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Impacts of Temporary Migration on Development in Origin Countries

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Abstract

Temporary migration is widespread globally. While the literature has traditionally focused on the impacts of permanent migration on destination countries, evidence on the effects of temporary migration on origin countries has grown over the past decade. This paper highlights that the economic development impacts, especially on low- and middle-income origin countries are complex, dynamic, context-specific and multi-channeled. The paper identifies five main pathways: (i) labor supply, (ii) human capital, (iii) financial capital and entrepreneurship, (iv) aggregate welfare and poverty, and (v) institutions and social norms. Several factors shape these pathways and their eventual impacts. These include initial economic conditions at home, the scale and double selectivity of emigration and return migration, and employment and human capital accumulation opportunities experienced by migrants while they are overseas, among others. Meaningful policy interventions to increase the development impacts of temporary migration require proper analysis, which, in turn, depends on high quality data on workers' employment trajectories. This is currently the biggest research challenge to overcome to study the development impacts of temporary migration.

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Impacts of Temporary Migration on Development in Origin Countries*

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1 Introduction

Temporary migration is widespread across the globe, especially for low-skilled migrants from low- and middle-income countries (Dustmann and Görlach 2016). The empirical and policy literature has traditionally focused on permanent migration and its impact on high-income destination countries, mainly due to the availability of the relevant and suitable data. In the last decade, however, research on temporary migration and its impact on mostly low- and middle-income origin countries has grown considerably as the issue received more attention from policy makers and new data sources became available (Wahba 2014).[1]

The focus of the earlier papers on temporary migration was on the effects of remittances on income and poverty in origin countries.[2] More recent literature shifted the focus to other macroeconomic variables, and especially, those associated with economic development (Clemens, Özden, and Rapoport 2014). The objective of this paper is to summarize and discuss the evidence on the various channels through which temporary migration and economic development in origin countries are linked, identify the data and methodology challenges, and finally suggest new venues of research.

One of the main observations of this literature is that temporary migration is part of a complex dynamic optimization process of individuals who aim to maximize their lifetime utility (Borjas and Bratsberg 1994; Kırdar 2009; Dustmann and Görlach 2016). These individual decisions, when aggregated across the population, impact a range of macroeconomic variables and the overall development paths of origin countries. In terms of individual decisions, temporary migrants have to decide when to leave, where to move, how long to stay, what kind of work to do, what to do after return, and whether to migrate again. They have to overcome legal barriers and pay upfront fixed costs, often financed through borrowing. They face numerous sources of uncertainty due to macroeconomic conditions that affect labor demand at the destination or individual conditions that impact their employers.

These decisions are also interconnected: the outcome of each decision depends on and influences the other decisions. In other words, the temporary migration process has dynamic repercussions on the migrants' human capital, savings, labor supply, occupational choices, and, ultimately, their consumption paths and lifetime welfare (Dustmann and Kirchkamp

[1] Identifying the impacts of temporary migration on origin countries requires following the employment trajectories of workers across borders over time and collecting detailed household, consumption, savings and investment data, which are hard to achieve with standard cross-sectional (household or labor force) surveys or administrative registration data.

[2] While several papers look at the aggregate association between remittances and economic growth in origin countries, results are mixed or inconclusive, and suffer from a number of methodological limitations (Clemens and McKenzie 2018). Also see Cazachevici, Havranek, and Horvath (2020) for a recent meta-nalysis and review of the literature on the topic.

2002; Bossavie, Gorlach, Ozden, and Wang 2021). Such dynamic impacts extend beyond the migrants and affect the outcomes and welfare of their family members who, mostly, stay in the home country while the migrant is abroad. In addition to direct macroeconomic effects, such as foreign currency inflows, decisions of migrants produce broader externalities. Among these are the transmission of ideas, technology and human capital.

The paper highlights that the economic development impacts of temporary migration, especially on low- and middle-income origin countries are multi-channeled. It identifies five main pathways through which temporary migration experiences of individuals affect overall economic development and growth in their home countries: (i) labor supply; (ii) human capital accumulation; (iii) financial capital accumulation and entrepreneurship behavior; (iv) welfare and poverty reduction, mainly through remittances received; and (v) changes in institutions and social norms. We emphasize that the impacts of each of these channels are complex, dynamic and highly context-dependent. They depend, among others, on the scale of temporary migration, economic conditions at the time of departure and return, the selectivity of emigration (the skill level of emigrants relative the working age population at origin) as well as return migration (the skill level of return migrants relative to emigrants who choose to stay). While doing so, the paper also identifies evidence gaps in the literature, which are partly driven by the limited availability of suitable microdata to study the impacts of temporary migration.

The evidence reviewed is restricted to international migration. It does not cover the related literature on internal migration, even though conceptually they are closely related. Most studies in the internal migration literature have focused on rural to urban migration (Sjaastad 1962; Harris and Todaro 1970), and, typically treat such movements as permanent changes of location. More recent papers introduce temporariness, such as Morten (2019), and view temporary migration as an insurance mechanism in rural areas.[3]

The remainder of the paper is organized as follows. Section 2 discusses patterns in temporary migration and reviews available data. Section 3 looks at effects on labor supply among the home country population. Section 4 discusses the complex and multi-channeled impacts of temporary migration on human capital at origin. Section 5 focuses on financial capital and entrepreneurship. Section 6 covers the overall effects of temporary migration and remittances on welfare and poverty in origin countries. Section 7 discusses the thinner but growing literature on impacts on institutions and development-relevant social norms in sending countries. Section 8 concludes by identifying remaining gaps in the literature and suggests areas of further research on the topic.

[3]Papers such as Bryan, Chowdhury, and Mobarak (2014) analyze the impact of temporary internal migration on origin communities within Bangladesh.

2 Data

2.1 Patterns in temporary migration

Many migrant workers return home for a range of reasons. First, returning may be optimal and part of the migrants' original plan even if they have the option to stay abroad; or because they are not legally permitted to stay in the destination country beyond a specified time frame. In contexts where permanent stays are possible, workers may choose to return because of location-specific preferences for consumption and amenities, such as being near their families or cultural characteristics (Hill 1987; Djajić and Milbourne 1988). They may also choose to return because the income earned abroad and the resulting savings may have higher purchasing power and lead to higher consumption levels (Dustmann 1995; Dustmann 1997; Djajić 1989; Dustmann 2003; Stark, Helmenstein, and Prskawetz 1997). Finally, migrants may have accumulated significant human capital (Dustmann, Fadlon, and Weiss 2011; Dustmann and Kirchkamp 2002; Stark 1991) or financial capital (or both) which may yield higher returns as entrepreneurs, self-employed professionals or investors at home (Mesnard et al. 2004; Bossavie, Gorlach, Ozden, and Wang 2021; Dustmann and Kirchkamp 2002).

To provide insights on the incidence of temporary migration, we first report evidence on the extent of return migration from United States where permanent migration is not only allowed, but tends to be the norm. As in most destination countries, most of the data come from standard nationally representative cross-sectional surveys or censuses. The main issue with these data sources is that returning migrants are simply not observed since they drop out of the sample. These data constraints limit the ability to draw precise conclusions, which happens to be the disclaimer in most of the papers reviewed here.

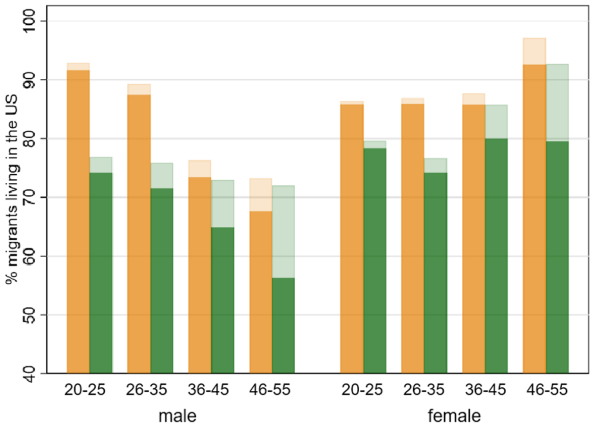
While we do not directly observe return migration, we proxy for the extent of returns by following a given arrival cohort of immigrants over different waves of the survey or the census. Figure 1 focuses on the different immigrant groups who arrived to the United States in 1998 and 1999 as they are observed in the 2009 and 2019 American Community Surveys (ACS). Those are expressed as a percentage of the initial flow of immigrants to the US in 1998-1999, estimated from the 2000 US Census. The orange and green bars present data from the 2009 and 2019 ACS, respectively. The first two bars on the very left of Panel A look at male migrants who were between the ages of 20-25 at the time of their arrival in 1998 and 1999. These bars imply that, in 2009, the number of immigrants in this group dropped to 92% of its number recorded in the 2000 census. Their number further declined to 75% according to the 2019 ACS. Since the decline in the number of people in the census or the ACS might be due to mortality, we calculate the gender and age specific mortality rates and

incorporate them to the bars in lighter color. For younger people, this effect is negligible, but accounts for a large portion of the decline in the number of immigrants from older cohorts in different waves. For male migrants, the largest drop seems to take place around age 45: around a quarter of male migrants drop out of the US sample by that age. The return rate is significantly lower for women, especially if they are older at the time of their arrival.

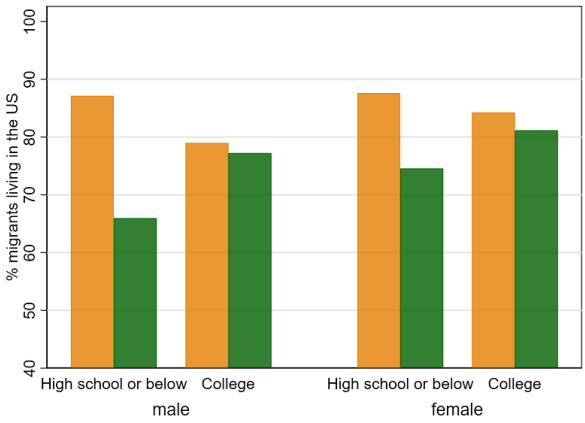
Panel B presents the same data by education categories. Return rates for college educated migrants, regardless of gender, is around 20%. For high school graduate men, the return rate is slightly over 10% ten years after arrival and around 35% after two decades. Finally, Panel C presents the return rates by region of origin. The highest return rate is observed for those coming from high-income countries – Western Europe, Canada, Australia and New Zealand. This is expected since they are likely to have more attractive options at home relative to the migrants coming from middle- and low-income countries. Consistent with this notion, the lowest return rate is observed for migrants coming from countries in Sub-Saharan Africa.

Figure 1: Share of immigrants still living in the U.S. after 10 and 20 years

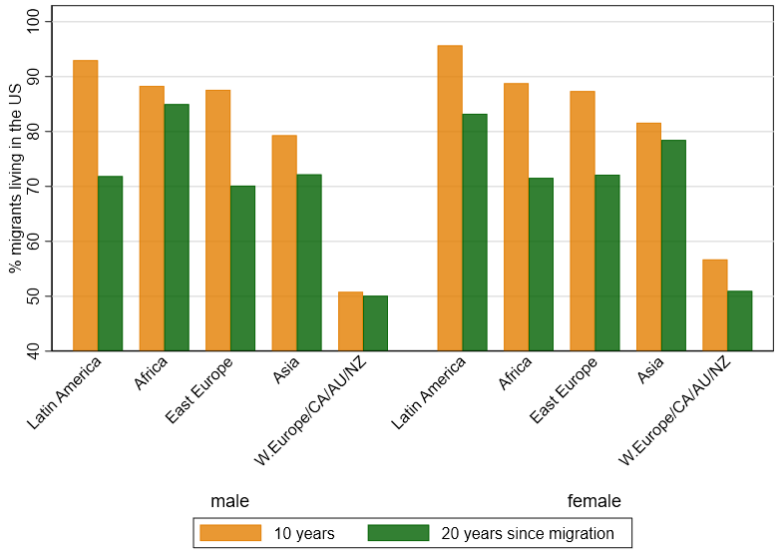
(a) By gender and age at migration



(b) By gender and education attainment



(c) By gender and origin region



Source: 2000 US census 5% sample data and American Community Survey (ACS) 2009, 2019
Note: We first estimate the immigration flows to the US in 1998 and 1999 from 2000 US census data, and then estimate the percentage of these immigrants who were still in the US in 2009 and 2019 from the ACS 2009 and ACS 2019 data, respectively. The shallow bars in subfigure (a) represent estimates adjusted by the gender-age specific mortality rate.

We then carry out a similar exercise for immigrants in the European Union, the other main destination of international migrants which allows permanent stays. To do so, we utilize several waves of the European Union Labor Force Survey (EU-LFS), which combines and harmonizes data collected by nationally-representative labor force surveys in individual

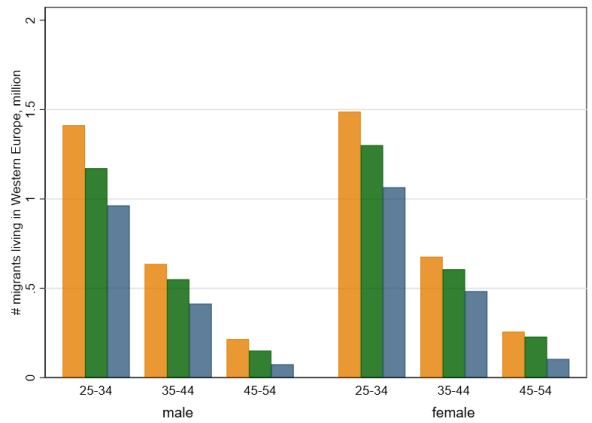
EU countries. The survey collects detailed information on the labor market outcomes of interviewed individuals, and asks about the region of birth and duration of stay in the current country, which allows to identify migrants. Following a similar approach as for the US, we report the number of migrants who moved to EU countries between 2000 and 2004 and still live there in 2008, 2013 and 2018. We further disaggregate the migrant cohort by age, gender, education and region of origin.

