The Relative Merits of Skilled and Unskilled Migration, Temporary and Permanent Labor Migration, and Portability of Social Security Benefits

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1 Introduction

In March 2006, the G-20 established a study group on labor mobility and demographics. The World Bank’s Social Protection and Labor unit (HDNSP) has been asked to provide an issues note on the relative merits of skilled and unskilled migration, temporary and permanent labor migration, and portability of social security benefits. The objective of this note is: (i) to highlight the relative merits of skilled and unskilled migration for both source and destination countries; (ii) to highlight the relative merits of temporary and permanent migration for source and destination countries; and (iii) to highlight the costs and benefits of enhanced portability of social security benefits and its impact on incentives for migrants and migration outcomes.

This issues note comes to the following tentative conclusions. First, highly skilled migration seems to be beneficial for destination countries, but for source countries, highly skilled migration results in a loss of human capital (brain drain). However, a major share of the total demand for migrant labor in destination countries is for low skilled migrants. Immigration policies with a strong demand-driven component seem to be most able to ensure that the right types of migrants are selected for destination countries’ labor markets.

Second, permanent migration seems to be more beneficial for destination countries while temporary and circular migration is more beneficial to source countries. Rather than forcing migrants to return, policies should ease migrants’ decision to return by removing obstacles to return migration. This means making social security benefits portable and easing re-entry into the destination country after return to the source country.

Third, enhanced portability of old-age pension and health benefits has important benefits for destination and source countries at reasonable costs. It is likely to decrease informal employment of legal and undocumented migrants, and also leads to better integration of migrants, and encourages return migration.
The remainder of this note is organized as follows. The next section explores the relative merits of skilled and unskilled migration. Section 3 provides an investigation of temporary and permanent migration. Section 4 discusses the costs and benefits of enhanced portability, and Section 5 concludes. All tables and figures can be found in the annex.

2 Skilled and Unskilled Migration

At a first glance, highly skilled migration seems to have more benefits for the destination country than low skilled migration. Nevertheless, continuous demand for low skilled migrants in high-income member countries of the Organisation for Economic Co-operation and Development (OECD) suggests that OECD labor markets are also in need for certain types of low skilled migrants. High skilled migration raises problems of brain drain for source countries, and also seems to be associated with fewer remittances since highly skilled migrants tend to stay longer and to bring along their immediate family. Immigration policies should contain a strong demand-driven component in order to satisfy the destination country’s labor market needs in terms of skills, and social protection and labor market policies also have important effects on the composition of migration flows.

2.1 Costs and Benefits for Destination Countries

Empirical evidence shows that highly skilled migrants integrate better into the labor market. By looking at longitudinal data from eight European countries, Peracchi and Depalo (2006) find that highly skilled migrants achieve better labor market outcomes—that is, unemployment rates, participation rates, and employment status—when compared to low skilled migrants. In addition, highly skilled migrants display a smaller and faster decreasing wage gap to natives than low skilled migrants.\(^1\)

\(^1\) The data, originating from the European Consumer Household Panel (ECHP), considers migrants who arrived in the EU before the early 1990s and stayed in the EU until the early 2000s. The analysis therefore fails to capture the large inflow of migrants arriving in the mid and late 1990s. In addition, the sample suffers from a
Highly skilled migrants also *integrate better socially*. De Palo, Faini, and Venturini (2006) find that highly educated migrants tend to relate to a broader community, preferring frequent meetings with friends and relatives and therefore establish themselves in a larger social network. Less educated migrants, on the other hand, tend to relate more to their immediate neighborhood, which in turn can encourage the creation of enclaves and the marginalization of migrant communities.\(^2\) Also, highly skilled migrants tend to stay longer because they typically work in inherently permanent jobs and therefore tend to bring along their family, which also enhances integration (see Table 1).

Highly skilled migrants, finally, also are more likely to *migrate through legal channels*. Since highly skilled are better positioned in the source country’s labor market, their opportunity costs of migration are higher, and they are less likely to take on the risks of undocumented migration. At the same time, the demand for undocumented migrants in destination countries is concentrated in the low skilled sector of the labor market.

Despite the greater apparent advantages for receiving countries of skilled immigration, much of the overall demand for migrant labor is directed towards *low skilled migrants*. Indeed, it seems that labor markets in most OECD countries have a persistent need for low skilled migrant labor, sometimes even in face of high unemployment rates among the native labor force. For example, in the U.S., total employment is projected to increase by 22 million between 2000 and 2010. Roughly 13 million of these new jobs will be in occupations that only require work-related experiences, mainly in occupations that only require short-term on-the-job training like food preparation and serving, retail, cashiers, office clerks, and security guards (total of 7.6 million new jobs, see Table 2 and Table 3). Not surprisingly, most OECD countries have some type of immigration program for low skilled migrants, often for seasonal migrants working in the agriculture and service sector.

\(^{2}\) The results also rely on the ECHP, hence the comment of footnote 1 applies.
2.2 Cost and Benefits for Source Countries

Brain drain is a major concern to source countries for a number of reasons. Through highly skilled migration, source countries lose a significant amount of human capital. In particular, source countries fear losing the best and brightest talents of their population, with dire consequences for their development prospects. In addition to the loss of human capital, source countries also bear a fiscal loss by providing tertiary education to future emigrants. That is, source countries subsidize investments in human capital without reaping returns on these investments.

