

Criss-Crossing Migration

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Abstract

The current perspective on the flow of people is almost exclusively focused on permanent migration from poorer to richer countries and on immigration policies in industrial countries. But international mobility of people should no longer be seen as a one-time event or one-way flow from South to North. The economic crisis has accentuated the longer-term shift in location incentives for people in industrial countries. As consumers, they could obtain better and cheaper access to key services—such as care for the elderly, health, and education—whose costs at home are projected to increase in the future, threatening standards of living. As workers, they could benefit from new opportunities created by the shift in economic dynamism from

industrial to emerging countries. But subtle incentives to stay at home, such as lack of portability of health insurance and non-recognition of qualifications obtained abroad, inhibit North-South mobility and need to be addressed. Furthermore, if beneficiaries of movement abroad exert countervailing power against those who support immigration barriers at home, then that could lead to greater inflows of people, boosting innovation and growth in the North. Eventually, growing two-way flows of people could create the possibility of a grand bargain to reduce impediments to the movement of people at every stage in all countries and help realize the full benefits of globalization.

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I. Introduction

The current perspective on labor flows is almost exclusively focused on immigration policies in the industrial world, and for the most part on the pressure of unskilled, and often illegal, immigration from poorer countries to richer ones. The current debate in the United States on immigration reform is a perfect example of this uni-directional view.¹ This perspective needs to cede to a broader one that challenges the basic conception of physical rootedness in industrial countries at every stage of the cradle-to-crematorium life-cycle—education, work, retirement, and perhaps even death. Accordingly, mobility should no longer be seen as a one-time event or one-way flow from South to North. We may need to address impediments to the movement of people at every stage in all countries—and not just immigration policy in the industrial world—so as to reap the full benefits of globalization.

Flows from poor to rich countries will remain significant in the foreseeable future. But in rich countries, there has been over time a shift in locational incentives because rapid economic growth in the emerging markets has made them increasingly attractive destinations to work and live. Accentuating this shift has been the recent financial crises which has depressed the economic situation and prospects of people in industrial countries across the age spectrum: retirees confront a drastic reduction in pension incomes; the infirm have to contend with rising health care costs; high unemployment, especially amongst the young, appears to be a structural problem; and reduced access to educational opportunities and greater indebtedness looms for students.

So whereas in the past only the intrepid few would head South, we are beginning to see movement of people across the age spectrum from the economically depressed North to the developing but dynamic South. British patients are traveling to Thailand for treatment. American retirees are moving to parts of Latin America, and elderly Japanese to the Philippines. American students are enrolled in medical schools in the Caribbean. Unemployed Portuguese teachers are seeking job opportunities in Brazil and Angola.

Is this—the outflow of people—a trend to be resisted or reversed by the industrial countries – or an opportunity to be embraced? We argue the latter for several reasons. First, this new form of globalization will increase the size of the economic pie for industrial country citizens. As consumers, they will obtain greater and cheaper access to key services—such as health and education—whose costs are projected to rise in the future, threatening standards of living and undermining fiscal sustainability.

¹ The inflow-centric view is evident from the recent bill introduced by a bipartisan group of US senators, entitled the Border Security, Economic Opportunity and Immigration Modernization Act of 2013 (S-744). The bill seeks to overhaul immigration laws (to facilitate greater inflows of skilled foreigners) and provide a path to legal status for an estimated 11 million people who overstayed their visas or illegally entered the United States. In parallel, the bill seeks to tighten border security, toughen penalties against American employers who hire undocumented workers, and increase visas for foreign workers.

Even though more and more services can now be delivered electronically, many still require face-to-face contact. However, the idea that people will consume health, education and old age care in one country, has been surprisingly resilient to the transforming gales of globalization. The production of everything from an iPod to an architectural design has been fragmented across borders, but not the provision of these personal consumption services. As in the case of goods and electronically delivered services, some of these personal services also have a standardized component and a more sophisticated, customized component. Developing countries with their relatively cheap labor have a comparative advantage in the former and industrial countries with their skills and technology would specialize in the latter. The result could be large gains, in terms of cost savings and greater variety.

The second benefit of outward mobility is that industrial country citizens can take advantage of new work opportunities created by the shift in economic dynamism towards emerging countries. The shift, under way for some time, has been accentuated by the economic crises in the United States and Europe. Even though average wages are still much lower in emerging countries, the rewards in certain professions are comparably high or even higher because domestic skill production has not kept pace with domestic needs.

Finally, if outflows of people have, and are seen to have, a positive impact, they can in turn facilitate inflows of people. Such inflows, especially of the skilled, could help boost innovation and growth in Europe and the United States but have been impeded by political opposition. Just as in trade liberalization, where exporters are a countervailing force to domestic firms seeking protectionism, so too the beneficiaries of movement abroad—retirees, elderly, students and even some categories of workers—can exert countervailing power against those who support immigration barriers. The argument would be that reducing barriers to immigration at home is the political price to be paid to prevent the erection of barriers in the South as the growing presence of foreign workers, students and patients provokes a backlash there.

We do not underestimate the political opposition in industrial countries even though they would gain from both the outflow and inflow of people through cheaper consumption and better work opportunities abroad and increased income at home. But there is an important difference with the political economy of trade policy that may provide some basis for optimism. Traditional trade with developing countries expanded the economic pie but distributed the gains unequally, toward the skilled and away from the unskilled. The two-way flows we envisage would, in contrast, have a positive rather than debilitating effect on income distribution because this time it would expose the skilled—for example doctors and lawyers and other cossetted groups—to international competition. Contending with opposition from the privileged may today be a less insurmountable obstacle to realizing significant benefits for Europe and America.