The results of this descriptive examination are reported in Figure 2. The yellow, green and blue bars represent the number of migrants from a given group who migrated between the years of 2000 to 2004 and remain in the country after 5-9 years (in 2008), 10-14 years (in 2013) and 15-19 years (in 2018), respectively.[4] Migrants to the EU disproportionately move at a young age and the number of female migrants to the region is slightly larger than males (panel a). The number of immigrants from a given cohort decreases noticeably over time and to a greater extent than in the US. After 15-19 years of stay, the number of immigrants who moved to the EU in 2000-2004 has reduced by 30 percent compared to 10 years prior. This drop is quite large in relative terms for migrants who moved when they were 45 or older (panel a). This is likely to be driven by preferences for retirement in the origin country, as individuals who were 45-54 year old when they migrated in 2000-2004 are close or past retirement age by 2018. Return patterns are fairly similar between males and females as well as between low-skilled and high-skilled migrants (Panel b). When disaggregated by region of origin (panel c), immigrants from Latin America and other destinations - which mostly consist of other Western European countries and high-income OECD countries - return at a much higher rate than migrants from other regions. Returns to Eastern Europe and Africa are fairly rare, even 15-19 years after migration.

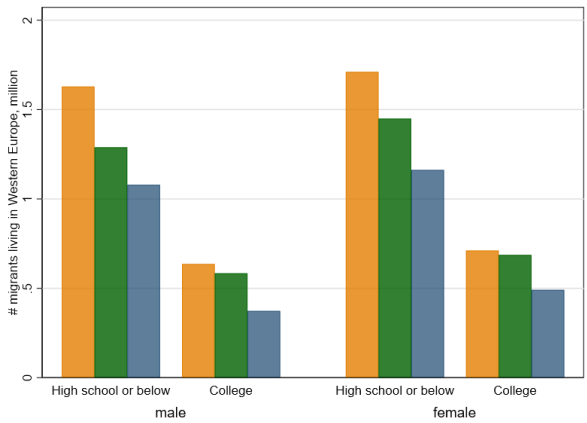
[4] In contrast with the ACS data for the United States, the exact duration of stay of foreign-born individuals is not reported in the EU LFS. Instead, the survey reports brackets of 5 years instead of a more precise duration of stay.

Figure 2: Number of foreign-born who immigrated in 2000-2004 and still live in Western Europe after 5, 10 and 15 years

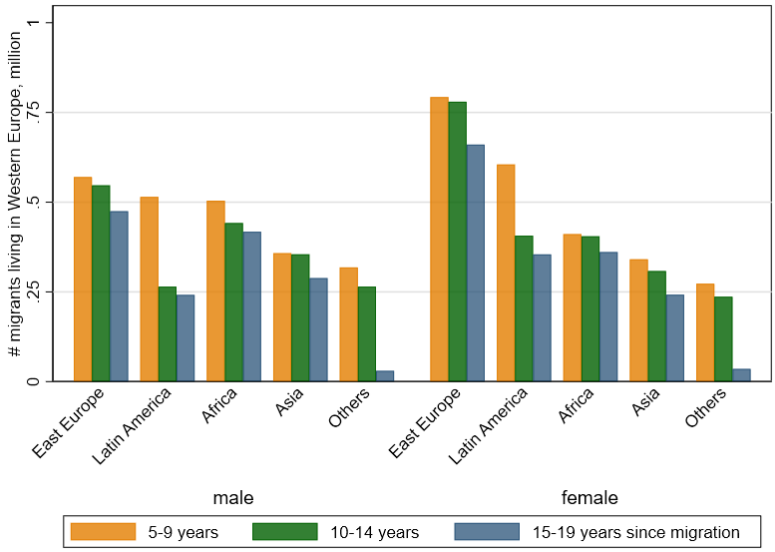
(a) By gender and age at migration



(b) By gender and educational attainment



(c) By gender and origin region



Source: European Union Labor Force Survey (EU LFS) 2009, 2014 and 2019.
Note: We use immigrants residing for 5-9 years in the 2009 survey, immigrants residing for 10-14 years in the 2014 survey, and immigrants residing for 15-19 years in the 2019 survey.

Migration is temporary by design and intent for many other migrants. In many cases, it is mandated by regulations in destination countries. This is the case for almost all migrants in the Gulf Country Cooperation (GCC), regardless of their occupation, skill level or country of origin. The GCC is major destination of migrant workers, hosting over 10 percent of the total stock of migrants worldwide As shown in Table 1, over half of the population of

the GCC countries is foreign-born, reaching up to 88 percent in the United Arab Emirates (UAE). Migrant-sending countries globally are mainly lower- and medium-income countries in East and South Asia and the Middle East where "going to Gulf" is part of the lifetime employment history for a significant number of workers. Their stay is strictly conditional on holding a valid contract with an employer and they have to leave the country otherwise (Fargues 2011; Fargues and De Bel-Air 2015; Ahmed and Bossavie 2022). While eventual returns are mandatory in this setting, migrants still have some discretion over their duration of stay (Bossavie, Gorlach, Ozden, and Wang 2021). Indeed, they have the option to extend their stay as long as they manage to renew their contract or receive a new one from another employer (Ahmed and Bossavie 2022). In contrast with OECD destinations where permanent migration is more common, there is significant gender bias and women represent a small share of contractual, temporary migrants.[5]

[5]This gender pattern is driven by several factors, including the prohibition of family migration for low-skilled migrants under this type of migration arrangement, combined with the allocation of family responsibilities largely to women in the main migrant-sending countries (panel a of Figure 3), which also results in very low levels of economic activity of females in these same sending countries.

Table 1: Number of immigrants in GCC countries, 2020, in thousands

	Destination country						
Origin country	Saudi Arabia	UAE	Kuwait	Oman	Qatar	Bahrain	All
India	2,502	3,471	1,152	1,376	702	365	9,569
Bangladesh	1,278	1,095	380	317	262	115	3,446
Pakistan	1,484	996	339	250	236	105	3,409
Egypt,Arab Rep.	962	900	421	88	184	95	2,649
Indonesia	1,709	319	108	75	44	34	2,288
Philippines	645	565	197	46	170	59	1,682
Yemen, Rep.	770	206	71	-	36	22	1,103
Syria, Arab Rep.	823	53	23	-	25	6	930
Sri Lanka	529	121	40	30	154	13	886
Nepal	503	28	25	-	254	3	813
Other	2,249	963	355	191	161	121	4,040
Total migrants	13,455	8,716	3,110	2,373	2,226	936	30,816
(% of Population)	39%	88%	73%	46%	77%	55%	53%

Source: UNDESA International Immigrant Stock 2020 for immigrant stock; World Bank World Development Indicators for population in 2020.

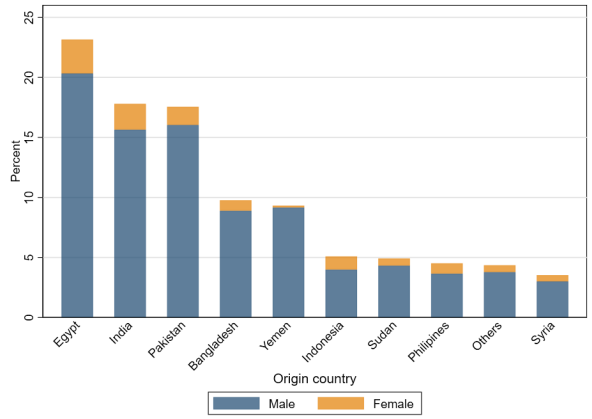
Figure 3 presents data on contractual temporary migrants from two separate and detailed surveys. The first is from Saudi Arabia (Expatriate workers survey, 2015), the largest destination country in the Persian Gulf. The second is from Bangladesh (Bangladesh Return Migration Survey 2018/2019), one of the largest migrant-sending countries to the region. The panels on the left column are based on the data from Saudi Arabia and the panels on the right column are based on the Bangladesh data. The first panel shows that the largest origin country in Saudi Arabia is the Arab Republic of Egypt, followed by India, Pakistan and Bangladesh. In the case of the Bangladeshi migrants, the largest destination (Panel B) is Saudi Arabia, followed by the United Arab Emirates, and Oman. Migrants under these temporary contractual arrangements typically migrate at a young age, with a median age of 27 (Panels c and d), partly due to the physically demanding nature of the jobs offered in these destinations. Temporary migrant workers from lower-income countries, such as Bangladesh, tend to be very low-skilled (Panel f). There is a number of high-skilled migrants in Saudi Arabia (Panel E), but these tend to come from high-income OECD countries or other Arab countries like Egypt.

There is a great deal of heterogeneity in terms of duration of stay (Figure 4). The majority of migrants to Saudi Arabia stay for only a few years at the time of the data collection and are expected to stay for a couple of more years. There is a clear negative relationship between current length of stay and expected additional duration of stay.

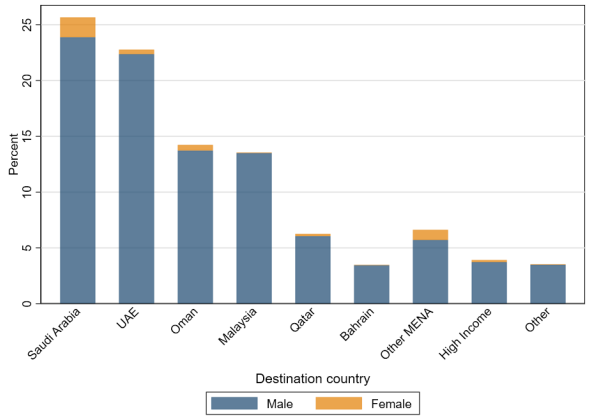
Finally, return migration may also be unexpected. Migrants might have originally decided to migrate permanently or stay for longer time periods but, eventually, return when conditions change or when they are forced to. This can happen because of unexpected changes in employment or living conditions at the destination (Borjas and Bratsberg 1996; Shrestha 2020; Bijwaard and Wahba 2014), or personal conditions at home (Berninghaus and Seifert-Vogt 1993; Tunali 2000; Dustmann and Kirchkamp 2002; Dustmann 2003). When overseas work visas are tied to an employment contract and enforcement is strict, migrants may be forced to return when labor market conditions change (Fargues 2011; Fargues and De Bel-Air 2015). For example, over 40 percent of return migrants to Bangladesh report that they returned earlier than they had originally planned. In most cases, the employers changed the terms of their employment contracts or simply terminated them (Ahmed and Bossavie 2022).

Figure 3: Profile of contractual temporary migrants

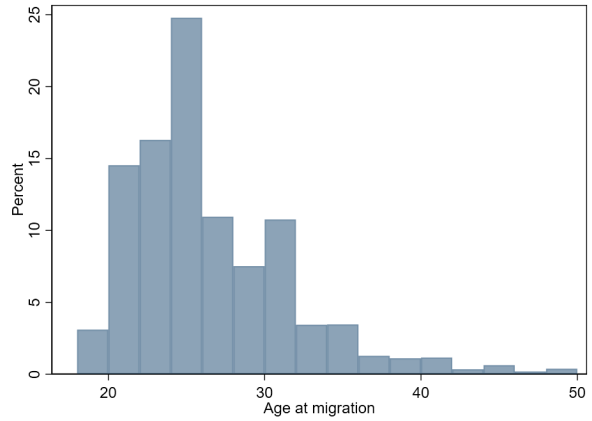
(a) Origin countries (of migrants in Saudi Arabia)



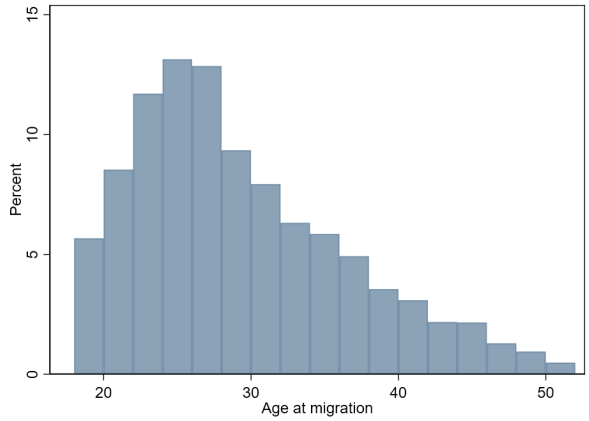
(b) Destination countries (of migrants from Bangladesh)



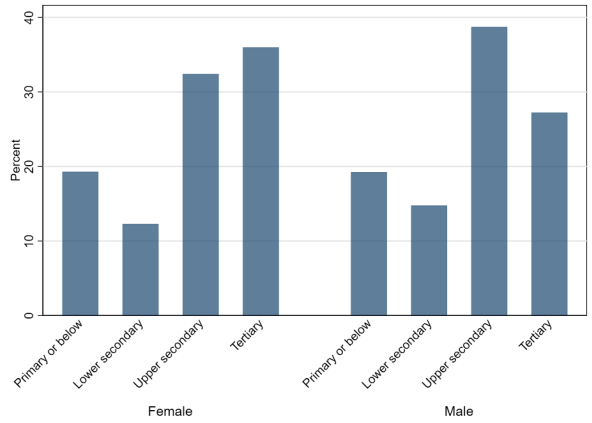
(c) Age at migration, in Saudi Arabia



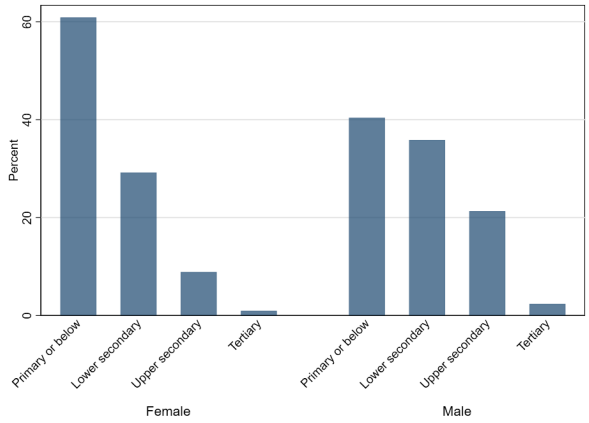
(d) Age at migration, from Bangladesh



(e) Education attainment, in Saudi Arabia

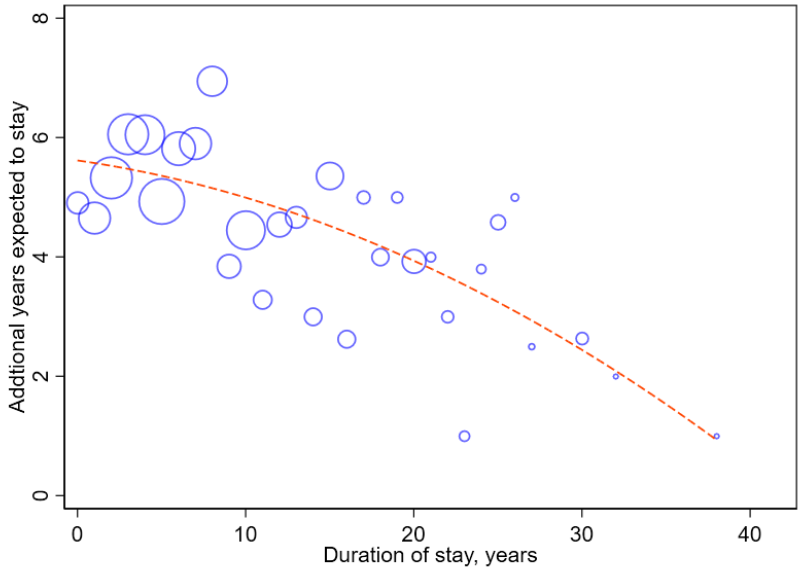


(f) Education attainment, from Bangladesh



Source: Saudi Arabia expatriate workers survey 2015, Bangladesh Return Migration Survey 2018
Note: Samples are restricted to individuals who migrated at the age of 18 or older. Sampling weights are applied.

