MANAGED LABOR MIGRATION IN AFGHANISTAN:

A BRIEF REVIEW OF THE ACADEMIC MIGRATION LITERATURE

Yaw Nyarko and Carole Chartouni

Background Paper BGP 1 to the World Bank Project on "Afghanistan: Managed International Labor Mobility as Contribution to Economic Development and Growth"

WORLD BANK GROUP

Managed Labor Migration in Afghanistan:
A Brief Review of the Academic Migration Literature

Yaw Nyarko[1] and Carole Chartouni[2]

Background Paper BGP1 to the World Bank Project on
"Afghanistan: Managed International Labor Mobility as
Contribution to Economic Development and Growth"

New York and Dubai
January 2018

Abstract

This paper presents key findings on the international experience with migration, focusing on the implications for a developing nation that is a country of origin. The paper identifies several areas of impacts: (1) increases in wages of individual migrants; (2) remittances; (3) impacts on skills and skill formation – those leaving acquire skills to enhance ability to migrate, and those returning often do so with acquired skills and work experience. Additional impacts also arise on the macroeconomy and on growth of the economy through channels like the use of remittances as collateral, and trade identification and facilitation through migrants. The paper explores the different migration regimes along the spectrum of two polar cases of purely managed and purely unmanaged migration, and focuses on two possible aspects of managed migration: (1) migrants' social networks, which amplify and propagate the initial actions on migration by the managed systems; and (2) skills and certification systems typically associated with managed systems.

1 Professor of Economics at New York University and the Director of the Center for Technology and Economic Development. He is also the Co-Director of the Development Research Institute.
2 Labor economist at the World Bank, Dubai office, working for the Social Protection and Jobs Global Practice in the MNA region.

List of Contents

Acronyms and Abbreviations

COD	Country of destination
COO	Country of origin
EPS	Employment Permit Scheme (South Korea)
EU	European Union
GCC	Gulf Cooperation Council
GDP	Gross domestic product
OECD	Organisation for Economic Co-operation and Development
UAE	United Arab Emirates

1 Introduction

For developing nations and governments seeking economic development, can managed international migration be thought of as a development tool, one that increases the economic livelihoods of a nation's people? If a nation engages in active managed out-migration of its citizens as part of an economic development plan, what are the conceptual impacts of this policy, and how could those impacts be measured and quantified? What are the best methods of managing this process to ensure maximum benefit from such a policy? What are the metrics of success? With an understanding of the benefits of such a policy for a developing nation, how could development partners aid in this migration planning and process?

The goal of this paper is to attempt to answer these questions. It argues that the potential gains from a government-initiated managed migration program are very large. The methodology for answering these questions is to rely on the vast existing literature on the topic. The paper begins with the conceptual issues and models that indicate the possibilities for an impact of migration on a source country and then reviews estimates obtained in many contexts of the measured impacts of migration.

The paper's intent is to look at managed migration schemes run by governments as the initial impetus to a policy of increasing migration and its benefits. Managed and unmanaged systems are compared. The impacts of migration also depend upon whether migrants are abroad in a temporary or permanent situation. All this is important for thinking through the channels of impacts of a migration policy. So what are the conceptual issues around a government policy of out-migration for economic development? The paper begins with a focus on the individual and argues that the impacts are large even at the micro (individual) level. An immediate and important impact is an increase in the wages of individual nationals. The impacts on the individual through increased wages and incomes spill over to his/her family in the form of remittances. International datasets measure the size of international remittance flows, and the numbers are large, especially relative to the size of sending or origin countries' economies.[3]

Beyond the benefits of migration to individuals and their families, other more subtle and important implications of migration affect the economy of the country of origin (COO). First are the impacts on skills and skill formation. Second are the impacts around financial intermediation and external trade facilitation that occur when migrants in foreign countries stay in touch with businesses or entrepreneurs in their home countries.

3 The terms home, sending, and country of origin (COO) are used interchangeably, as are the terms host, receiving, and country of destination (COD).

In addition to the development impacts just mentioned – wages, remittances, financial intermediation and trade facilitation, and skills and human capital –the macroeconomy and economic growth incur impacts. Some governments use remittance flows as collateral for borrowing. Remittance inflows also affect the balance of payments and through that, the larger macroeconomy.

The terms home, sending, and country of origin (COO) are used interchangeably, as are the terms host, receiving, and country of destination (COD).

Section 2 of this paper outlines the conceptual issues around managed international migration, as highlighted above. Sections 2.1–2.3 discuss three main impacts of migration: own wages, remittances, and skills. Sections 2.4 and 2.5 discuss two other types of impacts of migration: financial intermediation and trade identification and facilitation by migrants (section 2.4) as well as the impacts of migration on the wages of those in the COO who do not migrate (section 2.5). Finally, section 2.6 discusses managed versus unmanaged migration schemes, while section 2.7 tackles the related question of temporary versus permanent migration.

Section 3 discusses the empirical aspects of the channels of benefits just described – how benefits are measured, existing estimates of those benefits, and how one would predict the size of the benefits for an individual nation. This section repeats many of the concepts of section 2, but focuses on their empirical support. Section 4 focuses specifically on Afghanistan. Concluding remarks are given in section 5.

2 Conceptual Channels by Which a Contribution Can Take Place

This section begins with a conceptual question: what might be the outcomes when a government initiates a managed migration scheme? The section first discusses wages to the migrant, remittances to the family, the business and entrepreneurial consequences of migration, and the impact on skills accumulation. It then moves to some of the macroeconomic implications. Last, the section identifies the governmental requirements for successful managed migration, and summarizes some of the discussions around managed versus unmanaged migration and permanent versus temporary migration.

2.1 Begin at the Beginning: A Focus on the Migrant

Any analysis of the importance of migration should begin with migrants themselves. In many analyses of the potential contributions of migration policies and plans, the detailed analytics of migration often lose the most important factor: the migrant him- or herself. Migrants often go through extreme physical hardship, traveling through treacherous terrain to arrive at their destinations. Families often go into extreme debt to enable one of their own members to migrate. Indeed, the story of modern human beings, from their origins in Africa, is one of a migration that ultimately populated the entire planet.

A first cut at characterizing the impact of migration is to look at differences in wages at the source and destination countries. For example, construction workers entering the Gulf Cooperation Council (GCC) nations are typically from the lower ends of the wage distribution, many actually unemployed. The increase in income from migrating is potentially huge in percentage terms and is generally the impetus for migration. As development interventions go, this channel to increase livelihoods has among the quickest, surest, and largest impacts. For Ghana, Nyarko (2011) looked at those at the higher end of the source country income distribution (the tertiary educated) and found similarly large increases in income. Although the increase in wages is an obvious first step in accounting for the net benefits of migration, it is surprisingly often drowned out in the many discussions on the pros and cons of migration. Because migrants leave the borders of their home country, they seem to no longer count in the development benefits of that migration.

Some rough numbers illustrate the potential of a government-initiated managed migration scheme. Consider a developing nation with a gross domestic product (GDP) of US$20 billion, a population of 30 million, and an unemployment rate of 10 percent. Suppose the country's per capita income is US$700 (or US$2000 in purchasing power parity terms) and use this as a benchmark in evaluating wages in the COO[4]. Suppose that the government initiates a managed migration scheme with the GCC countries. Assume a wage of US$3000 (from a monthly wage of 900 Dirhams, on the very lowest side of the GCC wage scale for unskilled workers). It is not inconceivable to think the government could initiate a managed migration scheme that will increase migration, over and above existing unmanaged schemes, by a stock of 250,000 people, perhaps from the large pool of unemployed. Those 250,000 people would earn a total of US$750 million each year, amounting to 3.75 percent of GDP annually. It is hard to find other government actions that could provide such benefits so quickly and with relatively little investment.

