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Can targeted interventions mitigate the adverse drivers of irregular migration and forced displacement?

by Michel Beine, David Khoudour and Johannes Tarvainen



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Abstract

This paper discusses how targeted interventions, either at the local or sectoral level, may shape migration and forced displacement dynamics. To assess the channels through which public policies and development initiatives potentially affect human mobility intentions and outcomes, the paper first focuses on the many—and sometimes counterintuitive—reasons why people leave their countries of origin. The drivers of both ‘voluntary’ migration and forced displacement span all dimensions of people’s lives, including economic, social, political and environmental ones. The paper then analyses the empirical evidence on the observed impact of targeted interventions on the propensity to move, either by choice or by force. The literature on the consequences of local and sectoral interventions on the behaviour of individuals in terms of human mobility remains limited, and new approaches are needed to capture more consistently the different channels of transmission. The paper thus offers potential research avenues and methodological options for better understanding of how targeted interventions can contribute to mitigating the adverse drivers of irregular migration and forced displacement.

Executive summary

Human mobility not only represents an opportunity for people on the move and their families to improve their well-being, but it also contributes to enhancing the sustainable development of countries of origin and destination (UNDP, 2020). However, not everybody migrates by choice. Conflicts, insecurity and disasters, among others, can force people out of their home areas or countries. And even when the decision to migrate is a choice, many would-be migrants do not have access to regular pathways. But, because the potential benefits of moving abroad outnumber the perceived risks of irregular migration, many choose to endanger their lives in search of a better future in other countries.

Better understanding the reasons why people move is, therefore, key to trying to mitigate the adverse drivers of irregular migration and forced displacement, and reduce the human, economic and social costs they represent. In line with the *Global Compact for Safe, Orderly and Regular Migration* and the *Global Compact on Refugees*, both adopted in 2018, as well as with the 2030 Agenda for Sustainable Development, such understanding can also help in assessing the specific role that public policies and development interventions may have in influencing individuals' propensity to move internationally— either by choice or force.

This paper analyses the possible **impact of targeted interventions at sectoral or local levels in countries of origin of potential migrants and forcibly displaced people**. Building on a review of academic literature on the determinants of migration and forced displacement, the paper proposes a **typology to explain why people move**, focusing on so-called push factors in countries of origin:

- i. The **migration context**, referring to the role of networks, the costs of and information on migration, and migration policies in origin and destination countries.
- ii. **Geography and demography**, such as the location of the country of origin, specificities linking the origin and destination of movement, and trends in age and population variation.
- iii. **Economic factors**, pointing to structural differentials in wage and employment opportunities, variations in business cycles, level of income and development at origin, and other considerations around employment and labour market institutions.
- iv. **Human capital and social context**, consisting of education and skill transferability, inequalities and social mobility, as well as health and social protection.
- v. **Governance**, including the quality of institutions and citizens' trust in their governments.
- vi. **Violence, insecurity and conflict**, ranging from civil wars and political upheavals, including their indirect social and economic effects, to individual-level impact.
- vii. **Environment and climate change**, looking at their complex relation with and often conditional or indirect effect on emigration.
- viii. **Gender**, with considerations around risk aversion and family migration, but also discrimination and higher sensitivities to violence and insecurity.

The paper investigates the relationship between international aid and targeted initiatives implemented in migrants' areas of origin on one side and emigration outcomes or intentions on the other. While recognizing the complex and indirect roles that aid programming can have on the propensity to move, the paper proposes **categorizing targeted interventions around seven main objectives**:

1. **Generating employment opportunities**, such as through the creation of employment agencies, public employment programmes and vocational training opportunities.
2. **Alleviating poverty**, looking at both conditional cash transfers and production subsidies.
3. **Protecting against adverse shocks** through, for instance, the provision of insurance mechanisms, increased social protection and better access to health services.
4. **Providing access to better information to prospective emigrants** on various steps related to departure and arrival.
5. **Strengthening social cohesion and governance** at both national and local levels.
6. **Preventing insecurity, violence and conflicts**, taking as examples stabilization interventions and initiatives seeking to inform evidence-based, gender-sensitive policies and programmes towards improving security.
7. **Mitigating consequences of climate change** with sectoral interventions aimed at creating climate-resilient activities, such as those around environmental degradation and disaster response and recovery.