Figure 4: Additional years expected to stay against duration of stay in Saudi Arabia



Source: Saudi Arabia expatriate workers survey 2015
Note: Each circle represents the average of additional years expected to stay for a duration spell (1 year). The range of circles reflects the number of observations. Quadratic fitted value is presented by the dash line.

2.2 Data on temporary migration

Temporary migration is the result of an optimization process over workers' life cycle. Therefore, the ideal data sets to study the impacts of temporary migration are longitudinal and follow the same migrants over time and across borders throughout their lives. Such data, however, are almost never available, creating challenges for analysis and policy design. Instead, researchers use, mostly cross-sectional, micro data sets in either sending or receiving countries which capture a portion of the trajectories of temporary migrants to estimate their impacts on origin countries. In this subsection, we categorize the main data sets available to study the impacts of temporary migration, and highlight their respective benefits and limitations.

2.2.1 Data from origin countries

Data collected in origin countries capture temporary migration through two types of surveys. The first is through broader nationally-representative household surveys which include modules on migration. This is achieved by collecting information on household members

who are absent (as they are currently overseas) but are expected to return. When family migration is not possible, and the rest of the family remains behind at origin, the surveys ask questions about the migrant to the family members.[6] Such modules are well suited to assess the impacts of temporary migration on family members left behind, especially spouses and children. These survey typically include detailed questions on various labor market, health, education, and consumption outcomes of household members.

When entire households migrate temporarily, however, absentee questions underestimate the incidence of temporary migration. In addition, since the questions asked in those modules are not asked directly to the migrants themselves, the data can be quite parsimonious or unreliable. Thus, it is typically restricted to the migrants' demographic characteristics along with basic migration parameters such as year of departure, destination country and occupation.

The second way nationally-representative household surveys in origin countries collect information on temporary migration is through questions on past migration experiences of current household members. As these modules are part of nationally-representative surveys, they are especially well suited to carry out detailed comparisons between the labor market outcomes of return migrants and non-migrants. To estimate the causal impacts of past migration on outcomes back in the home country, the best data sets are those that collect information on both return migrants and current migrants, as they allow to account for the double selectivity of return migration, which can bias estimates of temporary migration impacts (Wahba 2015).[7] These data sets, however, differ in the level of detail of the information collected on current and return migrants. The Egypt Labor Market Surveys (ELMS) and Albania Living Standard and Measurement Surveys (LSMS) are the most comprehensive in that regard. One drawback of most returnee modules, however, is that they typically collect parsimonious information on past migration experience overseas. This prevents an in-depth analysis of the linkages between past migrant experience and current labor outcomes. In addition, the number of return migrants picked up by nationally-representative surveys in origin countries can be small if the incidence of temporary migration is limited, especially in surveys that restrict the recall period of past emigration episodes.[8]

[6] This is typically the case for low-skilled migrants who move to the Gulf States or to Southeast Asia.

[7] Available surveys of this kind include the Nepal Labor Force Survey (LFS) 2017/2018, the Albania Living Standard and Measurement Surveys (LSMS) 2005, 2008 and 2012 used by Piracha and Vadean (2010) and Carletto and Kilic (2011), the 2009 Nepal Migration survey, the 2017 Comprehensive Survey of the Migration of Armenia Population, the Egypt Labor Market Survey (ELMS) used by McCormick and Wahba (2001), McCormick and Wahba (2003), Wahba and Zenou (2012) and Wahba (2015), the Bangladesh Household Income and Expenditure Survey (HIES) 2016 and the Listening to the Citizens of the Kyrgyz Republic 2021, among others.

[8] Some surveys ask whether the household member has ever lived abroad in the past 5 years, or, in some cases, in the past one year. Those surveys thus capture only a small number of returning temporary migrants.

In the absence of longitudinal panel datasets that follow migrants over time, the most suitable surveys are those especially designed to collect detailed retrospective information on workers' migration and employment history. One early example is the survey of Turkish temporary migrants who went to Germany conducted by the German Institute for Employment Research (IAB) (Dustmann and Kirchkamp 2002). The IAB survey interviewed Turkish temporary migrants both at the end of their stay in Germany in 1984 when detailed retrospective questions were also asked about employment history in Germany, and after return to Turkey in both 1986 and 1988. However, the survey follows temporary migrants over only four years. In addition, the data were collected in the specific context of an assisted return program targeting Turkish migrants in Germany, and only samples return migrants that had applied to the program, which may affect the external validity of studies using this data.

Some dedicated migration surveys with detailed retrospective questions on past employment and migration overseas are cross-sectional. Among these relatively scarce surveys are the Mexican Migration Project (MMP)[9] and the Bangladesh Return Migrant Survey 2018/19 (BRMS)[10] carried out by the World Bank. The MMP is the most comprehensive survey to date to be implemented in an origin country. It captures both current and return migrants, along with the full employment history of all household members both in Mexico and abroad since the time they started working. It also records all trips overseas as well as internal migration episodes of all household members. In a very different context, the Bangladesh Return Migrant Survey collects the full employment and migration history of return migrants to Bangladesh who worked overseas under formal contractual temporary migration arrangements, primarily in the Gulf countries. The information captured includes detailed socio-economic and labor market outcomes before departure, during migration and after return, full migration history and a detailed breakdown of migration costs and sources of financing, along with savings and wage expectations prior to departure. Despite their comprehensiveness on migration and employment history, a potential drawback of these retrospective surveys is that they may suffer from imperfect recall by the respondents.

2.2.2 Data from destination countries

The second category of surveys are implemented in destination countries. In these surveys, migrants are typically identified through a question on their country of birth. Identifying

In contrast, surveys asking whether the member has ever lived abroad allow to capture a representative sample of the entire pool of returning temporary migrants.

[9]The Mexican Migration Project data set was used by Deléchat (2001), Rendon and Cuecuecha (2010), Angelucci (2012), Reinhold and Thom (2013), Gorlach (2020), Massey, Durand, and Malone (2002) and Massey and Gentsch (2014), among others.

[10]For studies using the BRMS data set, see Ahmed and Bossavie (2022), Bossavie, Gorlach, Ozden, and Wang (2021), and Bossavie, Gorlach, Ozden, and Wang (2022).

who among all of these migrants are temporary migrants, however, is not always straightforward, especially if the survey is conducted in high-income OECD countries where permanent migration is more common. One way to identify temporary migrants is through questions on intentions to stay in the host country and for how long, which are collected by only a few surveys in destination countries (Dustmann and Görlach 2016). Those include the German Socio-Economic Panel (GSOEP) in Germany or the "Trajectoires et origines" survey in France released by Ined-Insee in 2009. In some host countries, such as the Gulf States or Southeast Asia, the identification of temporary migrants is easier since, by definition, all migrants are only allowed to stay temporarily.

Survey data capturing migrants in destination countries are either longitudinal or cross-sectional. Longitudinal surveys focusing on temporary migrants are very scarce. The most comprehensive destination country survey that follows migrants over time is the German Socio-Economic Panel (GSOEP). The GSOEP has a panel structure from 1984 and dedicates particular effort to tracking movements in and out of Germany, and to retain individuals when they return from temporary absences abroad (Constant and Massey 2002; Kırdar 2009). It also collects information on intended duration of stay in the country, which allows to identify temporary migrants, or at least migrants who *intend* to stay temporarily. Given these features, this data set has been extensively used by studies on temporary migration including Dustmann (2003), Bellemare (2007), Van Baalen and Müller (2008), Kırdar (2009), Dustmann and Görlach (2016), and Adda, Dustmann, and Görlach (forthcoming). One important limitation of the GSOEP for the study of temporary migration, however, is that it does not collect information on labor market outcomes outside Germany, in particular after return to the home country.

Other available surveys in destination countries capturing temporary migrants are cross-sectional. As for the GSOEP, the survey "Trajectoires et origines" in France released by Ined-Insee in 2009 includes questions on intentions to stay in the host country, and was used to analyze the relationship between remigration intentions and immigrants' behaviors in the host and origin countries (Chabé-Ferret, Machado, and Wahba 2018). In addition to migration-dedicated surveys, some of the literature has also been using more traditional, nationally-representative data in destination countries to analyze temporary migrations. In the US, the American Community Survey (ACS), was for example used to reconstruct episodes of transit migration of current migrants (Artuc and Ozden 2018). The data includes information on the birth country of migrants as well as the country where they lived prior to moving to the US, which allows to identify transit migration. One advantage of destination country data is that they capture temporary migrants who moved overseas with their entire families, as opposed to surveys in origin countries. Survey data in host countries, however,

with the exception of the GSOEP, do not typically allow to observe completed migration spells and the timing of returns. In addition, they may miss part of the temporary migrant population as temporary migrants can be left out of traditional survey sampling frames.

3 Labor supply

The first and foremost impact of temporary migration and return is on the labor market, especially on labor supply in the origin country. First, past migration overseas may affect incentives to participate in the labor force (extensive margin) or the quantity of labor supplied (intensive margin) by temporary migrants upon return. Second, temporary migration and the remittances sent by migrants can impact the labor supply of household members left behind, by increasing household income and possibly reducing domestic labor supply at the household level through an income effect. Finally, temporary migration, by acting as a negative labor supply shock in the domestic economy, may have general equilibrium effects on the labor supply of non-migrant households in the origin country. This subsection summarizes the evidence on the impact of temporary migration on the labor supply of return migrants, household members in migrant households, and non-migrant households.

3.1 Labor supply of temporary migrants after return

The sign of the impact of past migration overseas on the labor supply of temporary migrants after return is theoretically ambiguous. On the one hand, past migration may decrease the labor supply of return migrants. Higher earnings and savings overseas may raise reservation wages and reduce incentives to find employment back home among returnees, especially among older individuals who are close to retirement age. In addition, at least in the short run, return migrants may want to allocate more time for leisure after spending several years away from their families, as part of their life cycle optimization plan (Dustmann and Kirchkamp 2002). Third, if the human capital and experience accumulated overseas do not match labor demand in home labor markets, job search frictions may lead to higher unemployment among return migrants (Lucas 2005). On the other hand, past migration overseas may raise workers' human and financial capital as discussed in later sections, which can increase workers' productivity and earnings potential back home and thus incentives for labor force participation.

Somewhat surprisingly, evidence on the impact of past migration on the labor supply of return migrants is scarce and restricted to descriptive analysis. Return migrants have been shown to be less likely to engage in economic activities in the few years that follow their

return when compared to non-migrants (Ilahi 1999; Bossavie and Denisova 2018; Bossavie and Wang 2021). However, such evidence cannot be interpreted as causal because migrants who recently returned need by definition to find employment, and may not have made their occupational choices yet (Ilahi 1999). In the case of temporary migration from Turkey to Germany, a sizeable share of returning migrants retire at an early age, presumably due to their savings accumulated abroad (Dustmann and Kirchkamp 2002). A lower labor market participation of return migrants has also been found in Albania (Piracha and Vadean 2010) and in some South Asian countries (Bossavie and Wang 2021), but not in Senegal (Kveder and Flahaux 2013). A longer duration of stay at destination also appears to increase the likelihood of being unemployed (or staying out of the labor force) after return (Piracha 2015). The current scarcity of research on this question, combined with the descriptive nature of available studies, indicates that much more evidence is needed to generalize those findings and draw a causal link between return migration and labor supply.

3.2 Labor supply by migrant household members

Temporary migrants often move overseas without the rest of their household. Temporary migration by one member can affect the labor supply of the rest of the household members through two main channels: first, through an income effect by increasing total household income through remittances. According to the standard neoclassical model of optimal labor-leisure allocation (Killingsworth 1983), the increase in household disposable income due to remittances can raise the reservation wage of adult family members left behind (Acosta, Lartey, and Mandelman 2009). Second, the receipt of remittances is contemporaneous to the absence of working-aged migrant household members, which may induce changes in the labor supply of remaining members to compensate for the forgone income or to defray migration-related expenses (Amuedo-Dorantes and Pozo 2006). These two channels presumably have opposite effects. As a result, the effect of temporary migration on the labor supply of remaining household members is theoretically ambiguous.