Two-ways flows of people might provide the boost the world needs, creating the possibility for the first time of a grand bargain in which the poor world makes the following offer to the rich

world: “Give us your old, infirm, and unemployed and in return take our young, poor, and even highly talented.” The assault on globalization’s last holdout might finally be within reach.

In Section II, we spell out the relatively novel case for greater rich-to-poor mobility, and in Section III we restate the powerful case for greater poor-to-rich mobility. In Section IV we identify the policy changes needed to facilitate criss-crossing globalization. Section V lays out the elements of the proposed grand bargain.

II. How Would Rich-to-Poor Mobility Help?

The reduction in income, wealth, and opportunities across the age spectrum is now a long-term reality. Industrial countries are responding to these developments in two ways. First, there is a search for raising long term growth which is perhaps the only way of a sustained improvement in the economic situation of the entire population. But achieving this will not be easy.²

The second response has been increasingly incompatible claims by different interest, even age, groups for a larger share of the national economic pie. In the United States, the call for cuts in government expenditure as a way of controlling the fiscal situation will affect retirees, the infirm as well as students. As the population ages, democracies are going to reflect to a greater extent the will of the elderly, and it is possible that they will seek to preserve their situation at the expense of the young. The cut backs in government spending on education in the UK and increases in student fees reflect to some extent this shift in political power.³

Industrial countries have not fully appreciated a third way of responding to this economic crisis: increased flows of people across the age spectrum to the economically more dynamic parts of the world. As we discuss below, such flows could enhance consumption possibilities for students, the elderly and the infirm, and offer work opportunities for the skilled unemployed.

Retirees

The unfunded pension liabilities of the state and local governments in the United States are estimated to range between 0.7 trillion and \$4.6 trillion, depending on how assets and liabilities are valued (Congressional Budget Office, 2011; Biggs, 2012). Average inflation-adjusted household wealth has remained stagnant since 2004 according to calculations of the St. Louis

² See, for example, Gordon (2012).

³ See, for example, Martin Wolf, “Why the world’s youth is in a revolting state of mind,” Financial Times, February, 18, 2011(available at: <http://www.ft.com/intl/cms/s/0/6577ca92-3b94-11e0-a96d-00144feabdc0.html>).

Federal Reserve, suggesting that median wealth has declined.⁴ Hence, the prospects of current and future retirees are clearly much diminished.

We know that one dollar will buy three times as much in Thailand and twice as much in Costa Rica as it does in the United States.⁵ Retirees could maintain their standard of living by relocating to places with a lower cost of living. In 2011, there were about 567,000 beneficiaries living abroad, of whom 350,000 were retired American workers or about 1 percent of American retirees (US Social Security Administration, 2012, Table 5.J2).⁶ A quarter of retirees live in developing countries (Table 5.J11). Between 2008 and 2010, 35 percent of new overseas American retirees headed for the developing world—double the flows over the preceding 7 years. According to US Census Bureau projections, by 2020, the number of people above age 60 will increase by about 22 million and by a further 14 million by 2030. If the fraction of those choosing to live overseas increases to say 2 percent by 2020 and 3 percent by 2030, about 2.5-3 million US retirees could be living abroad within two decades.

Infirm

The rising costs of healthcare in the United States imply that if current levels of access to health care are maintained, spending on the major federal health care programs alone would grow from more than 5 percent of GDP today to almost 10 percent in 2037.⁷

Since healthcare of comparable quality is much cheaper in other countries, treatment abroad could yield big savings. For example, inpatient knee surgery, roughly 400,000 of which were performed in 2010 in the United States, costs more than \$15,000 in a typical community hospital (Centers for Disease Control and Prevention, 2012, Table 132). Even if only one in ten patients who need one of fifteen highly standardized, tradable, low-risk treatments, such as tonsillectomy or cataract extraction, went abroad, the annual savings for the United States would be \$1.4 billion (Table 1). An assessment by Steve Brill in Time Magazine with more recent data confirms the large potential savings.⁸

Some gains from trade are already being realized. In 2003, the latest year for which data is available, more than 350,000 patients traveled to Cuba, India, Jordan, and Southeast Asia to seek care. A sizable number were patients from industrialized countries, traveling to a growing

⁴ St. Louis Federal Reserve, Annual Report (2012), p.14. (available at: http://www.stlouisfed.org/publications/ar/2012/PDFs/ar12_complete.pdf).

⁵ Savings arise because rents in San Jose, Costa Rica, are 57 percent lower than in Philadelphia while consumer prices in Chiang Mai, Thailand, are 59% lower than in Boston (<http://knowledge.wharton.upenn.edu/article.cfm?articleid=3051>).

⁶ Others living abroad included disabled workers, widow(er)s and parents, wives and husbands, and children.

⁷ See the CBO's November 2012 projections (available at: http://www.cbo.gov/sites/default/files/cbofiles/attachments/11-30-2012-OECD_Presentation.pdf),

⁸ <http://www.time.com/time/magazine/article/0,9171,2136864,00.html>

Table 1: Estimating the gains from trade in health services for the US (Source: Mattoo and Rathindran, 2008)