Empirical evidence shows that highly skilled migration might also be less prone to send remittances back home. Although highly skilled migrants typically earn more—and thus, ceteris paribus, they should remit more than low skilled migrants (income effect)—Faini (2006) finds that highly skilled migration results in smaller remittance flows. This is due to the fact that highly skilled migrants stay longer abroad, are more likely to reunite with their close family members in the destination country, and therefore send less remittances.

A direct benefit to source countries may arise from unskilled emigration. Many source countries suffer from persistent unemployment and underemployment. Emigration of unskilled migrants can help to ease tensions in the labor market of source countries and to decrease underemployment and unemployment.³

Yet, there are also certain indirect benefits from highly skilled migration for source countries. The prospect of high-skilled emigration—and hence, higher income—might raise the expected return on education and therefore additional investment in human capital (brain gain). If the resulting brain gain exceeds the brain drain of actual emigration, source countries experience a net brain gain.

Also, although highly skilled migrants might remit less money as explained above, the better “quality” of their remittances might outweigh this negative effect. For example, highly skilled migrants may benefit the source country through better direct foreign investments in source countries as they effectively combine financial resources and management skills acquired in the destination countries with knowledge specific to the source country, in particular on social and cultural norms and local economic opportunities.

Also, not every highly skilled migrant results in the same loss of human capital for the source country. Some skills are more complementary than others. A highly skilled medical worker who emigrates results in a higher loss for the source country because on her work may depends the proper running of an entire medical group. The brain drain in the health sector is of particular importance to source countries from Sub-Sahara Africa and the Caribbean. Jamaica, reportedly, has to train five medical doctors to retain one.\(^4\)

Finally, brain circulation can also lead to a brain gain for source countries. If both highly and low skilled migrants return to their home country, they carry along work experience and knowledge they have acquired while staying abroad.

In conclusion, is highly skilled migration a net benefit or net loss for source countries? Schiff (2006) finds that the indirect benefits of the brain drain are likely to be small and that the impact of the resulting brain gain on economic development has been overrated. Docquier and Marfouk (2006) point out that in relative terms small and poor countries are mostly affected by the brain drain. Many of the small island states in the Caribbean and the Pacific have emigration rates among their tertiary educated population exceeding 50 percent (many exceeding 70 and 80 percent). African countries like Ghana, Mozambique, and Sierra Leone display emigration rates of 40 percent or more among their tertiary educated population.

2.3 Which Institutions for Skilled and Unskilled Migration?

Which institutions, then, are suitable to attract either type of migration? In answering this question, it might help to distinguish between institutions with direct effects on migration, like immigration policies, and institutions with indirect effects, like social protection and labor market policies.

With regard to institutions with direct effects, immigration programs with a strong demand-driven component seem most fitting to ensure that the needs of the destination country’s labor market are met. This can either be done by purely demand-driven immigration programs, where employers apply for a work and residence permission for a particular migrant to fill a vacancy; or by managed immigration programs which give a preference to migrants with existing job offers or to certain skills which are in short supply in the labor market of the destination country.

The advantage of purely demand-driven programs is that they need few planning requirements by the government. There is no need to determine labor market shortages or manpower planning requirements. The disadvantage is that they require more enforcement and monitoring. Usually demand-driven programs require that employers prove that a vacancy cannot be filled with a native worker within a reasonable period of time. These labor market testing requirements can be burdensome for employers and the enforcement involves considerable of red tape. Newer approaches experiment with certifications for companies with a good record of obeying to rules or simply charging a flat fee to employers who hire migrant labor instead of applying complicated labor market testing rules.

Managed migration programs, in contrast, require more planning and research by the government in order to determine labor market shortages and skill requirements. At the same time, they give governments more control over the admission process and the composition of migration flows. Determining current labor market shortages is not easy to achieve, and
future shortages are even harder to foresee. Rather, such processes risk falling prey to lobbying efforts from various stakeholders.

Both approaches face the challenge of successfully matching potential employers with potential migrants. Electronic databases, where employers and migrants can register and search for applicants and vacancies, have been successfully used in Australia, but less successfully in Italy (with Albania and Egypt). Spain has concluded a bilateral labor recruitment agreement with Ecuador for low skilled migrants and subcontracted the recruitment in Ecuador to the International Organization for Migration (IOM) quite successfully. A similar program is taking place between Italy and Sri Lanka.

Besides institutions with direct effects on migration, other institutions can have indirect effects on the size and composition of migration flows via push and pull factors. Two institutions stand out with particular important effects on the composition of migration flows and skilled and unskilled migration: social protection and labor market institutions.

Theoretical models predict that the generosity of social transfers can influence the magnitude and composition of immigration in destination countries. Unskilled migrants prefer to move to countries with a lower return on skills, that is to say, to countries with a flatter income distribution compared to that at home. Yet, if a receiving country which per se has a steep return on skills introduces a social safety net, it might attract more unskilled migrants (see Figure 1). The empirical evidence, though, seems weak (see Figure 2). Conversely, introducing a social safety net in the source country can also affect migration flows by decreasing the inequality in the sending country, and subsequently decreasing the emigration of low-skilled workers to countries with an even lower inequality. This seems to have happened in Germany in the 19th century after the introduction of the Bismarckian social security system, which resulted in a decline of emigration rates from Germany to the U.S. (see Figure 3).

5 For a recent review of manpower planning policies, see Hopkins (2000).
7 See Borjas (1987).
Labor market institutions, finally, can introduce rigidities into the labor market and effect labor market shortages in destination countries. Rigidities in the labor market can lead to a slow adjustments in wages and hence slow adjustments of investments by workers in human capital and functional skills. In addition, unemployment benefits increase the reservation wage, decrease the search intensity, and increase the duration of unemployment of the native labor force. Therefore, the geographical and functional mobility of workers is limited by labor market institutions, which can result in labor shortages.8 The recruitment of migrant labor, in turn, can add considerable flexibility to rigid labor markets because newly arrived migrants have less access to generous unemployment benefits, lower reservation wages, and a higher willingness to accept jobs in other geographical and functional areas.