1 Of course GDP per capita and wages are not necessarily comparable, but they do give a very rough measure of the benefit to the average person. Migrants, particularly the unskilled, are probably paid less than the average, so this would be an overestimate of the COO stand-in for wages. A direct comparison between GDP per capita and wages has two complications. First, wage share is some fraction $\kappa<1$ of GDP Y; and second, total employment L is not the same as total population N used in GDP per capita computations. That is, average wages w will be $wL = \kappa Y$ so $w = \kappa(N/L)\ Y/N$. The amount $\kappa(N/L)$ is therefore the deviation of GDP from wages, with κ less than half and (N/L) around 3.25 (for India) and 3.8 (for Afghanistan) (see http://data.worldbank.org/indicator), results in w equal to 1.6 to 1.9 times GDP per capita, which still enables us to make our rough comparisons. Alternate measures for the unskilled are COO government-legislated minimum wages, which are about US$1000 per year for Afghanistan and US$767 for India, and are of course usually lower than GDP per capita.

Al Awad (2010) and Tong (2010) put the annual average wage of workers in the United Arab Emirates (UAE) from India, Pakistan, Bangladesh, and the Philippines, in a sample of 10,954 people, at 25,200 AED (around US$7000 at today's exchange rate). Although low, the World Bank's GDP per capita measures of annual income are US$3650, US$2745, US$1777, and US$4119 for India, Pakistan, Bangladesh, and the Philippines, respectively (Nyarko 2013).

This example is for migration to jobs with very low wages. Now imagine that some migrants are able to move to even higher wage jobs or to rich nations where the minimum wage is nearer the U.S. level of more than three times the number used above. For this hypothetical country, the absolute level of benefits would triple, and more people would probably migrate.

Migration across national borders is motivated by the same factors as migration within a nation, either from rural to urban areas or from a declining to a booming area of the same nation. The principal difference is the national boundaries, which constrain international mobility much more strongly than domestic mobility.

An insightful paper by Pritchett (2004) takes this idea a step forward. Within a nation a lot of movement occurs from one area to another as people look for better jobs. If labor was not restricted in its movement by national boundaries, one would expect similar types of movement from one part of the world to another for precisely the same reason. Pritchett compares movements within a nation (e.g., across states in the United States), where people are relatively free, to movements across countries, which are constrained by national boundaries. As another measure, the paper compares past peaks in GDP per capita with current ones and looks at reductions of population in the latter that would result in values at the former levels – a rough measure of how many "excess" people would have migrated if the opportunities were available. Pritchett thus provides measures of the degree to which national boundaries restrain the movement of people, and illustrates that migration would occur across nations more frequently in the absence of restrictions.

Of the many interventions a government could engage in, out-migration has an immediate observable and quantifiable initial impact that is much higher than many other conceivable interventions. Where else would one see similar increases in wages of workers generated by relatively small inputs by governments?

Also often left behind in the discussion on the calculus of migration is the benefit to the host country and its firms, which benefit from workers who migrate into that country, although these topics are beyond the scope of this brief review. Some of these are taken up in Clemens (2011), who argues that the total gains on both sides – origin and destination countries – from relaxation of border restrictions on mobility are huge.

2.2 Remittances

2.2.1 Remittances are Large

Remittances – flows of money from migrants back to their home countries – are an important aspect of migration in many countries. Remittances go to family members, business activities, or savings. In addition to the direct benefit of migration to migrants as outlined above, major transfers to COOs arise.

Remittances are large for many countries, sometimes constituting 10 percent of GDP (Nyarko 2011), and have implications on the macroeconomy, as discussed later. Remittances often go to some of the poorest members of society, reaching remote villages and sometimes the poorest of the poor. This in turn has the potential to alleviate extreme poverty (Gyimah-Brempong and Nyarko 2015; Gyimah-Brempong, Hellwig, and Nyarko 2011).

The next sections discuss in a bit more detail aspects of the flow of remittances: for family members' consumption, in response to natural disasters, and for investments.

2.2.2. Remittances for Family Members' Consumption

One debate is whether remittances are used for consumption (often thought of as "bad") or for investment (which some think of as "good"). Many papers argue that the bulk of remittances are ultimately used for consumption – by family members or even by migrants themselves at a later date. The argument is that remittances used for consumption could have instead been used for investments to help growth. In distinguishing investment versus consumption uses of remittances, many authors claim that the multiplier effect for investment uses is higher. But the appropriate comparison is not what remittances are doing and what they could be doing, but what they are doing versus what would happen if there were no remittances. The latter is the appropriate counterfactual to use in determining the benefit to migration. Furthermore, if individuals choose to use remittances for consumption rather than investment, presumably that is best for them at the time of making the decision.

Related to this are arguments around the negative incentive effects of remittances on labor supply. The receipt of remittances by family members from the migrant could cause them to reduce work effort. As income from remittances goes up for family members, they may optimally decide to consume more leisure and therefore put in less work effort. But again, if individuals choose to receive remittances and work less, presumably this is optimal for those remittance-receiving individuals at that time. Caution should be taken in these conclusions since one should look at the entire family decision problem and note that remittances are potentially determined endogenously, so teasing out the effect of remittances on labor supply may be at best difficult but also perhaps not a well-defined question.

Remittances also help in consumption after catastrophic events. Anecdotal reports and media coverage indicate that remittance payments often increase after natural disasters and other forms of economic turmoil in the home country or COO, providing an important and often very quick source of humanitarian assistance. More generally, remittances can provide countercyclical support to the COO.

A variety of models exist to examine the apparently altruistic desires of migrants toward their family members and friends back home. Remittances are thought of as a solution to a family decision problem, where the migrant has preferences over the welfare of other family members. Many of these models are based on the classic work of Becker (1974) and the economics of the family. Stark and Bloom (1985) placed the family decision problem at the core, with altruism as a key factor. Variants of this model think of the family as displaying reciprocity (in exchange for services rendered earlier or to be rendered later). Other variants model within-family insurance schemes, while in yet other models the family acts as a bank that provides loans or insurance to family members who seek risky opportunities abroad.

Modeling migrant remittance behavior as a family decision problem immediately brings into focus issues of asymmetric information and moral hazard. If migrants are playing a game where they are to provide income to the family in return for earlier altruism from the family, the incentive to work less hard or to hide income when abroad immediately arises and cannot be observed. Moral hazard and adverse selection issues are therefore important in the migration decisions, as discussed, for example, in Chami, Fullenkamp, and Jahjah (2003). As migrants stay longer in the country of destination (COD), their ties and bonds to their home countries and families may weaken. Their altruism may weaken, and their commitments and obligations to the family may lessen. The increased tenure of workers in the COD would therefore be expected to reduce the rate of remittances. Some papers have found this effect. This was shown by Merkle and Zimmerman (1992) and more recently by Nyarko and Wang (2016), who studied migrants from India and other Asian nations working in the UAE.

2.2.3. Remittances as Investment

Many papers suggest a dichotomy between the aspects of remittances when they affect consumption on one hand and when they lead to investment on the other. Many authors hint at painting the former in a negative light and the latter positive. Many channels for the use of remittances as investments have been identified in the literature:

- Investments in the human capital, primarily via formal schooling, of children and relatives in their home countries.
- Investment in small enterprises back home: Lucas and Stark (1985) argue that migrants may have businesses at home that are given to relatives to manage and which use migrant remittances as capital.
- Repayment of debts owed by the migrant, or of debts of family members and close friends to people in the COO.
- Monies sent back to migrants' bank account back home – these savings are often used for investment by migrants when they return to their home countries (see Nyarko and Wang 2016 for the UAE Asia corridor).
- Elbadawi and Rocha (1992) model remittances as due to a portfolio decision problem where migrants decide what fraction of their wealth from wages to leave in the host or destination country as opposed to the home or origin country; the latter results in remittances, by definition, as they are used for wealth allocation and international financial hedging.

2.2.4. Costs of Sending Remittances

Significant attention has been placed on the fees migrants pay to send their monies from their places of work to their homes, which are often very high. For this reason many migrants use the *hawala* system – essentially using family, village, or tribal connections to send money back home. The *hawala* system is cheap and does not require various forms of identification, which migrants are often unable or unwilling to provide. These methods have the obvious potential for abuse, though, and can be used by criminal elements, a recent concern, particularly around money laundering. The use of technology and competition among sending institutions have lowered the costs of sending remittances. On the Gulf–Asia corridor a number of large players (e.g., UAE Exchange, one of the biggest money transfer companies in the world) have used technology to significantly lower the costs to migrants of sending remittances back to their home countries. Although still a major issue in many corridors, the high cost of money transfers is becoming less so in some other corridors.