While there is a growing concern among policymakers and development actors about the need to mitigate the adverse drivers of irregular migration and forced displacement, the means to do so are not clear. The fact that economic development tends to translate into more rather than less emigration from developing countries means that investing in development does not automatically lead to a reduction in migration pressures in most vulnerable countries, but targeted interventions at local or sectoral levels are still likely to affect the propensity to move.

The goal should not be to prevent people from migrating but to understand and address the causes and patterns of the most challenging forms of human mobility, such as irregular migration and forced displacement. The paper lays out methodological approaches to inform policy-designing tools that can help people migrate by choice and, to the extent possible, through legal pathways. A first step towards mitigating adverse drivers would be to design a tool that can help monitor different factors that influence people's propensity to move.

The paper suggests that current emigration rates, which are drawn from either actual movements or measurement of intentions to move, might be an insufficient predictor of future migration movements. To go beyond the simple use of current emigration rates, the paper suggests **designing and operationalizing a dashboard of key indicators alluding to emigration and forced displacement pressures.** The indicators should integrate past and current emigration rates at national and sub-national levels, as well as intentions to move abroad, determined, for instance, by responses to large-scale harmonized surveys.

Furthermore, the **dashboard could incorporate indicators in line with the typology of drivers presented in the paper by integrating key demographic, economic, social and environmental dimensions**, including indicators that are likely to induce forced displacement. The exact composition of these indicators and the optimal way to combine them should be developed in future research and informed by **practical testing** of models proposed.

The paper also recommends different **methodological avenues for measuring the impact of targeted**

interventions on individuals' propensity to move:

- Using **randomized controlled trials (RCTs)**, which randomly select beneficiaries and compare their outcomes with control groups. These can offer a solution for capturing the causal effect of targeted interventions. But RCTs may not be feasible for all types of programming, such as that targeting the whole community rather than specific individuals.
- As an alternative to RCTs, a **difference in difference approach (diff-in-diff)**, which collects data before and after the intervention, can measure effects of policy change that affect only a subset of communities. It represents a good option whenever it is possible to get a relevant comparison unit, such as a community or municipality with similar characteristics.
- An **evaluation of the bias** associated with simple (“naïve”) statistical analyses remains possible if neither of the previous solutions can be applied. It implies evaluating the potential error in the assessment of the average outcome with and without an intervention (counterfactual analysis) between the beneficiaries of such intervention and others who have not benefited from it.

The observations and recommended follow-up measures listed in the paper rely on the notion that—despite the methodological challenges implied with measuring and evaluating the impact of targeted interventions on human mobility—it is critical to develop and implement tools that will improve our understanding of how development actors can efficiently address adverse drivers of irregular migration and forced displacement.

Introduction

International migration is at the forefront of policy debates in most countries around the world. The global stock of international migrants has increased from 153 million people in 1990 to 281 million in 2020. The number of refugees and asylum seekers increased from 19 million in 1990 to 34 million in 2020 and represents 12 percent of the total migrant stock (UN DESA, 2020).² While the share of international migrants in the world population remains relatively low (growing from 2.9 percent in 1990 to 3.6 percent in 2020), the rapid increase in the number of refugees and asylum seekers (+109 percent over the last decade) raises serious concerns for both the populations of concern and their communities of transit and destination. The recent crises in Myanmar, Syria and Venezuela, in addition to many other protracted crises, have contributed to this acceleration of forced displacement, with increasing numbers of people around the world having to move as a consequence of conflicts, violence and disasters.