3 Temporary and Permanent Labor Migration

For the destination country, permanent migration seems to be more beneficial because migrants integrate better. For the source country, circular migration seems to be more beneficial because it involves skill transfers form the destination to the source countries and migrants keep closer ties with their home country, which might also increase remittances. Institutions should acknowledge that temporary migrants are most suited to fill inherently temporary jobs, but permanent jobs should to be filled with permanent migrants. Rather than forcing migrants to return—a policy which has failed in the past and will fail in the future—institutions should ease migrants’ decision to return by removing obstacles to return migration. This means making social security benefits portable and easing re-entry into the destination country after return to the source country.

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8 For a recent survey of causes of unemployment, with a focus on European unemployment, see Blanchard (2005).
3.1 Costs and Benefits for the Destination Country

Permanent, or rather long-term as opposed to short-term migrants integrate better into the destination country’s labor market and society. Controlling for individual characteristics like age, education, sex, and marital status, Peracchi and Depalo (2006) find that the duration of stay of a migrant is most significant in explaining differences with regard to employment outcomes (activity rates, employment status, and unemployment) and earnings. Initial differences between natives and migrants diminish over time, and seem to disappear after 15 years with regard to employment outcomes, and after 20 years with regard to earnings. A similar result arises when looking at social assimilation. De Palo, Faini, and Venturini (2006) find that migrants initially have fewer social relations than natives, yet this gap is decreasing over time (see Table 1).9

Permanent migrants in permanent jobs are productivity-enhancing because they minimize costs associated with new hires and they ensure efficient investments in human capital. If temporary migrants are put into permanent jobs—that is, jobs which require long-term on the job training and considerable occupational experience—they have to be frequently exchanged and firms have to bear the costs associated with new hires like on-the-job training. If a migrant has filled a position successfully for some time, the employer will prefer to keep the migrant and the job-specific experience the migrant has gained while being employed. In addition, if the employer can be certain that the migrant will stay long-term, the employer is willing to invest the optimal amount of training and education for the migrant, just like for any native employee.

3.2 Costs and Benefits for the Source country

For the source country, temporary, or rather circular migration seems to be more beneficial than permanent migration. Circular migration increases the skill transfer from host countries to source countries through returning migrants who apply the knowledge they acquired while staying abroad in the economy of source countries.

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9 As with other results from these two papers, footnote 1 applies.
In addition, circular migration is also more likely to increase remittances. If migrants are able to work abroad several times during their live, but return home for extended periods of time in between, they can keep closer ties with their home country and will be more willing to send remittances. Such migrants are also more likely to invest earnings from abroad in their home country.\textsuperscript{10}

In addition, circular migration also enhances social remittances and the exchange of ideas from the destination to the source country. Social remittances are ideas, behaviors, identities, and social capital that migrants acquire in their host country and bring back to their home country (and vice versa). They have the potential to foster cultural ties between the source and the destination countries along economic ties and can, for example, enhance civil society development in the source country.\textsuperscript{11}

For example, Fargues (2006) concludes that migration benefited source countries by accelerating the demographic transition of source countries through social remittances. Investigating the correlation between migration and fertility patterns on a country level, he finds that developing countries with migrant stocks in low-fertility countries (like the Maghreb countries with migration to Europe) tend to have lower fertility rates than developing countries with migrant stocks in high-fertility countries (like Egypt with migration to the Gulf).

3.3 Which Institutions for Temporary and Permanent Labor Migration?

Which institutions, then, are suitable to attract either type of migration? Again, in answering this question, it will be useful to distinguish between institutions with direct effects on migration, like immigration policies, and institutions with indirect effects, like social protection and labor market policies.

\textsuperscript{10} See Faini (2006).

\textsuperscript{11} For a conceptual discussion on social remittances and development, see Levitt (1996).
From the experience of temporary worker programs it seems that policies which aim at putting temporary workers in permanent jobs are not very successful in achieving their aims. Migrant workers and employers alike tend to seek a permanent residence and work permission for the migrant, even if the migrant’s initial intent was to stay temporarily. Seasonal and GATS-Mode IV programs, on the other side, which truly offer temporary jobs to temporary works, seem be much more successful with regard to return rates of migrants.

The guest worker programs of Austria, France, Germany, and other European countries in the 1960s show very clearly how initially politicians, employers, and even migrants themselves supported the idea of circular migration. The idea was that migrants would move frequently between the home and host country, taking up jobs in sectors with labor shortages for a couple of months every year in the host country, but also return to the home country for a sustained period of time every year. Yet, the fact that these migrants basically filled job positions which were inherently permanent transformed these temporary migrants into permanent ones. Employers invested in the vocational training and education of their migrant employees and were keen to not lose their investments. Over time, migrants integrated better and tended to stay more permanently and travel home less frequently.

The final blow for the guest worker programs came with the oil crisis in 1974 and the subsequent ban of migrant labor recruitment by European countries. Deprived of any possibility to be re-recruited to their jobs in the host country after returning to the home country for some time, migrant workers—with the support of their employers—decided to settle permanently in their host country. Instead of going home every year for some months to visit their families, migrants let their families join them in their host country, completing the transition from circular to permanent migration.