2.3 Skills Formation

2.3.1 Incentives

An important factor related to migration is that of skills formation and incentives for such. As migrants seek jobs abroad, they often invest in education or skills to increase their likelihood of migrating and to do better once they migrate. For example, a worker going to a country in need of construction workers will put time and effort into obtaining the skills of a welder, carpenter, electrician, or plumber.

Two types of immediate effects arise. First, schools and vocational training institutes will arise in the home country for training such potential migrants. This not only helps potential migrants, but also helps people within the country who want such skills but have no intent of leaving the country. The second effect is more subtle. The process of migrating is something of a lottery – a potential worker gets all the qualifications and then applies for a job that may or not materialize. Many who make the investment will never leave the country. Therefore, migration may lead to higher numbers of people with certain skill levels than if migration was not a possibility. One can imagine a nation with very few certified and qualified modern plumbers that through a government-managed migration program has the possibility to send plumbers for jobs in foreign countries. This will lead to establishment of schools to train many to become plumbers to go abroad and will most likely result in more plumbers in the COO than would be the case if no migration was possible (Stark 2004; Stark and Zakharenko 2012; Nyarko 2011).

The skills argument probably deserves more attention in the literature. By initiating managed migration programs, a relatively low-cost activity for the COO government, training institutions are formed that cater not only to migrants but also to people who end up working in the local economy.

When migrants are skilled, many argue that migration may affect the level of development of the economy, the strength of institutions, etc. Against these arguments for the potential adverse effects of migration on the COO domestic economy are a number of countervailing arguments. First, as just argued, migration itself may encourage investment in skills and may actually lead to larger numbers of skilled workers in the COO. The possibility of a “brain drain” for certain occupations (e.g., doctors) may counterintuitively lead to more skilled workers than if there was no brain drain – this is the “lottery” argument made earlier. Second, if the skilled worker is in an environment where he is unemployed or underemployed, the costs of that worker leaving will be minimal. It could be much better for him to be part of a migration scheme. Many skilled workers in COOs may actually be unemployed locally, as is the case with nurses in some African countries, for example. Clemens (2013) summarized some of the issues around skilled migration and suggested that local protectionism slows the inflow of skilled migrants into CODs and also causes the slow speed at which attempts at international certification of skills are proceeding.

2.3.2 Skills of Returned Migrants

Another important and potentially positive effect of migration, particularly in the long term, is that many migrants return to their home countries with additional skills and experience obtained from their stint abroad. Many studies now show that the percentage of migrants who return to their home countries after 5–10 years is large; thus the impact of return migrants is potentially also very large. This is often referred to as "brain circulation" or "brain gain," particularly in the context of skilled migrants. These concepts also apply to unskilled workers who leave and return with improved skills and experience in vocational activities like welding, carpentry, etc.

Workers return for many reasons: they may miss their homes, they may have only planned to stay for a little while, etc. Stark, Helmenstein, and Yegorov (1997) modeled return migration, arguing that one motivation is that the value of money may be higher in the home country than in the host country. Migrants' savings have higher purchasing power if they return home as opposed to staying in their place of employment.

Anecdotal evidence suggests that the migration of millions of migrants from the Indian state of Kerala into the UAE and other Gulf nations resulted in the establishment of many institutes to train potential migrants in the skills needed in the construction industries of the Gulf countries – carpentry, steel welding, etc. Other anecdotal information suggests the significant influence of returned migrants. Stories are told of Indians returning from the Gulf region and Ethiopians and Ghanaians returning from the United States who spark real estate booms, start laundry factories, and develop U.S.-style undergraduate institutions, discussed next.

It is worth emphasizing that not only is this increased human capital useful for the COO, but it is also a benefit to migrants who return home with higher skill levels.

2.4 Financial Intermediation and External Trade Identification and Facilitation

The above section discussed three major aspects or impacts of migration: benefits to the individual migrating; remittances that go to the family; and the advantages of skills formation. These three effects are major, quantifiable, and very well studied in the literature. The next section proceeds to a number of other impacts that are much less studied despite their significant consequences.

One important role of migrants is that of serving as financial intermediaries for entrepreneurs back in their home countries. They can help in trade facilitation and be de facto representatives of entrepreneurs back home. A migrant in a destination country can notice business opportunities and signal relatives or acquaintances back home. A classic story is that of Mr. George Yaw Owusu and Dr. Kwame Edusei, Ghanaian migrants living in Houston who almost singlehandedly initiated the recent discovery of Ghana's only commercially viable oil deposits by scouting around in Houston and eventually discovering and partnering with Kosmos Oil company.[6] The value of the oilfield puts their contribution in the order of at least US$10 billion.

6. See https://www.modernghana.com/news/311292/george-owusuthe-oil-magician.html

2.4.1 Remittances as Collateral for International Borrowing, and Diaspora Bonds

Nations with a steady stream of remittance flows can use those anticipated flows as collateral to borrow on international markets. Ketkar and Ratha (2007) state that about US$20 billion was raised by developing countries in this manner. Their paper identifies Mexico, Brazil, and Turkey specifically in this context.

Related to the idea of collateral borrowing by nations is the concept of diaspora bonds, whereby migrants and the older diaspora of a nation invest in bonds issued by their COO. Examples studied include citizens of Israel, India, Lebanon, and Sri Lanka living in the United States and Europe (Ketkar and Ratha 2007).

2.4.2 Effect on Balance of Payments and Possible "Dutch Disease" Phenomena

On the positive side, to the extent that it provides foreign exchange, migration is good for a country's balance of payments. And to the extent that remittance flows increase when economic hardship arises in the COO, remittances may be countercyclical. On the negative side are the typical problems associated with the sudden influx of large amounts of foreign exchange – for example, the "Dutch disease" phenomenon whereby the inflows increase imports and decrease local production, which could cause problems in the real economy of goods and services as well as nominal or financial.

2.5 Impact on Wages of Those Left Behind

The general equilibrium aspects of migration must be taken into account. Migration of workers out of the source country could potentially affect the COO's economy. The outflow of workers should increase domestic wages as the supply of labor in the local economy goes down because of migration. On the other hand, many of those who migrate may have limited options in their home countries. If migrants are unemployed domestically, then the effect of migration on local COO wages would be negligible.

Return migration, especially that of experienced, better-skilled migrants, can also impact wages. Although this would impact wages of COO workers with comparable skill levels, presumably general economic growth will increase due to the presence of increased numbers of skilled workers in the COO.

One related question as of yet unanswered is what types of people migrate, especially under unmanaged migration systems. Is it the skilled or unskilled? This is obviously an important question for COOs. The answers are often obtained from destination country surveys. From CODs' point of view, negative selectivity is said to occur if it is the lower-skilled or less talented who migrate out. Positive selectivity occurs when more entrepreneurial migrants migrate, thereby helping to invigorate CODs' economies. When the premium for skills is high in the origin country, one would expect the higher-skilled to stay home, while the lower-skilled migrate out. Borjas (1987) claims that workers entering the United States from Mexico are negatively selected while Chiquiar and Hanson (2005) argue the opposite based on a different dataset[7]. Governments are potentially able to intervene in this selection process when migration is managed.

7. A vast literature exists on COD-focused implications of selection – see Card (2009) for a review as well as Dustmann, Frattini, and Preston (2012) for some more recent work on this topic. The COO-focused literature is sparse in comparison.

2.6 Managed Versus Unmanaged Migration

All migration schemes are managed to some extent. Other than extreme situations of major conflict, migration requires, among other things, entry visas at the COD and sometimes exit visas at the COO. Practically all destination countries ration work visas, skewing migrants toward industries or firms deemed most important. Despite this, one can think of two broad types of migration – managed migration involving state-to-state agreements and protocols versus extreme unmanaged systems that do not have such extensive government-to-government planning.