In parallel, many people decide to leave their countries of origin to find better opportunities in other countries. These migration flows are often considered ‘voluntary’, even though it is sometimes difficult to make a clear distinction between forced and unforced movements, especially in countries characterized by a lack of employment opportunities, bad governance and high levels of insecurity and violence. The consequences of climate change are also likely to push increasing numbers of people out of their home communities. While economic development often translates into increasing rates of emigration, and highly skilled individuals are more likely to migrate towards high-income destinations, less educated populations are often those who migrate in the worse conditions, especially through irregular channels. Irregular migration is dangerous in most cases and generates numerous casualties. It also leads to lower social and economic integration of immigrants in host societies and often fuels anti-immigration feelings.

Against this background, the international community has adopted international agreements to reduce the risks associated with irregular migration and forced displacement. On 19 December 2018, the UN General Assembly endorsed the Global Compact for Safe, Orderly and Regular Migration (GCM). Ratified by 152 countries, the GCM assigns an important role to public authorities, in migrants’ countries of origin and destination alike, to shape the migration process and “facilitate safe and regular cross-border movements of people while preventing irregular migration”. Whereas the first objective of the GCM highlights the need to “collect and utilize accurate and disaggregated data as a basis for evidence-based policies”, Objective 2 aims to “minimize the adverse drivers and structural factors that compel people to leave their country of origin”. The 2018 UN General Assembly also endorsed the Global Compact on Refugees (GCR), which provides a framework for international cooperation to generate sustainable solutions to refugee situations. The main objectives of the GCR are to ease the pressures faced by host countries, enhance the self-reliance of refugees, expand access to third-country solutions, and support conditions in countries of origin for safe and dignified return. The last objective, in particular, demonstrates the importance of addressing the root causes of refugee movements and preventing conflict, as spelled out in the GCR.³

To achieve the GCM and GCR goals, it is therefore important to have a clear understanding of the different drivers of human mobility, recognized as the conjunction of ‘voluntary’ migration and forced displacement, as well as the possible role of policy interventions in influencing the propensity of individuals to move internationally, either by choice or by force. This paper addresses this question by focusing on the possible impacts of targeted interventions conducted at the sectoral or local levels in countries of origin of potential migrants and forcibly displaced people.

² Data on international migrants are based on the foreign-born population, whenever this information is available, and on foreign citizens in other cases. The stock of international migrants, therefore, includes refugees and asylum seekers (UN DESA, 2020).

³ See: Global Compact on Refugees (2018), paragraph 9.

The social sciences literature extensively addresses the determinants of international migration and covers diverse geographic, demographic, economic, social and environmental contexts of the societies in which individuals live. By contrast, the specific role that public authorities play in origin countries has received limited attention. Yet, the question of how to gauge the potential and effective impacts of different types of policy interventions on human mobility is of primary importance for national and local governments. In the same vein, development actors implement important programmes at the local or sectoral level that can have some direct or indirect effects on the propensity of individuals to move. In some parts of the developing world, intended emigration rates are so high that the consequences of policy actions on the propensity to move, either by choice or by force, can no longer be ignored, even though these policies have other explicit goals.

This paper addresses the issue of the evaluation of targeted interventions, with the aim of identifying future avenues of research and offering relevant methodologies that public authorities and development actors could use to assess the impact of their policies and programmes on human mobility. Section 1 provides a review of the literature devoted to the identification of the main drivers of international mobility and emphasizes the way variations in conditions faced by individuals can generate different effects on the propensity to move. Section 2 then discusses how the literature has addressed the question of the impact of policy interventions on both voluntary and forced international movements. While a limited number of studies have provided interesting results regarding the effects of such interventions, some caution needs to be taken before drawing clear-cut conclusions about their causal impact. Finally, Section 3 suggests a couple of potential research and methodological options to better assess the potential impact of policies and programmes on people's propensity to move.