Rigorous evidence on this question remains scarce, although several studies have appeared over the last decade, with some mixed findings. Most studies report negative effects on the labor supply of women but not of men. Such impacts have been reported in Albania (Mendola and Carletto 2012), El Salvador (Acosta 2006), Mexico (Amuedo-Dorantes and Pozo 2006), Egypt (Binzel and Assaad 2011) and Nepal (Lokshin and Glinskaya 2009).[11] The latter study however finds substantial heterogeneous effects depending on the characteristics of members left behind. In addition, effects on the labor market activities of women have been shown to

[11] Vadean, Randazzo, and Piracha (2019) only look at impacts on men's labor supply and also find no effect of remittances on their labor supply in Tajikistan.

change over the temporary migration life cycle in Albania (Mendola and Carletto 2012) and rural Egypt (Binzel and Assaad 2011). During the migration episode, women's paid labor supply has been reported to decrease while unpaid work typically increases, presumably driven by the household's need to replace the migrant's labor. In contrast, once the migration episode ends, women are less likely to be in unpaid work and more likely to be in self-employment. This suggests that the impacts of temporary migration on the labor supply and occupational choice of household members left behind are dynamic and vary throughout the migration life cycle. For men, temporary migration has been found to affect the allocation of labor supply across various types of employment in Mexico, but not their overall labor supply (Amuedo-Dorantes and Pozo 2006). In some cases, no effects on the labor supply of both males and females have been found, such as in Mexico (Cox-Edwards and Rodrıguez-Oreggia 2009) and Bangladesh (Mobarak, Sharif, and Shrestha 2020).

3.3 Labor supply by non-migrant households

When emigration is widespread, it may also affect the labor supply of individuals in non-migrant households through general equilibrium effects. Emigration, whether it is temporary or permanent, should normally act as a negative labor supply shock, reduce the domestic supply of labor, increase wages and hence induce entry into the labor force by those who are in non-migrant households. However, the empirical evidence on these general equilibrium effects is quite sparse, but such impacts have been suggested in countries where emigration is large-scale. In Nepal, where about one-fifth of the male working-age population works overseas under temporary contracts, largely in the Gulf countries, a one-percentage point increase in village level migration rates was found to increase labor force participation by 0.4 percentage points for individuals from non-migrant households (Shrestha 2017a). This effect appears to be primarily driven by an increase in female labor force participation in both wage and self-employment activities in the non-agricultural sector. Large-scale emigration following the EU enlargement, which may either be temporary or permanent, has also been shown to raise wages and thus labor supply in several Eastern European countries including Poland (Dustmann, Frattini, and Rosso 2015) and Lithuania (Elsner 2013). Similar effects have been reported for large-scale emigration from Mexico to the US (Mishra 2007).

4 Human capital

Most of the evidence on the effects of temporary migration on origin countries has focused on human capital accumulation process. Temporary migration impacts human capital for-

mation in origin countries through multiple channels and we review four main ones in this section: (i) short-term impacts due to emigration; (ii) human capital accumulation by temporary migrants while overseas; (iii) endogenous pre-emigration human capital investment in response to migration opportunities; and (iv) alleviation of liquidity constraints on human capital investment.

4.1 Short-term human capital effects due to emigration

Regardless of whether emigration is temporary or permanent, it mechanically affects the quantity and quality of labor and human capital available in the home country's labor market, at least in the short run. The short-term impact on human capital at origin depends on both the *costs* of emigration and the *selectivity* of emigration. Skill selectivity means whether temporary migrants are more or less skilled compared to the population that does not migrate and is mainly determined by the relative wage structure and skill premium at origin and at destination (Docquier, Lohest, and Marfouk 2007; Docquier and Rapoport 2012; World Bank 2018). The short-term human capital impacts of emigration are more severe if migrants are positively selected, especially if the origin country is already experiencing a limited supply of high-skilled labor. An example of this pattern is observed in aging Eastern European economies (Bossavie, Garrote-Sanchez, Makovec, and Ozden 2022) and small developing countries in the Caribbean, Sub-Saharan Africa and the Pacific regions. Empirically, the "brain drain" has been shown to be more pronounced in small developing countries that share colonial links with OECD countries, and send most of their migrants to countries with skill-selective immigration programs (Docquier, Lohest, and Marfouk 2007).

In the short-run, emigration can also impact the human capital of non-migrants, in the presence of skill complementarities between high-skilled workers, and between high-skilled workers and low-skilled workers (Docquier, Lohest, and Marfouk 2007). Existing evidence on this question, however, tends to focus on permanent rather than temporary emigration. In those cases, it has been suggested that the emigration of high-skilled workers can have negative impacts on the rest of the economy by weakening local knowledge networks (Agrawal, Kapur, McHale, and Oettl 2011). Due to the imperfect substitutability between low-skilled and high-skilled labor, skill selective emigration can lead to slower capital growth and a technological downgrading (Bhagwati and Rodriguez 1975; Miyagiwa 1991; Haque and Kim 1995; Docquier and Rapoport 2012). Some negative effects of youth emigration have also been reported on entrepreneurship and innovation in Italy (Anelli, Basso, Ippedico, and Peri 2019) and on firm productivity in Eastern Europe (Giesing and Laurentsyeva 2018). It remains unclear, however, whether temporary migration produces similar effects.

Short-term losses of labor and human capital are less of a concern in situations where emigrants are mostly low-skilled and where the domestic supply of low-skilled labor is high. This is the case of many low and middle-income migrant-sending economies which are experiencing demographic bulges and where domestic job creation has not kept pace with the expansion of the mostly low-skilled labor supply. Emigration helps to alleviate labor market pressures by providing additional employment opportunities for workers from these countries, like many migrant-sending countries in East, South and Central Asia (Farole, Cho, Bossavie, and Aterido 2017; Ahmed and Bossavie 2022), as well as other low and middle-income countries.

4.2 Human capital accumulation by temporary migrants while abroad

In the medium term, temporary migration can effect human capital stock in origin countries when temporary migrants accumulate human capital while abroad and then return home. In the two-dimensional skill model, theoretically, the "brain drain" resulting from high-skilled emigration may be mitigated and even reversed by the skills brought back home by return migrants (Dustmann and Glitz 2011). Temporary migrants indeed can acquire additional skills overseas which are rewarded in the home country (Borjas and Bratsberg 1996; Dustmann and Weiss 2007; Dustmann, Fadlon, and Weiss 2011), creating a potentially positive overall effect even in the presence of initial emigration (Dos Santos and Postel-Vinay 2003). It has also been argued that the migration experience may act as a signaling device of workers' productivity to employers in home labor markets, further increasing their labor market gains (Reinhold and Thom 2013).

The empirical literature tests for the accumulation of human capital by estimating the wage premium earned by return migrants. A critical element of such reduced-form estimations is to properly account for the double selectivity of emigration and return migration, so that estimates only capture the effects of the past migration experience, and not differences in unobservable characteristics between migrants and non-migrants (Wahba 2015). The vast majority of the papers, with varying degrees of rigor in accounting for the double selectivity of return migration, find a positive wage premium earned by returning migrants. This has been reported for Hungary (Gang and Yun 2000), Albania (De Coulon and Piracha 2005), Romania (Ambrosini, Mayr, Peri, and Radu 2015), Ireland (Barrett and Goggin 2010), Mexico (Reinhold and Thom 2013), several West African countries (De Vreyer, Gubert, and Robilliard 2010) and the Arab Republic of Egypt (Wahba 2007; Wahba 2015).[12] Wahba (2015)

[12]The study by Gang and Yun (2000) for Hungary, however, only finds positive effects for female return

is the most rigorous study to date that estimates the wage premium for return migrants as it controls for four types of selection: emigration decision, return migration decision, labor force participation upon return, and selection into wage work. After accounting for these multiple sources of selection, she finds that return migrants employed as wage workers earn a significant wage premium, although estimates diminish substantially once selection is accounted for.

A related, albeit thinner, literature examines whether migrants who return to their home country improve their labor market outcomes in addition to experiencing wage gains. Return migrants have been found to experience upward occupational mobility compared to non-migrants in the Arab Republic of Egypt (El-Mallakh and Wahba 2021) and Albania (Carletto and Kilic 2011).[13] These effects are however mostly driven by higher-skilled migrants, while migrants returning from low-skilled occupations overseas do not experience significant occupational mobility, as reported in Albania (Carletto and Kilic 2011) and Estonia (Masso, Eamets, and Mõtsmees 2014).

There is heterogeneity in the human capital benefits of the migration episodes for migrants and the origin country. The extent of the benefits depends on multiple factors, including migrants' educational level, whether the work experience and human capital gained at destination is in demand in the home labor markets, and whether the duration of stay overseas was long enough for human capital accumulation. One emerging consensus from the empirical literature is that higher-skilled temporary migrants experience greater human capital, productivity and wage gains from the migration experience (McCormick and Wahba 2001; Ambrosini, Mayr, Peri, and Radu 2015; Gibson, McKenzie, and Stillman 2011; Wahba 2015).[14] The human capital gains also depend on whether there is a match in the home labor market for the experiences and human capital gained abroad by the returning temporary migrants (Mayr and Peri 2009; Dustmann, Fadlon, and Weiss 2011). In contrast, if the human capital accumulated overseas is not in demand, skill waste can take place along with inactivity, as found for return migrants to Poland (Coniglio and Brzozowski 2018). Dustmann, Fadlon, and Weiss (2011) argue that temporary migrants' countries of destination also matter in the benefits of return migration for migrants and their home economy, as Carletto and Kilic (2011) show in the case of Albania. Finally, duration of stay overseas matters as temporary migrants who stay longer overseas have more time to accumulate human capital,

migrants.

[13]Using historical data on return migration to Norway from the United States at the end of the 19th century and beginning of the 20th century, Abramitzky, Boustan, and Eriksson (2019) also show that return migrants to Norway found employment in higher paying occupations than non migrants, although they came from poorer backgrounds.

[14]Wahba (2015) reports that the wage premium earned by high-skilled return migrants in the Arab Republic of Egypt is 24 percent compared to 10 percent for low-skilled return migrants.

but also to see skills valued by home labor markets depreciate if they are not used. The lack of increased occupational mobility of return migrants to Estonia, for instance, was attributed to their short duration of stay overseas, combined with their low skill level (Masso, Eamets, and Mõtsmees 2014).

Human capital benefits of return migration for the home country also depend on the selectivity of returns (i.e. whether return migrants are more or less skilled than migrants who decide to stay overseas permanently). In settings where migrants have the option to stay abroad permanently, returnees will form a selected pool. Borjas and Bratsberg (1996) propose a theoretical framework to account for the selection of returnees among a host country's immigrant population. They argue that selection depends on the relative returns to skills in the two locations, with the skill level of return migrants lying between that of non-migrants and migrants who stay abroad permanently. Thus, when emigrants are positively selected from their home country's population, returnees will be negatively selected among all migrants. When emigrants are negatively selected, return migrants will be positively selected. In settings where migrants cannot stay permanently at destination, the impact on the origin country depends on who returns earlier than an average migrant as opposed to who returns at all (Bossavie, Gorlach, Ozden, and Wang 2021). Empirically, the selection of return migrants among the pool of all emigrants has been measured both in terms of earnings overseas (Borjas and Bratsberg 1994; Borjas 1989; Bijwaard and Wahba 2014; Dustmann 2003; Constant and Massey 2003; Abramitzky, Boustan, and Eriksson 2014; Abramitzky, Boustan, and Eriksson 2019) and educational or skill level (Ambrosini, Mayr, Peri, and Radu 2015; Wahba 2015; Dustmann and Weiss 2007). Evidence on the sign of selection of return migrants along these two dimensions is, however, very mixed and highly origin-host country specific, which is consistent with the early theoretical insights of Roy (1951).[15]

In addition to increasing the productivity of migrants upon their return in the home labor markets, temporary migration may also increase the human capital and productivity of non-migrants, through knowledge transfers. Theoretically, return migration can have an expansionary effect through knowledge diffusion that in turn narrows the technological gap between the host and source country (Dos Santos and Postel-Vinay 2003). Empirically, evidence on these knowledge spillovers is scarce, partly due to difficulties in identifying these impacts empirically. Evidence from India, however, shows that a larger number of returning migrants increases knowledge diffusion and human capital in the sending country (Choudhury 2016).

[15]For an earlier literature review on the selectivity of return migration, see Wahba (2014).

4.3 Human capital investment in response to emigration opportunities

The availability of employment opportunities overseas can also affect the returns to education in the origin country, thus triggering an endogenous response in human capital investment. This is generally referred to as the "brain gain" effect in the literature. The sign of the effect on human capital investment at home, however, depends on the employment opportunities available overseas and, on the skill-specific wage premium that migrants receive overseas. We should note that most of the papers in this literature do not differentiate between permanent and temporary migration as the mechanism would work very similarly. There is, however, a clear need for more nuanced empirical analysis to see if the mechanisms or the magnitudes of the effects differ across different migration types or corridors.

In the case of high-skilled emigration, migration opportunities can ultimately lead to human capital gains for the home country. A large theoretical literature shows that if emigration is uncertain but increasing in likelihood with education or skill levels, then aspiring migrants will invest in human capital accumulation. An endogenous increase in human capital levels, assuming a large enough share of these will be unable to move, can offset the mechanical reduction in the level of human capital due to emigration (Mountford 1997; Stark, Helmenstein, and Prskawetz 1997; Stark, Helmenstein, and Prskawetz 1998; Vidal 1998; Beine, Docquier, and Rapoport 2001; Dos Santos, Postel-Vinay, et al. 2004; Beine, Docquier, and Rapoport 2008; Dustmann and Glitz 2011; Docquier and Rapoport 2012; Djajić, Docquier, and Michael 2019).

The key mechanism through which this so-called "brain gain" effect occurs is the increase in the returns to education in home countries because of the demand for skilled migrants by destination countries. Several conditions, however, need to be satisfied for a "brain gain" effect to occur. First, there needs to be a large enough number of the newly educated individuals who do not migrate overseas or who ultimately return to the origin country. Second, migrants' home countries should be able to increase the capacity of the educational institutions, meeting the increased demand. This comes at an additional fiscal cost for sending countries. Indeed, even if migration increases incentives for human capital accumulation, it still does not solve the problem of sending countries bearing the costs of educating part of the population that leaves the country and thus does not give back to the local economy. Empirically, the macro literature has measured a conditional positive relationship between skilled emigration and skill formation across developing countries, although it faces challenges of strict causal identification inherent to cross-country data (Docquier, Lohest, and Marfouk 2007; Beine, Docquier, and Rapoport 2008; Beine, Docquier, and Oden-Defoort

2011).