<i>Procedure</i>	<i>US inpatient price (\$)</i>	<i>US inpatient volume</i>	<i>US outpatient price (\$)</i>	<i>Estimated US outpatient volume</i>	<i>Foreign price including travel cost (\$)</i>	<i>Savings if 10% of US patients undergo surgery abroad instead of in the US (\$)</i>
Knee surgery	10,335	399,139	4,142	60,000	1321	376,698,470
Shoulder Arthroplasty	5,940	23,300	7,931	N/a	2217	8,674,829
TURP	4,127	111,936	3,303	88,064	2413	27,029,437
Tubal Ligation	5,663	78,771	3,442	621,229	1280	168,834,441
Hernia Repair	4,753	40,553	3,450	759,447	1651	149,254,906
Skin lesion excision	6,240	21,257	1,696	1,588,884	805	153,078,349
Adult Tonsillectomy	3,398	17,251	1,931	102,749	1006	13,641,759
Hysterectomy	5,783	640,565	5,420	N/a	1987	243,163,366
Haemorrhoidectomy	4,945	12,787	2,081	137,213	865	21,893,438
Rhinoplasty	5,050	7,265	3,417	42,735	1936	8,590,926
Bunionectomy	6,046	3,139	2,392	41,507	1502	5,120,817
Cataract extraction	3,595	2,215	2,325	1,430,785	1247	154,681,706
Varicose vein surgery	7,065	1,957	2,373	148,043	1411	15,350,137
Glaucoma procedures	3,882	-	2,292	75,838	1086	9,143,374
Tympanoplasty	4,993	754	3,347	149,246	1404	29,258,785
Total savings						\$ 1,384,414,741

number of high-end overseas hospitals to obtain “first-world treatments at third-world prices.” These numbers could be much higher if health insurance programs did not penalize treatment abroad, as we discuss below.

Skilled Unemployed

The global economic crisis has hurt many workers in the United States and Europe. Unlike in previous recessions, unemployment has been persistent. In Europe, youth unemployment has risen to 50 percent in Spain, and is about 20-25 percent in Greece and Ireland, and Portugal. A surplus global pool of relatively skilled people is emerging.

In response, people are leaving Europe in search of jobs elsewhere. Among the EU countries worst-affected by the crisis, the increase in emigration from Spain is most striking – from levels of less than 100,000 in the first half of the 2000s, to over half-a-million in 2011 (See Figure 1). More than 80 percent of the Spanish emigrants are in the working age groups. Even more striking is the choice of destinations. Only about one-third of the Spanish emigrants moved to other European countries. Another one-third went to South America and more than a quarter to Africa and Asia (see Figure 2). In parallel, unemployment-confronting Portuguese left in search of job opportunities to more dynamic Portuguese speaking locales, including Angola, Brazil, and Mozambique. Reuters reported that around 328,000 Portuguese held work permits for Brazil in 2012, 50,000 more than the previous year.⁹

This process could be part of a growing trend of matching niche needs in the emerging countries to surplus skills in the industrial countries. It is almost always a consequence of rapid growth that the demand for some skills runs ahead of the domestic capacity to supply them. For example, a Brazilian official noted that Brazil needed 60,000 new engineers every year but its universities could only produce 40,000.¹⁰ China’s need for English language teachers is enormous given that

⁹ The website Coppola Comment (Sunday, 2 June 2013)

(<http://coppolacomment.blogspot.ch/2013/06/the-movement-of-people-and-its.html>)

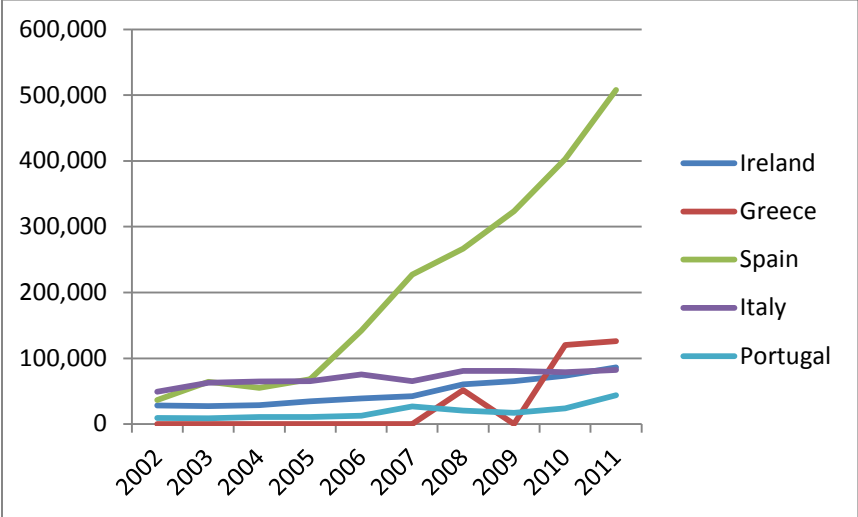
provided extracts from news media pertaining to each of these countries, which we summarize below because hard evidence on trends is still limited.

"In the past four years, over 300,000 people have emigrated from Ireland; 40 percent were aged between 15 and 24" (RTE News, 9 May 2013). "More than 2 percent of Portugal's population have emigrated in the past two years....Most were young, highly-educated people fleeing to Switzerland or the oil-rich former Portuguese colony Angola." (BBC News, 25 January 2013). "Spain's jump in unemployment has seen an exodus of youth, with tens of thousands of young Spaniards, many of them university graduates, looking for better opportunities in countries such as Germany and Britain and former Spanish colonies in Latin America....A study by analyst Real Instituto Elcano in February shows 70 percent of Spaniards younger than 30 have considered moving abroad." (Al Jazeera English, 7 April 2013). "Emigration from Italy rose by nearly a third last year to 79,000, with a growing number of young people choosing to leave the crisis-hit country, Italian media reported on Sunday, citing official data....with those aged 20 to 40 making up 44.8 percent of the total, from 28.3 percent in 2011." (The Daily Star, Lebanon, 7 April 2013). "Greek emigration to Germany jumped by more than 40% last year..." "A recent study by the University of Thessaloniki found that more than 120,000 professionals, including doctors, engineers and scientists, have left Greece since the start of the crisis in 2010" (BBC News, 30 May 2013).

¹⁰ Gillian Tett, "Is it time for Europeans to migrate?", Financial Times, June 15, 2012.