Understanding the drivers of migration and forced displacement



Targeted policy interventions at the local or sectoral level exert a potential impact on the international mobility of people because they alter the value of drivers of this mobility. Therefore, it is impossible to capture and understand their impact without taking stock of these drivers. To that aim, this paper briefly reviews the academic literature on the determinants of international migration. The strand of the literature, along with one concerned by the impact of immigration on host countries' labour markets, is likely the most extensive on international migration. Today, more than 700 papers belonging to different fields of social sciences empirically investigate why people move. It is therefore important to clarify the various types of analysis in the literature.

The potential drivers of international mobility pertain to almost all dimensions covered by social and human sciences: geographic, economic, social, political and environmental, to list the most important. Determinants can be observed at different phases of the migration cycle, especially at origin and at destination, or can be specific to mobility corridors.⁴ At each phase, factors of migration can be local, national, or supra-national. Therefore, there are multiple ways of classifying the determinants of migration. This paper adopts a classical method, using a classification of the type of social phenomena the drivers refer to. Then, for each of these potential drivers, it provides a brief overview of some papers and summarizes the main conclusions of the literature regarding their causal effect on migration and forced displacement.

1.1. Strands of the literature on human mobility

Human mobility is a complex process involving intentions, incentives, choices and constraints. Different approaches have thus been used within the literature devoted to the determinants of international migration, and it is important to clarify the various strands in terms of methods and data since these yield different implications.

It is possible to identify two main dimensions of differentiation across contributions.⁵ First, one needs to distinguish between papers using mobility outcomes (observed stocks of migrants, magnitude of migration flows or occurrence of a move for a given individual) and studies looking at migration intentions, mostly coming from surveys. Second, while some papers use individual data on mobility, others rely on data aggregated at the level of an entity (municipality, region, country, etc.).

Contributions based on observed outcomes are useful since they provide an assessment of the final impact of specific factors on human mobility. Yet, the reported impact is often the compound effect of different channels that can potentially go in opposite directions. For instance, the fact that one individual migrates is the combined result of that person's intention to move and ability to do so. Data drawn from surveys that are isolated from the possible influence of constraints and conditions (the so-called 'out-selection' factors) can help determine how some specific factors shape mobility intentions. A potential drawback of using intentions is that they can be disconnected from real intentions and outcomes, as respondents do not face any cost when making some particular statement (the so-called 'cheap talk' phenomenon).⁶

⁴ Despite the growing importance of return migration, this paper does not analyze the specific reasons why people decide or are compelled to return to their countries of origin.

⁵ Other dimensions can also be used but are disregarded here. For instance, some papers use monodic data, i.e., data that focuses just on the decision/observation of emigration and disregards the specific destination. In contrast, some papers use dyadic data, which enables capturing the impact of conditions specific to both the origin and destination, such as the distance or the linguistic proximity.

⁶ This criticism is somewhat overdone. First, while obviously, a small share of intentions materializes in actual moves, the structure of intentions can mimic actual migration movements, for instance, in terms of the choice of preferred destination (Docquier et al., 2014). Second, complementary data can help correct for the costless nature of pure statements. Thus, Gallup World Poll Data asks intended movers complementary questions about past preparation to gauge the strength of their migration desire.

Contributions using individual data are important since migration is, to a certain extent, an individual decision. Individual factors such as income, education, location and marital status can be directly identified from the data. Nevertheless, individual data yield some limitations for specific purposes. First, they are often collected for a specific corridor, especially when it captures outcomes. Therefore, the data might capture the impact on mobility within a specific corridor, which in turn might be misleading if one is interested in emigration in general. Second, the identification of specific factors, such as public policies, might simply be impossible when most individuals within a country are subject to the same variations. For instance, assessing the impact of the quality of governance on emigration requires some variation in that factor across individuals. Since the bulk of the action happens at the national level, it might simply be impossible to gauge that using country-of-origin-specific individual data.