A related literature has tested whether a high expected return to human capital abroad affects potential migrants' educational investment at the country level. Positive impacts on human capital formation in origin countries have been reported in a variety of contexts. A 10 percentage-point rise in the probability of future migration has been shown to cause a four percentage-point rise in the probability of intermediate school completion before migration in Cabo Verde (Batista, Lacuesta, and Vicente 2012). In Malawi, twenty years after migration shocks to South Africa took place, human capital was 4.8-6.9 percent higher among cohorts who were eligible for schooling in communities with the easiest access to migrant jobs (Dinkelman and Mariotti 2016). In Nepal, an increase in education requirements for Nepalese army recruits into overseas British Army service caused an increase in the average education of men in Nepal (Shrestha 2017b). Abarcar, Theoharides, et al. (2020) show that an increase in the emigration of nurses from the Philippines led to a rise in the number of nurses in the country, enabled by an increase in both the local demand for nursing programs and the domestic supply of nursing programs. In Fiji, an increase in exit opportunities led to a net increase in educational attainment of workers in the country, as only a fraction of prospective migrants ultimately migrated (Chand and Clemens 2019). In ten migrant-sending countries in Eastern Europe, the education incentive channel, combined with return migration, has been shown to turn the drain on human capital into a brain gain (Mayr and Peri 2009). In Romania specifically, temporary emigration was found to have positive long-run effects on skill levels at home (Ambrosini, Mayr, Peri, and Radu 2015). Khanna, Theoharides, and Yang (2019) report similar findings for the Philippines.

The literature on endogenous human capital investment in response to migration opportunities has largely focused on high-skilled migration. The effect of temporary migration opportunities on human capital investment at home, however, depends on the skill-specific wage premium earned overseas. In contexts where low-skilled emigration predominates, one could argue that emigration opportunities may undermine investment in education, due to a large wage premium earned by low-skilled migrants as opposed to high-skilled workers. Evidence on this question from contexts were emigration is mostly low-skilled, however, is quite sparse. One of the very few studies looking at this question is McKenzie and Rapoport (2011) in the context of migration from Mexico to the US. They report a significant negative effect of migration on schooling attendance and attainment in Mexico: living in a migrant household lowers the chances of boys completing junior high school and of boys and girls completing high school. In the same context, the findings of Amuedo-Dorantes and Pozo (2010) point into the same direction: migration negatively impacts the school attendance of children and eliminates the positive effect of remittances once children in households with

members residing abroad are included in the sample. More evidence from contexts where low-skilled migration predominates, however, is highly needed to be able to generalize those findings.

4.4 Liquidity constraints and human capital investment

Temporary migration may also positively affect investment in education through increased remittance flows (income effect). The magnitude of this effect depends on whether liquidity constraints to educational investment are binding, especially in the absence of temporary migration. In addition, if temporary migration disrupts family life in a manner than hinders children's academic progress, estimated effects on children's schooling attainment will also include this disruption effect (Amuedo-Dorantes, Georges, and Pozo 2010). As a result, the effect of temporary migration on children's schooling attainment is a priori ambiguous.

Empirical evidence on the effect of temporary migration and increased remittance income on educational investment is mixed. Studies such as Gibson, McKenzie, and Stillman (2011) in Tonga and Acosta (2011) in El Salvador find no effect of temporary migration on the likelihood of whether children are currently studying and on years of schooling attained. In the former study, the authors argue that findings are driven by a lack of liquidity constraints to child schooling in the context studied. In contrast, increased remittances were found to lead to more schooling in the Philippines (Yang 2008; Theoharides 2018).[16] Positive effects on child school enrollment and school retention have also been found for several Latin American countries including Guatemala (Adams Jr and Cuecuecha 2010a), Ecuador (Calero, Bedi, and Sparrow 2009), El Salvador (Edwards and Ureta 2003), and Mexico (Hanson and Woodruff 2003). In Haiti, conflicting effects of temporary migration and remittances on children's school enrollment have been reported: while the receipt of remittances by the household lifts budget constraints and raises children's likelihood of being schooled, the disruptive effect of household out-migration imposes an economic burden on remaining household members and reduces their likelihood of being in school (Amuedo-Dorantes, Georges, and Pozo 2010). Gender-differentiated results have been reported for Mexico (Antman 2012) and the Dominican Republic (Amuedo-Dorantes and Pozo 2010) where the positive effect of temporary migration on child schooling mostly holds for girls. In contrast, positive effects on child schooling have been reported only for boys in Tajikistan (Jaupart 2019). The effect of temporary migration on investments in schooling for children left behind is thus highly context dependent. One channel through which remittance income may affect school enrollment is by reducing child labor, as reported in Guatemala (Acosta

[16] Theoharides (2018) provides suggestive evidence that these effects are likely driven by increased income, rather than an increased expected wage premium for education.

2011) and Ecuador (Calero, Bedi, and Sparrow 2009).

5 Financial capital and entrepreneurship

Temporary migration is also linked to increased investment and entrepreneurship back in the home country. While there are studies on the increase in investment in assets, such as land in Pakistan (Adams Jr 1998) and El Salvador (Damon 2010), most papers focus on the link between temporary migration and entrepreneurship. Seeking self-employment and entrepreneurship opportunities after return has been argued to be among the main drivers of temporary migration: in the presence of credit constraints at home, temporary migration allows individuals to accumulate savings faster and to engage in self-employment activities when they return (Dustmann and Kirchkamp 2002; Rapoport 2002; Djajić 2010; Bossavie, Gorlach, Ozden, and Wang 2021). This motive is especially relevant in developing economies where credit constraints to entrepreneurship can be quite restrictive. Temporary migration can thus allow to overcome the institutional void of missing capital markets in origin countries to accelerate business creation (Bossavie, Gorlach, Ozden, and Wang 2022).

Empirical evidence from various countries is consistent with the entrepreneurship channel. A first set of descriptive studies examine the relationship between temporary migration and self-employment after return. Savings levels have been found to be a significant factor in the choice of self-employment over waged employment among return migrants in Pakistan (Ilahi 1999) and Egypt (McCormick and Wahba 2001). In Tunisia, the majority of entrepreneurial projects started by returnees were totally financed through overseas savings (Mesnard et al. 2004). In Turkey, more than half of returnees from Germany are economically active and engaged in entrepreneurial activities (Dustmann and Kirchkamp 2002).[17] Using historical data on return migrants to Norway from the United States, Abramitzky, Boustan, and Eriksson (2019) also show that return migrants to rural Norway back in the late 1800s and early 1900s were more likely to become owner occupier farmers although they came from poorer backgrounds than non-migrants. Similarly, return migrants have been found to be more likely to become entrepreneurs than non-migrants, after accounting for selection in emigration and return migration in Albania (Piracha and Vadean 2010) and Egypt (Mahé 2019; Wahba and Zenou 2012; Wahba 2015). A causal relationship between temporary migration and financial investment back home has been estimated using natural experiments in the Philippines (Yang 2006; Yang 2008; Khanna, Theoharides, and Yang 2020), Mexico (Woodruff and Zenteno 2007) and Mozambique (Batista, McIndoe-Calder, and Vicente

[17] Consistent with this evidence, an analysis of a sample of workers from seven developing economies by Giambra and McKenzie (2021) finds that self-employed individuals are also less likely to emigrate.

2017). Finally, the complex linkages between credit access, temporary migration decisions, asset accumulation overseas and entrepreneurship after return have been modeled using a structural approach in the context of Bangladesh, which allows to simulate the effect of migration and credit market policy changes on entrepreneurship in the origin country (Bossavie, Gorlach, Ozden, and Wang 2021).[18] While temporary migration increases entrepreneurship after return, household entrepreneurial activities have been shown to decline during the migration episode in Bangladesh, due to the emigration of the most entrepreneurial household member (Mobarak, Sharif, and Shrestha 2020). Whereas most papers look at the impact of temporary migration on entrepreneurship for migrants themselves and their families, micro firms in areas connected to migration networks have been shown to experience higher levels of investment, sales, and profit in Mexico, suggesting an alleviation of capital constraints also for firms connected to migration networks (Woodruff and Zenteno 2007).

One policy relevant question is whether entrepreneurial activities started by temporary migrants back home are undertaken by choice, or instead, are a last resort option as return migrants are unable to find wage employment (the so-called "parking lot" hypothesis of entrepreneurship of Harris and Todaro (1970)). Available evidence so far lends more support to the former hypothesis. Return migrants to Bangladesh who become self-employed earn more than wage employees and are typically able to sustain these earnings in older age compared to wage employees (Bossavie, Gorlach, Ozden, and Wang 2021). Self-employment activities started by return migrants have also been shown to be more successful and to generate more jobs for the local economy in Albania (Piracha and Vadean 2010), Tunisia (Mahé 2019) and Bangladesh (Bossavie, Gorlach, Ozden, and Wang 2022). Entrepreneurial activities started by return migrants were also found to be more likely to survive in Egypt, even after controlling for selection into migration on non-observable characteristics (Marchetta 2012). The "parking lot" hypothesis of entrepreneurship, however, appears to be valid in some contexts: self-employment after return has been shown to be a temporary choice before finding wage employment in the Kyrgyz Republic (Brück, Mahé, and Naudé 2018) and Senegal (Kveder and Flahaux 2013).

The ability of temporary migrants to start businesses and engage in entrepreneurship at home (after they return) depends on their migration experience. When migration is temporary, it is a component of the overall decision process of the worker where all stages are interlinked (Dustmann and Görlach 2016; Bossavie, Gorlach, Ozden, and Wang 2021). In this context, employment outcomes after return are linked to the parameters and outcomes of the migration episode, such as migration costs, wages overseas and duration of stay.

[18] Also see Wahba (2014), Rapoport and Docquier (2006) and Naudé, Siegel, and Marchand (2017) for related surveys of literature on the topic of migration and entrepreneurship.

Savings and duration of stay have indeed been shown to be positively associated with self-employment after return in Pakistan (Ilahi 1999), Egypt (McCormick and Wahba 2001), Tunisia (Mesnard et al. 2004), Albania (Kilic, Carletto, Davis, and Zezza 2009; Piracha and Vadean 2010) and Bangladesh (Bossavie, Gorlach, Ozden, and Wang 2021). The latter study also reports that higher migration costs reduce the likelihood of starting self-employment after returning to Bangladesh. Occupational choices after return have also been linked to the reasons for returning: temporary migrants who were forced to return, as opposed to returning voluntarily, are less likely to become self-employed (Piracha and Vadean 2010; Gubert and Nordman 2011). Finally, other factors such as pre-migration employment also matter in the occupational choices of return migrants: temporary migrants who were self-employed before migrating are more likely to be self-employed after return in Pakistan, although migration experience appears to play a more prominent role on occupational choice than pre-migration employment (Ilahi 1999). In contrast, temporary migrants who were in self-employment before migration are less likely to become self-employed after return to the Kyrgyz Republic (Brück, Mahé, and Naudé 2018).

6 Welfare and poverty

The most direct effect of temporary migration on development in origin countries is an increase in the consumption and welfare of households. These welfare improvements are enabled by the large wage gains of labor migrants overseas who often send part of this income back home in the form of remittances.[19] Remittances are by far the most important international financial flow into developing countries: international migrants remitted 529 USD billion back to their home countries in 2018 prior to the COVID-19 pandemic (Ratha, De, Kim, et al. 2019), which is about triple the size of Official Development Assistance. Remittances are a very large share of the economy of many low-income migrant-sending countries, reaching 33 percent of the GDP in the Kyrgyz Republic, 29 percent in Tajikistan, and 28 percent in Nepal in 2018.

Improving the welfare and consumption of family members left behind is a key motive for migrants sending remittances back home (Lucas and Stark 1985; Faini 1994; Funkhouser

[19]There is a large non-experimental and experimental body of evidence on the earnings gains experienced by migrants overseas. Immigrants from developing countries to the United States are estimated to earn four to six times the income of a worker of the same age and education in the origin country (Clemens, Montenegro, and Pritchett 2016). Experimental estimates show that low-skilled temporary migrants from Bangladesh to Malaysia earn about three times what they would have earned domestically (Mobarak, Sharif, and Shrestha 2020). Tongans who won a lottery to work in New Zealand under the Pacific Access Category earned 3.7 times more after a year, with gains persisting even after a decade (Gibson, McKenzie, Rohorua, and Stillman 2019).

1995; Rapoport and Docquier 2006). The propensity to remit and the amount of remittances sent back home is particularly large in the context of temporary migration. This is because temporary migrants often migrate without the rest of their households and thus send money back to support family members left behind. Temporary migrants, in particular the low-skilled, tend to send more remittances home compared to higher skilled migrants (Adams Jr 2009; Niimi, Ozden, and Schiff 2010; Dustmann and Mestres 2010).

Remittances have a direct impact on the welfare of households by increasing the consumption levels of those who receive them.[20] Those are typically migrants' families, close relatives or community members. Micro-level estimates indicate that the impact of remittances on the consumption of households left behind can be very large. In Bangladesh, experimental evidence shows that a doubling of migrants' income also translated into a doubling of migrant households' consumption (Mobarak, Sharif, and Shrestha 2020). In low-income settings, households with an international migrant significantly increase their consumption of food and non-food items, but not of temptation goods (Mobarak, Sharif, and Shrestha 2020). The welfare benefits of remittances may also extend beyond their direct recipients. If the flow of remittances exceeds a certain critical amount, the remaining residents benefit from migration even if they do not receive any of the remittances themselves (Djajić 1986). Empirically, positive spillover effects on non-remittance recipients have been reported in the Philippines (Yang and Martinez 2006).

