spectrum are the giants like China and India that, on the one hand, provide the greatest numbers of skilled migrants on the

global scene but, on the other hand, have such enormous bases at home that they will manage not only to cope with this loss but also to benefit from the resulting networks.

The most significant challenge for public policy lies with the many medium-sized countries of the world.¹ While their populations are large enough to sustain self-replicating human capital, their current human capital capabilities are “thin.” Out-migration can further deplete this already weak pool and trigger a downward spiral as TRBs also try to move out. If weak institutions are the central cause of state failure and human capital is critical to institutional strength, the global externalities of skilled out-migration may be quite worrisome. Indeed, it is the specter of the latter that should make rich countries pay greater attention to this issue. When a Humpty Dumpty falls and cracks, just who is going to put it together again?

The crux of our argument is that developing countries can do a great deal themselves. Something they should not do, of course, is bemoan the loss of highly educated individuals even while constructing obstacles to prevent these individuals from engaging with the population at home. As for rich countries, they need to integrate policies that affect the level and nature of immigration into their broader development efforts. It makes little sense to provide funding for AIDS drugs for a poor African country and simultaneously recruit scarce doctors and nurses from that same country. On the other hand, it is hard to argue against policies that increase the “asset value” of the diaspora through enhanced connections. As the preceding chapters have shown, there is much to be gained from the establishment of global diasporic networks and the eventual return of skilled emigrants from abroad. The most controversial of policy options are those designed to compensate poor countries that are losing scarce talent so as to better share the considerable “spoils” resulting from international migration.

Policies of Rich (Receiving) Countries

Propelled by concerns for national competitiveness, rich countries are increasingly targeting mobile skilled workers through selective dismantling of immigration barriers. In principle, and to varying extents in substance, these countries have also pledged support for poor-country development. This presents them with something of a quandary, however.

1. We owe this observation to Alan Winters.

Although emigration can be beneficial to the source country, the absence of talented individuals—individuals who provide specialized skills, build institutions, or even simply make large fiscal contributions—is often inimical to development. How, then, should rich countries respond?

Control: Stop Targeting Scarce Talent

Should rich countries simply stop targeting poor-country talent? Even if one is sure that skilled emigration hurts the remaining population, the large income gains that often accrue to the emigrants themselves is something to consider. At the same time, pressuring rich-country governments to curb skilled immigration seems to be a questionable way to try to raise living standards of those born in developing countries.

Actually, there are better ways for the destination countries to help the source countries than by raising existing barriers.² But there may be times when some restraint is needed. The most obvious case is the targeting of scarce doctors, nurses, and teachers from very poor countries in the midst of health and education crises. In other words, rich countries should be sensitive to the development implications of their recruitment of scarce personnel from particularly vulnerable countries. It is one thing when this is an individual decision. It is quite another when governments promote schemes that target particularly scarce skills. As discussed in chapter 6, the loss of people with such skills—say, pediatricians or professors interested in building up world-class research and teaching departments—directly hurts those remaining behind. Yet many rich countries give special preference—and sometimes actively recruit—professionals that are in short supply domestically even though they may be in even shorter supply in the source countries. This is not to say that emigration options should be removed from doctors and teachers just because they might be particularly valuable at home. However, a policy based on development sensitivity might avoid explicit targeting or “poaching” of these types of workers.

The U.K. National Health Service (NHS) has long drawn on clinicians from overseas but lately has changed its approach somewhat, in response to requests from the government of South Africa that both the United Kingdom and Canada stop recruiting its health professionals.

2. There are inevitable conflicts in any set of principles that could guide migration. A basic principle is that immigration and emigration barriers are constraints on a basic freedom—the freedom to live and work where one wishes. Barriers seem especially pernicious when people want to leave a country because they no longer wish to live in it.

Instead of persuading South African medical personnel to relocate, the NHS has been using them for short-term assignments to tackle a backlog of operations.³ Such policies allow health professionals to augment their incomes, build their skills in top-class facilities, fill particular gaps in rich-country health systems, but still keep specialized talent available to poor countries. However, while pressures have forced the public sector to shift its stance, the recruitment of health care personnel appears to have simply shifted to the private sector.

Compensation: Share the Spoils

Beyond the substantial income gains that often come from poor-to-rich-country migration, skilled migrants are likely to enjoy a surplus gain in the destination country when the social value added by them exceeds their post-tax earnings.⁴ These gains suggest that it should be possible to at least partly compensate the source country for the loss of scarce talent.

DIRECT COMPENSATION. Where the loss to the poor country is highly apparent, the rich country could pay direct compensation. To take an extreme example, suppose that a public hospital in a rich country has recruited a doctor from a poor African country or that a private hospital recruits a nurse. In this case, the government or private agency could be asked to pay a fee similar to that charged by “headhunters” in rich countries, equivalent to a few months’ pay. Although the monetary compensation could be paid directly to governments, it would probably have a greater payoff if transferred directly to the institutions losing their staff—universities, hospitals, and the like.

TAX SHARING. At a time of fiscal deficits and large unfunded liabilities in social security systems, it may seem fanciful to suggest that rich countries share tax revenues with poor countries. Indeed, as noted in chapter 4, fiscal problems will undoubtedly be a driving force behind skill-focused immigration reforms. But if the development agendas of rich countries are to be something more than empty rhetoric, the potential damage done by skill-focused recruitment must be recognized. Perhaps it is not

3. Under the Netcare program, surgeons from South Africa travel to the United Kingdom to conduct operations ranging from cataract removal to hip and knee replacement. The South African team is integrated into the existing hospital service and subject to the same supervision as local medical staff. The doctors even plan to fly back for the six-week checkups and 12-month follow-up appointments. See “Overseas Medics Tackle Ops Backlog” (http://news.bbc.co.uk/2/hi/uk_news/england/2778059.stm).

4. Any additional public expenditure on the migrant is here treated as a negative tax.

wishful thinking to hope that a share of revenues raised from emigrants would be remitted to source-country governments, possibly in recognition of the human capital investments funded by that government.

Of course, the relevance of such tax sharing depends on whether poor-country emigrants are sizable contributors to rich-country tax systems. In the United States, estimates of tax payments based on the Current Population Survey reveal that the foreign-born—both foreign-born U.S. citizens and (more interestingly) foreign-born non-U.S. citizens—are major contributors to tax revenues. In the year 2000, foreign-born citizens and noncitizens paid an estimated \$17.6 and \$18.7 billion in Social Security (or Federal Insurance Contributions Act) contributions, respectively. These payments amounted to roughly 5.5 percent and 6.0 percent of total Social Security taxes. Income tax payments by the foreign-born are even higher—\$43.4 billion for citizens and \$31.8 billion for noncitizens—though the share in total payments is lower than for the payroll taxes, at 4.4 percent and 3.2 percent, respectively. Looking at developing countries alone, the contributions are still large:⁵ \$28.4 billion in Social Security taxes (\$13.9 billion by citizens and \$14.5 billion by noncitizens) and \$52.3 billion in income taxes (\$31.9 billion by citizens and \$20.4 billion by noncitizens).

The most obvious scope for tax sharing lies in the Social Security taxes paid by temporary migrants, but this possibility is currently hampered by the absence of “totalization” agreements between developing and industrialized countries. Thus while H1-B visas are valid for a maximum of 6 years in the United States, eligibility for Social Security benefits requires contributions over 40 quarters, which means a minimum of 10 years (immigrants who stay that long are very unlikely to return). Totalization agreements essentially eliminate dual Social Security taxation and fill gaps in benefit protection for workers who have divided their careers between countries. They specify both taxes paid and benefits foreign citizens can receive when working in a treaty country. Since the late 1970s, the United States has entered into international social security agreements with 20 countries, all members of the Organization for Economic Cooperation and Development (OECD) with one exception, Chile. Most developing countries lack “comparable” social security systems.