This calls for the use of aggregate data, which can benefit from the variation of that factor across countries (or other definitions of entities). The combination of aggregate and dyadic data has given rise to the increasing use of gravity models, which currently represent one of the most important tools used in the empirical literature of migration (Beine et al., 2016).⁷ Table 1 provides a classification of the literature based on the combination of both criteria. Contributions of type (1) (outcomes/aggregate data) include the use of gravity models and more classical regression approaches.⁸ Contributions (2) focus very often on factors such as individual income, age or personal networks.⁹ Papers belonging to (3) have been developed to assess the importance of self-selection factors at an aggregate level, for instance in the choice of preferred destination.¹⁰ Category (4) includes papers capturing the role of individual factors in terms of self-selection, such as age, personal income, personal networks or location.¹¹

Table 1: Classification and examples of studies on the determinants of emigration

TYPE/LEVEL	Aggregate	Individual
Outcomes	(1)	(2)
Intentions	(3)	(4)

In many cases, human mobility is also a collective decision. If the decision is made at the family level, it is desirable to use data collected at the household level. Individual data, whether they concern real movements or intentions, need to be collected at the household level. This is an important element for the analysis of policy interventions since these can affect the decision to move differently for various members of the household. This type of analysis is part of the ‘New Economics of Labour Migration’, which recognizes the household as the key migration decisionmaker.¹² For instance, production subsidies can boost the productivity of an economic activity, hence increasing the attractiveness of the domestic location for the recipient, but at the same time can free resources that can be used to cover the costs associated with the migration of another household member.

Another manifestation of migration as a collective decision is the fact that entire entities of individuals can move simultaneously. This has been observed during the era of mass migration (approximately between 1870 and 1913), for instance, in the case of the migration from Southern Italy to the Americas, and explains

⁷ Gravity models in the social sciences are based on the concept of gravity in physics, which explains the forces driving the attraction between two objects. In migration, the two key forces are wage differentials (corresponding to the physics concept of masses) and distance (proxying migration costs and corresponding to the concept of frictions). Gravity models allow for uncovering the role of factors specific to a corridor, such as geodesic distance, language proximity or bilateral migration policies, in explaining the intensity of human mobility between two specific countries.

⁸ Surveys of the literature using gravity models include Beine et al. (2016) and Head and Mayer (forthcoming). Papers include Ariu et al. (2016), Beine et al. (2011), Bencek and Schneiderheinze (2020), Bertoli et al. (2020b), Grogger and Hanson (2011) and Marchal et al. (2020).

⁹ Papers of this kind include Barsbai et al. (2020), Borowiecki (2012), Buggle et al. (2019).

¹⁰ See, for a survey, Aslany et al. (2021). Papers of this kind include Beine et al. (2020b), Docquier et al. (2014), Manchin et al. (2014), Giulietti et al. (2018), Munshi (2004), McKenzie (2008), Mesnard (2009) and Mueller et al. (2020).

¹¹ Papers of this kind include Beine (2020), Bertoli and Ruyssen (2018) and Clemens and Mendola (2020).

¹² An important role for migration decisions at the household level is risk diversification. Emigration allows households to reduce their global exposure to shocks at origin and diversify the sources of risk they face (Chen et al., 2003). Dustmann et al. (2020) provide strong empirical evidence of household decisions as opposed to individual ones in the case of the internal mobility of people in China.

why so many villages now share the same original Italian names. There is currently some evidence in some areas in Sub-Saharan Africa that entire entities, such as villages, move as a result of changing conditions. This, in turn, can create a challenge for the record of mobility. This phenomenon is even more significant in the case of forced displacement induced by conflicts or natural disasters.