This example shows how the introduction of re-entry barriers for temporary migrants effectively led to permanent migration. The institutions of immigration policies failed to take into account the needs of the labor market and the incentives of migrants and employers. If
source and destination countries wish to enhance circular migration, the possibility for easy re-entry after return migration has to be an important part of the policy design.

Examples of successful temporary migrant worker programs are seasonal programs and GATS-Mode IV programs. The former can be found in most OECD countries for the agricultural sector and tourism and catering industry. The regulatory framework is usually rather stringent, with tight controls on wages and housing facilities, which has to be offered for free by the employer in the case of Canada. Also, sometimes part of the wages are either directly paid into the migrant’s bank account at home or withhold until the migrant has returned home. The key to the success of these programs, though, seems to lie in the fact that after the termination of the initial work contract, there is simply no incentive for the employer to offer another contract because of the lack of work, and hence no incentive for the migrant to stay: in the case of agricultural workers, because the harvest is over; and the case of hotel and catering workers, because the tourism season is over. Similarly, GATS-Mode IV type programs have proven successful with regard to the return rate of migrants. Here the key seems to lie with the fact that workers stay employed with a company in their home country and only stay in the host country to deliver a pre-specified service.

If temporary work permits are used to fill permanent job positions in sectors with labor shortages, though, then the evidence shows that such programs will attract long-term migrants, and not temporary migrants. The U.S. H-1B visa program acknowledges this fact by allowing for dual intent immigrants. Applicants do not have to prove that they do not plan on abandoning their home country to permanently settle in the U.S., and they are offered the possibility to apply for a permanent residence permit, sponsored by their employer, after arrival in the U.S. The H-1B program is a successful, demand-driven program to attract highly skilled migrant workers for labor shortage sectors associated with IT, engineering, and natural sciences. The German green card program, on the other side, which also attempted to attract highly skilled migrants, was less successful, also because it did not acknowledge this transitional nature of migration.
In this context it is also interesting to consider the pros and cons of heavily *conditional work permits*. Does it make sense to strictly tie a work permit to one particular employer or sector? At a first glance such work permits seem to be beneficial to the receiving country, in particular to native workers, as such permits substantially limit the mobility of migrant workers and hence the competition with native workers. Yet, such conditional work permits also substantially increase the potential for exploitation. The fact that the work permit is tied to an employer gives the employer considerable bargaining power over the migrant. In one way or another, this increased bargaining power will also translate into lower costs of the migrant worker for the employer, to the disadvantage of native workers. Hence, allowing for more mobility for migrants in the sense of unlimited access to the labor market decreases the potential for exploitation, levels the field with native workers, and therefore also enhances the integration of migrants.

A different kind of successful temporary migrant worker program can be found in the *Gulf Region*. The oil-rich Gulf countries attract large numbers of migrants from other parts of the Middle East, South Asia, and South East Asia. All of these migrants arrive on a temporary work permit and most of them return at some point to their home country. The key to success in this case is most likely related to the governance in these countries, which makes temporary migration strictly enforceable. Yet, the cost of this success is the extremely limited mobility of migrants. Migrants are entirely tied to their employer and have limited rights, including social. The potential for employers’ abuse is accordingly high. In addition, the integration of migrants into the host society is low and not desired, with limited possibilities for family reunification or acquisition of citizenship.

In this respect it is also important to consider the interrelation between *labor market institutions* and migration, in particular for low skilled migrants. The evidence shows that the labor market intuitions of the U.S., for example, are more favorable to migrants with regard to employment outcomes. That is, migrants gain quicker access to the labor market and show lower unemployment and inactivity rates then, for example, in Europe. Yet, once migrants have gained access to the labor market in Europe, it seems that the wage gap to natives is
closing faster on Europe than in the U.S.\textsuperscript{12} In both cases, though, a longer duration of stay works in favor of migrants, and hence the host country.

With respect to the institutions of social protection, finally, the degree of portability of healthcare and social security benefits for migrants play an important role in the migrant’s decision to return or not to the home country. The lack of portability constitutes a substantial income loss for migrants who wish to return to their home country and impedes circular migration. The next section will elaborate on the costs and benefits of enhanced portability of social security benefits.

4 Portability of Old-age Pension and Healthcare Benefits

The costs of enhanced portability of old-age pension and health benefits for the destination country originate in higher liabilities for public pension and healthcare systems. The benefits for the destination country arises from a better integration of migrants into the labor market, increased social security collections, and cost savings in the health sector through enhanced trade in health services. For the source country, the costs and benefits of enhanced portability for the source country are similar to those in the destination country in its effects, yet different in magnitude because of asymmetric migration flows. In terms of migration outcomes, enhanced portability is likely to decrease the informal employment of legal and undocumented migrants in the destination country, to result in better integration of migrants, and to lead to more return migration.

4.1 Cost and Benefits for the Destination Country

Enhancing the portability of old-age pension benefits results in more migrants qualifying for higher pensions, and therefore increases the liability of public pension systems in destination

\textsuperscript{12} See Boeri, Hanson, and McCormick (2002).
countries. In many destination countries, the minimum period of contribution to the public pension scheme in order to qualify for a pension is between 5 and 15 years.\textsuperscript{13} Hence, migrants who work in the destination country for less than the qualifying period of contribution do not receive any pension benefit.

A migrant who does fulfill the minimum requirements to qualify for a pension receives, however, a relatively low replacement rate. The migrant’s pension is exclusively calculated based on his or her contributions in the destination country and does not take into account any periods of contribution in other countries, in particular the source country. Therefore, migrants typically have relatively short periods of contribution and do not have enough periods of contribution to qualify for a full pension. Since most countries penalize short periods of contributions, migrants end up with relatively lower replacement rates and lower pension.