SHARED VISA FEES/VISA AUCTION RECEIPTS. The foregoing compensation methods have placed the burden directly on destination-country governments. As

5. Developing countries are defined here as all countries except the OECD economies and the transition economies of Eastern Europe.

noted earlier, however, it is the emigrant who obtains much of the migration-related gain. The rich country could capture this gain and send the proceeds—or at least a share of those proceeds—to the source-country government. Possibilities for such capture and return include setting high fees for visas and sharing the proceeds with the source country, or even auctioning visas and sharing the auction revenues.

As an illustration of the spoils at issue, suppose (conservatively) that a move results in a \$5,000 annual income gain after adjusting for purchasing power parity. At a discount rate of 10 percent, a 20-year work horizon, and no adjustment for wage inflation, the present value of the income gain is almost \$47,000 dollars. The point here is not to argue for massive visa fees, but simply to note that the gains from long-term access to a rich-country labor market can be very large. If anything, this example greatly underestimates the size of the long-term gain. Others would place the average purchasing power parity adjusted income gain at more than \$20,000.⁶

***Creation: Invest More in Domestic Human Capital
(and Use That from Poor Countries Wisely)***

Rich-country demand for poor-country talent is often the result of the former's inadequate investment in needed skills. Governments laboring under large budget deficits tend to underinvest in the training of doctors, nurses, and teachers—especially when the benefits of these investments are not realized until years later. Hence there can be an almost perpetual shortage of professionals to staff key public services and an ongoing “crisis”-driven recruitment of foreign professionals. As countries get richer, it also becomes harder to entice young people to pursue demanding (and not always glamorous) careers in science and engineering. The resulting shortage—and cost—of technically skilled graduates fuels competitiveness-driven lobbying to ease immigration restrictions for foreign-trained scientists and engineers. Rich countries facing systemic shortages of key human capital defend their foreign recruitment by inevitably pointing to pressing domestic shortages. When such crises recur, however, the solution should be to increase investments in domestic capabilities, rather than simply poach from poor countries.

A common complaint of highly skilled immigrants is that their credentials are often not recognized when they arrive in rich countries. This indicates a large gap between skill-focused immigrant recruitment policies

6. Jasso, Rosenweig, and Smith (2002).

and policies regarding efficient use of those skills after arrival. It is often said that a “brain drain” is better than a “brain in the drain,” alluding to the idea that staying behind would simply amount to wasting one’s talents. While this is sometimes true, so is the converse: many skilled developing-country nationals find themselves shut out of the labor market because their credentials are not recognized abroad. Although it is obviously necessary to regulate credentials, a case can also be made for streamlining needlessly cumbersome procedures. With greater recognition, emigrants can expect higher incomes and the opportunity to work in their chosen occupations in destination countries—and thus to assimilate more easily.

As noted in chapter 5, the improved *prospect* of gaining a visa could increase the expected return to education and possibly the amount of human capital available to the source country. For this to happen, the loss of human capital through emigration would have to be outweighed by the emigration-prospect-induced increase in the human capital of those who ultimately do not get to (or choose not to) go. Greater recognition of foreign credentials by rich countries will increase the return on domestically acquired human capital, thus potentially strengthening this effect.⁷ In any case, if rich countries are going to recruit poor-country talent to make up for domestic shortages, they should ensure that everything possible is done so that talent is not wasted when it arrives.

Connection: Remove Barriers to Temporary Migration and Leverage the Diaspora

Although losses that stem from absent talent are indeed a major concern, the diaspora can be a valuable asset to the source country, not only as a potential source and facilitator of international business but also as a potential incubator of returnee talent and enterprise. These international connections can be valuable to the destination country as well.

What might the destination countries do to increase the value of this asset? The two obvious answers are, enhance *temporary* skilled migration and, where it is permanent, decrease the emigrant’s cost of interacting and transacting with the home country. In the latter case, immigration restrictions, such as requirements that new visas be issued to reenter the country after a trip home, clearly limit interactions.

7. Of course, it is also possible that the increased recognition of credentials will hurt TRBs. This will happen if the higher human capital levels of those who ultimately choose to stay do not offset the resulting higher emigration rate.

Although temporary skilled migration produces the most significant gains, this solution has two major drawbacks. First, it is not easy to make economic migrants return home. The cliché that there is nothing more permanent than a temporary migrant captures well the fact that foreign workers and their families are often loath to return once established in a community. Some would also question the fairness of forcing people to return home. Others would say there is nothing wrong with enforcing the terms of the initial contract if migrants know from the outset that they have permission to stay for only a temporary period.

While there are indeed numerous examples of temporary migration programs that have not worked, such arrangements are much more feasible in the case of skilled migrants. However, destination-country policies remain a large obstacle. Limits on the portability of social security entitlements can make it costly to return home permanently. If returnees have to give up hard-won permanent residency status, which can happen if they return to their country of origin for more than a year, they will be reluctant to take a chance on returning home. This is a severe deterrent even to skilled migrants who want to try to go back to the country of origin, since they would lose the “option value” of returning to the rich country if things do not work out back home. A year is simply too short a time to find out if things are working out. Of course a migrant who has obtained citizenship is in a better position to take the risk, although by that time roots in the new country are so much deeper that the likelihood of returning decreases correspondingly.

The need to encourage the return of talent is particularly obvious in the case of weak and so-called failed states. The fiscal challenge of rebuilding these states is enormous and the legitimacy of the enterprise questionable when done by outsiders. Returning talent would address some of these problems, but sharp differences between private and social returns are a severe damper. Policies that would offer stronger guarantees on return would ease such concerns.⁸ One controversial way to increase the return flow is to make visas temporary and place limits on renewal. For example, a country might make it easy to obtain a student visa but hard to obtain a work visa after an individual's studies are

8. One option would be that proposed by Senator Joseph Biden, who in November 2003 introduced the “Return of Talent” Act (S. 1949), which would allow legal aliens resident in the United States to return temporarily to their country of citizenship if that country is engaged in postconflict reconstruction, and for other purposes. Immigrants would not be penalized for returning to the country of origin to help with reconstruction, and the time spent in their country of origin would apply toward their five-year residency requirement.

completed. Alternatively, the barriers to transition from a time-limited work visa to permanent residency could be made more onerous. The idea behind such a policy is to enable migrants to build skills, savings, and social networks while in the country, but eventually make them bring these different forms of capital home. Knowing that they will eventually have to return home, people will choose to form the kind of capital that is most productive there.¹⁰

Temporary migration has worked in practice, but mainly in countries with less liberal regimes, ranging from the Middle East to Malaysia. Furthermore, virtually all temporary migration programs have been designed to bring in *less*-skilled workers. Skilled workers are much less likely to stay on illegally, but such programs can work only if receiving countries themselves change their practices. Granting skilled workers on temporary work programs social security numbers of limited duration can make the program self-enforcing. Temporary skilled programs are undermined by expedient receiving country policies as much as anything. Recently, Canada began offering a new “contract” to temporary skilled workers, granting them permanent status in the country at the end of the three- to five-year contract if they agreed to restrict their mobility rights and settle somewhere other than Toronto, Vancouver, or Montreal. Any such contracts should also ensure that foreign labor is not driven underground through artificial distinctions between foreign and domestic workers. In 1993 South Korea, long an exporter of labor, allowed Korean employers to hire foreign workers through a trainee system (by 2002, admissions had increased to 85,000 a year). Trainees, however, receive only about half of the minimum wage and are bound to their assigned employer, with the result that many abandon their jobs because they can earn more money as illegal workers. Although there is a strong case to treat these trainees as guest workers with the same rights as Korean workers, so as to ensure that local Korean labor does not lose out because of the minimal pay at which their counterparts are willing to work, employers oppose it, as it would increase their labor costs.