The impact of remittances on welfare in origin countries was also reported at the macro level. Cross-country estimates in a sample of 71 developing countries indicate that a 10 percent increase in the share of international migrants in a country's population leads to a 2.1 percent decline in poverty (Adams Jr and Page 2005). At the country-level, the welfare-improving effects of remittances have been documented in several countries in Latin America (Acosta, Calderón, Fajnzylber, and López 2006; Acosta, Calderon, Fajnzylber, and Lopez 2008; Acosta, Lartey, and Mandelman 2009; Bertoli and Marchetta 2014), Indonesia (Adams Jr and Cuecuecha 2010b), Nepal (Lokshin, Bontch-Osmolovski, and Glinskaya 2010; Shrestha 2017a) and the Philippines (Yang and Martinez 2006).[21] In countries where emigration is widespread, the impact of remittances on poverty reduction can be quite large. In Nepal, one-fifth of the poverty reduction between 1995 and 2004 was attributed to increased levels of work-related migration and remittances sent home (Lokshin, Bontch-Osmolovski, and Glinskaya 2010), while 40 percent of the decline in poverty between 2001 and 2011 was attributed to increases in migration to the Persian Gulf Countries and Malaysia (Shrestha

[20] Also see Yang (2011) for a previous survey on the impact of migrants' remittances on households left behind.

[21] For an earlier literature review on the impact of remittances on poverty in origin countries, see Adams Jr (2011).

2017a).

In addition to increasing household income levels, remittances can improve household welfare through an income stabilizing effect (Ratha 2003). Unlike capital flows, which tend to be highly cyclical, remittances are relatively stable and often consumption-smoothing, acting as insurance during economic crises or after natural disasters (Yang and Choi 2007; Bettin and Zazzaro 2018; De, Islamaj, Kose, and Reza Yousefi 2019). At the micro level, several studies suggest that they can play an insurance role against negative shocks among households (Cox, Eser, and Jimenez 1998; Yang and Choi 2007; Gubert 2002; Yang and Martinez 2006; Mohapatra, Joseph, and Ratha 2012). At the macro-level, remittances have been shown to historically rise in times of economic downturns, financial crises, and natural disasters as migrants living abroad send more money to help their families back home (Chami, Fullenkamp, and Jahjah 2005; Yang and Martinez 2006; Yang and Choi 2007; Ratha, Mohapatra, and Silwal 2010).

The potential welfare benefits of temporary migration through remittances received can, however, be reduced by several factors. The first is the recruitment costs paid by temporary migrants to go overseas, which can be very large for some migration corridors (Ratha and Seshan 2018). As a result, many migrants end up repaying the migration costs and possible additional loan interest while they are abroad, reducing the welfare benefits for migrants and their households.[22] In origin countries like Pakistan, where migration costs to the Gulf countries are notoriously high, a 1 percent increase in migration costs is associated with a 0.11 percent to 0.16 percent decrease in remittances (Ahmed and Bossavie 2022). A second welfare reducing factor is the cost of sending remittances back home. Despite some progress, the transaction costs of sending remittances through formal channels remain high in relative terms. Remittance service providers in the formal sector may charge fees of 10–15 percent of the principal amount to handle the small transfers typically sent by migrants in many corridors (Ratha 2006).[23] The cost of remittance services can vary substantially, by region and transfer methods. For instance, costs are lowest in Central America and Mexico, followed by South Asia, while sending remittances to Sub-Saharan African countries continues to have the highest average costs (World Bank 2019). Banks, where available, are the most expensive routes for sending remittances, with an average cost of 11 percent in 2019. As a result, many migrants opt for informal channels to send remittances (Gibson, McKenzie, and Rohorua 2006; Yang 2011).

[22]For example, recruitment costs amount to close to a year of earnings overseas for temporary migrants from South Asia to the Gulf countries (Ahmed and Bossavie 2022).

[23]On average, the charge for sending 200 USD – the benchmark used by authorities to evaluate cost – is 14 USD or 7%. This amount includes fees for both the sender and recipient intermediaries as well as the exchange rate margin.

Although remittance flows are strong contributors to increased consumption and reduced poverty in origin countries, their magnitude has also raised questions about undesirable effects on the recipient economies. These issues are similar to those that emerge during periods of massive capital inflows. In particular, there is a concern that remittances could cause Dutch disease effects. In other words, the massive inflow of foreign currency could be associated with a real exchange rate appreciation and loss of international competitiveness, which, in turn, could lead to a decline in the production of manufactured and other tradable goods. Empirical studies looking at this question include include Acosta, Lartey, and Mandelman (2009), Lartey, Mandelman, and Acosta (2012), Amuedo-Dorantes and Pozo (2004), and Rajan and Subramanian (2005), all of which use cross-country data to document that real exchange appreciation follows remittance flows.

7 Institutions and social norms

Finally, a thinner but rapidly evolving literature shows that temporary migration can impact origin countries' institutions and social norms that matter for development. Foreign-educated individuals, for example may bring democratic change if they acquired education in democratic countries (Spilimbergo 2009; Mercier 2016). Using experimental data, Batista and Vicente (2011) show that emigration from Cabo Verde contributed to better governance at home. This is primarily driven by return migrants who lived in destination countries with good governance and democratic institutions. In Morocco, having a returnee from a Western European country in the household increases the demand for political and social change, after controlling for the double selection into emigration and return migration (Tuccio, Wahba, and Hamdouch 2019). Because better institutions usually translate into higher total factor productivity, such channels are partly captured by productivity responses. A positive impact of return migration on political participation rates and on electoral competitiveness has been found in Mali, which mainly stems from returnees from non-African countries (Chauvet and Mercier 2014). The impact of returnees on turnout was found to go beyond their own participation, and to affect electoral outcomes more strongly in areas where non-migrants are poorly educated, suggesting a diffusion of political norms from returnees to non-migrants.[24]

In contrast with studies finding positive effects of temporary migration on institutions, an increase in remittance inflows associated with temporary migration can also lead to deterioration of institutional quality. In a cross section of 111 countries, a higher ratio of remittances to GDP leads to lower indices of control of corruption, government effectiveness,

[24]In contrast, Barsbai, Rapoport, Steinmayr, and Trebesch (2017) find that pro-democracy attitudes in Moldova were primarily transmitted due to spillovers from current migrants as opposed to return migrants.

and rule of law, even after controlling for potential reverse causality (Abdih, Chami, Dagher, and Montiel 2012).

A related literature explores whether temporary migration contributes to the transfer of cultural and social norms to the home country. Migrants can be a vector of cultural transmission, and empirical findings using the World Values Survey data indicate that this transmission occurs from host to home countries rather than the other way around (Rapoport, Sardoschau, and Silve 2020). The few country-specific empirical studies are consistent with this finding. Return migrants in Egypt have been found to adjust their fertility choices to the norms that prevail in their previous country of destination (Bertoli and Marchetta 2015). Return migration can also contribute to transfer of gender norms back home. In Jordan, controlling for both emigration and return migration selections, women with a family member who returned from more conservative Arab countries are more likely to bear traditional gender norms than women in households with no migration experience (Tuccio and Wahba 2018). In Mali, girls who live in villages with a higher share of returnees from other African countries, where female circumcision is uncommon, are significantly less likely to suffer from genital mutilation (Diabate and Mesplé-Somps 2019).

8 Conclusions and areas for further research

This paper offers a summary and discussion of the multiple and complex linkages between temporary migration and economic development in origin countries. Despite a rapidly expanding literature, significant knowledge gaps remain. First, much of the existing literature focuses on high-skilled temporary migration. Evidence on the impacts of low-skilled migration is much sparser, despite the fact that temporary emigration from many developing countries is largely low-skilled. For instance, while high-skilled migration increases educational investment in origin countries in various settings, it remains unclear whether low-skilled emigration reduces incentives to invest in education. Similarly, while high-skilled migrants have been shown to accumulate human capital while they are overseas which ultimately benefits home labor markets, there is still limited evidence on whether low-skilled migrants experience human capital gains. Second, the vast majority of the literature has been treating temporary migration has a one-time event. Yet, the impacts of repeated/circular migration for the home country are much less understood. This is partly driven by data availability as one would need detailed historical data on all the migration episodes undertaken by workers and their outcomes to analyze repeat migration. Third, even though policy makers in migrant-sending countries are often concerned about the possible discouragement effect of past migration on economic participation in home labor markets, this question has

received little empirical attention. Fourth, the gender dimension of temporary migration and its gender-differentiated effects, for example on adult household members and children left behind, is an area that remains significantly understudied via rigorous causal analysis.

Another important limitation of available evidence on the impacts of temporary migration on origin countries is that it is largely based on static models and analysis. While providing very useful insights, cross-section data and analysis do not shed adequate light on the dynamic effects of temporary migration. These dynamic effects are expected to impact workers and their families' entire life cycle, and to differ prior to, during and after the migration episode. Recent papers attempt to identify some of these time-varying effects, but rigorous answers to these questions require a dynamic modeling approach with granular data on employment and migration history. For example, when looking at the impacts of temporary migration on the outcomes of household members left behind, the analysis would greatly benefit from having information on the full employment and migration history of temporary migrants, but also of other household members.

For policy purposes, the main drawback of the non-experimental reduced-form approach to temporary migration is its inability to examine the impacts of policy changes on the welfare of migrants themselves and of the origin country more broadly. In contrast, a more structural and dynamic approach allows to model the complex linkages between the decisions and outcomes of migrants at different stages of the migration life cycle. This allows the researcher to simulate the impacts of a change in policy parameters on the migration decisions and outcomes of workers and to estimate impacts on specific aggregate variables of interest in the origin or destination country. For example, Bossavie, Gorlach, Ozden, and Wang (2021) simulate the impacts of changes in migration recruitment costs, domestic loan interest rates, and information provision on emigration rates, migration duration, repatriated savings and the extent of business creation in Bangladesh.

Existing microdata typically capture temporary migrants at one point in time in one location (abroad or at home after return), while a dynamic analysis of temporary migration phenomena requires information on the entire migration and employment history of the migrants and household members. Ideally, surveys collecting this data would also include questions on expectations of the workers on their wages, employment, savings and return decisions. While comprehensive panel data information remains very sparse and takes time to collect, dedicated migrant surveys capturing retrospective information on workers' full employment and migration history and that of their household members is a promising alternative. Policy-relevant research on temporary migration would also greatly benefit from the inclusion of more comprehensive modules on past migration episodes overseas in standard national household surveys in origin countries, in the spirit of those included in the Egyptian

Labor Market Panel Survey.

References

Abarcar, Paolo, Caroline Theoharides, et al. (2020). "Medical worker migration and origin-country human capital: Evidence from us visa policy". *SocArXiv Papers, August* 3.

Abdih, Yasser, Ralph Chami, Jihad Dagher, and Peter Montiel (2012). "Remittances and institutions: Are remittances a curse?" *World Development* 40.4, pp. 657–666.

Abramitzky, Ran, Leah Boustan, and Katherine Eriksson (2019). "To the new world and back again: Return migrants in the age of mass migration". *ILR Review* 72.2, pp. 300–322.

Abramitzky, Ran, Leah Platt Boustan, and Katherine Eriksson (2014). "A nation of immigrants: Assimilation and economic outcomes in the age of mass migration". *Journal of Political Economy* 122.3, pp. 467–506.

Acosta, Pablo (2006). "Labor supply, school attendance, and remittances from international migration: the case of El Salvador". *World Bank Policy Research Working Paper* 3903.

— (2011). "School attendance, child labour, and remittances from international migration in El Salvador". *Journal of Development Studies* 47.6, pp. 913–936.

Acosta, Pablo, Cesar Calderon, Pablo Fajnzylber, and Humberto Lopez (2008). "What is the impact of international remittances on poverty and inequality in Latin America?" *World Development* 36.1, pp. 89–114.

Acosta, Pablo, Cesar Calderón, Pablo Fajnzylber, and Humberto López (2006). "Remittances and development in Latin America". *World Economy* 29.7, pp. 957–987.

Acosta, Pablo A, Emmanuel KK Lartey, and Federico S Mandelman (2009). "Remittances and the Dutch disease". *Journal of international economics* 79.1, pp. 102–116.

Adams Jr, Richard H (1998). "Remittances, investment, and rural asset accumulation in Pakistan". *Economic Development and Cultural Change* 47.1, pp. 155–173.

— (2009). "The determinants of international remittances in developing countries". *World development* 37.1, pp. 93–103.

— (2011). "Evaluating the economic impact of international remittances on developing countries using household surveys: A literature review". *Journal of Development Studies* 47.6, pp. 809–828.

Adams Jr, Richard H and Alfredo Cuecuecha (2010a). "Remittances, household expenditure and investment in Guatemala". *World Development* 38.11, pp. 1626–1641.

— (2010b). "The economic impact of international remittances on poverty and household consumption and investment in Indonesia". *World Bank Policy Research Working Paper* 5433.

Adams Jr, Richard H and John Page (2005). "Do international migration and remittances reduce poverty in developing countries?" *World development* 33.10, pp. 1645–1669.

Adda, Jérôme, Christian Dustmann, and Joseph-Simon Görlach (forthcoming). "The Dynamics of Return Migration, Human Capital Accumulation, and Wage Assimilation". *Review of Economic Studies*.

Agrawal, Ajay, Devesh Kapur, John McHale, and Alexander Oettl (2011). "Brain drain or brain bank? The impact of skilled emigration on poor-country innovation". *Journal of Urban Economics* 69.1, pp. 43–55.

Ahmed, Amer and Laurent Bossavie (2022). *Towards Safe and Productive Migration in South Asia*. World Bank Group: Washington DC.

Ambrosini, William, Karin Mayr, Giovanni Peri, and Dragos Radu (2015). "The Selection of Migrants and Returnees in Romania: Evidence and Long-run Implications". *Economics of Transition* 23.4, pp. 753–793.

Amuedo-Dorantes, Catalina, Annie Georges, and Susan Pozo (2010). "Migration, remittances, and children's schooling in Haiti". *The Annals of the American Academy of Political and Social Science* 630.1, pp. 224–244.

Amuedo-Dorantes, Catalina and Susan Pozo (2004). "Workers' remittances and the real exchange rate: a paradox of gifts". *World development* 32.8, pp. 1407–1417.