While it is sometimes difficult to make a clear distinction, it can be interesting to separately cover the drivers of voluntary migration as opposed to factors that force people to flee from their home countries. In some cases, such distinction is straightforward. Refugees and asylum seekers are forcibly displaced people, even though not all asylum seekers will eventually be granted refugee status. By contrast, most immigrants coming to the US under an H1B visa can be considered voluntary migrants. However, many population movements belong to the grey area in which human mobility is the complex result of incentives and pushing forces. A good illustration is the case of people moving as a result of climate change or environmental deterioration. While many of them have actually been forced to flee due to the occurrence of natural disasters or unbearable conditions in their living environment, others move as an indirect consequence of the decreasing attractiveness of their location triggered by the adverse effects of climate change. Many citizens from developing countries might thus have moved because of a decreasing level of income and therefore could be labelled 'voluntary' migrants. Yet, most of them would probably have never moved in the absence of the climate shift.

1.2. Why do people move? A typology

The reasons why some areas are more prone to emigration and forced displacement than others pertain to a large set of factors. Since human mobility involves mixed movements of individuals between an origin and a destination, these factors can be specific to each type of location. Even though it is not always possible to disaggregate them, the drivers specific to origin countries are referred to as 'push factors', while destination-specific drivers are called 'pull factors'. Given the focus of this paper on the potential effects of targeted interventions in origin countries, the typology below mostly focuses on push factors and covers the following categories: (i) migration context; (ii) geography and demography; (iii) economic factors; (iv) human capital and social context; (v) governance; (vi) violence, insecurity and conflict; (vii) environment and climate change; (viii) gender.

1.2.1 Migration context

The migration context refers to past and current migration dynamics and policies that contribute to shaping the mobility patterns in countries of origin. It includes the weight of networks, the costs of moving abroad and information channels, as well as migration policies in countries of both origin and destination.

The network effect: Dynamics and history

International migration is also a dynamic process. Areas that historically display high emigration rates often register persistent emigration. Several factors explain this. Experiences of emigration within the household or within the community of origin generate some knowledge about the mobility process, leading to more emigration. This is the network effect. The existence of diasporas, initially related to colonial links or to other bilateral agreements, such as bilateral guest workers, tend to be powerful attracting factors for the aspirational emigrants (Beine et al., 2011). Diasporas can also fund emigration through the remittances sent to the origin communities. A perfect illustration is provided by the region of Kayes in Mali, which shares all these features. Today, about one quarter of the individuals living in this region express their willingness to leave the country, a proportion higher than in most other Malian regions.

Costs and information

The decision to migrate results from balancing the gains against the costs of this mobility. Actually, in early pioneer contributions (Sjaastadt, 1962; Harris and Todaro, 1969; Borjas, 1987), the level of migration costs was, with income, the only driver of both the intensity of the migration flows and the selection of movers.

In this respect, some mobility costs are incompressible and related to the distance between countries of origin and destination. Other costs can be reduced under certain conditions. An important element in this respect is related to information. Acquisition of information is costly for migrants. Networks at the destination enable cost reduction and, in turn, facilitate the integration of migrants in their host countries (Munshi, 2004; Comola and Mendola, 2015).

Information is also important because mobility is risky. The literature tends to consider that individuals see foreign destinations as riskier due to less access to information about conditions in those destinations compared to the domestic location (Roca Paz and Uebelmesser, 2021). If information about the destination is unavailable or very costly to obtain, risk preferences might affect both the intention to move through the self-selection and the willingness to realize any mobility project. Regarding the self-selection channel, using the Gallup World Poll surveys and elicited risk measures, Klöble (2021) finds that individuals with a higher degree of risk tolerance have higher intentions to emigrate. Jaeger et al. (2010) show that this result also holds for observed mobility outcomes.