In the 1970s, the United States created the J-1 visa program for skilled personnel, especially from developing countries. This allowed foreign doctors and scientists to come to the country, augment their human capital, contribute relatively low-cost labor, and return home. One participant in the program, the National Institutes of Health (NIH), provides postdoctoral opportunities for foreign scientists, on the understanding that the scientists will return and set up or work in laboratories in their country of origin. These programs permit the transfer of

medical expertise, and they increase the number of developing-country institutions that can collaborate with U.S. scientists. The program's intent, however, was subverted when state and local governments, unable to persuade many U.S. physicians to work in underserved areas afflicted by physician shortages, began to turn to noncitizens who had just completed their graduate medical education in the United States. These physicians generally enter the United States under an exchange visitor program with J-1 visas, which require them to return to their home country (or to their country of last legal residence) for at least two years after completing their training. However, this requirement can be waived at the request of a federal agency or a state, usually on the condition that the physician practice for a specified period in an underserved area. A General Accounting Office study found that the number of such waivers for physicians rose from 70 in 1990 to more than 1,374 in 1995. By the mid-1990s (the most recent period for which data are available), the number of waivers processed equaled about one-third of the total identified need for physicians in the country. Here is a visa program created to pass advanced medical knowledge to other countries. Instead, "the use of waivers for physicians with J-1 visa requirements has become so extensive that this exception policy now resembles a full-fledged program for addressing medical underservice in the United States."⁹

Rather than rely on temporary visas that eventually force people to return home, it is more beneficial to create incentives that make them *want* to return home. Acquired pension benefits could be made portable, for example, and a part of them vested in the country of origin if the migrant did not return. Skilled temporary migrants in the United States are often tempted to stay on longer, knowing they will lose their Social Security contributions unless they have worked for 40 quarters. However, that period of time is so long that the migrant will inevitably develop deep roots locally and find it harder to return.

The Bush administration's recent proposals for a large temporary visa program include both a carrot (access to funds in accumulating accounts upon return) and a stick (time-limited visas). Parallels exist elsewhere. In South Africa, where nearly 50 percent of miners are migrants, mainly from Mozambique and Lesotho, they are required to participate in the Compulsory Deferred Pay system, which sends a portion of their wages to banks in their native countries. The sending and receiving countries

9. GAO (1996).

have a labor migration agreement in which the receiving country protects the rights of the legal migrant workers while the sending country takes steps to check illegal migration. However, the case of Mozambican guest workers in East Germany who were returned after 1990 shows that such arrangements are not without risks. Between 1982 and 1990, the East German government transferred \$93 million, including \$18 million in social insurance payments, to the Mozambican Labor Ministry. But the workers did not receive the money, possibly owing to the government's dire fiscal state. Similarly, the Mexican government did not pass on benefits accruing to temporary labor working in the United States during the 1950s.

A different tactic might be to make it easier to come to the (receiving) country legally, so that illegal immigrants already there (and who want to return) do not view leaving as giving up the option of living in the country. Return migration is often stymied because policies that raise barriers to circulatory migration also reduce return. Thus when the United States increased strict policing on the Mexican border in the 1980s, it increased permanent settlement in the country by sharply increasing the risk of going back and forth. Similarly, permanent residents ("green card" holders) who face the forfeiture of their status if they leave the country for more than one year are less likely to return to their countries of origin to try to work there. By taking away the option value of a green card, such a policy reduces the probability of migrants' returning. Lengthening that period from one to three years would increase circulatory migration as well as permanent return.

Policies of Poor (Source) Countries

What policies are open to developing countries seeking a better return on the various forms of capital carried by their nationals? The options again fall under the headings of control, compensation, creation, and connection. In this case, however, *control* means various barriers to exit. *Compensation* consists of a menu of obligations that emigrants might be seen to owe to their former homes in return for continuing citizenship or other privileges. *Creation* now refers broadly to policies to create and retain domestic human capital.¹⁰ And *connection* pertains to home-country policies that help build an effective diaspora and entice return.

10. In an early discussion of the manuscript, these exhortations elicited the criticism that we were being utopian in our policy suggestions. Perhaps. But if institutional failures are compounded by an induced brain drain, then we hope that drawing attention to this added source of damage can induce policy change.

Control: Keeping Talent

It seems pernicious to prevent people from leaving a country in which they no longer wish to live. Although emigration barriers are now seen as constraints on a basic freedom—the freedom to live and work where one wishes, this has not always been the case. In the early nineteenth century, in an effort to thwart French and Russian efforts to recruit its skilled workers, Britain sharply limited their emigration. Emigrant workers who failed to return home within six months of warning could lose their land, property, and even citizenship.

More recent restrictions imposed by authoritarian governments to control emigration of their citizens have been protested by Western governments. When U.S. president Jimmy Carter met with Deng Xiaoping in 1979, he reminded the Chinese leader that U.S. law forbade granting most favored nation status to any country that did not embrace free-market principles and prevented its citizens from emigrating freely. Deng reportedly responded, “How many millions of Chinese does the United States want?” Liberal indignation at the idea and reality of a Berlin Wall reflects the belief that exit should be a matter of individual choice. But there is noticeable reticence when it comes to the “New Berlin Walls” and great irony in the fact that more people have died at the Mexican-U.S. border than did at the Berlin Wall. If nations have the right to limit *entry* because of its impact on the common national good and the preference of their citizens, why is that acceptable but the right to free *exit* is not? Both cases can be viewed as a tragedy of the commons—in that what is individually optimal may be socially suboptimal.

However, even if it could be argued that poor countries should have stronger control policies (whatever the precise mix), desirability is not the same as feasibility. The history of development is replete with examples of well-intentioned administrative controls degenerating into rent seeking. Barriers to movement infringe on both freedom and efficiency. Consequently, not much of a case can be made for explicit barriers to exit (other than those considered a security threat).

Compensation: Taking a Share of the Spoils

The control policies that we would dismiss are outright prohibitions on exit common under totalitarian systems. What about policies that impose financial burdens on exit or continuing financial obligations on emigrants, which also construct a barrier to leaving? Although ethical and practical problems exist here, too, these are *potentially* legitimate responses by poor-country governments insofar as they change incentives

rather than impose outright prohibitions. Their appeal is threefold: they can curb the loss of talent without actually preventing people from leaving; they provide greater freedom in the design of the domestic tax and public sector compensation systems; and they create a fair system, in that when people actually do leave they share their private gains with TRBs to compensate for the investments of public resources.

Fiscal Options

Among the fiscal options that might reap considerable dividends in developing countries are taxation regimes.¹¹ Three such regimes are examined here: the American model, a cooperative regime for tax sharing, and an exit tax on accumulated human capital. Which regime is most desirable depends on implementation capacity, the implications for infringements on freedom of movement, the impact on TRBs, the revenue potential, and the ability to deal with flows of emigrants and pre-existing stocks of previous emigrants abroad.