2.6.1 Two Case Studies

(A) Philippines

The Philippines, a major COO, has supported conscious government management of out-migration as a national development policy. To this day, the relevant ministries in the Philippines engage in streamlining the migration of Philippine nationals to reduce unemployment. An estimated 1.8 million temporary workers were deployed and migrated in 2014 alone, contributing US$27 billion in remittances (Mendoza 2015). It is often said that the Philippines overseas foreign workers (OFW) constitute the primary export of the Philippines. This process began with the conscious effort of the Philippines government in the 1970s in response to poor economic conditions. This regulated or managed system has produced about 10 million OFW and billions of dollars in remittances, as noted above. A number of government agencies (like the Philippines Overseas Employment Agency[8]) aid migrants, and through government agencies and foreign embassies, the government aids in negotiations over minimum wages in CODs, provides skills training and certification, etc. The main message is that the government's proactive role 40 years ago is now resulting in big dividends for many Filipinos and their families as well as for the Philippines' economy (see Ruiz 2008 for more on the Philippines).

(B) South Korea's Employment Permit Scheme

South Korea, a major COD, provides a good example of a fully managed migration system that primarily works through government-to-government negotiations and planning (Park 2013; Martin 2016). Korea's Employment Permit Scheme (EPS) was introduced in 2003 to help manage the inflow of much needed low-skilled workers into the Korean economy. Among the EPS's goals are reducing abuse of migrant workers in the recruitment process and reducing illegal stays and undocumented migrants in Korea. About 15 Asian nations are source countries for this scheme. The EPS is the primary method by which unskilled labor enters Korea for small and medium size businesses.

To be eligible to participate in the EPS, a potential migrant must pass a Korean language test and a medical test. Korean firms apply for migrant workers and are given quotas by the Korean government. Firms select workers from the EPS pool and notify the Korean government. Surveys reported by Park (2013) indicate that the cost of travel and language proficiency tests of the typical migrant into the EPS system is US$927, relatively low compared to the cost of pre-EPS Korean in-migration (US$3509). The EPS is a very well managed migration system, but it remains relatively small – the EPS quota for 2015 was 42,400. Korea itself is a very homogenous society, with only 1.6 million registered foreigners out of a 2013 population of 46 million (Park 2013; Martin 2016).

8. http://www.poea.gov.ph/

2.6.2 Unmanaged and Other Schemes

In contrast to strictly managed government-to-government systems like the Korean EPS, much larger flows of migrants take place in other corridors or environments. For example, in the flows of labor from India to GCC countries and beyond, the destination country firms typically hire private COO-based recruiters to find and screen workers. Once those workers are found, COD firms or migrants themselves apply for visas to enable them to migrate to accept jobs in CODs. A different and polar example is where migrants enter a destination country disguised as refugees, leading to government management on the COD side but obviously not on the COO side.

These different corridors or examples have varying degrees of government management. The GCC model is managed to the extent that the government issues precise visas but is unmanaged in that beyond explicit quotas (especially those restricting numbers from different nationalities), firms are free to engage recruitment agencies to manage their own hiring as they see fit, without a centralized government-run clearinghouse.

The Philippines' example above illustrates that no clear-cut distinction exists between managed and unmanaged systems, but also demonstrates the proactive role that government can play in migration. While on the surface the Philippines' system is technically unmanaged, it has many features of a managed system. The initial push given by the Philippines government started a large migration flow that is supervised by the government but not completely managed, with large numbers of people getting jobs outside of official government processes.

One issue that has attracted the attention of governments and international organizations vis-à-vis unmanaged flows is the abuse of workers. A principal form of abuse is the payment of large recruitment fees by workers seeking jobs. These fees are often illegal or restricted in both the source and destination countries. Workers often have no choice but to pay these fees to find and obtain jobs, accumulating significant debt (see Martin 2016 for more recent work on this). Indeed, payments of recruitment fees to third parties often spur governments into increased action to better manage migration flows and enact policies and legislation to this effect. For instance, the Abu Dhabi Dialogue is a high-level governmental group comprising 11 COO and 7 COD nations that works primarily on contractual temporary worker migration flows.[9] One of its aims is "preventing illegal recruitment and promoting welfare and protection measures for contractual workers."[10]

9 The COOs are Afghanistan, Bangladesh, China, India, Indonesia, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand, and Vietnam; the CODs are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the UAE, and Yemen.
10 See https://www.iom.int/abu-dhabi-dialogue

Whether a migrant is better off under a managed or unmanaged system depends critically upon the economic environment in each system. Many GCC countries, for example, tie visas of low-skilled workers from COOs in South Asian countries to an employment contract with only one firm. That firm therefore has a great deal of monopsony power, which lowers migrants' wages. Recently, some GCC nations (e.g., the UAE) loosened those restrictions to enable workers to look for jobs within the COD, particular after the end of their contracts. This increased bargaining power of workers resulted in increased wages (Naidu, Nyarko, and Wang 2016). On the other hand, a managed system can give workers the skills and legal protections needed for work in the COD. For example, the Korean EPS has a language requirement and provides training facilities for acquiring the language in the COO as part of the application process. Further, governments are increasingly providing skills training and certification, which in turn can make workers more desirable to companies in the COD and presumably enable them to enjoy higher wages (see section 2.6.4). Finally, governments can legislate benefits that workers under various managed systems should enjoy. For example, many Gulf countries stipulate that low-wage workers in the COD must be given free housing.

2.6.3 Networks

This subsection discusses an increasingly important aspect of migration – networks – and the need to start a flow of migration to allow networks to form to increase the flow of migrants.

Governments need to be heavily involved to start a large flow of workers from an origin country to a destination, especially in the initial stages of a managed system. The first workers who travel abroad for jobs then inform friends and relatives who later join them. The key is getting the first group to go, after which those people who have left use their networks to get others to migrate. Social networks explain concentrations of people in particular occupations. Munshi (2011) talks of different castes of Indians working in European diamond markets using their social networks. Work occupations in the United States also see concentrations of different nationalities in different occupations; for example, Kerr and Mandorff (2015) find that "Koreans are 34 times more likely than other immigrants to operate dry cleaners, and Gujarati-speaking Indians are 108 times more likely to manage motels." The government's role can therefore be thought of as starting the initial network of migrants which, like an epidemic, causes later entry by larger numbers through the social networks of early migrants. Initial government intervention lights the sparks that help larger numbers get the information and contacts to enable them to decide to migrate. Without government intervention in a managed scheme, the start of migration may be delayed or significantly reduced. Once migration flows start, social networks take over.

2.6.4 Coordinated Skills Training and Certification Systems

When managed migration schemes are in place, governments can and often do get involved in trying to match workers' skills to destination countries' needs. National Qualifications Systems are set up in source and destination countries to certify workers as having different skill levels. This in turn enables training systems to be implemented in the source country to help migrating workers acquire the skills to help them find jobs and to succeed in them.

Several issues arise regarding these training schemes. First, who should pay for them – the destination government, the origin government, the migrant, or the receiving firm? Second, very little data exist on whether these training programs work in any measureable sense.

As a practical matter, the question arises of who determines skill levels and conducts testing and certification. COD firms often voice the concern that governments are unable to train or certify as well as firms do. Some agreement is needed between COD firms and governments so that Mutual Recognition Agreements (MRA) on skills and certifications can be established.

In many cases, firms in the COD have monopsony power over workers – either through tied visas as in the case of many Gulf countries, or simply because firms have inside knowledge of the ability of different types of workers. In this situation, firms are likely to extract any benefits from training workers, and workers in turn may put in very little effort in training, effectively destroying the training program. External certification of skills provides a way out of this "market failure" by raising the value of training to workers as they can use the certificates in other jobs at other times (see Acemoglu and Pischke 2000 for more on this). This provides a motivation for government-assisted certification systems within a managed migration regime.

2.7 Temporary Versus Permanent Migration

Only a few migrants can perfectly predict how long they will stay in the destination country. Many are on short-term visas but end up staying a long time, while others go with the intent to stay for a long time but quickly change their minds and return after a short sojourn. Despite this, some distinction exists between those who go on temporary migrations versus those who migrate permanently, or at least intend to. Up until very recently, in many Gulf nations visas were given for two or three years, and unless renewed with the same company, workers had to return to their home country. Seasonal worker visa programs for agricultural workers in the United States (H2 visas) are also of very limited duration.