Finally, some countries restrict the payment of old-age pensions abroad and apply reduction rates on pensions that are paid to retirees residing outside the country.\textsuperscript{14}

Enhancing the portability of old-age benefits is usually done through bilateral social security agreements, which contain provisions on the \textit{totalization} of periods of contribution. If periods of contribution are totalized, a migrant’s periods of contribution from different countries are added together. When it is determined if a migrant qualifies for a pension from the destination country, the totalized periods of contribution are used. The totalized amount of periods of contribution are also used to determine the migrant’s replacement rate, yet the migrant only receives a pro-rata share of the replacement rate that reflects the amount of time the migrant contributed the social security system of the destination country.

\textsuperscript{13} For example, 5 years in Germany, 10 years in the US, 12 years in Greece, 15 years in Austria and Spain, 5 to 15 years in Italy, and 30 years of residence for the Dutch social pension. See U.S. Social Security Administration 2006.

\textsuperscript{14} Germany applies a 30 percent reduction in some cases, and New Zealand’s tax-financed pension is reduced by up to 50 percent in some cases. See Holzmann, Koettl, and Chernetsky (2005) and U.S. Social Security Administration 2006.
For example, a Mexican migrant who worked for 9 years in Mexico and 9 years in the US does not qualify for a pension in neither country because both countries require a minimum of 10 years of contribution. If, though, periods of contribution were totalized, the migrant would be treated as someone who has contributed for 18 years total. Hence, the migrant would qualify for a pension in the US (and also in Mexico). In addition, the migrant’s replacement rate in the US is determined based on 18 years of contribution, but the migrant will receive only roughly 50 percent—which represent the pro-rata share the migrant has worked in the US out of the total of 18 years—of this replacement rate. The same procedure applies in determining the Mexican replacement rate.

Finally, bilateral social security agreements also ensure that pensions are fully payable across borders. Both signatory states pledge to pay pensions to residents of both states without applying any reductions.

Enhancing the portability of *healthcare benefits* results in higher costs through *increased coverage* of migrants abroad. Portability of healthcare benefits allows migrants—in particular long-term migrants who return for their retirement to their home country—better access to the health system of the source country. Bilateral social security agreements that cover portability of healthcare benefits have regulations that grant migrants access to the health system of either country to receive healthcare benefits in kind at the expense of the other country. For migrants who return to the source country temporarily, the agreements ensure that they have full access to medical treatments that need immediate attention. For retired migrants who return permanently to the source country but receive no pension form the source country and have therefore no access to the source country’s health system, the agreements have provisions that grant the retired migrant full access to the source country’s health system at the expense of the destination country. Costs are covered though direct

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15 This is a simplifying example. Since replacement rates are usually determined by considering annual earnings, the process of determining the replacement rate is in fact much more complicated and calculated using formulas specified in the bilateral social security agreement between the source and the destination country. The important fact, though, is that some of the regression in determining the replacement rate, which penalizes early retirement with few years of contribution, is eliminated through this procedure.
transfers between the social security system of the destination country and the health system of the source country, either on a case-by-case basis or through annual lump sum transfers.

Destination countries also gain from enhanced portability of old-age and healthcare benefits because migrants face more incentives to participate in the formal economy of the destination country instead of the informal economy. If the portability of social security benefits is enhanced, migrants run a lower risk of losing benefits associated with their social security contributions by moving to another country. Hence, migrants are less likely to avoid social security contributions because they can be sure to receive all the benefits associated with contributions.

If migrants avoid the informal economy of the destination country, they have better access to social services and will better integrate socially and in the labor market, resulting in less marginalization and social exclusion of migrant communities. Migrants’ willingness to participate in the informal economy decreases with enhanced portability. This in turn will also decrease the competition between migrant and native workers, hence leveling the field between both groups in the labor market.

Increased access to social services will also increase social security collections, while at the same time increasing costs because of increased demand for social services. If this results in a net gain or net cost for the destination country depends on if migrants on average are net receivers of net contributors to social insurance. Empirical evidence suggests that the result depends on the social security system of a country and the type of migrants. Zimmerman and Hintz (2004) and Tranæs and Zimmerman (2004) find that in Germany, immigrants from the traditional source countries (Greece, Italy, Spain, Turkey and former Yugoslavia) contribute an amount of EUR 35,000.- in taxes net of transfers during their life cycle. This compares to a net transfer of EUR 14,000.- which German natives receive over their life cycle. In

16 The selection of these five countries has to do with the fact that the German Socio-Economic Panel (GSOEP) at the time of the initial sampling (1987) only included migrants from these five sending countries and almost no asylum seekers or refugees receiving support from the public coffer in cash or in kind. When analyzing these GSOEP data, one should also be aware of the fact that migrants who return to their home country after
contrast, in Denmark non-western immigrants receive a net transfer of EUR 140,000.- over their life cycle, while migrants of western origin contribute a net amount of EUR 35,000.-, and natives roughly half of this amount.

With regard to healthcare benefits, enhanced portability will encourage trade in healthcare services. If migrants have increased access to the health system of the source country, they have less need to return to the destination country—where their health expenses are covered—to consume health services there. Since labor costs—including for the health sector—are considerably lower in many source countries, public health insurance schemes in destination countries could save money by allowing migrants to access the cheaper health services in their home country, and therefore gaining from comparative cost advantages through trade in healthcare services. Since the migrant is most likely to consume health services anyway because of medical necessity, in the end it will be cheaper for the health insurance of the destination country to allow the migrant access to the cheaper services in the source country instead of providing incentives for the migrant for consuming the relatively more expensive health services in the destination country.