THE AMERICAN MODEL. Under a tax system along the lines of the American model, the basis of taxation would have to change from residency to citizenship for most countries, and compliance would be required from citizens residing abroad. The American model has several advantages over other alternatives. It is the most comprehensive system for taxing the ongoing labor income of individuals with high human capital that are globally mobile. Given the obvious possibility of liquidity constraints at the time of emigration, ongoing taxation would better match the burden of taxation with the actual income streams of individuals. Moreover, the use of exclusions and credits would allow for those with lower human capital to be effectively exempt from the system. By matching the actual incomes with tax payments and by not creating a barrier at the time of emigration, such a system might also be politically appealing, in contrast to one-time departure taxes. Finally, for countries that already have large stocks of citizens abroad, only the American model offers the potential of tapping into those labor income streams. Effectively enforced, the American model may offer the largest ultimate gains to countries whose immigrants have high human capital.

Arguments against the American model typically center on its enforcement and compliance costs. For developing countries that find

11. This section draws heavily on Desai, Kapur, and McHale (2004). We are indebted to Mihir Desai for his expertise on international taxation issues. Our understanding of the options of such taxation owes a great deal to the analysis and advocacy of Jagdish Bhagwati. See, for example, the papers in Bhagwati and Wilson (1989).

managing an individual tax base *domestically* problematic enough, the thought of enforcing the American model may be unimaginable. While the enforcement and compliance costs of the American model may be higher than for an exit tax, the technology now available to track citizens suggests that these costs may not be as overwhelming as previously thought.¹² Moreover, as American experience indicates, firms are sometimes willing to bear the vast majority of compliance costs under the American model. A similar practice could conceivably evolve with emigrants from developing countries if hiring firms could shield individuals from the tax differences and the compliance costs imposed by such a system. Indeed, many of the multinational firms hiring skilled workers from developing countries are already well versed in the complexities of the American model.¹³

Another problem in applying the American model is that it requires precise estimates of the distribution of earnings for citizens abroad; otherwise revenue might be limited by overly generous exemptions or credits. In addition, since many citizens of rich countries working overseas have the incentive to remain tax compliant because of their intention to return home, the trade-off for developing countries is that their nationals may give up their citizenship if the “price of citizenship” is set too high. According to one estimate of the revenue consequences of instituting the American model in India, even with quite conservative assumptions, India would gain about a half billion dollars annually.¹⁴ This equals about 10 percent of the country’s individual income tax base and a fifth of its tertiary education budget.

A COOPERATIVE REGIME FOR TAX SHARING. Under a cooperative regime, payroll and income taxes paid by a country’s emigrants could be collected by host countries and shared with developing home countries. For example, a share of payroll taxes contributed by temporary migrants to a host country would be returned to the home country via a governmental

12. The GAO (1998, 2000) reviews noncompliance issues for citizens residing abroad and for expatriates. The U.S. experience suggests that compliance problems are much greater for expatriates than for citizens living abroad.

13. On the other hand, smaller firms hiring immigrant and nonimmigrant workers might be less willing to bear the compliance costs. A firm hiring workers from different parts of the world would have to deal with multiple taxing authorities without the informational advantage of having a presence in those countries. Moreover, many of the firms hiring migrants will be small compared with the multinationals that send nationals overseas and thus might have less administrative capacity to deal with complex international tax issues.

14. Desai, Kapur, and McHale (2003).

transfer. Such a regime has the potential to generate considerable and immediate revenue for developing countries. Efficient administration on the part of developed countries would increase its effectiveness. Furthermore, the system would have minimal repercussions on the behavior of the labor flows of developing countries and thus would not impinge on the free movement of labor.

Such a regime would, however, require a web of bilateral treaties or the creation of a multilateral institution to manage these transfers. Moreover, developed countries would have to voluntarily return some of the tax revenue from immigration just when they would be facing tremendous fiscal pressures from an aging population. OECD economies have found it difficult enough to reach an international agreement on how to deal with tax havens, let alone tax-sharing proposals. Two trends, however, suggest that tax sharing may eventually work. First, it is conceivable that increased competition for the world's supply of skilled labor, combined with greater reluctance to allow talented individuals of poor countries to leave without some form of compensation, will induce pairs of countries to enter into bilateral tax-sharing agreements. Second, the preference of industrialized countries for temporary immigrants means that tax-sharing arrangements can serve as an incentive to ensure that migrants return. Even objections to portable pensions may eventually subside, if a proposal by former senator Phil Gramm for Mexican workers in the United States is any indication. The Gramm proposal would allow them to work in the United States on an annual or seasonal basis, with enrollment flexibly adjusted to U.S. economic conditions. Recognizing that "the current 15.3 percent payroll tax paid by illegal aliens and their employers produces no benefits for the illegal workers," the proposal would allow the payroll tax to be used to fund emergency medical care for the temporary migrants and an IRA account owned by the individual worker, which could be withdrawn only when the worker leaves the program and returns to Mexico.¹⁵ The Gramm proposal portends the importance of reconciling the social security needs of temporary migrants from developing countries with the domestic payroll tax provisions of developed countries.

AN EXIT TAX ON ACCUMULATED HUMAN CAPITAL. Current exit taxes on emigration or expatriation are almost all designed to prevent wealthy individuals from escaping capital gains or estate taxation. For developing countries, however, the issue is how to deal with individuals who have high human

15. See www.senate.gov/~gramm/press/guestprogram.html.

capital but may otherwise be liquidity constrained. Nonetheless, an appropriately administered exit tax might usefully raise significant amounts of revenue with a limited administrative burden.

An exit tax on human capital could take several forms. First, and most simply, any emigrant, or possibly the firm hiring that emigrant, could be forced to pay a flat sum to the home country. More complex variations of this mechanism would index that tax payment to some measure of human capital. Exit taxes could be considered the equivalent of headhunter fees and, assuming the deductibility of such payments, would translate into a modest after-tax cost to the hiring firm. Indeed, an analogue to this fee is the filing fees paid by firms sponsoring people for temporary work visas, with the fees used for scholarships for low-income individuals and for workforce training. A potential exit tax paid by a sponsoring firm to the source country would have the same distributional rationale.

Such an exit tax could also be seen as an unacceptable infringement on the freedom of international movement. A politically more palatable alternative would be to replace existing state funding of tertiary education with a system of forgivable loans. The loans would be forgiven on the condition that the individual works in the domestic economy after graduation but would become payable if the individual emigrated. To increase compliance, the issuance and renewal of a passport could be made conditional on loans being in good standing. To increase flexibility, such loans could be indexed to the duration of stay for graduates of institutions of higher learning so that those leaving immediately after graduation would pay the full amount while graduates who spent more time working in their home countries would pay less. Alternatively, more elaborate defeasance schemes could be designed to spur temporary stays abroad and encourage graduates to return, thereby maximizing the gains to the source country of work experience abroad.

While such a conditional exit charge does restrict freedom of movement, advance notice of it when education was initiated would seem to obviate concerns about the restriction of movement. Though politically appealing, a loan forgiveness scheme may be formidable to implement. Tracking individuals for repayment of loans to educational institutions could be extremely cumbersome, and in any case it might be possible to circumvent conditional charges through political connections. In addition, human capital flows often are associated with education and not employment, so taxing them at the initial exit stage could jeopardize a mechanism critical to augmenting human capital. Recent U.S.

experience with student loan defaults suggests that greater effort and increased use of information technology could significantly improve repayment rates and hence that such schemes are not completely quixotic.¹⁶ The experience of Singapore is also instructive in this regard, though few countries have the administrative capacity and political will to replicate its experience.