Many papers indicate that a large number of migrants actually return to their home countries after a relatively short period. OECD estimates for many countries put the percentage of migrants leaving after the first five years as between 20–50 percent of their cohort (OECD 2008)[11]. These relatively high return percentages are also seen among migrants in Australia, Canada, New Zealand, and the United States. Much more return migration occurs than is commonly believed.

11. Part III.

The distinction between temporary and permanent migrants has important implications:

1. Temporary workers have been seen to accept lower wages than permanent workers. This is to be expected as the latter have a bigger incentive to search for longer periods for a higher wage, while the former want jobs quickly as their stay is short. For this reason, temporary or “guest” worker programs may have much lower impact on native population wages than do permanent workers.

2. As argued later, remittances are a big part of the calculus and general analysis of migration. Temporary workers are expected to have a higher incentive to remit money to their home countries than do permanent workers (Lucas 2004; Galor and Stark 1991).

3. Temporary workers may put in more hours of work and enjoy less leisure time than permanent workers as their motivation is to save money quickly to go back home. This may result in such workers being perceived as having higher performance than similar native workers (Galor and Stark 1991) – that is, the perceived difference between foreign and native workers is more about temporary foreign workers versus natives rather than foreign workers versus natives.

3 Empirical Evidence

The first part of this paper discussed the principal ideas and concepts around the question of managed migration. At the risk of repeating the material in the earlier section, the natural follow-up question regards the empirical evidence for these same concepts, as presented in section 3.

3.1 Wages

Surprisingly very little data exist on the state of migrants before and after migration. The difference between income in destination and source countries is a crude measure of the benefits of migration. Clemens, Montenegro, and Pritchett's (2008) study of low-skilled Filipino workers concluded that their wages were 3.5–3.8 times higher in the United States than in the Philippines even after accounting for cost-of-living differences. Related measurements were made in Clemens (2011), who argued that the gains from trade from allowing free migration were on the order of "$23 trillion which is 38 percent of global GDP." As an example for the European Union (EU), Polish wages were 17 percent of U.K. wages when in 2004 the EU liberalization and Polish entry into the EU and U.K. (Dustman and Gorlach 2016, p. 100), suggesting an almost sixfold increase in wages for the typical Polish migrant to the United Kingdom. When migrants travel with families, the impact on children can also be remarkable. Studying the results of a random ballot allowing some (the winners of the ballot) to migrate from Tonga to New Zealand, Stillman, Gibson, and McKenzie (2012) found that "migration increases height and reduces stunting of infants and toddlers." On the other hand, children are also exposed to rich-country problems of obesity and high body mass index (BMI) – suggesting that the benefits as measured by wages should be compared with such health outcomes.

3.2 Remittances

The global value of remittances is on the order of US$410 billion[12]. The value of remittances currently exceeds overseas development assistance in many countries. Remittances are currently a major source of foreign exchange for many developing nations. In the UAE, the remittance firm UAEx alone handles remittances in excess of US$17 billion per year, primarily from Indian migrants in the country. Total remittances going out of the UAE were around US$40 billion in 2011. Remittances form a large percentage of the GDP of many nations. Nyarko (2011) presented tables showing remittances in the order of 10 percent of GDP for countries like Nigeria, Sierra Leone, and Senegal.

A lot of the early work on remittances came from official statistics, particularly various columns in the official balance of payments data provided by governments, and from surveys of central banks (Irving, Mohapatra, and Ratha 2010; Ratha, Mohapatra, and Silwal 2010). Measurement issues invariably arise with such statistics. On one hand, many transactions take place through unofficial channels so are not captured in official statistics. Official statistics may also include irrelevant entries (e.g., spending by the origin country embassy in the destination country –Chami, Fullenkamp, and Gapen 2008). A second set of data on remittances comes from various survey datasets. Household surveys often ask those being interviewed about remittances received. A large number of papers use these datasets for data on remittances in particular countries at particular times (see, for example, Gyimah-Brempong and Nyarko 2015).

12. As reported by various World Bank sources, particularly its KNOMAD group. See www.knomad.org

Many case studies provide some information on remittances in very particular situations, usually with relatively small numbers of respondents. More recently, the impressive work by the KNOMAD group at the World Bank has yielded fairly good and current data on the level of remittances. And a large number of case studies document the impact of remittances on local COO economies. Increasingly, one can get even more refined data from money remittance firms in COOs that provide very accurate data on remittance transfers (see, for example, Nyarko and Wang 2016).

Also of interest is the question of who remits more back to their COO –poor (unskilled) or rich (skilled) migrants. On one hand, the higher-skilled have more money so an income effect would dictate that they send home larger amounts. On the other hand, the poor may have closer connections back home and have more family members in need and so may remit larger amounts – in percentage and perhaps also in absolute terms (Bollard et al. 2009).

Evidence suggests that at the individual level, remittances from migrants serve as insurance for family members in the COO. Yang and Choi (2007) use rainfall shocks in the Philippines and conclude that "Roughly 60 percent of declines in household income are replaced by remittance inflows from overseas." The converse is also the case: in the interesting work of Amuedo-Dorantes and Pozo (2006b) in the context of Mexican migrants to the United States, remittances are sent back home almost like an insurance premium so that the migrant can access family insurance when the migrant falls on bad times.

As regards remittances affecting the supply of labor, Amuedo-Dorantes and Pozo (2006a) provide an interesting study of this question using data on Mexican migrants to the United States. They show that the answer may depend upon gender: remittances seem to induce women in rural areas to "to purchase time away from informal and nonpaid work." For men, however, remittances may result in higher informal sector employment.

3.3 Skills

In connection with studies on brain drain and migration of the high-skilled, some important datasets have been constructed that provide some insight into the skills formation question. Docquier and Marfouk (2005) and others have fairly good data on the stock of migrants at different skill levels from different COOs in various CODs, particularly OECD countries. Following the tradition of Barro and Lee (2010), extensive datasets now define skills of populations by years of schooling. Together, these two datasets show the evolution of skills training in COOs as well as migration of different skill levels to different CODs. This is used to measure the extent of the brain drain from COOs to CODs. Very little consistent data exist on the skills of returning migrants, especially those with vocational skills, in contrast with data on years of schooling. Pires, Kassimir, and Brhane (1999) present survey work indicating the significance of return migrants.

These data on their own do not answer the question of formation of skills due to people's desire to migrate, nor of the contribution of migration to skills formation through return migration. However, these studies are informative. For example, just looking at the stock of Ghanaian doctors who are in Ghana versus outside Ghana would reveal a large percentage of doctors abroad, seemingly indicating a massive brain drain of Ghana's doctors. However, many of its domestic doctors were trained abroad, especially the older, more experienced doctors. And many doctors remaining in the country probably trained with the intent of potentially leaving the country but for whatever reason stayed at home.[13]

13. Gibson and McKenzie (2010) and Nyarko (2011). For some evidence supporting this from cross-country regressions, see Easterly and Nyarko (2009). McKenzie and Rapoport (2010) provide a survey of a lot of the literature and provide evidence for Mexico.

3.4 Financial Intermediation and External Trade Identification and Facilitation and Other Macroeconomic Impacts

Giuliano and Ruiz-Arranz (2009) studied the impacts on growth in COOs by looking at the connection between remittances and COOs' level of financial development. As expected, their results show bigger impacts on growth for countries with weaker financial systems, as the remittances and migrants abroad provide alternate methods of financing investments in the COO.

One would expect channels of effects through exchange rate shocks in the COD to affect incomes or migrants' behavior in the COD, which then translate via remittances to the COO. Yang (2008) shows how exchange rate appreciation in the COD translates into effects in the COO, causing increased human capital, entrepreneurship, and capital-intensive household enterprises. The channel for this is remittances, which has significant elasticity with respect to exchange rates (estimated at 0.6 for the Philippines data). Related to this is work by Mckenzie, Theoharides, and Yang (2014) that showed how shocks to GDP in the COD translate to shocks within the COO through migrant flows. Finally, Elbadawi and Rocha (1992) discussed the macro implications of migration, for example issues around interest rate differentials between host and origin nations.