Gains for destination countries arising from increased trade in health services can indeed be substantial. Mattoo and Rathindran (2006) estimate that the U.S. health system could save around US$1.4 billion annually if only one in ten U.S. patients choose to undergo treatment abroad for fifteen low-risk medical procedures.

The next subsection explores the costs and benefits of enhanced portability for the source country.

4.2 Cost and Benefits for the Source Country

The costs and benefits of enhanced portability for the source country are similar to those in the destination country in its effects, yet different in magnitude because of asymmetric retirement are no longer represented in the GSOEP, which might explain the large discrepancy between the GSOEP results and the results for Denmark.
migration flows. All bilateral social security agreements are based on the principle of full reciprocity, so that all arrangements are valid for migrants from both countries in the respective other country. The vast majority of bilateral social security agreements has been concluded among developed countries, and to a much smaller extent between developed and developing countries. The difference is that among developed countries, migration flows are more or less symmetric in size and composition. This means that also financial flows between countries arising from obligations under social security agreements are more or less symmetric. In the case of bilateral social security agreements between developed and developing countries, since migration flows are asymmetric with clearly defined source and destination countries, financial flows are also likely to be asymmetric with the source country seemingly a net receiver. Yet, there are some risks in particular with regard to healthcare.

Just like in destination countries, more migrants will have better healthcare coverage while staying abroad, in particular those who travel abroad temporarily—for example, to visit family members who settled in the destination country—but remain resident of the source country. In such cases, the public healthcare insurance of the source country has to cover all medical treatments that require immediate attention in the destination country. Since health costs in destination countries are usually much higher, the source country might run a substantial cost risk by enhancing portability of healthcare benefits. In particular—given the perceived superiority of quality of healthcare services in many destination countries—the source country runs the risk of having to cover costs arising from “medical tourism,” that is, patients going and “falling sick” abroad on purpose.

Similarly, also in source countries more migrants will qualify for old-age pension at better replacement rates. The argument is exactly as in the previous section. Because periods of contribution are totalized, more migrants who leave the country either temporarily or for good will qualify for a pension, and their replacement rates will be higher.

At the same time source countries benefit from enhanced portability because of the increased social protection of their migrants and decreased healthcare expenditures for retired,
returning migrants. Migrants who have worked their whole productive life in the destination country and want to return to the source country for retirement have all their health expenditures covered by the health insurance of the destination country. This is clearly a financial gain for the source country as otherwise the source country would have to provide certain emergency services to the returning migrant for free, without ever having received any contributions or taxes from the migrant.\footnote{Reportedly, the Mexican and the Turkish social security institutions perceive returning migrants as a financial drain on its health system. See Holzmann, Koettl, and Chernetsky (2005).}

4.3 Impact on Migration Outcomes
Enhanced portability has various positive impacts on incentives for migrants and migration outcomes. \textit{First}, it encourages migrants to participate in the formal economy of the destination country and might help to decrease undocumented migration. \textit{Second}, because migrants are part of the formal economy, they have better access to social services and integrate better. \textit{Third}, it makes it easier for migrants to keep acquired social security rights across international borders and provide therefore incentives for return migration. Finally, enhanced portability might help to attract highly skilled migrants who have more freedom of choice when it comes to decide between various destination countries.

First, as already mentioned, enhanced portability decreases migrant’s willingness to participate in the informal economy of the destination country. Enhanced portability therefore potentially affects the supply side of undocumented migration: if benefits associated with social security contributions become more portable, social security contributions become closer substitutes for wages. It will certainly help to decrease the informal employment of migrants with valid work and residence permission, but who could potentially overstay after their permissions have expired.

Second, enhanced portability will also improve the access of migrants to other social services associated with social security contributions, like, for example, unemployment
benefits. Improved social protection in turn will help migrants to socially integrate into the destination country and also improve the labor market integration of migrants.

Third, enhanced portability makes it easier for migrants to return to their home country. Because migrants do not lose benefits associated with their social security contributions by moving back to the source country, they have incentives to stay in the destination country.

Finally, enhanced portability of social security benefits could help to attract highly skilled migrants. Highly skilled migrants have more opportunities to migrate and can choose from various destination countries. Better portability of social security benefits could give destination countries a competitive edge over other potential destination countries in attracting highly skilled migrants.

5 Conclusions

This note provides some issues for discussion on the possible effects for both source and destination countries of different types of migration and on the role of schemes that promote the portability of social benefits. In conclusions, it seems that highly skilled migration is more beneficial for destination countries, yet, at the same time, demand in destination countries for low skilled migrants is persistent. Low skilled migration, on the other hand, seems more beneficial for source countries, since it is more likely to decrease labor market tensions in source countries. In addition, high skilled migration risks brain drain for source countries.

Similarly, there seem to be opposing effects on source and destination countries with regard to permanent and circular migration: permanent migration seems to be more beneficial for destination countries because migrants integrate better, while temporary and circular migration is more beneficial to source countries because it encourages the flow of
knowledge, monetary remittances, and social remittances from destination to source countries.