The legitimacy of policies such as exit taxes or the taxing of foreign income can be established in different ways. Most obviously, foreign earnings may be considered partly a return on human capital that was funded by the source country government. Also, citizenship can be said to provide obligations as well as rights. It is arguably fair to impose tax obligations in return for continuing citizenship—although the strength of that claim depends on the precise rights that the overseas citizen actually has, not least the right to vote in domestic elections.

Putting aside questions of legitimacy and enforceability, is the potential emigrant tax base large enough to be of much practical significance? Clearly, considerable sums can be at stake, as is evident in the case of the Indian-born population residing in the United States. As discussed in chapter 2, this population is very well educated and is top-heavy with high earners. Although it applies to a little more than 2 percent of the tertiary-educated Indian stock and around 0.1 percent of the total Indian population, the total Indian-born income is roughly \$40 billion, or about 10 percent of Indian GDP.¹⁷ This income pool is huge because emigrants to the United States are positively selected (that is, graduates of the best Indian schools are heavily overrepresented), and the dollar income gains (nonpurchasing power parity adjusted) upon emigration are very large. Of course, in salivating about this income pool, one should not forget that these individuals must also pay U.S. taxes. Although they should not be made to bear an unjust burden, it does seem legitimate to ask if the home country is entitled to some share of the spoils, preferably in the context of tax forbearance by the destination-country government and recognized as explicit compensation for past investments or ongoing privileges.

In recognizing that legitimate and enforceable ongoing taxation must be a quid pro quo for privileges granted, one can also entertain the possibility of dual nationality. To retain links with their diasporas, many developing countries have already enacted policies on dual nationality

16. For a discussion of improved performance regarding default rates on federal student loans in the United States, see GAO (2003).

17. This analysis is based on 2000–01 data.

and dual citizenship (the latter allowing for greater political rights compared with the former).

Dual Nationality

In the past, countries were suspicious about dual nationality, on the grounds that this would lead to dual loyalties and conflict of interest. However, for a variety of reasons—the economic advantages, the sheer size of the migration, and the domestic political clout of households and social groups from which the diaspora is drawn—attitudes have changed over the past two decades. Liberal democracies around the globe are beginning to tolerate—though not yet embrace—dual nationality, for example, by not trying to reduce the incidence of dual citizenship through such means as sharing naturalization information.¹⁸ However, immigrants and sending countries are more enthusiastic about the positive benefits of dual nationality than receiving countries are.

The rights and requirements of dual nationality vary across countries, although in general dual nationality does not necessarily entail access to all the rights and benefits of national citizenship (such as voting). Dual nationality regimes may be classified as open, tolerant, or restrictive. Open regimes (such as those of Canada, France, and the United Kingdom) follow *jus soli*—citizenship by place of birth—which confers dual nationality on children born in their territory whose parents are noncitizens. These systems do not require selection of one nationality; citizens may naturalize elsewhere without forfeiting citizenship, and naturalizing citizens do not renounce prior citizenships. Tolerant regimes also follow *jus soli*, permitting dual nationality at birth, with some but not all the characteristics of open regimes. Examples include Australia, Germany, Israel, Mexico, South Africa, and the United States. Restrictive regimes, on the other hand, follow *jus sanguinis*, wherein a person's citizenship is determined by that of his or her parents (that is, by blood ties), which limits the possibilities for dual nationality. These countries, including Austria and Japan, are quite strict about requirements and limitations of nationality.

There is as yet little systematic evidence on the implications of dual nationality for immigrants or for sending and receiving countries. Immigrants generally support their country of origin's recognition of dual nationality—it has an “option value” for them. Dual nationality makes

18. As of 2001, dual nationality was fully recognized by 27 percent of countries (of 159 countries for which data were available) and recognized under special circumstances by another 42 percent, while the remaining 31 percent of countries did not recognize it (Bertocchi and Strozzi, 2004).

it easier to remain in their new countries of residence and exercise political rights, while forfeiting little from their status in their home country. Indeed, by having rights in multiple jurisdictions but obligations in one, be it taxes or military service, dual nationality can make it possible for international migrants to have their cake and eat it too.

Sending countries have come around to viewing dual nationality in a positive light, believing that it helps foster ties between expatriates and countries of origin. These stronger ties, they hope, will pay off in terms of current remittances and future investments. Dual nationality also allows nationals to mobilize as a lobbying group in receiving countries around issues of concern to the sending country. If granted voting rights, it can imply representation without taxation, giving expatriates leverage in domestic politics without any *de jure* obligations. Receiving countries are understandably more suspicious of dual nationality, fearing it may undermine national sovereignty and singular loyalty. Regardless of these concerns, most countries are becoming less intolerant of dual nationality, and many allow citizens to passively retain citizenship rights in another country even if that country does not recognize, or is indifferent to, the new attachment.

Latin America clearly exemplifies the global movement toward acceptance of dual nationality. The acceleration of interest in dual nationality in the region had been instigated in part by country-of-origin governments (top-down) and in part by pressure from their overseas migrant communities (bottom-up). Dual nationality has existed for a while in El Salvador, Panama, Peru, and Uruguay, put into place through top-down policy changes. This has also been the case more recently in Brazil and Costa Rica. On the other hand, pressures from expatriate communities contributed to policy shifts in Colombia, the Dominican Republic, Ecuador, and Mexico. Three factors explain this policy shift: the sheer growth in the size of migrant communities abroad; the concomitant massive increase in remittance inflows (see chapter 8), along with recurrent balance of payments problems in the region (money does talk); and a shift in the attitude of the United States (where many of the migrants have concentrated), which has taken a “Don’t ask, don’t tell” policy stance that has made it easier for migrants to avoid binary choices.

The increasing political salience of dual nationality in domestic politics is clearly evident in the Dominican Republic. This Caribbean nation of about 8.5 million people has more than a million migrants in the United States, concentrated in New York and Miami. If born in the Dominican Republic, they retain dual citizenship and can vote in

Dominican elections. Before 2004, Dominicans could only vote within the country. This meant that only the wealthy expatriates who could afford to send money back to fund campaigns or fly home to vote could effectively take part in the political process. In 2004 the Dominican Republic introduced “remote voting,” allowing Dominicans to vote overseas in “booths” in select restaurants, salons, even taxi companies. Now, citizens are simply required to bring their “cédula”—a photo ID issued in the Dominican Republic—to the “local” voting booths on election day, where their votes will be e-mailed back to the island. With the advent of remote voting, dual nationality has taken on a more significant role and is likely to encourage expatriates to maintain closer and more lasting ties with homeland politics.

Like developing countries, industrialized nations have begun constructing more expansive citizenship laws, in their case to address economic problems associated with demographic pressures. To this end, some have adopted a more liberal interpretation of *jus soli*. In January 2003, Spain, for example, approved a new law that allows Spanish women to claim citizenship for children over 21 years old born out of Spain and allows foreigners with Spanish relatives to apply to live in Spain without having a work visa. As a result, over a million foreigners, primarily in Latin America, are expected to apply to migrate to Spain, including 400,000 from Argentina.