3.5 Impact on Wages of Those Left Behind

In the Mexico and United States corridor, which has very large flows of migrants, Mishra (2007) found an increase in nominal wages of about 8 percent (and also pointed to other related literature).

3.6 Networks

Research on ethnic enclaves (Piil Damm 2009) established the advantages to CODs in which one's countrymen are established in various enclaves. McKenzie and Rapoport (2007) obtained empirical backing for the networks hypothesis in the context of migrants from Mexico. Millions of Indian migrants are now in GCC nations and a survey by Rajan and Narayana (2010) estimated that close to 80 percent of those workers had heard of jobs through their social networks.

3.7 Temporary Versus Permanent Migration

Dustmann and Mestres' (2010) paper addressed the empirical issues around the assertions made in section 2.7 on the temporary/permanent migration distinction. Related to this distinction is that of legal versus illegal immigration. Dustmann and Gorlach (2016) studied a survey of documented and undocumented immigrants residing in Italy over the period 2004–2007. Their main conclusion was that being documented has a causal impact on migrants resulting in their having higher consumption levels than those of undocumented migrants. This seems suggestive of the higher work effort, lower leisure, and higher remittances of temporary migrants relative to permanent migrants (recall section 2.7).

4 Afghanistan's Labor Market and Migration Patterns

4.1 Overview

Afghanistan has faced high levels of migration flows for the last few decades in a context of persistent conflict and insecurity, severe poverty, and lack of economic opportunities. Migration in Afghanistan remains largely unmanaged, with individuals migrating for many reasons such as security (refugees) and better work opportunities (economic migrants). The Soviet occupation of 1979–1989 and thereafter the Taliban presence in the country led to mass movements of refugees out of Afghanistan. In addition, labor market conditions in the country, characterized by relatively high underemployment, informality, and large numbers of youth entering the labor market, placed pressure on individuals to migrate in search of more permanent and better-paying jobs. Lack of productive and decent jobs has been one of the main drivers of persistent poverty (39 percent in 2014) and migration in the country.

According to UN Department of Economic and Social Affairs (DESA) statistics, the number of Afghan immigrants was estimated at around 4.8 million in 2015. By country of destination, neighboring Iran (2.35 million) and Pakistan (1.6 million) host more than 80 percent of the total Afghan population abroad, while the rest currently reside in OECD countries (460,000) and Saudi Arabia (360,000). Another 50,000 Afghans are living in other countries, mainly in India and Central Asian countries. The overwhelming presence of Afghans in Pakistan and Iran as opposed to GCC and OECD countries limits many of the migration benefits discussed above. The remaining sections analyze the channels of development impact described heretofore in the context of Afghanistan.

4.2 Channels of Development Impact in Afghanistan

4.2.1 Brain Drain, Circular or Return Migration, and Harnessing the Diaspora

In the last few decades, the high inflows and outflows of migrants in Afghanistan were characterized by frequent resettlements, circular migration, and internal migration and displacement. These dynamics show that the more refugees returned to the country, the heavier the burden became on the local labor market, leading to more pressure to migrate and more economic migration. For instance, as underemployment is fairly high in Afghanistan, those Afghanis who left may be the ones with limited options in their home country, removing the positive effect that migration may have on wages in the local economy and incentivizing more migration outflows.

Regarding brain circulation or brain gain, the number of skilled Afghan migrants living in OECD countries is not significant enough to make a difference in Afghanistan. Further, there is no evidence to suggest that the few Afghan migrants with the ability to positively influence the country have done so.

4.2.2 Skills Formation – Incentives for Skills Formation

While there is no evidence that Afghan migrants invest in education or skills prior to leaving the country, unskilled migrants do acquire skills in vocational activities while working abroad. This skill accumulation offers an opportunity to spur growth in the Afghan economy. In Iran for example, refugees are allowed to work if they have a temporary work permit, for which only Afghan men aged 18–60 can apply. The permitted job areas most often involve manual labor such as construction and manufacturing. Upon return to Afghanistan, migrants can use their newly acquired skills in construction and services, which are increasingly important in the economy. A sectoral decomposition in Afghanistan shows that while transport and construction increased their share in the total economy during the last decade (2005 to 2015) (from 10 percent to 25 percent and from 4 percent to 13 percent, respectively), agriculture's share significantly decreased, from 44 percent to 25 percent of total GDP in 2015. Further, household data show that returnees have more diverse skills profiles, with less prevalence in agriculture and more in construction and manufacturing and services, suggesting that they are making use of skills acquired abroad.

The length of time and extent to which returnees can apply their acquired vocational skills in Afghanistan remains to be seen. As international financial flows are progressively reduced, the services sector, which has been the main driver of Afghanistan's growth, will probably suffer the most, erecting more barriers for returnees to finding work. Already, reintegration efforts of returnees into the Afghan labor market are not very successful. Household data show that 37 percent of returnees take twice as long to find employment and have higher unemployment and underemployment as nonmigrants with similar characteristics. In addition, those who find work when they return to Afghanistan receive wage levels similar to those of non-returnees (controlling for socioeconomic factors as well as regions), suggesting that migration does not ameliorate their situation.

Finally, although migrants do have opportunities to upgrade their vocational skills abroad, they have no incentive for or chances of acquiring other skills. As stated above, the bulk of migrants are in Iran and Pakistan, with very few in OECD countries. Due to the Iranian market's focus on manual labor, many migrants have no incentive to educate themselves beyond basic reading and writing skills.

4.2.3 Remittances in Afghanistan

Estimates on the size of remittances in Afghanistan vary significantly depending on the source. They range from 1.7 percent of GDP according to the Central Bank of Afghanistan (Da Afghanistan Bank) to 10 times that amount when informal channels for remitting money are accounted for. Remittances also vary over time depending on the net flow of refugees abroad. In 2011, for example, when the stock of refugees dropped by almost 400,000 mainly because of return migration from Iran, remittances were reduced by 50 percent.

According to household data, remittance flows in Afghanistan benefit a relatively small share of the population (6.62 percent of households have remittances as one of the three main sources of income). However, for those recipients, remittances account for a significant portion of their income, mainly used for consumption and making affordable the basic spending needs. Even though international literature sometimes portrays remittances used for consumption as bad, in Afghanistan, remittances can reduce poverty, as they are a major source of income for Afghans, who get by with subsistence-level productive activities, family work, or precarious and informal work. According to the household survey, remittances represent around 75 percent of total income among those who said they were their main source, and 31 percent for those who stated remittances were their second source. The data also show that international migrants have higher consumption levels than nonmigrants as they are overrepresented in the higher income quintiles of the population.

Similar to the situation in the rest of the world, remittances in Afghanistan, a country prone to negative external shocks, are an important source of humanitarian assistance when natural disasters and other forms of economic turmoil arise. Remittances are countercyclical and act as a buffer against the shocks that are prevalent in Afghanistan, such as war, conflict and insecurity, droughts, earthquakes, and economic shocks.

By country of origin, remittances predominantly come from Iran and Pakistan in line with the higher stock of Afghani migrants living in these countries. In 2015, remittances from Iran and Pakistan accounted for 40 percent and 30 percent, respectively, of total remittances. However, the amount remitted per migrant is much lower in these two countries than in the rest of the world, mainly due to the lower wages migrants receive there. For example, while an average migrant in Iran and Pakistan remits US$61 and US$66, respectively, per year, an Afghan in Saudi Arabia, Germany, and United States sends about US$142, US$130, and US$110 per year, respectively. On the other hand, while remittances tend to vary with GDP growth in OECD countries (for example, a correlation of +0.6), this correlation is rather low in Iran and Pakistan (+0.2 in Iran and almost 0 in Pakistan), so that remitted amounts from Iran and Pakistan do not decrease significantly when growth declines.

4.2.4 Migrants and Diaspora Aiding in External Trade and Identification of Markets Back Home

Evidence on Afghan migrants helping identify local markets is scarce; however, as many migrants are unskilled and most migration is to Iran and Pakistan as opposed to OECD countries, this particular benefit of migration may be very limited. And unlike Pakistanis, Afghans have yet to establish a strong niche for themselves where they are known for a particular skill or trade in receiving countries like the GCC.