— (2006). "Migration, remittances, and male and female employment patterns". *American Economic Review* 96.2, pp. 222–226.

— (2010). "Accounting for remittance and migration effects on children's schooling". *World development* 38.12, pp. 1747–1759.

Anelli, Massimo, Gaetano Basso, Giuseppe Ippedico, and Giovanni Peri (2019). *Youth drain, entrepreneurship and innovation*. Tech. rep. National Bureau of Economic Research.

Angelucci, Manuela (2012). "US border enforcement and the net flow of Mexican illegal migration". *Economic Development and Cultural Change* 60.2, pp. 311–357.

Antman, Francisca M (2012). "Gender, educational attainment, and the impact of parental migration on children left behind". *Journal of Population Economics* 25.4, pp. 1187–1214.

Artuc, Erhan and Caglar Ozden (2018). "Transit migration: all roads lead to America". *The Economic Journal* 128.612, F306–F334.

Barrett, Alan and Jean Goggin (2010). "Returning to the question of a wage premium for returning migrants". *National Institute Economic Review* 213, R43–R51.

Barsbai, Toman, Hillel Rapoport, Andreas Steinmayr, and Christoph Trebesch (2017). "The effect of labor migration on the diffusion of democracy: evidence from a former Soviet Republic". *American Economic Journal: Applied Economics* 9.3, pp. 36–69.

Batista, Catia, Aitor Lacuesta, and Pedro C Vicente (2012). "Testing the 'brain gain'hypothesis: Micro evidence from Cape Verde". *Journal of Development Economics* 97.1, pp. 32–45.

Batista, Catia, Tara McIndoe-Calder, and Pedro Vicente (2017). "Return Migration, Self-selection and Entrepreneurship". *Oxford Bulletin of Economics and Statistics* 79.5, pp. 797–821.

Batista, Catia and Pedro C Vicente (2011). "Do migrants improve governance at home? Evidence from a voting experiment". *The World Bank Economic Review* 25.1, pp. 77–104.

Beine, Michel, Frederic Docquier, and Hillel Rapoport (2008). "Brain drain and human capital formation in developing countries: winners and losers". *The Economic Journal* 118.528, pp. 631–652.

Beine, Michel, Frédéric Docquier, and Cecily Oden-Defoort (2011). "A panel data analysis of the brain gain". *World development* 39.4, pp. 523–532.

Beine, Michel, Frédéric Docquier, and Hillel Rapoport (2001). "Brain drain and economic growth: theory and evidence". *Journal of development economics* 64.1, pp. 275–289.

Bellemare, Charles (2007). "A life-cycle model of outmigration and economic assimilation of immigrants in Germany". *European Economic Review* 51.3, pp. 553–576.

Berninghaus, Siegfried and Hans Günther Seifert-Vogt (1993). "The role of the target saving motive in guest worker migration: A theoretical study". *Journal of Economic Dynamics and Control* 17.1-2, pp. 181–205.

Bertoli, Simone and Francesca Marchetta (2014). "Migration, remittances and poverty in Ecuador". *The Journal of Development Studies* 50.8, pp. 1067–1089.

Bertoli, Simone and Francesca Marchetta (2015). "Bringing it all back home–return migration and fertility choices". *World Development* 65, pp. 27–40.

Bettin, Giulia and Alberto Zazzaro (2018). "The impact of natural disasters on remittances to low-and middle-income countries". *The Journal of Development Studies* 54.3, pp. 481–500.

Bhagwati, Jagdish and Carlos Rodriguez (1975). "Welfare-theoretical analyses of the brain drain". *Journal of development Economics* 2.3, pp. 195–221.

Bijwaard, Govert E and Jackline Wahba (2014). "Do high-income or low-income immigrants leave faster?" *Journal of Development Economics* 108, pp. 54–68.

Binzel, Christine and Ragui Assaad (2011). "Egyptian men working abroad: Labour supply responses by the women left behind". *Labour Economics* 18, S98–S114.

Borjas, George J (1989). "Immigrant and emigrant earnings: A longitudinal study". *Economic inquiry* 27.1, pp. 21–37.

Borjas, George J and Bernt Bratsberg (1994). *Who leaves? The outmigration of the foreign-born.*

— (1996). "Who Leaves? The Outmigration of the Foreign-Born". *The Review of Economics and Statistics*, pp. 165–176.

Bossavie, Laurent and Anastasiya Denisova (2018). *Youth labor migration in Nepal.* World Bank.

Bossavie, Laurent, Daniel Garrote-Sanchez, Mattia Makovec, and Caglar Ozden (2022). *Skilled Migration: A sign of Europe's Divide or Integration?* Tech. rep. The World Bank.

Bossavie, Laurent, Joseph-Simon Gorlach, Caglar Ozden, and He Wang (2021). "Temporary Migration for Long-term Investment". *World Bank Policy Research Working Paper* 9740.

— (2022). "Institutional Voids, Capital Markets and Temporary Migration: Evidence from Bangladesh". *World Bank Policy Research Working Paper* 9930.

Bossavie, Laurent and He Wang (2021). "How do Return Migrants Fare in Home Labor Markets? Evidence from South Asia". *World Bank Group: Policy Research Working Paper.*

Brück, Tilman, Clotilde Mahé, and Wim Naudé (2018). "Return Migration and Self-employment: Evidence from Kyrgyzstan". *IZA Discussion Paper* 11332.

Bryan, Gharad, Shyamal Chowdhury, and Ahmed Mushfiq Mobarak (2014). "Underinvestment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh". *Econometrica* 82.5, pp. 1671–1748.

Calero, Carla, Arjun S Bedi, and Robert Sparrow (2009). "Remittances, liquidity constraints and human capital investments in Ecuador". *World Development* 37.6, pp. 1143–1154.

Carletto, Calogero and Talip Kilic (2011). "Moving up the ladder? The impact of migration experience on occupational mobility in Albania". *Journal of Development Studies* 47.6, pp. 846–869.

Cazachevici, Alina, Tomas Havranek, and Roman Horvath (2020). "Remittances and economic growth: A meta-analysis". *World Development* 134, p. 105021.

Chabé-Ferret, Bastien, Joël Machado, and Jackline Wahba (2018). "Remigration intentions and migrants' behavior". *Regional Science and Urban Economics* 68, pp. 56–72.

Chami, Ralph, Connel Fullenkamp, and Samir Jahjah (2005). "Are immigrant remittance flows a source of capital for development?" *IMF Staff papers* 52.1, pp. 55–81.

Chand, Satish and Michael A Clemens (2019). "Human capital investment under exit options: Evidence from a natural quasi-experiment".

Chauvet, Lisa and Marion Mercier (2014). "Do return migrants transfer political norms to their origin country? Evidence from Mali". *Journal of Comparative Economics* 42.3, pp. 630–651.

Choudhury, Prithwiraj (2016). "Return migration and geography of innovation in MNEs: a natural experiment of knowledge production by local workers reporting to return migrants". *Journal of Economic Geography* 16.3, pp. 585–610.

Clemens, Michael A and David McKenzie (2018). "Why don't remittances appear to affect growth?" *The Economic Journal* 128.612, F179–F209.

Clemens, Michael A, Claudio E Montenegro, and Lant Pritchett (2016). "Bounding the price equivalent of migration barriers". *Center for Global Development Working Paper* 428.

Clemens, Michael A, Çağlar Özden, and Hillel Rapoport (2014). "Migration and development research is moving far beyond remittances". *World Development* 64, pp. 121–124.

Coniglio, Nicola Daniele and Jan Brzozowski (2018). "Migration and development at home: Bitter or sweet return? Evidence from Poland". *European Urban and Regional Studies* 25.1, pp. 85–105.

Constant, Amelie and Douglas S Massey (2002). "Return migration by German guestworkers: Neoclassical versus new economic theories". *International migration* 40.4, pp. 5–38.

— (2003). "Self-selection, earnings, and out-migration: A longitudinal study of immigrants to Germany". *Journal of population Economics* 16.4, pp. 631–653.

Cox, Donald, Zekeriya Eser, and Emmanuel Jimenez (1998). "Motives for private transfers over the life cycle: An analytical framework and evidence for Peru". *Journal of Development Economics* 55.1, pp. 57–80.

Cox-Edwards, Alejandra and Eduardo Rodrıguez-Oreggia (2009). "Remittances and labor force participation in Mexico: an analysis using propensity score matching". *World Development* 37.5, pp. 1004–1014.

Damon, Amy Lynne (2010). "Agricultural land use and asset accumulation in migrant households: the case of El Salvador". *The Journal of Development Studies* 46.1, pp. 162–189.

De, Supriyo, Ergys Islamaj, M Ayhan Kose, and S Reza Yousefi (2019). "Remittances over the business cycle: Theory and evidence". *Economic Notes: Review of Banking, Finance and Monetary Economics* 48.3, e12143.

De Coulon, Augustin and Matloob Piracha (2005). "Self-selection and the performance of return migrants: the source country perspective". *Journal of Population Economics* 18.4, pp. 779–807.

De Vreyer, Philippe, Flore Gubert, and Anne-Sophie Robilliard (2010). "Are there Returns to Migration Experience? An Empirical Analysis Using Data on Return Migrants and Non-migrants in West Africa". *Annals of Economics and Statistics/Annales d'économie et de statistique* 97, pp. 307–328.

Deléchat, Corinne (2001). "International migration dynamics: The role of experience and social networks". *Labour* 15.3, pp. 457–486.

Diabate, Idrissa and Sandrine Mesplé-Somps (2019). "Female genital mutilation and migration in Mali. Do migrants transfer social norms?" *Journal of Population Economics* 32.4, pp. 1125–1170.

Dinkelman, Taryn and Martine Mariotti (2016). "The long-run effects of labor migration on human capital formation in communities of origin". *American Economic Journal: Applied Economics* 8.4, pp. 1–35.

Djajić, Slobodan (1986). "International migration, remittances and welfare in a dependent economy". *Journal of Development Economics* 21.2, pp. 229–234.

— (1989). "Migrants in a guest-worker system: a utility maximizing approach". *Journal of Development Economics* 31.2, pp. 327–339.

— (2010). "Investment Opportunities in the Source Country and Temporary Migration". *Canadian Journal of Economics/Revue canadienne d'économique* 43.2, pp. 663–682.

Djajić, Slobodan, Frédéric Docquier, and Michael S Michael (2019). "Optimal education policy and human capital accumulation in the context of brain drain". *Journal of Demographic Economics* 85.4, pp. 271–303.

Djajić, Slobodan and Ross Milbourne (1988). "A general equilibrium model of guest-worker migration: The source-country perspective". *Journal of international economics* 25.3-4, pp. 335–351.

Docquier, Frédéric, Olivier Lohest, and Abdeslam Marfouk (2007). "Brain drain in developing countries". *The World Bank Economic Review* 21.2, pp. 193–218.

Docquier, Frédéric and Hillel Rapoport (2012). "Globalization, brain drain, and development". *Journal of economic literature* 50.3, pp. 681–730.

Dos Santos, Manon Domingues and Fabien Postel-Vinay (2003). "Migration as a source of growth: the perspective of a developing country". *Journal of Population Economics* 16.1, pp. 161–175.

Dos Santos, Manon Domingues, Fabien Postel-Vinay, et al. (2004). "The impact of temporary migration on human capital accumulation and economie development". *Brussels Economic Review* 47.1, pp. 77–88.

Dustmann, Christian (1995). "Savings behavior of return migrants". *Zeitschrift fuer Wirtschafts- und Sozialwissenschaften* 115, pp. 511–533.

— (1997). "Return migration, uncertainty and precautionary savings". *Journal of development economics* 52.2, pp. 295–316.

— (2003). "Return migration, wage differentials, and the optimal migration duration". *European Economic Review* 47.2, pp. 353–369.

Dustmann, Christian, Itzhak Fadlon, and Yoram Weiss (2011). "Return migration, human capital accumulation and the brain drain". *Journal of Development Economics* 95.1, pp. 58–67.

Dustmann, Christian, Tommaso Frattini, and Anna Rosso (2015). "The Effect of Emigration from Poland on Polish Wages". *The Scandinavian Journal of Economics* 117.2, pp. 522–564.

Dustmann, Christian and Albrecht Glitz (2011). "Migration and education". In: *Handbook of the Economics of Education*. Vol. 4. Elsevier, pp. 327–439.

Dustmann, Christian and Joseph-Simon Görlach (2016). "The economics of temporary migrations". *Journal of Economic Literature* 54.1, pp. 98–136.

Dustmann, Christian and Oliver Kirchkamp (2002). "The optimal migration duration and activity choice after re-migration". *Journal of development economics* 67.2, pp. 351–372.

Dustmann, Christian and Josep Mestres (2010). "Remittances and temporary migration". *Journal of Development Economics* 92.1, pp. 62–70.

Dustmann, Christian and Yoram Weiss (2007). "Return Migration: Theory and Empirical Evidence from the UK". *British Journal of Industrial Relations* 45.2, pp. 236–256.

Edwards, Alejandra Cox and Manuelita Ureta (2003). "International migration, remittances, and schooling: evidence from El Salvador". *Journal of development economics* 72.2, pp. 429–461.

Elsner, Benjamin (2013). "Does emigration benefit the stayers? Evidence from EU enlargement". *Journal of Population Economics* 26.2, pp. 531–553.

Faini, Riccardo (1994). "Workers remittances and the real exchange rate". *Journal of Population Economics* 7.2, pp. 235–245.

Fargues, Philippe (2011). "Immigration without inclusion: non-nationals in nation-building in the Gulf States". *Asian and Pacific Migration Journal* 20.3-4, pp. 273–292.

Fargues, Philippe and Françoise De Bel-Air (2015). "Migration to the Gulf states: The political economy of exceptionalism".

Farole, Thomas, Yoonyoung Cho, Laurent Bossavie, and Reyes Aterido (2017). *Bangladesh jobs diagnostic*. World Bank.

Funkhouser, Edward (1995). "Remittances from international migration: A comparison of El Salvador and Nicaragua". *The review of economics and statistics*, pp. 137–146.