Creating (and Retaining) Human Capital

It is far more important to try to address the reasons why talent leaves—be it a mismatch between supply and demand, a lengthy recruitment process to find a job, poor working conditions, low salaries, poor quality of life, or a lack of confidence in the country’s future. In many developing countries, abject political management, which leads to the deep economic crises that spark an exodus of already scarce talent, is not uncommon. Countries such as Haiti or Zimbabwe epitomize this phenomenon.

As talent becomes more globally mobile, its bargaining power increases. Developing countries have little choice but to adapt to this reality. It would be easy to argue that simply stark differences in salaries and standards of living are what drive human capital to developed countries. Although certainly an important factor, this is but one of many. Weaknesses in higher education are critical too, especially because they affect the quality of training of future generations in these countries.

Most developing countries have put little effort into reforming higher education, which continues to be plagued by misguided attempts at

equity, poor administration, and bureaucratization. Quantitative inputs are used to monitor education systems, with little more than lip service being paid to the quality of output. Substantial amounts of money are wasted on unviable institutions, while those that were once well run have atrophied. The lack of institutional autonomy and poor academic governance makes it difficult for higher education to attract talent, especially if that talent has other alternatives. As individuals at the upper end of human capital distribution leave, the quality of the remaining pool declines even further. This not only prompts the more talented to consider leaving but also discourages those who left earlier from returning, ensuring that mediocrity will become entrenched in these institutions.

It is not only salaries but also the environment that needs drastic change to instill the idea that performance rather than process matters, that appointments should be depoliticized, that higher education is a privilege rather than a right, and that institutions should adapt and change to reflect newer challenges. Although the scarcity of resources is an undoubted constraint, more flexible rules, access to modest research resources, and a work environment that encourages innovative practices and research—all within the capacity of many middle-income developing countries—could achieve much. What often stands in the way is the domestic political economy. A country like Pakistan, in which former army officers run universities, is unlikely to create an environment conducive to this kind of innovation.

The problems in higher education have been exacerbated by the analyses and actions of the international development community. Education expenditures were skewed in favor of higher education, and because elites were more likely to be enrolled in degree programs, this funding was rightly viewed as a regressive income transfer. However, and wrongly in our view, this was also seen as the reason for diverting much-needed resources for primary and secondary education for the masses. As resources for higher education were cut back, and costs rose even as quality deteriorated, elites began sending their children abroad. The exit of elites from higher education undoubtedly renders subsidies less regressive, but it also mutes the voice of those who had the power to pressurize the system and demand quality. The public cost savings have been much less than the substantially higher private expenditures abroad. Before jumping to the conclusion that there is a distinction between private and public sector expenditures, one must recognize that paying large amounts for the education of children is an easy way to launder ill-gotten wealth.

Higher education has seen the most limited reforms in most countries, reflecting the strength of entrenched interests in this sector. Fiscal pressures and growing demand-supply imbalances have led to an enormous growth in private sector higher education, more by default than by design. Even as countries rail against privatization and refuse to raise tuition in public institutions, mediocre commercial educational institutions have sprung up to meet pent-up demand. This has created a new set of problems, in that the latter often consist of little more than profit-maximizing operations, rather than institutions that can serve the public good and enhance public welfare.

Developing countries also inflict self-imposed costs by treating skilled workers coming in more strictly than developed countries do. Countries in East Africa, for instance, threw out talented ethnic minorities in the 1960s. Even as they wring their hands at the cost of producing a medical graduate, many developing countries do everything to block the entry of skilled immigrants who may want to work, on the grounds that they will take away local jobs. Instead of seeing skilled labor as a complementary input, they view it as a substitute. Prompted by a false sense of nationalism, many developing countries refuse to recognize foreign degrees of countries that do not engage in a reciprocal recognition. This is especially true for disciplines such as law, medicine, and accounting. There can be no doubt that a severe imbalance exists in the supply and demand of talented people wanting to work in developed countries compared with those wanting to work in developing countries. Developing countries, in particular, have to realize that skills are a global commodity, and wealthy countries will do whatever is necessary to maintain their national interests. Some countries insist that companies train local staff as the price for bringing in a skilled immigrant. This works in some cases, but in others, the skills required include advanced education and experience rather than a few months of in-house training. Of course, expatriate staff is much more expensive than locals are—and a competitive environment will do much more to persuade firms to hire locals than policies with domestic content.

However, programs to retain talent must be designed in such a way as to prevent the distortion of incentives among a country's citizens. For instance, Romania offers tax cuts for information technology (IT) workers who want to stay. But using tax incentives can sometimes backfire. This policy has had negative side effects, in that some engineers have reclassified themselves as IT workers, and as a consequence tensions have arisen between IT workers and other members of the workforce.

Connection: Staying in Touch

Until recently countries with substantial emigration rarely embraced their diasporas, owing to complex feelings of shame for not having provided better opportunities at home, irritation at seeing emigrants take the easy way out, and even envy of the emigrants' success. As we stressed in chapters 7 and 8, however, more and more countries are treating a diaspora as an economic asset. After all, it is a source of trade, investment, and remittances and is a facilitator of international business. It is also an incubator of potential returnee talent. Developing-country governments are attempting to leverage this asset.

In principle, it is possible to mobilize expatriates so that they can be better connected to the development of their country. Although expatriate specialists have always had some links with their countries of origin, the explosion in communication technologies has made it possible for multiple and dense links to develop, particularly among migrants of recent vintage. These diasporic networks are likely to be more successful when they link up with other forms of professional collaboration and knowledge transfer to developing countries. Although many such international networks focus on various technical areas, interest in diaspora networks linking expatriate specialists with their home countries is increasing.¹⁹ The goals are broadly similar: connect members of the diaspora with each other and with their country of origin; promote the exchange of skills and knowledge through joint developmental projects with government agencies, businesses, and nongovernmental organizations in their countries of origin. As yet, however, these networks appear to be playing little more than a modest role.

International organizations have created programs to facilitate the return of expatriate talent. The UNDP's TOKTEN program (Transfer of Knowledge through Expatriate Nationals) is one such example, but it is limited in scope, and its effects are modest. In other cases, international organizations have sought to promote the return of qualified talent in states rebuilding after a collapse, by providing travel and living allowances and supplemental pay to persuade nationals of a country to return to assist development. A UNDP program for identifying skilled Somalis abroad for short missions in Somalia, and one by the International Organization for Migration (IOM) to help expatriate human

19. Examples include the Worldwide Indian Network (India), the Global Korean Network (South Korea), Brain Gain Network (Philippines), the Reverse Brain Drain Project (Thailand), and many others. See Meyer, Kaplan, and Charum (2001).

capital from Afghanistan to return, are examples in this regard. This is one area where the international community can do much more by way of financial and logistical support.

In general, return programs have proved to be expensive and difficult to implement, and few have succeeded in encouraging large-scale or sustained return of the highly skilled in particular. National programs work only in rare cases where the state itself has well-developed capabilities, which for the most part are confined to a few middle-income countries. However, they are unlikely to see a significant flight of human capital to begin with. Countries like China, South Korea, and Taiwan may have successful programs, but they will not work in source countries whose science and technology capabilities are not developed enough. Financial incentives are not the most important, or at least not the only factor that influences the migrant's decision to return. Return policies will be ineffective unless source countries are simultaneously assisted in developing and raising their scientific capabilities and favorable economic and political conditions.