Migration policies

Migration policies play a key role in defining human mobility around the world (OECD, 2016). While very few countries today have policies to limit migration outflows, several measures might generate significant costs, especially with regard to documented migration. McKenzie (2007) documents passport costs for a large set of developing countries and shows that in some countries, these costs can act as important deterrent factors of legal emigration. Border controls and restrictions to mobility exist in most destination countries and act as powerful hurdles to legal movement. In many countries, immigration policies are selective, and for some individuals, the acquisition of an immigration visa is simply impossible as a primary migrant. Developing countries are disproportionately subject to restrictive migration policies (Czaika and De Haas, 2017). Family reunification schemes nevertheless remain an important component of immigration policies in traditional destination countries and represent an important part of the so-called migration multiplier (Jasso and Rosenzweig, 1986).

1.2.2. Geography and demography

The geographic and demographic environments play a key role in explaining why emigration rates are higher in some countries than in others.

Geographic factors

The location and the geographic conditions of the area are related to: (i) the situation of the country of origin itself; (ii) the specificities linking the origin and the destination of the movement.

Concerning the situation of a country itself, islands, which are well known for exhibiting higher emigration rates, are a good example of how geography can strongly affect human mobility. International migration is only one form of mobility, and it often comes as a substitute strategy for internal mobility (see, among others, King and Skelton, 2010, or Aguayo-Tellez and Martinez-Navarro, 2013). As a result, islands, which offer less valuable alternative internal options, are subject to important emigration rates. The same argument applies to the size of the origin country: small countries display relatively high emigration rates, *ceteris paribus*. The relatively lower opportunities of internal movements again play a central role in such dynamics. These geographic conditions have been accounted for in some analyses of international migration. Finally, the location within the country is also a determinant of the probability of international mobility of an individual or a household. In developing countries, people located in rural areas are more prone to migrate internally, while those living in cities tend to leave their countries (Hatton and Williamson, 1998).

The relative situation of the country with respect to attractive destinations is also important. Countries sharing a common border with a major destination usually exhibit relatively high emigration flows. Contiguity is associated with lower migration costs but also favours undocumented migration through land

transportation. Mexico, which shares a common border with the United States, provides a good illustration. The same holds for other features such as linguistic proximity between the origin and the destination, geodesic distance and former colonial links. These factors have typically been introduced in gravity models that assess the net benefits of migration across potential corridors. While these features are good predictors of the intensity of bilateral flows, they turn out to be powerful selecting devices: contiguity and low-distance movements involve more low-skilled individuals and favour undocumented mobility.

The weight of demography

Demographic conditions in origin countries play a key role in explaining variations of emigration across countries and regions. There are several reasons why the demographic structure is key. First, countries exhibiting high fertility rates are characterized by a large proportion of young individuals. Age is one of the most fundamental predictors of observed mobility (McKenzie, 2007) but also of aspirational emigration (Beine, 2020). Along the human capital channel of emigration, per Borjas (1987), since migration involves significant costs, the longer the period spent abroad, the higher the expected gains associated with migration. In general, younger individuals are also less risk-averse, which further explains their higher propensity to leave.

Second, rapid increases in population might exert important pressure on the available resources at origin. Local labour markets cannot absorb the important labour supply, and in many developing countries, young workers have to resort to informal jobs. The high pressure associated with increasing population can also be exerted on natural resources. In some areas, demographic trends add to the pressures related to the effects of climate change. Third, high fertility rates imply, on average, large families. Since migration is also a household strategy, large families might favour emigration of one of the members as a risk-coping strategy. Sending one individual abroad might be a strategy of risk reduction through the diversification of the sources of household income (Stark, 1984; Dustmann et al., 2020). Finally, the demographic structure also reflects economic developments: a high fertility rate is, in general, a characteristic of developing countries and of fragile contexts that are prone to significant emigration of their populations. In some cases, emigration also exerts a feedback effect on fertility in the medium run in origin countries through the transfer of fertility norms brought by diasporas and return migrants (Fargues, 2011; Beine et al., 2013; Bertoli and Marchetta, 2013).