Gang, Ira and Myeong-Su Yun (2000). "Returns to Returning". *Journal of Population Economics* 13.1, pp. 57–79.

Giambra, Samuele and David McKenzie (2021). "Self-employment and Migration". *World Development* 141.

Gibson, John, David McKenzie, Halahingano Rohorua, and Steven Stillman (2019). "The long-term impact of international migration on economic decision-making: Evidence from a migration lottery and lab-in-the-field experiments". *Journal of Development Economics* 138, pp. 99–115.

Gibson, John, David McKenzie, and HTAS Rohorua (2006). "How cost elastic are remittances". *Estimates from Tongan Migrants in New Zealand. WP.*

Gibson, John, David McKenzie, and Steven Stillman (2011). "The impacts of international migration on remaining household members: omnibus results from a migration lottery program". *Review of Economics and Statistics* 93.4, pp. 1297–1318.

Giesing, Yvonne and Nadzeya Laurentsyeva (2018). "Firms left behind: Emigration and firm productivity".

Gorlach, Joseph-Simon (2020). "Borrowing Constraints, Migrant Selection, and the Dynamics of Return and Repeat Migration". *Unpublished Manuscript.*

Gubert, Flore (2002). "Do migrants insure those who stay behind? Evidence from the Kayes area (Western Mali)". *oxford development studies* 30.3, pp. 267–287.

Gubert, Flore and Christophe J Nordman (2011). "Return migration and small enterprise development in the Maghreb". *Diaspora for development in Africa* 3, pp. 103–126.

Hanson, Gordon H and Christopher Woodruff (2003). *Emigration and educational attainment in Mexico.* Tech. rep. Mimeo., University of California at San Diego.

Haque, Nadeem U and Se-Jik Kim (1995). ""Human capital flight": Impact of migration on income and growth". *Staff Papers* 42.3, pp. 577–607.

Harris, John R and Michael P Todaro (1970). "Migration, unemployment and development: a two-sector analysis". *The American economic review*, pp. 126–142.

Hill, John K (1987). "Immigrant decisions concerning duration of stay and migratory frequency". *Journal of development economics* 25.1, pp. 221–234.

Ilahi, Nadeem (1999). "Return migration and occupational change". *Review of Development Economics* 3.2, pp. 170–186.

Jaupart, Pascal (2019). "No country for young men: International migration and left-behind children in Tajikistan". *Economics of Transition and Institutional Change* 27.3, pp. 579–614.

Khanna, Gaurav, Caroline Theoharides, and Dean Yang (2019). "Abundance from Abroad: Migrant Earnings and Economic Development in the Philippines".

— (2020). "Abundance from Abroad: Migrant Income and Long-Run Economic Development".

Kilic, Talip, Calogero Carletto, Benjamin Davis, and Alberto Zezza (2009). "Investing back home Return migration and business ownership in Albania 1". *Economics of Transition* 17.3, pp. 587–623.

Killingsworth, Mark R (1983). *Labor supply*. Vol. 1. Cambridge university press Cambridge.

Kırdar, Murat G (2009). "Labor market outcomes, savings accumulation, and return migration". *Labour Economics* 16.4, pp. 418–428.

Kveder, Cora Leonie Mezger and Marie-Laurence Flahaux (2013). "Returning to Dakar: A mixed methods analysis of the role of migration experience for occupational status". *World Development* 45, pp. 223–238.

Lartey, Emmanuel KK, Federico S Mandelman, and Pablo A Acosta (2012). "Remittances, exchange rate regimes and the Dutch disease: A panel data analysis". *Review of International Economics* 20.2, pp. 377–395.

Lokshin, Michael, Mikhail Bontch-Osmolovski, and Elena Glinskaya (2010). "Work-related migration and poverty reduction in Nepal". *Review of Development Economics* 14.2, pp. 323–332.

Lokshin, Michael and Elena Glinskaya (2009). "The effect of male migration on employment patterns of women in Nepal". *The World Bank Economic Review* 23.3, pp. 481–507.

Lucas, Robert EB (2005). *International migration and economic development: Lessons from low-income countries*. Edward Elgar Publishing.

Lucas, Robert EB and Oded Stark (1985). "Motivations to remit: Evidence from Botswana". *Journal of political Economy* 93.5, pp. 901–918.

Mahé, Clotilde (2019). "Return migration and self-employment: is there a 'jack-of-all-trades' effect?" *Oxford Economic Papers*.

El-Mallakh, Nelly and Jackline Wahba (2021). "Upward or downward: Occupational mobility and return migration". *World Development* 137, p. 105203.

Marchetta, Francesca (2012). "Return Migration and the Survival of Entrepreneurial activities in Egypt". *World Development* 40.10, pp. 1999–2013.

Massey, Douglas S, Jorge Durand, and Nolan J Malone (2002). *Beyond smoke and mirrors: Mexican immigration in an era of economic integration*. Russell Sage Foundation.

Massey, Douglas S and Kerstin Gentsch (2014). "Undocumented migration to the United States and the wages of Mexican immigrants". *International Migration Review* 48.2, pp. 482–499.

Masso, Jaan, Raul Eamets, and Pille Mõtsmees (2014). "Temporary migrants and occupational mobility: evidence from the case of Estonia". *International Journal of Manpower*.

Mayr, Karin and Giovanni Peri (2009). "Brain drain and brain return: theory and application to Eastern-Western Europe". *The BE Journal of Economic Analysis & Policy* 9.1.

McCormick, Barry and Jackline Wahba (2001). "Overseas work experience, savings and entrepreneurship amongst return migrants to LDCs". *Scottish journal of political economy* 48.2, pp. 164–178.

— (2003). "Return international migration and geographical inequality: The case of Egypt". *Journal of African Economies* 12.4, pp. 500–532.

McKenzie, David and Hillel Rapoport (2011). "Can migration reduce educational attainment? Evidence from Mexico". *Journal of Population Economics* 24.4, pp. 1331–1358.

Mendola, Mariapia and Calogero Carletto (2012). "Migration and gender differences in the home labour market: Evidence from Albania". *Labour Economics* 19.6, pp. 870–880.

Mercier, Marion (2016). "The return of the prodigy son: Do return migrants make better leaders?" *Journal of Development Economics* 122, pp. 76–91.

Mesnard, Alice et al. (2004). "Temporary migration and self-employment: evidence from Tunisia". *Brussels Economic Review* 47.1, pp. 119–138.

Mishra, Prachi (2007). "Emigration and wages in source countries: Evidence from Mexico". *Journal of Development Economics* 82.1, pp. 180–199.

Miyagiwa, Kaz (1991). "Scale economies in education and the brain drain problem". *International Economic Review*, pp. 743–759.

Mobarak, Ahmed Mushfiq, Iffath Sharif, and Maheshwor Shrestha (2020). "Returns to low-skilled international migration: Evidence from the Bangladesh-Malaysia migration lottery program". *World Bank Policy Research Working Paper* 9165.

Mohapatra, Sanket, George Joseph, and Dilip Ratha (2012). "Remittances and natural disasters: ex-post response and contribution to ex-ante preparedness". *Environment, Development and Sustainability* 14.3, pp. 365–387.

Morten, Melanie (2019). "Temporary migration and endogenous risk sharing in village india". *Journal of Political Economy* 127.1, pp. 1–46.

Mountford, Andrew (1997). "Can a brain drain be good for growth in the source economy?" *Journal of development economics* 53.2, pp. 287–303.

Naudé, Wim, Melissa Siegel, and Katrin Marchand (2017). "Migration, Entrepreneurship and Development: Critical Questions". *IZA Journal of Migration* 6.1, pp. 1–16.

Niimi, Yoko, Caglar Ozden, and Maurice Schiff (2010). "Remittances and the brain drain: skilled migrants do remit less". *Annals of Economics and Statistics/Annales d'Économie et de Statistique*, pp. 123–141.

Piracha, Matloob (2015). "Occupational choice of return migrants". *IZA World of Labor*.

Piracha, Matloob and Florin Vadean (2010). "Return migration and occupational choice: Evidence from Albania". *World Development* 38.8, pp. 1141–1155.

Rajan, Raghuram and Arvind Subramanian (2005). *What undermines aid's impact on growth?*

Rapoport, Hillel (2002). "Migration, Credit Constraints and Self-employment: A Simple Model of Occupational Choice, Inequality and Growth". *Economics Bulletin* 15.7, pp. 1–5.

Rapoport, Hillel and Frédéric Docquier (2006). "The Economics of Migrants' Remittances". *Handbook of the Economics of Giving, Altruism and Reciprocity* 2, pp. 1135–1198.

Rapoport, Hillel, Sulin Sardoschau, and Arthur Silve (2020). "Migration and cultural change".

Ratha, Dilip (2003). "Workers' remittances: an important and stable source of external development finance". *Global development finance*.

— (2006). "Economic implications of remittances and migration". *World Bank, Washington*.

Ratha, Dilip, Supriyo De, Eung Ju Kim, Sonia Plaza, Ganesh Kumar Seshan, William Shaw, and Nadege Desiree Yameogo (2019). "Leveraging Economic Migration for Development: A Briefing for the World Bank Board". *World Bank Group*.

Ratha, Dilip, Sanket Mohapatra, and Ani Silwal (2010). "Outlook for Remittance Flows 2010-11: Remittance flows to developing countries remained resilient in 2009, expected to recover during 2010-11".

Ratha, Dilip and Ganesh Seshan (2018). "Worker-paid recruitment costs 1". In: *Global labour and the migrant premium*. Routledge, pp. 26–35.

Reinhold, Steffen and Kevin Thom (2013). "Migration experience and earnings in the Mexican labor market". *Journal of Human Resources* 48.3, pp. 768–820.

Rendon, Silvio and Alfredo Cuecuecha (2010). "International Job Search: Mexicans in and out of the US". *Review of Economics of the Household* 8.1, pp. 53–82.

Roy, Andrew Donald (1951). "Some thoughts on the distribution of earnings". *Oxford economic papers* 3.2, pp. 135–146.

Shrestha, Maheshwor (2017a). "The impact of large-scale migration on poverty, expenditures, and labor market outcomes in Nepal". *World Bank Policy Research Working Paper* 8232.

— (2020). "Get rich or die tryin': Perceived earnings, perceived mortality rates, and migration decisions of potential work migrants from Nepal". *The World Bank Economic Review* 34.1, pp. 1–27.

Shrestha, Slesh A (2017b). "No man left behind: Effects of emigration prospects on educational and labour outcomes of non-migrants". *The Economic Journal* 127.600, pp. 495–521.

Sjaastad, Larry A (1962). "The costs and returns of human migration". *Journal of political Economy* 70.5, Part 2, pp. 80–93.

Spilimbergo, Antonio (2009). "Democracy and foreign education". *American economic review* 99.1, pp. 528–43.

Stark, O, C Helmenstein, and A Prskawetz (1998). "Human capita formation, human capital depletion, and migration: a blessing or a 'curse'". *Economics Letters* 60, p. 3.

Stark, Oded (1991). "The migration of labor".

Stark, Oded, Christian Helmenstein, and Alexia Prskawetz (1997). "A brain gain with a brain drain". *Economics letters* 55.2, pp. 227–234.

Theoharides, Caroline (2018). "Manila to Malaysia, Quezon to Qatar international migration and its effects on origin-country human capital". *Journal of Human Resources* 53.4, pp. 1022–1049.

Tuccio, Michele and Jackline Wahba (2018). "Return migration and the transfer of gender norms: evidence from the Middle East". *Journal of Comparative Economics* 46.4, pp. 1006–1029.

Tuccio, Michele, Jackline Wahba, and Bachir Hamdouch (2019). "International migration as a driver of political and social change: evidence from Morocco". *Journal of Population Economics* 32.4, pp. 1171–1203.

Tunali, Insan (2000). "Rationality of migration". *International Economic Review* 41.4, pp. 893–920.

Vadean, Florin, Teresa Randazzo, and Matloob Piracha (2019). "Remittances, labour supply and activity of household members left-behind". *The Journal of Development Studies* 55.2, pp. 278–293.

Van Baalen, Brigitte and Tobias Müller (2008). "Return intentions of temporary migrants: the case of Germany". In: *CEPR proceedings of the second conference on transnationality of migrants*.

Vidal, Jean-Pierre (1998). "The effect of emigration on human capital formation". *Journal of population economics* 11.4, pp. 589–600.

Wahba, Jackline (2007). "Returns to Overseas Work Experience: The Case of Egypt". *International migration, economic development and policy*, pp. 235–258.

— (2014). "Return migration and economic development". In: *International handbook on migration and economic development*. Edward Elgar Publishing.

— (2015). "Selection, selection, selection: the impact of return migration". *Journal of Population Economics* 28.3, pp. 535–563.

Wahba, Jackline and Yves Zenou (2012). "Out of sight, out of mind: Migration, entrepreneurship and social capital". *Regional Science and Urban Economics* 42.5, pp. 890–903.

Woodruff, Christopher and Rene Zenteno (2007). "Migration Networks and Microenterprises in Mexico". *Journal of Development Economics* 82.2, pp. 509–528.

World Bank (2018). *Moving for prosperity: Global migration and labor markets*. World Bank Group.

World Bank (2019). "Remittance Prices Worldwide: Making Markets More Transparent".

Yang, Dean (2006). "Why do Migrants Return to Poor Countries? Evidence from Philippine Migrants' Responses to Exchange Rate Shocks". *The Review of Economics and Statistics* 88.4, pp. 715–735.

— (2008). "International migration, remittances and household investment: Evidence from Philippine migrants' exchange rate shocks". *The Economic Journal* 118.528, pp. 591–630.

— (2011). "Migrant remittances". *Journal of Economic perspectives* 25.3, pp. 129–52.

Yang, Dean and HwaJung Choi (2007). "Are remittances insurance? Evidence from rainfall shocks in the Philippines". *The World Bank Economic Review* 21.2, pp. 219–248.

Yang, Dean and Claudia Martinez (2006). "Remittances and poverty in migrants' home areas: Evidence from the Philippines". *International migration, remittances and the brain drain* 3.