International Cooperation

As global trade in services increases, the liberalization of the “temporary movement of individual service suppliers” being currently negotiated under the General Agreement on Trade in Services (GATS) will become more important. How is such liberalization best accomplished, in a way that benefits both home and host countries? Negotiations on this so-called Mode 4 of supplying services were launched during the Uruguay Round but have not proceeded far beyond facilitating exploratory business visits and the movement of high-level personnel within multinational firms.²⁰ Developing countries have pressed for more international movement of workers unrelated to commercial presence (tied in with foreign direct investment [FDI]), while many multinational firms would like greater ease in the transnational movement of their personnel.

20. Mode 1 is “cross-border supply,” which is analogous to trade in goods; Mode 2 is “consumption abroad,” as in the case of tourism or study abroad; and Mode 3 is “commercial presence,” as in the supply of a service through a subsidiary or branch in another country. The Annex on Movement of Natural Persons Supplying Services under the GATS Agreement covers two categories of natural persons—Mode 4: those who are “service suppliers of a Member,” that is, self-employed individuals who obtain their remuneration directly from customers, and those affecting natural persons of a member who are “employed by a service supplier of a Member in respect of the supply of a service.”

Domestic regulations pertaining to technical standards and qualification requirements may imply additional costs for foreign services or service suppliers. Whether this is a form of protection or simply necessary to ensure a desired quality of the service is a thorny issue, however, and GATS does not appear to provide an unambiguous framework for resolving it. Perhaps, as some have suggested, one needs to distinguish between the universal (fixed) component of professional standards, which is identical between countries, and country-specific training (the variable component).²¹ In fields like management and engineering, the former takes priority, whereas in accounting and law, the latter does. To address the problem of asymmetric information about foreign suppliers' abilities, the least costly and least arbitrary optimal instrument is a test of competence, similar to ones administered to domestic residents.

While global goods trade has seen a sharp decline in quotas, they continue to be pervasive in services. They are not inconsistent with GATS unless a member has undertaken not to use them. Furthermore, quotas under GATS restrict not only the quantity or value of services output but also the number of (foreign) service suppliers. Numerous barriers constrain the movement of individuals. The most obvious are explicit prohibitions or tight visa quotas on foreign service providers. There are various forms of economic needs tests—such as requirements that employers take steps to recruit and retain sufficient national workers before they can employ foreigners. Compounding the problem are the many formalities (for example, in obtaining a visa) that make the red tape related to FDI seem trivial by comparison. Finally, the entry of foreigners is impeded by a refusal to recognize their professional qualifications, by burdensome licensing requirements, and by the imposition of discriminatory standards. There are interesting parallels with developing-country policies in manufacturing, which long imposed local content requirements. Although developing countries have basically discarded these after years of pressure by developed countries, similar policies are becoming more prevalent in developed countries, though they are now concentrated in the services sector.²²

Countries issue basically two types of visas: work visas for long-term stays and business visas for short-term business-related travel. There is, however, no sharp distinction between the two that would allow short-term business visits that are also related to work, such as support for a

21. Mattoo (1999).

22. This discussion draws heavily on Mattoo (2003).

software product. More important, delays in granting visas are the equivalent of nontariff barriers (NTBs), just as inspection delays (by the receiving country) can be lethal to the export of perishable goods. Delays in issuing visas are also very costly to the supplier firm. In today's business environment, suppliers who cannot service their product at short notice are unlikely to retain the customer. Either the supplier gets the work visas, which takes time, or runs into country quotas and then tries to find ways to cut corners, perhaps by stocking up on work visas or arranging intracompany transfers with the personnel located in the client company's offices. Although little research has been done on the tariff equivalent of NTBs in issuing visas for service sector professionals, it stands to reason that this barrier must be addressed in any future negotiations, particularly those involving Mode 4.

Considering the current stalemate in negotiations, however, this is unlikely to occur at the multilateral level. One is likely to see more movement at the bilateral level, where source and destination countries have already agreed on a large number of cooperative arrangements for managing circulation. Bilateral labor recruitment agreements are the most common. Spain, for instance, entered into such agreements with Romania, Poland, Ecuador, Morocco, and Bulgaria in 2004. The foreign workers participate in Spanish social security and health systems on the same basis as domestic workers. Portugal has a similar arrangement with Ukraine, thus allowing an estimated 200,000 unauthorized Ukrainians to become legal seasonal workers. The United States has been adding a sweetener of temporary skilled visa set-asides as part of its bilateral free trade agreements. As part of its free trade agreements with Chile and Singapore, the United States has aside nearly 7,000 H1-B visas for the two countries.

Multilateral agreements at the regional level appear to be most liberal among countries that enjoy geographic proximity and similar levels of development (such as the members of the European Union, European Free Trade Association, European Economic Area, or Trans-Tasman Travel Arrangement). Less liberal are agreements among countries that are geographically close but differ substantially in their incomes (such as those in the North American Free Trade Agreement). Least liberal are those whose members are geographically distant and at differing levels of development (as in Asia-Pacific Economic Cooperation and U.S.-Jordan). The Regional Migration Conference (referred to as the Puebla Group) that encompasses all of the governments of North and Central America and the Dominican Republic is a possible model for

future collaboration among source, transit, and destination countries. Another important example is the French government's program of "co-development" linking cooperation in managing migration with enhanced development aid, which makes use of the diaspora communities in France. In addition, the Philippines and eight other Asian labor exporters—Bangladesh, India, Pakistan, Nepal, Sri Lanka, Indonesia, Thailand, and China—plan an organization aimed at reducing the cost of exporting workers. Another example is the Caribbean Single Market and Economy agreement of the Caribbean Community (CARICOM), which allows persons with a bachelor's or higher degree to move freely among member countries; there is a push to extend freedom of movement rights to all CARICOM nationals.²³

The European Union is well versed in the problems of arriving at a common migration policy—it had an easier time adopting a common currency. In the end, it agreed on a two-track approach: first, establish a basic framework that sets out minimum standards in areas such as the treatment of asylum seekers; second, agree on common enforcement policies, particularly those surrounding visa issuance. By all accounts, it has been more successful in harmonizing asylum policies than migration policies. Its efforts continue, nonetheless, most recently in examining the link between its migration policies and its relations with developing countries. One option being considered is whether to offer more temporary work permits as an incentive to get countries to take back their illegal migrants. Another is whether to offer extra aid outside the normal development programs to reward cooperating countries. In June 2002 EU leaders meeting in Seville threatened to impose sanctions against "uncooperative countries in the fight against illegal immigration," but because French and Swedish leaders objected to this approach, a strategy to use work permits and increased aid as incentives has emerged instead.

Institutionalizing International Cooperation on Migration

Although the global community has institutionalized international cooperation on international capital flows and trade through the Bretton Woods institutions and the World Trade Organization (WTO), respectively, there is no comparable body to comprehensively address the wide

23. The 15 CARICOM member states are Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

range of issues surrounding international migration. Some of the major questions are how to protect the rights of migrants, how to stem international trafficking in women and children, and how to deal with labor mobility, human capital flows and the brain drain, refugee crises, asylum seekers, and law enforcement. These issues constitute “the last remaining gap in the institutional architecture that covers our interdependent world,” perhaps reflecting the very different powers of capital and labor.²⁴

There are few multilateral treaties on the subject, and even these are widely ignored. In 1990 the United Nations passed the International Convention on the Protection of the Rights of All Migrant Workers and Their Families, 11 years after it established a working group on the subject. By 2004 just 26 countries had ratified it, only one of which was from the OECD (Mexico). This is hardly surprising. A much older labor convention to protect migrants, the International Labor Organization (ILO) Convention adopted in 1947, is hardly enforced. That convention covered registered or legal workers while the 1990 UN convention established an even higher standard of migrants’ rights and extended it to include undocumented migrants.