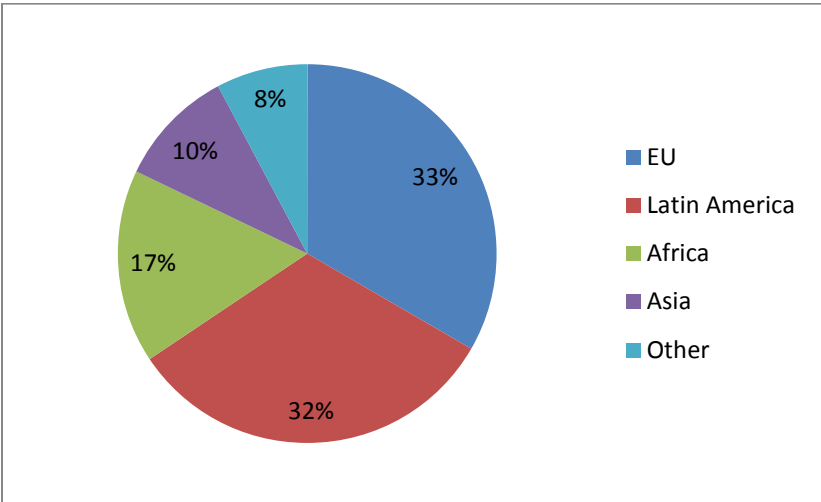
about 300 million are learning English. Even in India, foreign professionals, ranging from pilots to surveyors, are increasingly filling the gap between the needs of dynamic domestic industries and the dysfunctional higher education system.

Figure 1: Total Emigration from Five EU Countries Worst Affected by the Crisis, 2002-2011



Source: Underlying data is drawn from Eurostat, <http://appsso.eurostat.ec.europa.eu>

Figure 2: Total Emigration from Spain by Region of Next Residence, 2011
(percentage of total emigration)



Source: Underlying data is drawn from Eurostat, <http://appsso.eurostat.ec.europa.eu>

Students

While less dramatic than in healthcare, trends in the costs and affordability of higher education have become adverse in many industrial countries. At a time when globalization and technological developments are increasing the premium on skill, students face a scissors effect: on the one hand, they need more education, on the other the cost of education is increasing, in part due to fiscal constraints.

Increases in the costs of education may well reflect, as Martin Wolf has argued, the workings of democracy in which demographic changes are shifting the balance of power from the young to the populous elderly. One way of effecting inter-generational transfers is to tax the young—in this case by increasing the cost of education. For example, in the UK, the government recently lifted the ceiling on annual tuition at English universities from about \$5,200 to \$14,200. As a result, some 200,000 young people will graduate each year with average debts of nearly \$70,000.¹¹

Similarly, average tuition in the US in secondary institutions has risen faster than inflation. It is estimated that tuition fees have risen 29 percent in private schools and 72 percent in public institutions over the past decade. More ominously, student indebtedness has risen sharply. Two-thirds of students who graduated in 2011 took on debt to finance their education, compared with 59 percent in 1996;¹² meanwhile average debt has risen from \$17,100 to nearly \$26,600.¹³

As with healthcare, one way of keeping costs down is to exploit the gains from trade. This would involve addressing the many barriers that prevent fragmentation of the education value chain across industrial and developing countries, just as is happening in many goods and services. Higher education too can be broken down into a standardized component and a more specialized, sophisticated and even customized component. For example, the early stages of a medical education involve the acquisition of fairly routine knowledge and skills (anatomy, physiology) which could in principle be imparted at relatively low cost in developing countries. Consider the cost advantages from the following example. A medical degree in the United States, including living expenses, today costs about \$60,000 per year. The equivalent amount in a reputable private sector medical college in India costs about \$15,000 per year. If say the first 2 years of an American medical education (where the learning is mostly standardized) can be traded for an

¹¹ <http://www.guardian.co.uk/commentisfree/2012/jan/27/how-will-tuition-fees-affect-students>

¹² Online education will lower costs but there might be limits to this because it cannot substitute for learning that takes place in the class-room and in the university.

¹³ http://projectonstudentdebt.org/state_by_state-data.php

Indian one, we estimate that the cost savings for a 4-year US degree would be about \$90,000 or about 40 percent.¹⁴

But would exploiting this cost differential undermine quality? Consider this. A significant number of foreign-educated medical professionals have been deemed to be adequately qualified to work as health care providers in the United States (Mattoo and Rathindran, 2006). International Medical Graduates (IMGs, hereafter) account for a quarter of all physicians in the US. Interestingly, the top eight countries of origin of foreign physicians in the US are all developing countries, with Indian educated physicians constituting the largest group (21 percent of all foreign educated physicians), followed by Filipino, Cuban, Pakistani, Iranian, and Korean educated physicians. It is also significant that foreign-graduate faculty at US now account for almost a fifth of total medical school faculties. Further, the share of foreign educated nurses in the total number of newly licensed registered nurses (RNs) in the US has been rising since 1998, exceeding 14 percent in 2003 (Brush, Sochalski, and Berger, 2004). Filipino nurses dominate the numbers of foreign RNs at 43 percent, followed by countries like Canada, the U.K., India, Korea and Nigeria. What these data suggest is that it is possible for the medical education chain to be sliced up without compromising quality.

Reflecting these developments, South-North flows of students are now also accompanied by smaller but growing North-South flows. The number of post-secondary US students studying abroad jumped from 65,000 in 1987-88 academic year to 274,000 in 2010-11 (Institute for International Education, 2012). US students studying in developing countries increased from around 2,500 students in 1987-88 to about 85,000 in the 2010-11 academic year. Overall in 2008-09, US students studying in developing countries accounted for nearly one-third of all students studying abroad.