4.3 How to Achieve Growth in Afghanistan: Managed Migration

During previous decades, many stakeholders, including the international community, did not place sufficient importance on Afghanistan's socioeconomic future. Since the fall of the Taliban regime in 2001, Afghanistan has received massive aid, estimated at around 97 percent of GDP in 2011. In addition, it has received security assistance, with more than 100,000 NATO troops stationed in Afghanistan. Given the recent decline in international aid and the progressive withdrawal of international military personnel, Afghanistan needs to secure other sources of growth. One way would be to manage migration and achieve many of the benefits stated above. If (1) other host countries such as the GCC can be identified and (2) frameworks and international agreements, tools for labor intermediation, protection mechanism for migrants, and institutions to expand and diversify the foreign market are put into place, then remittances may increase, Afghan human capital may be upgraded, and connections to external markets may be improved, thereby reducing poverty and spurring growth. It remains to be studied whether managed migration will substantially benefit Afghanistan more than its current unmanaged migration system.

5 Conclusions

This section summarizes what is known and what is not – especially with regard to managed and unmanaged migration. It mentions some of the areas where gaps in knowledge persist and some conceivable next steps.

First, what is known? Sections 2.1–2.3 indicated many channels for developmental impacts of migration: (1) the increased wages and livelihoods of those who migrate from COOs to CODs –the direct wage increase for migrants who may have had low wages or were unemployed; (2) the remittances of migrants to those who remain in COOs, known to be large; and (3) the enhanced skills formation, which provides benefits to COOs through incentive effects that lead many to increase their skill levels and through migrants who return with superior skills and experience. Empirical estimates from the literature were given on each of these. Some gaps in knowledge still remain on quantifying the impact on skills formation, particularly among lower-skilled workers.

Two other areas of development impact with a good deal of study in the literature were discussed in sections 2.4 and 2.5: (1) the financial intermediation, and (2) external trade identification and facilitation that result when migrants in CODs encourage trade between the COO and CODs, providing benefits to both. The effects on balance on payments are positive, but "Dutch disease"-type impacts are a concern. Remittances can be a source of collateral for international borrowing and for balance of payment improvements, while in some nations diaspora bonds are important. The wages of those left behind in the COO caused by workers leaving for CODs are impacted, too; quite a bit of work documents these important impacts in the literature. Section 3 gave results from the empirical literature on their magnitude.

Regarding managed and unmanaged forms of migration, the paper presented two examples (of the Philippines, a COO, and South Korea, a COD) to illustrate different ways in which managed migration schemes have worked. The paper noted that many other schemes with differing levels of "management" exist, some more aptly called "unmanaged" and others "loosely managed."

The paper argued that networks are important for starting migrant flows, and that this could be a principal benefit of managed migration schemes. For scaling up migration, governments will be required to set up structures and agreements to begin the migration and get the first cohorts to jobs in CODs. After the initial push by governments, social networks are a powerful tool for significant expansion in the numbers of migrants. As is seen in the very large migrant flows from India, Bangladesh, and Pakistan to GCC nations, workers themselves and individual destination country firms with somewhat looser supervision from destination country ministries of labor figure out how to manage the recruitment with little direct governmental interference. In other words, in these situations government-to-government processes are required to start the flow of migrants and to enact the rules and regulations, after which migrants and firms require less supervision. Unfortunately, little data exist on the extent of these network effects. However, it is extremely likely that this role of "seeding" a migration corridor flow is an important aspect of managed migration schemes.

Coordinated skills training and certification, usually an integral part of managed migration schemes, were also argued to be important. Firms in destination countries often spend significant amounts of time in origin nations trying to assess or screen workers for their skills. This is not a perfect science, and destination firms are at some disadvantage as they are far away from their firm headquarters and need to rely on recruitment firms in the origin countries with which they may not be familiar. This introduces a role for governments in designing certification systems and regulations. Either the government or the private sector is then responsible for training. Some work has been done at the theoretical and empirical level, but the impact of skills training and certification remains an important knowledge gap.

Finally, the distinction between permanent and temporary migration is known to be important for migration outcomes – migrants' consumption and savings levels in particular. Related to that is the question of illegal versus legal migration.

As populations in many richer nations age, the need for labor from developing nations will rise (for example, for nurses and home healthcare workers). Similarly, resource-rich countries with small populations could benefit from having workers help in their economic transformation, particularly in the construction and infrastructure sectors. Developing countries with large populations could conversely benefit from having their workers migrate to some of these destination countries for employment opportunities, with other benefits accruing to the COO. These mutual gains for both CODs and COOs should provide an incentive for developing countries and aid partners to collaborate in managing migration flows.

References

Acemoglu, D., and J.S. Pischke. 2000. “Certification of Training and Training Outcomes.” *European Economic Review*, Vol. 44(4): 917–927.

Al Awad, M. 2010. “The Cost of Foreign Labor in the United Arab Emirates.” Institute for Social & Economic Research (ISER) Working Paper No. 3. UAE: Zayed University.

Amuedo-Dorantes, C., and S. Pozo. 2006a. “Migration, Remittances, and Male and Female Employment Patterns.” *American Economic Review*, Vol. 96(2): 222–226.

Amuedo-Dorantes, C., and S. Pozo. 2006b. “Remittances as Insurance: Evidence from Mexican Immigrants.” *Journal of Population Economics*, Vol. 19: 227–254.

Barro, R., and J. Lee. 2010. “A New Data Set of Educational Attainment in the World, 1950–2010.” NBER Working Paper No. 15902. National Bureau of Economic Research, Boston, USA.

Becker, G. 1974. “A Theory of Social Interaction.” *Journal of Political Economy*, Vol. 82(6): 1063-1093..

Bollard, A., D. McKenzie, and M. Morten. 2010. “The Remitting Patterns of African Migrants in the OECD.” World Bank Working Paper No. 5260, World Bank, Washington, DC.

Bollard, A., D. McKenzie, M. Morten, and H. Rapoport. 2009. “Remittances and the Brain Drain Revisited: The Microdata Show that More Educated Migrants Remit More.” World Bank Development Research Group, Policy Research Working Paper No. 5113.,World Bank, Washington, DC.

Borjas, G.J. 1987. “Self-Selection and the Earnings of Immigrants.” *American Economic Review*, Vol. 77(4): 531–553.

Card, D. 2009, “Immigration and Inequality.” *American Economic Review Papers and Proceedings*, Vol. 99(2): 1–21.

Chami, R., C. Fullenkamp, and M. Gapen. 2008. “Measuring Workers’ Remittances: What Should Be Kept In and What Should Be Left Out?” International Monetary Fund Working Paper, July. IMF, Washington, DC.

Chami, R., C. Fullenkamp, and S. Jahjah. 2003. “Are Immigrant Remittance Flows a Source of Capital for Development?” International Monetary Fund Working Paper WP/03/189, IMF, Washington, DC.

Chiquiar, D., and H. Hanson. 2005. “International Migration, Self-Selection, and the Distribution of Wages: Evidence from Mexico and the United States.” *Journal of Political Economy*, Vol. 113(2): 239-281.

Clemens, M 2011. “Economics and Emigration: Trillion-Dollar Bills on the Sidewalk?” *Journal of Economic Perspectives*, Vol. 25(3): 83–106.

References

Clemens, M.A. 2013. "What Do We Know About Skilled Migration and Development?" Migration Policy Institute, Policy Brief No.3. Washington, DC: MPI

Clemens, Michael, Claudio E. Montenegro, and Lant Pritchett. 2008. "The Place Premium: Wage Differences for Identical Workers across the U.S. Border." Center for Global Development (CGD) Working Paper 148. Washington, DC: CGD

Docquier, F., and K. Marfouk. 2005. "International Migration by Educational Attainment (1990–2000)—Release 1.1." World Bank Policy Research Working Paper 3381, World Bank, Washington, DC.

Dustmann, C., and J-S. Gorlach. 2016. "The Economics of Temporary Migrations." *Journal of Economic Literature*, Vol. 54(1): 98–136.

Dustmann, C., and J. Mestres. 2010. "Remittances and Temporary Migration." *Journal of Development Economics*, Vol. 92: 62–70.