Immigration policies with a strong demand-driven component seem to be most able to ensure that the right types of migrants are selected for destination country’s labor markets. OECD countries apply a whole variety of different immigration policies, affecting the magnitude and composition of migration flows. Successful temporary migrant worker programs are seasonal migrant worker programs for the agricultural, hotel, and catering sector, and GATS-Mode IV programs for contract workers, mainly in the construction sectors. These programs attract low and semi-skilled migrants. Inter-company transfers attract also highly skilled temporary migrants, but only to a very limited extent. Successful programs aiming at transitional migrants are those that offer an option for short-term migrants to convert to permanent migration, like many student and business visa programs and the US H-1B. Permanent migration programs, finally, are mainly driven by family reunification, but also comprise points systems and employment-based, demand-driven programs.

Preliminary evidence suggests a number of important cross-cutting themes that affect the links between institutions and migration. First, strictly temporary migration only works for temporary jobs, like, for example, in the agricultural, hotel, and catering sector. Temporary migrants involved in permanent jobs tend to move into permanent or long-term stay. Thus, temporary migration may not be a substitute for permanent migration. Also, temporary jobs mainly attract low and semi-skilled migrants.

Second, and related to the previous point, highly skilled migrants, who typically fill inherently permanent jobs, usually transform into long-term or permanent migrants. Policies that ignore this fact run the risk of failing to achieve their goals, and policies that acknowledge this fact by offering the possibility to migrants to stay permanently can serve as an effective filter to identify successful migrants. This also means that in order to enhance circular migration, in particular of highly skilled migrants, other issues to encourage return migration have to be considered. Rather than forcing migrants to return, policies should ease
migrants’ decision to return by removing obstacles to return migration. This means making social security benefits portable and easing re-entry into the destination country after return to the source country. Enhanced portability of old-age pension and health benefits has important benefits for destination and source countries at reasonable costs. It is likely to decrease informal employment of legal and undocumented migrants, and also leads to better integration of migrants, and encourages return migration.

*Third, social protection, education, and labor market polices* have a strong indirect effect on migration. For example, high returns to skills, as measured by income inequality, attract highly skilled migrants, but the access to social safety nets can at the same time attract low skilled migrants. Similar, social policies in sending countries seem to have a strong impact on emigration rates.

It is beyond the scope of this note to provide an agenda for future work on these issues. It is however of importance to underline some of the key messages that emerge from the brief overview provided in the note. First, the magnitude and composition of migration flows strongly depend on migration policies themselves but also on a myriad of other policy and institutions that affect the demand and supply of labor in both sending and receiving countries. It is only by considering these factors that one can assess drivers of migration, its composition and potential effects in both sending and receiving countries.

In this context, the World Bank has initiated a program of work on migration that looks at a number of different aspects—for example, remittances, brain drain and gain, institutions for migration and portability of social benefits—and seeks to explore linkages between these different aspects. Moreover, international migration is one of the key topics of a multi-year research program on the labor market. This is recognition of the fact that migration strongly affects economic and labor market conditions of sending countries, but also those of receiving countries. In this context, the World Bank has also launched—together with the Institute for the Study of Labor (IZA, Bonn)—a research program on *Employment and*
Development, which is aimed at promoting policy-relevant research and foster cooperation between research institutions, donor organizations, and policymakers.\textsuperscript{18}

\textsuperscript{18} This new research program was launched at a conference in Berlin at end of May 2006. The conference also provided a major opportunity to discuss possible means of financing with donor countries, through a proposal for a trust fund initiative as a funding mechanism for the research program. See http://www.iza.org/conference_files/worldb2006/program.
6 References


Boeri, Tito. 2006. “Growth, Labor Market, and Migration.” Presentation given at the OECD
   Workshop on Global Convergence Scenarios: Structural and Policy Issues. Paris,

Boeri, Tito and Herbert Brückner. 2005. “Why are Europeans so Tough on Migrants?”

Boeri, Tito, Gordon Hanson, and Barry McCormick (eds.). 2002. Immigration Policy and the

Borjas, George J. 1987. “Self Selection and the Earnings of Immigrants.” American
   Economic Review, Vol. 77, No. 4, pp.531-553.


Docquier, Frédéric and Abdeslam Marfouk. 2006. “International Migration by Education
   Attainment, 1990-2000.” In Özden and Schiff.

   Bonn, Germany: IZA.


### Table 1. Characteristics of highly sociable immigrants and natives in Europe

<table>
<thead>
<tr>
<th></th>
<th>Talk frequently with immediate neighbor (share)</th>
<th>Meet frequently with friends and relatives (share)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Immigrants</td>
<td>Natives</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest</td>
<td>0.652</td>
<td>0.686</td>
</tr>
<tr>
<td>Intermediate</td>
<td>0.706</td>
<td>0.747</td>
</tr>
<tr>
<td>Basic</td>
<td>0.701</td>
<td>0.828</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.711</td>
<td>0.733</td>
</tr>
<tr>
<td><strong>Duration of Stay (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>0.623</td>
<td></td>
</tr>
<tr>
<td>6&lt;x&lt;15</td>
<td>0.679</td>
<td></td>
</tr>
<tr>
<td>15&lt;x&lt;25</td>
<td>0.700</td>
<td></td>
</tr>
<tr>
<td>More than 25</td>
<td>0.696</td>
<td></td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>0.582</td>
<td>0.619</td>
</tr>
</tbody>
</table>

Note: Numbers give the share among immigrants and natives with the particular characteristic who frequently talk with neighbors or meet friends and relatives. For example, the upper left entry gives the share of highly educated immigrants who frequently talk with neighbors (65.2 percent).