III. The Case for Traditional Poor-to-Rich Flows

Even though there are likely to be new niche employment opportunities for rich-to-poor labor mobility, as far as the labor market is concerned, the more fundamental pressures will remain for poor-to-rich flows. In fact, we may be witnessing an interesting new pattern of international migration. Among the relatively skilled, for example, teachers, engineers and doctors, flows are likely to be two-way across rich and poor countries. But among the relatively unskilled, from construction workers to care-givers, and the very highly skilled, from inventors to venture capitalists, flows are likely to remain primarily one-way from poor-to-rich; among the former

¹⁴ Savings from a period of study abroad may initially accrue to universities in the United States at which students are enrolled. But as in the case of health care, competition between universities should ensure that the costs savings are passed on to students who are willing to study abroad which would again reinforce incentives to travel.

because of the still large differences in wages and among the latter because of the large benefits from agglomeration at the still mostly rich country-based centers of excellence.

Poor, Young and Unskilled

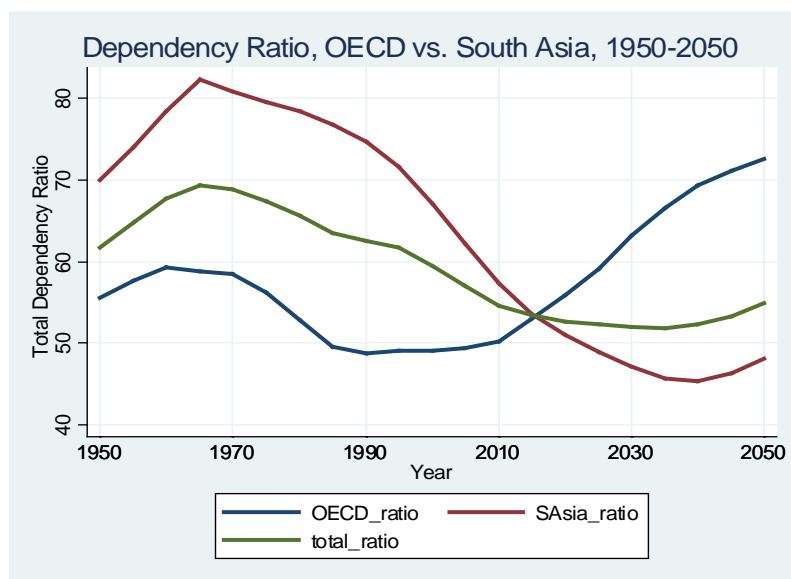
The rich world is ageing while the poor world has a rising share of the young. The rich world's public finances are in worse shape than before and less able to deal with the ageing problem in part because the ability to create wealth, from which the old could be supported, is undermined by an inadequate labor force. In other words, the problem in the rich world is that the ratio of old to young in the population is turning adverse. The poor world, on the other hand, has perhaps too many young and poor. Although the poor world is converging, growing more rapidly than in the past, it is still not able to create adequate employment opportunities for the growing restive young. The recent events in the Middle East bear out the latter proposition.

Age Structure in 2020 in High and Low Income Countries		
<i>Age group</i>	<i>High-income</i>	<i>Low income</i>
Less than 19 years	21.7	34.6
20-50	39.1	43.8
50-60	13.6	10.3
50-55	6.8	5.6
Greater than 55 years	32.3	16.9
Greater than 60 years	25.5	11.3
Total	99.9	100
Ratio of old to working age population I /1	48%	21%
Ratio of old to working age population I /2	70%	34%
Ratio of old to working age population I /3	100%	49%
1. Old defined as 60 years and above		
2. Old defined as 55 years and above		
3. Old defined as 50 years and above		

Source: Authors' estimates based on UN population projections.

As the table of demographic projections above shows, regardless of how old and working ages are defined, the rich world will have many more old relative to young and vice versa in the developing world. The ratio of old to young is too great in the rich world while the ratio of old to young is arguably too small in the poor world. The conventional macroeconomic view, that capital should move from rich to poor to address the basic demographic problem was well expressed by then IMF Chief Economist, Ken Rogoff: "Isolationists in industrialised countries should stop and look at their populations' advancing age structure. As the dependency ratio

explodes later this century, who is going to provide goods and services for all the retirees? There are many elements to a solution, not least allowing expanded immigration from the developing world, with its much younger population. Regardless, one desirable element has to be for the industrialised countries to save abroad by running large current-account surpluses vis-à-vis the developing world. These cumulated surpluses, while facilitating much-needed investment in poorer countries right now, could later be drawn down as the baby-boomers stop working.” (Rogoff, 2002). But repeated financial crises (both when capital has moved to poor countries or to rich countries) have made this an inefficient and even infeasible option, quite apart from the fact that this is a very indirect way of addressing what is at heart a demographic problem as Rogoff himself acknowledged.



Source: Ozden and Parsons (2012)

There is, of course, significant heterogeneity among industrial and developing countries. But the contrasted noted above will prevail for a sufficiently large groups of countries in the foreseeable future. The figure above presents a dynamic picture of the dependency ratio for the rich OECD nations as well as for the starkly contrasting situation in the countries of South Asia.¹⁵ Whereas in 1990 the dependency ratio for the OECD was under 50, in 2050 this number is projected to be over 70. The corresponding ratio for South Asia has been falling rapidly since the late 1960s, is expected to continue to fall until 2040 and then gradually increase.

There are significant benefits to rich countries from getting more young immigrants. For example, the United States Labor force is currently about 140 million, and annual immigration of workers of 1.4 million would represent a direct increase of one percent in the labor force growth, which would translate into higher GDP growth of 0.6 percent. Moreover, Kremer and Watt

¹⁵ Differences are also evident within South Asia, since Sri Lanka has completed its transformation while Afghanistan is yet to start its transition.