Dustmann, C., F. Fasani, and B. Speciale. 2016: "Illegal Migration and Consumption Behavior of Immigrant Households." IZA DP No. 10029, June. Bonn: IZA.

Dustmann, C., T. Frattini, and I. Preston. 2013. "The Effect of Immigration along the Distribution of Wages" *Review of Economic Studies*, Vol. 80: 145–173.

Easterly, W., and Y. Nyarko. 2009. "Is the Brain Drain Good for Africa?" In *Skilled Migration Today: Prospect, Problems and Policies*, ed. J. Bhagwati and G. Hanson, pp. 27–33. New York: Oxford University Press.

Elbadawi, I., and R. Rocha 1992. "Determinants of Expatriate Workers' Remittances in North Africa and Europe." World Bank Policy Research Working Papers, WPS 1038, World Bank, Washington, DC.

Galor, O., and O. Stark 1991. "The Probability of Return Migration, Migrants' Work Effort, and Migrants' Performance." *Journal of Development Economics*, Vol. 35: 399–405.

Gibson, J., and D. McKenzie. 2010. "The Economic Consequences of Brain Drain of the Best and Brightest: Microeconomic Evidence From Five Countries." *Economic Journal*, Vol. 122(560): 339–375.

Giuliano, Paola, and Marta Ruiz-Arranz. 2009. "Remittances, Financial Development and Growth." *Journal of Development Economics*, Vol. 90: 144–152.

Gyimah-Brempong, K., K. Hellwig, and Y. Nyarko. 2011. "Social Safety Nets: The Role of Education, Remittances and Migration." European Report on Development, pp. 4–13. Brussels: European Union.

Gyimah-Brempong, K., and Y. Nyarko. 2015. "Education, Internal Remittances and Safety Nets in Africa: Some Evidence." *Journal of African Development*, Vol. 17(1): 1-16.

Irving, J., S. Mohapatra, and D. Ratha. 2010. "Migrant Remittance Flows: Findings from a Global Survey of Central Banks." World Bank Working Paper No. 194, World Bank, Washington, DC.

References

Kerr, W., and M. Mandorff. 2015. “Social Networks, Ethnicity, and Entrepreneurship.” NBER Working Paper No. 21597, NBER, Boston, Massachusetts.

Ketkar, S., and D. Ratha. 2007. “Development Finance via Diaspora Bonds: Track Record and Potential.” World Bank Development Research Group, Policy Research Working Paper No. 4311, World Bank, Washington, DC.

Lucas, R.E.B. 2004. “International Migration to the High Income Countries: Some Consequences for Economic Development in the Sending Countries.” Boston University (mimeo), Cambridge, MA.

Lucas, R.E.B., and O. Stark. 1985. “Motivations to Remit: Evidence from Botswana.” *Journal of Political Economy,* Vol. 93(5): 901–918.

Martin, P. 2016. “Recruitment.” Background Paper prepared for the meeting of Labor Ministers convened by the Abu Dhabi Dialogue May 11–12, 2016 in Dubai. Manuscript, University of California, Davis.

McKenzie, David, and Hillel Rapoport. 2007. “Network Effects and the Dynamics of Migration and Inequality: Theory and Evidence from Mexico.” *Journal of Development Economics*, Vol. 84: 1–24.

McKenzie, D., and H. Rapoport. 2010. “Can Migration Reduce Educational Attainment? Evidence from Mexico.” Journal of Population Economics, Vol. 24(4): 1331–1358.

McKenzie, D., C. Theoharides, and D. Yang. 2014. “Distortions in the International Migrant Labor Market: Evidence from Filipino Migration and Wage Responses to Destination Country Economy Shocks.” *American Economic Journal: Applied Economics*, Vol. 6(2): 49–75.

Mendoza, D. 2015. “Shortage Amid Surplus: Emigration and Human Capital Development in the Philippines.” Migration Policy Institute, Issue in Brief, Issue No. 15. Washington, DC.: MPI.

Merkle, L., and K.F. Zimmermann. 1992. “Savings, Remittances and Return Migration.” *Economic Letters*, Vol. 38: 77–81.

Mishra, Prachi. 2007. “Emigration and Wages in Source Countries: Evidence from Mexico.” *Journal of Development Economics*, Vol. 82: 180–199.

Munshi, K. 2011. “Strength in Numbers: Networks as a Solution to Occupational Traps.” The Review of Economic Studies, Vol. 78(3): 1069–1101.

Naidu, S., Y. Nyarko, and S. Wang. 2016.. “Worker Mobility in a Global Labor Market: Evidence from the United Arab Emirates.” *Journal of Political Economy, December.*

Nyarko, Y. 2011. “The Returns to the Brain Drain and Brain Circulation in Sub-Saharan Africa: Some Computations Using Data from Ghana.” National Bureau of Economic Research (NBER), Working Paper 16813, NBER, Boston.

References

Nyarko, Y. 2013. “The Economic Development Benefits of Human Mobility to

Source Countries, in Labor Mobility, an Enabler for Sustainable Development.” The Emirates Centre for Strategic Studies and Research (ECSSR), United Arab Emirates.

Nyarko, Y., and S. Wang 2016. “Asymmetric Information and Remittances: Evidence from Matched Administrative Data.” Manuscript, New York University, New York City, NY.

OECD (2008): “International Migration Outlook 2008”, Organization for Economic Cooperation and Development, Paris, France.

Park, Y. 2013. “Temporary Low-skilled Migrant Worker Program in Korea: Employment Permit Scheme.” Arbor. Available at: http://arbor.revistas.csic.es/index.php/arbor.

Piil Damm, A. 2009. “Ethnic Enclaves and Immigrant Labour Market Outcomes: Quasi-experimental Evidence.” *Journal of Labor Economics*, Vol. 27(2): 281–314.

Pires, M., R. Kassimir, and M. Brhane. 1999. “Investing in Return. Rates of Return of African Ph.D.’s Trained in North America.” Social Science Research Council, New York.

Pritchett, Lant. 2004. “Boom Towns and Ghost Countries: Geography, Agglomeration, and Population Mobility.” Working Paper Number 36, Center for Global Development, Thiruvananthapuram, Kerala, India.

Rajan, I., and D. Narayana. 2010. “The Financial Crisis in The Gulf and Its Impact On South Asian Migrant Workers.” Working paper #436, Center for Development Studies, Thiruvananthapuram, Kerala, India.

Ratha, D., S. Mohapatra, and A. Silwal. 2010. “Outlook for Remittance Flows 2010–11.” World Bank Development Prospects Group, World Bank, Washington, DC.

Ruiz, N. 2008. “Managing Migration: Lessons from the Philippines.” Migration and Development Brief 6. Migration and Remittances Team, World Bank, Washington, DC.

Stark, O., 2004. “Rethinking the Brain Drain.” *World Development*, Vol. 32(1): 15–22.

Stark, O., and D.E. Bloom. 1985. “The New Economics of Labor Migration.” *American Economic Review*, Vol. 75(2): 173–178.

Stark, O., and R. Zakharenko. 2012. “Differential Migration Prospects, Skill Formation, and Welfare.” *Review of International Economics*, Vol. 20(4): 657–673.

References

Stark, O., C. Helmenstein, and Y. Yegorov. 1997. “Migrants’ Savings, Purchasing Power Parity, and the Optimal Duration of Migration.” *International Tax and Public Finance*, Vol. 4(3): 307–324.

Stillman, S., J. Gibson, and D. McKenzie. 2012. “The Impact of Immigration on Child Health: Experimental Evidence from a Migration Lottery Program.” *Economic Inquiry*, Vol. 50(1): 62–81.

Tong, Q. 2010. “Wages Structure in the in the United Arab Emirates.” Institute for Social & Economic Research (ISER) Working Paper No. 2, UAE, Zayed University.

Yang, D. 2008. “International Migration, Remittances, and Household Investment: Evidence from Philippine Migrants’ Exchange Rate Shocks.” *The Economic Journal,* Vol. 118: 591-630.

Yang, Dean, and HwaJung Choi. 2007. “Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines.” *World Bank Economic* Review, Vol. 21: 219–248.

WORLD BANK GROUP
Social Protection & Jobs