A plethora of agencies and conventions deal with different aspects of migration. The principal one, the IOM, was originally set up in 1951 to resettle the massive number of refugees in Europe after World War II. Although partly an intergovernmental body with 105 member states (as of June 2004), the IOM is neither a treaty organization nor a part of the UN system. Other international organizations include the UN High Commissioner for Refugees, which deals with forced migrants; the ILO, which is charged with protecting workers’ rights; and the WTO, which under Mode 4 of GATS addresses issues related to temporary migration of professional workers.

Jagdish Bhagwati has forcefully argued for the creation of a treaty-defined World Migration Organization (WMO), similar to the WTO.²⁵ Rather than specify rules for member countries, the proposed WMO would mainly provide information of interest to the migrants’ host and source countries, the migrants themselves, and civil society. Over time, these norms would evolve into ratified conventions. The new organization would also periodically review the migration policies of member

24. Bhagwati (2003).

25. Jagdish Bhagwati, “The World Needs a New Body to Monitor Migration,” *Financial Times*, October 24, 2003, p. 24.

countries and push them to improve their practices, just as the WTO uses its trade policy review mechanism to influence member countries' trade policies. With global migration on the verge of transforming the international landscape, such an organization is needed now more than ever.

Concluding Thoughts

In the next half century the bulk of migration will take place within developing countries themselves, and the most notable will be rural-to-urban movements in the giants—China and India. The second largest migration flows will occur internationally, among developing countries, thus continuing the trend of recent years. And a considerable part of migration from the South to the North will be undertaken by semi-skilled labor. The last is likely to result in the largest total income gains, even if the movements of labor are modest.²⁶

Given these empirical realities, the welfare of many migrants, both intra- and international, will require the attention of policymakers the world over, irrespective of the specific circumstances—income gaps, ethnic cleansing, economic instability, or human trafficking—that provoked their departure from their country of origin. Nonetheless, that small part of migration that is the focus of this book, namely skilled migration from developing to developed countries, will have a significant impact on sending countries for the many reasons that have been discussed in previous chapters. As we have argued, the implications are complex and defy any simple-minded, facile bottom lines.

The human dilemmas can be poignant. To return to the Jamaican woman who becomes a nanny in New York, she will have left her own children behind to take care of a stranger's family. Though her children will enjoy higher consumption because of remittances from their overseas resident mother, they will grow up without her physical presence. How does one weigh the long-term impact on children who have higher levels of material consumption but are being raised in the absence of their mother?

The movement of global sports talent epitomizes the analytical complexities that accompany an exodus of talent. Japan's most popular

26. For example, Winters (2003) estimates that an increase in developed countries' quotas on the inward movements of both skilled and unskilled temporary workers equivalent to 3 percent of their workforce would generate an estimated increase in world welfare of more than \$US150 billion a year. Both developed and developing countries share in these gains, and they are largest if both low-skilled and high-skilled mobility is permitted.

sport, baseball, has lost thousands of ticket-buying fans and TV viewers in recent years “as the sport’s dazzle is diminished by the defection of home-grown stars to the U.S. Major Leagues.”²⁷ With Africa’s best soccer talent migrating to European soccer leagues, fans prefer to watch them on TV rather than attend games of African soccer leagues, thus producing negative consequences for the latter. On the other hand, playing in the world’s most competitive leagues (abroad) raises the quality of African soccer talent, thereby helping African national teams do much better in interstate competition.

The preceding chapters have dealt with the forces behind and the extent of international human capital flows. The range of development-related consequences merit even closer attention, especially in view of the changing attitude toward the migration of human capital from developing countries. While in earlier years this migration was viewed with alarm, the sentiment has become much more sanguine in recent years. As mentioned at the outset, this is typical of development thinking, which tends to swing from one extreme to another. We would urge a more moderate view, based on five important features of such migration.

1. International migration is poorly understood in comparison with other forms of international social and economic integration. It is impossible to arrive at a simple judgment about the desirability of talent flows from poor to rich nations. Sometimes the flows are beneficial. On balance, the Indian software industry benefited from the migration of Indian IT personnel abroad. At other times, the results are deleterious. It would be hard to deny that the exodus of Ghanaian doctors has had adverse health care consequences for those remaining behind.

2. When human capital exits at a high rate, this is invariably a signal of deep and significant problems in a country. In such cases, tackling the brain drain would simply be treating the symptoms of the problem rather than its root causes.

3. The idea that the migration of a significant fraction of a country’s best and brightest is not particularly harmful and may even be beneficial to the country is simply unwarranted. As we have shown, although the effects are undoubtedly complex, the fundamental reality is that countries need talent to ensure innovation, build institutions, and implement programs—the key pillars of long-term development. The example of the Philippines is instructive. No other country has made the export of human capital such a fundamental part of its development strategy. The

27. Jagdish Bhagwati, “Strike Three,” *Financial Times*, July 7, 2004, p. 12.

Philippines has not done badly, and Filipinos in general (including those within and outside the country) have done better than the country itself. Yet the performance of the Philippine economy pales by comparison with that of its East Asian counterparts, and this is unlikely to change in the foreseeable future.

4. The checkered history of foreign aid clearly illustrates the severe limitations of what outsiders can do. To the extent that the problems of a country are endogenous, the solutions are also likely to lie largely within. Like foreign aid, diasporas can facilitate (and sometimes harm) development, but they cannot by themselves fundamentally improve the development prospects of a country.

5. The maximum advantages of international human capital flows accrue to receiving countries and to those sending countries in which the flows are a relatively modest fraction of the stock. For receiving countries, studies that try to capture the effects through changes in the labor market fundamentally miss the point. Modern growth is about innovation. The fact that more than half of the science and technology Ph.D.s in the United States are foreign-born has significant implications for innovation in this country, and hence for long-term productivity and growth. And it is here, rather than in labor market effects, that the long-term gains and losses of human capital flows are probably most manifest. For sending countries, the positive impacts have focused on financial remittances. This again (as with earlier growth models) may be missing a more important point. The flows of ideas and business networks that are critical for economic dynamism and institutional change are likely to have the more significant long-term consequences. Although financial remittances are certainly playing an important role in augmenting scarce resources for poor households as well as countries, it would be a singular mistake to believe that they can address the development problems of poor countries.

We hope our analysis of international skilled migration will move policy discussions in constructive directions. If rich countries are to live up to their promise to be development-sensitive in their actions, they cannot avoid paying attention to the effects of their immigrant selection policies on developing countries. This need not mean that talented individuals must be denied emigration possibilities, rather that different mechanisms should be developed to help poor countries share in the considerable global gains that often attend such movements. To name a few, policies could entertain fiscal sharing, be more sensitive in targeting scarce skills, and encourage eventual return. Poorer countries also need

to accept the loss of their talent as a wake-up call. Most important, they must remedy the institutional breakdowns that drive their scarcest resource away. The tragedy is that these are the very people often needed for institutional transformation. But even from a distance, the absent talents of the diaspora serve as a valuable economic asset when not thwarted by suspicious home-country governments.

With large income gaps across countries likely to persist over the foreseeable future, the international human capital dynamics discussed in this book will be a major development issue in the decades ahead. Although predictions are perilous, flows of talent from poor to rich countries are more likely to increase than decrease, as the rich-country demand for talent appears more powerful than any possible reduction in poor-country supply from the narrowing of income gaps. Our modest hope is that the issues raised here will help push this neglected phenomenon onto the development agenda.