(2005) highlight how labor force increases indirectly: low-skilled immigration allows high-skilled native women to re-enter the labor force because childcare is looked after. They calculate that a program such as that in Hong Kong SAR, China, or Singapore under which roughly 7 percent of the labor force are foreign private household workers, may actually increase the ratio of the relative wages of native low-skilled to high-skilled by 3.9 percent and increase native welfare by 1.2 percent of income.

High Skilled

Immigrants contribute to growth not just by increasing the share of the working age population but by lending it a creative edge. Writing a hundred years ago, William James (1909, p. 363) described how knowledge is created and disseminated:

“The world, in fact, is only beginning to see that the wealth of a nation consists more than anything else in the number of superior men that it harbors Geniuses are ferments; and when they come together, as they have done in certain lands at certain times, the whole population seems to share in the higher energy which they awaken. The effects are incalculable and often not easy to trace in detail, but they are pervasive and momentous.”

The coming together that James argued for in the modern world crucially encompasses immigrants. Apart from doing research themselves, immigrants boost innovation by helping achieve a critical mass in specialized research areas and through positive spill-overs on fellow researchers. Knowledge once created is a global public good – notwithstanding the temporary fetters of intellectual property rights – and benefits all countries. Thus, removing the impediments to the movement of high-skilled talent can be crucial in sustaining the momentum of global innovation.

A variety of evidence speaks to the benefits to innovation and dissemination from the movement of people. For example, star scientists become more concentrated over time, moving disproportionately from areas with few peers in their discipline to where there are many, but the knowledge they produce diffuses widely (Zucker and Darby, 2007). Compared to a foreign-born population of 12% in 2000, 26% of U.S. based Nobel Prize recipients from 1990-2000 were immigrants (Peri 2007), as were 25% of founders of public venture-backed U.S. companies in 1990-2005 (Anderson and Platzer 2006), and founders of 25% of new high-tech companies with more than one million dollars in sales in 2006 (Wadhwa et al. 2007).

Immigrants are over-represented among members of the National Academy of Sciences and the National Academy of Engineering, among authors of highly-cited science and engineering journal articles, and among founders of bio-tech companies undergoing IPOs (Stephan and Levin

2001). The presence of foreign graduate students has a significant and positive impact on both future patent applications and future patents awarded to university and non-university institutions (Chellaraj, Maskus and Mattoo (2008)). Moreover, the influx of immigrants is not at the expense of indigenous innovation; rather immigrants have positive spillovers, resulting in an increase in substantial increases in patenting activity (Hung and Gauthier-Loiselle, 2009).

The movement of talent from poor countries to rich is a positive-sum game from the perspective of innovation in two senses. Innovation is increased in rich countries without it being diminished in poor countries where the wherewithal and scale to do so is in any case limited though improving. Second, the fruits of the innovation can be shared world-wide because knowledge is a public good. Increasingly, the public good nature of innovation is becoming more evident in the fact that economic convergence is spreading to more developing countries and at a faster pace. One reason for this broader and more accelerated catch-up is the diffusion of knowledge, technology, and innovation.

Would poor countries forego their “demographic dividend” by allowing their low skilled labor to move? Of course, the high ratio of young to old in poorer countries constitutes a boon, but there can be too much of a good thing especially if employment opportunities in developing countries cannot keep pace with the growth of the young. The troubles in the Middle East in part reflect the unfulfilled aspirations of a young, unemployed, and restive population. Opportunities for some of them to move abroad would represent a political vent-for-surplus benefit for these countries.

One of the main concerns about migration, particularly for the poorer countries, has been “brain drain,” the fear that they may be losing skills and talent, depriving these countries of the possibilities of growing faster and losing the possibility of obtaining low cost services. While the evidence on brain drain is not uncontroversial, there was always a tension between individual freedom, which argued in favor of mobility, and the possible social costs to developing countries—in terms of reduced skills, talent, and dynamism—of doing so. But a cradle-to-crematorium perspective on mobility can to a great extent make the brain drain perspective less salient. With life-long mobility, there will be constant circulation and churning so that benefits, and perhaps some costs, will not be confined to one place or restricted to any one demographic.

IV. Policy Changes to Facilitate Criss-Crossing Migration

If the substantial gains described above are to be realized, people need to be able to move, either as consumers or providers of services. But today, providers are held back by draconian immigration policies and consumers by subtle incentives to buy domestic.

Three key policy steps would facilitate the further flows of people: liberalization of foreign direct investment and labor laws; ensuring portability of insurance benefits so that consumers can buy

health services globally; and quality certification of educational degrees and qualifications so that students can acquire education overseas.

Liberalization

The lesser challenge is the liberalization of foreign investment. The expansion of good quality health care and education capacity in developing countries requires the combination of industrial country capital and know-how with developing country skills. But the establishment of foreign hospitals and universities is still limited in many countries. For example, Thailand, an increasingly important destination for medical tourism, limits foreign ownership in hospitals to 49 percent with additional ownership and control allowed upon obtaining a discretionary “Foreign Business License.” Furthermore, 75 percent of employees of foreign subsidiaries 50 percent of employees of foreign branches must be Thai nationals. Similarly, Malaysia, which seeks to become a regional hub for higher educations, still maintains some restrictions: ownership is limited to 70 percent in private higher educational institutions which have the status of university college or branch campus.

But changes are evident. Over the last decade foreign institutions are increasingly being allowed to operate through branch campuses. Since 2006, the number of international branch campuses in the world has increased by 43 per cent, according to the Observatory on Borderless Higher Education (OBHE). Institutions from the United States continue to account for the largest share of the 162 existing international branch campuses with 78 campuses. For example, the Indian School of Business, based in Hyderabad, was established in association with the Kellogg School of Management, the Wharton School of the University of Pennsylvania and the London Business School. The German University of Cairo is operated by the universities of Ulm and Stuttgart. These trends could be accelerated if the remaining barriers to entry were eliminated.