### Table 2. Employment and total job opening projections and average annual earnings (by education or training category, 2000 to 2010)

<table>
<thead>
<tr>
<th>Most significant source of education or training</th>
<th>Employment</th>
<th>Change</th>
<th>Total job openings due to growth and net replacements, 2000-101</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent distribution</td>
<td>Number</td>
</tr>
<tr>
<td>Total, all occupations</td>
<td>145,594</td>
<td>167,754</td>
<td>100.0</td>
</tr>
<tr>
<td>Bachelor’s or higher degree</td>
<td>30,072</td>
<td>30,559</td>
<td>20.7</td>
</tr>
<tr>
<td>First professional degree</td>
<td>2,034</td>
<td>2,434</td>
<td>1.4</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>1,465</td>
<td>1,845</td>
<td>1.0</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>1,406</td>
<td>1,759</td>
<td>1.0</td>
</tr>
<tr>
<td>Bachelor’s or higher degree, plus work</td>
<td>7,319</td>
<td>9,741</td>
<td>5.0</td>
</tr>
<tr>
<td>experience</td>
<td>17,801</td>
<td>21,807</td>
<td>12.2</td>
</tr>
<tr>
<td>Associate degree</td>
<td>11,761</td>
<td>14,600</td>
<td>8.1</td>
</tr>
<tr>
<td>Associate degree, vocational award</td>
<td>5,063</td>
<td>6,710</td>
<td>3.5</td>
</tr>
<tr>
<td>Postsecondary vocational award</td>
<td>6,570</td>
<td>7,801</td>
<td>4.6</td>
</tr>
<tr>
<td>Work-related training</td>
<td>103,760</td>
<td>118,597</td>
<td>71.3</td>
</tr>
<tr>
<td>Work experience in a related occupation</td>
<td>10,650</td>
<td>11,559</td>
<td>7.2</td>
</tr>
<tr>
<td>Long-term on-the-job training</td>
<td>12,435</td>
<td>13,373</td>
<td>8.5</td>
</tr>
<tr>
<td>Moderate-term on-the-job training</td>
<td>27,871</td>
<td>30,754</td>
<td>19.6</td>
</tr>
<tr>
<td>Short-term on-the-job training</td>
<td>59,165</td>
<td>60,741</td>
<td>36.5</td>
</tr>
</tbody>
</table>

1 Total job openings represent the sum of employment increases and net replacements. If employment change is negative, job openings due to growth are zero and total job openings equal net replacements.

Source: Table 6 in Hecker (2001).
Table 3. America’s growing demand for low-skilled workers: employment projections for jobs requiring short-term on-the-job training (by occupation, 2000 to 2010)

<table>
<thead>
<tr>
<th>Occupations</th>
<th>2000</th>
<th>2010</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food preparation and serving</td>
<td>2,206</td>
<td>2,879</td>
<td>673</td>
</tr>
<tr>
<td>Retail salespersons</td>
<td>4,109</td>
<td>4,619</td>
<td>510</td>
</tr>
<tr>
<td>Cashiers (except gaming)</td>
<td>3,325</td>
<td>3,799</td>
<td>474</td>
</tr>
<tr>
<td>Office clerks (general)</td>
<td>2,705</td>
<td>3,135</td>
<td>430</td>
</tr>
<tr>
<td>Security guards</td>
<td>1,106</td>
<td>1,497</td>
<td>391</td>
</tr>
<tr>
<td>Waiters and waitresses</td>
<td>1,983</td>
<td>2,347</td>
<td>364</td>
</tr>
<tr>
<td>Nursing aides, orderlies, attendants</td>
<td>1,373</td>
<td>1,697</td>
<td>323</td>
</tr>
<tr>
<td>Janitors and cleaners (nonhousehold)</td>
<td>2,348</td>
<td>2,665</td>
<td>317</td>
</tr>
<tr>
<td>Home health aides</td>
<td>615</td>
<td>907</td>
<td>291</td>
</tr>
<tr>
<td>Manual laborers and movers</td>
<td>2,084</td>
<td>2,373</td>
<td>289</td>
</tr>
<tr>
<td>Landscaping and groundskeeping</td>
<td>894</td>
<td>1,154</td>
<td>260</td>
</tr>
<tr>
<td>Personal and home care aides</td>
<td>414</td>
<td>672</td>
<td>258</td>
</tr>
<tr>
<td>Truck drivers and delivery services</td>
<td>1,117</td>
<td>1,331</td>
<td>215</td>
</tr>
<tr>
<td>Manual packers and packagers</td>
<td>1,091</td>
<td>1,300</td>
<td>210</td>
</tr>
<tr>
<td>All jobs requiring short-term training</td>
<td>53,198</td>
<td>60,871</td>
<td>7,673</td>
</tr>
</tbody>
</table>

Source: Table 1 in Griswold (2002).
Figure 1. Social safety nets and the skill distribution of immigrants (Borjas model)

Figure 2. The correlation between social expenditures (without pensions) and skill composition of immigrants

Figure 3. The historic correlation between social expenditures (indirect wages) and emigration rates in Germany from 1885 to 1913


Note: $R^2 = 0.84$
Summary Findings

In March 2006, the G-20 established a study group on labor mobility and demographics. The World Bank’s Social Protection and Labor unit (HDNSP) was asked to provide an issues paper on the relative merits of skilled and unskilled migration, temporary and permanent labor migration, and portability of social security benefits. The objective of this paper is: (i) to highlight the relative merits of skilled and unskilled migration for both source and destination countries; (ii) to highlight the relative merits of temporary and permanent migration for source and destination countries; and (iii) to highlight the costs and benefits of enhanced portability of social security benefits and its impact on incentives for migrants and migration outcomes.

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