The greater challenge is the liberalization of labor mobility. Today, most countries, industrial and developing, only grudgingly grant a limited number of (usually skilled) foreigners the right to work. Foreign teachers, doctors and nurses are subject to stringent visa conditions and undergo onerous procedures to secure work permits and jobs. The US grants only sixty five thousand specialty occupation visas every year which allow foreign professionals to work in the US for a maximum of six years (a certain number graduate to residence permits). Australia, Canada and the United Kingdom have instituted a “points system” designed to attract skilled immigrants, but policies remain opaque and discretionary. The unskilled seeking entry to foreign markets must envy the camel its passage through the eye of a needle, so forbidding are the conditions they face. Most end up staying at home; a few choose the precarious, illegal route.

Existing international agreements, such as the WTO’s General Agreement on Trade in Services, sought to liberalize temporary labor mobility multilaterally in the guise of trade in services and

failed. But the growing mutual interest in labor mobility may for the first time create the conditions for reciprocal liberalization of immigration regimes. Some of this openness may be more easily accomplished bilaterally or among a small group of countries. The key is mutual interest, and cooperation between host and source, as is revealed by the relatively successful bilateral labor mobility agreements between Canada and the Caribbean and Spain and Ecuador (Carzaniga and Mattoo, 2003, Saez, 2013). For example, host countries could define a set of conditions that source countries need to fulfill – in terms of screening services providers, accepting and facilitating their return, and making efforts to combat illegal migration – to be eligible for an allocation of temporary presence visas.

Portability

For consumers to move, health insurance, scholarships and other benefits associated with employment, healthcare and education, must be portable. For example, today most travel for healthcare is for procedures not adequately covered by home-country health insurance; this suggests that a key impediment to trade is the nature of existing health insurance plans. While most U.S. health plans cover emergency care received during travel abroad, most plans do not cover treatment abroad except emergency care. Medicare and Medicaid, which cover almost 26 percent of the U.S. population, do not pay for treatments received abroad, as a matter of policy except in certain limited circumstances. In the few plans that do cover treatment abroad, the consumer must bear the full costs of travel and the hassle of claiming reimbursement for treatment abroad, while the bulk of these savings accrue to health insurance firms rather than the consumer. Since the costs of travel are usually greater than any out-of-pocket savings, the adequately insured have little incentive to travel, which results in a strong “local-market bias” in the consumption of health care.

There is a simple solution: the terms of insurance coverage should be neutral to the location of the provider, and reimbursement should be based on the costs of treatment inclusive of travel costs. This would be sufficient to ensure that the consumer has an incentive to travel if there are cost-savings. Competition between insurance firms would ensure that the savings are eventually passed on in the form of lower premia to consumers who are willing to travel abroad for treatment, and that too would strengthen incentives to travel.

Quality Certification

Educational degrees, professional licenses, and medical treatment must be mutually recognized to be of acceptable quality. For example, in health, the scope for trade will be greatly increased if providers in destination countries improve the quality of care and are able credibly to signal these improvements by obtaining accreditation from source-country health regulators. But there are nascent signs that this is beginning to happen. The Bumrungrad (Bangkok), the Apollo (New Delhi), and the Crossroads Center (Antigua) are all examples of reputable medical facilities in developing countries that are comparable to some of the best in industrial countries and have

obtained accreditation from agencies such as the US Joint Commission International (JCI) which certifies foreign health institutions. These facilities treat a large number of foreign patients annually, have internationally trained physicians and nurses, and maintain extremely high surgical success rates. For example, the Apollo hospital chain based in India has reportedly maintained a success rate of 99 percent in the over 50,000 cardiac surgeries performed, which is on par with the surgical success rates of some of the best cardiac surgery centers (e.g., Cleveland Clinic) in the US.

Similarly, for trade in education to truly flourish, the quality of education must credibly meet similar standards in different locations. Quality assurance is, in turn, closely related to regimes for accreditation and recognition of qualifications. Existing national systems often focus exclusively on services provided by domestic institutions to domestic students. Even if the foreign final medical or engineering degree is recognized, intermediate qualifications are not – creating an artificial indivisibility in tertiary education. But initiatives are being taken at the national and international level. The Bologna Process, although of European origin, is an example of an international initiative to foster harmonization and comparability of programs and degrees.¹⁶ The process, which has the goal of permitting students, faculty and graduates to move freely across national borders, started with 29 economies and now includes over 40, with the inclusion of many developing countries. Greater cooperation between national quality assurance agencies, and the development of common standards will be critical for the internationalization of education services.

V. The Political Feasibility of a Grand Bargain

In economic terms, there are large gains to be realized from flows of people in both directions. Broadly speaking, from a Northern perspective, flows from rich countries would serve to enhance the consumption possibilities of those who move; flows in the other direction would enhance production possibilities by making the economic pie larger for all.

The foregoing discussion has suggested that there are strong macroeconomic and microeconomic reasons why the world needs to see freer two-way mobility of labor. The components of two-way flows would be the following:

South-to-North mobility

- (i) Unskilled workers move for work, possibly on a temporary basis, to boost the productive base in the North and improve the fiscal situation; with the proviso that they could be remunerated at levels below nationals of the host country;
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¹⁶ See the official Bologna Process website July 2007 - June 2010
<http://www.ond.vlaanderen.be/hogeronderwijs/bologna/>

- (ii) Students move for education, perhaps being charged higher for their education than the fees applicable to nationals in the host country;
 - (iii) The high skilled and talented move to boost global innovation;
 - (iv) High skilled professionals (doctors and engineers) move to deliver medical and other services.
-

North-to-South mobility

- (i) Students move to acquire at least the standardized components of skilled professional education;
 - (ii) The sick move to acquire medical services, with the proviso that the fees that they are charged for services could be higher than that for host country patients;
 - (iii) The elderly move to enjoy better standards of living and perhaps even cheaper medical care in response to reduced pension benefits;
 - (iv) The skilled unemployed move in search of job opportunities.
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In a world of asymmetric migration pressures, politics in the rich countries have been a serious impediment. Is it possible to move from the desirable to the practical? The political costs of immigration into industrial countries are well known. Votaries of labor mobility have all focused on and invoked the large efficiency gains as providing the offset to the political costs. But revealed preference suggests that this argument has had only limited traction.

Liberalizing inflows of labor will continue to be a challenge in many industrial countries especially in the aftermath of the recent financial crises. In Europe, there is some evidence that attitudes to migration have become more negative especially in countries worst affected by crises such as Spain and Greece.¹⁷ In the richer countries such as Netherlands, Austria, Italy, and France, parties that are opposed to immigration remain an electoral force to contend with. In the United States, efforts to reform immigration have gained some momentum but still face serious hurdles, especially where it comes to allowing more liberal entry of new immigrants. The current bill passed by the Senate needs to clear the House of Representatives. Even where it does improve access the bill claws it back by requiring skilled immigrants to be compensated at close-to-US wage rates, undermining their competitive advantage.

Calls to increase one-way labor flows have always received an unsympathetic hearing. But what if developing countries were to receive an increasing stream of retirees, elderly, skilled unemployed, and students from the industrial world? The flow of retirees may create its own political problems in poorer countries. These countries might welcome tourists but if the magnitudes get large and if the duration of the stay merges into semi-permanence, the result may be unease and even hostility. With growing north-to-south flows, the politics of realizing these flows will be symmetrically difficult.

¹⁷ See, European Commission's "Standard Barometer, 77," available at: http://ec.europa.eu/public_opinion/archives/eb/eb77/eb77_anx_en.pdf

It is these mutual costs that set up the possibility of a mutually beneficial bargain. Developing countries could argue that labor emigration from their countries could be the benefit for receiving foreign retirees. And for industrial countries, the benefits of retiree emigration and of increasing the productive economic base could offset the political costs of receiving labor. Ironically, the mutual interest in greater freedom of mobility and the symmetric political difficulty in allowing such freedom can create the basis for a grand bargain. For the same reason, proposals to set up an international forum for negotiations and cooperation on international mobility of people may be more plausible today than they ever were.

The impact of two-way flows on the politics of immigration policies in both rich and poor countries can only be positive as suggested by previous experiences in trade in goods and foreign direct investment. In the 1960s and 1970s, when the United States and Europe started importing and exporting similar goods from each other, it was easier for trade barriers to be eliminated. More recently, Chinese, Indian and Brazilian companies have started investing overseas and seeking protection for them. It then becomes more difficult for their governments not to treat inward flows of foreign direct investment from the United States, Europe and Japan similarly. In the same spirit, if Indian students, engineers and software programmers are allowed more liberal entry into the United States, there will be greater pressure on India to eliminate barriers to American lawyers and accountants to start businesses in India.

From the perspective of Europe and the United States, reducing barriers on both sides and facilitating greater two-way flows of people would have political advantages over the traditional trade with developing countries. The fraying political consensus for trade stems from the squeeze exerted on the relatively unskilled from competition with goods from cheaper countries. It is becoming politically harder to make the case that the expansion of the economic pie offsets the costs inflicted on those at the bottom of the income distribution.

The politics of the new globalization involving two-way flows of people could be different. Like traditional trade liberalization, consumption possibilities would still expand as elderly Americans go abroad for cheaper retirement and medical care, and as students seek cheaper educational opportunities. But unlike traditional liberalization, the squeeze within the United States would be felt on those at the upper end of the income distribution and not on the unskilled. For example, if more foreign doctors were to enter the United States and more Americans were to get medical care overseas, there will be downward pressure on doctors' fees. Thus, the new globalization would have the virtue of injecting much-needed competition into the semi-cartelized medical profession as well as in other high-skilled sectors. While there is likely to be resistance from doctors, they will have to contend with the countervailing power of retirees with a big stake in getting cheaper health care.

While the spirit of our proposal is greater freedom of movement for all people across the world to realize the gains from mutual exchange, we recognize that progress will be difficult and gradual. There is a danger here of the best becoming the enemy of the good. So, there are some

flexibilities, even apparent discrimination, that could be maintained to ensure that the broader goals can be achieved.

First, to address the legitimate concern arising from permanent immigration, we would foresee that unskilled labor migration from South to North to be temporary and regulated by both host and home countries. The South could do more to certify skills and background, facilitate repatriation, and combat illegal migration. Second, in order to reap the gains from trade, we would allow, perhaps even require, the maintenance of some price wedges even if they create discrimination in treatment between nationals and foreigners. Some sacrifice in the national treatment principle might be necessary. Four such instances include: low-skilled foreign workers being remunerated at rates less than those for host country workers; higher fees for foreign patients who travel to poorer countries for treatment; and higher fees relative to host country nationals for students from the north who move to acquire cheaper professional education in the south and for students from the south who move to the north for higher education.

In Salman Rushdie's book, *Midnight's Children*, the hero Saleem Sinai says that all of us "brown, white, black are leaking into each other ... like flavors when you cook." That metaphor describes well the criss-crossing world of cradle-to-crematorium mobility of people that is as desirable as it has proven elusive. As economic imperatives drive this increasing mobility, the impact on attitudes and mind-sets too could be transformational. John Lennon's idealistic vision of "no countries...nothing to kill or die for...brotherhood of man" will perhaps always elude humans but criss-crossing flows of people can take us one small step in that direction.

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