Countries with large populations are also characterized by a relatively high share of rural areas, which, as explained above, is a factor of internal and international mobility. All in all, the demographic trends of the origin countries constitute strong predictors of observed and aspirational emigration, which justifies why it is important to account for it in the proposal of a dashboard of emigration indicators (see: Section 3).

1.2.3. Economic factors

Income and, more generally, economic development are by far the most important economic factors in international migration and have been the focus of the pioneer contributions explaining the intensity of migration and the selection of migrants (Sjaastadt, 1962; Borjas, 1987). Nevertheless, income plays a more complex role than expected at first glance, and it is important to distinguish various components of the income dimension.

Structural income differentials

Wage or income differential is an important driver of migration. Lack of convergence between lower-income and higher-income countries or improvement of economic conditions in traditional destinations will boost desired emigration (Borjas, 1987). The wage differential between sending and receiving countries is one of the most robust determinants of international migration, together with the relative employment opportunities (Todaro, 1969).¹³ However, the exact relationship has been subject to discussion (Grogger and

¹³ Todaro's model (1969) analyses the determinants of internal migration between rural and urban areas in developing countries but can be extended to the international level. The model relies on the assumption that migration is the result of differences in expected rather than actual earnings. Potential migrants consider the different labour market opportunities available and select the one that maximizes their expected gains from migration. Expected gains are measured by the difference in real income between origin and destination areas and the probability of a new migrant finding a job.

Hanson, 2011).¹⁴ The long-run discrepancy of development among countries also refers to the debate on the convergence among countries. Generally speaking, this literature finds evidence at best in favour of conditional convergence, i.e., countries converging in the long run to different values of income per head. It does not support the hypothesis of absolute convergence (Canova and Marcet, 1995). This suggests that increasing migration pressures are likely in the future.

Business cycles

While income differentials among countries embed a structural component, they are also affected by variations in business cycles. Variations in activity at home and abroad thus contributed to the patterns of annual transatlantic movements of people during the Mass Migration Era in the late 19th century (Hatton, 1995). The literature also finds a role for more moderate business cycle fluctuations on more recent movements between high-income countries (Pissarides and McMaster, 1990; Bertoli et al., 2016; Beine et al., 2019), but also between lower-income and high-income countries (Simpson and Sparber, 2013).

Income and development at origin

The pioneer neoclassical approaches of Sjaastadt (1962) and Borjas (1987) overlook a couple of mechanisms that generate a different role for both sources of variation in the income differential. A first mechanism on destination countries' side is the fact that improvements in economic conditions can translate into lower restrictions in their policies, thus leading to an increase in the observed immigration flows.

A second important mechanism, on origin countries' side, is the role that poverty or liquidity constraints play for prospective emigrants. At low levels of income, would-be migrants might be simply too poor to cover migration costs, even if the gains of migration are substantial. Mayda (2010) clearly documents an asymmetric effect of income at destination and at origin, pointing out an offsetting effect of liquidity constraints to the traditional incentive effect. The subsequent literature has acknowledged the important role of liquidity constraints and their potential consequences in terms of migration patterns (Djajic and Vinogradova, 2014; Dao et al., 2018). The existence of liquidity constraints at low levels of income results in a potential hump-shape relationship between income at origin and at emigration. However, recent debates question the exact type of this relationship.¹⁵

A third mechanism generating an asymmetric effect of income at origin pertains to the incentive effect itself. The interest in emigration might increase with development. Development means higher income but also higher education and more possibilities to grab opportunities, including those abroad. In this view, international mobility is a superior good. This explains the existence of a positive association between personal income and aspirational emigration (Clemens and Mendola, 2020). Overall, the global evidence related to the role of income at origin sheds serious doubts about an effective development channel through which economic development in origin countries would curb intended and effective rates of emigration.

Labour market institutions and employment

The interaction between occupations and emigration is complex. In general, migrant-sending countries are characterized by a low degree of information about job opportunities at home. There is, therefore, some scope for increasing employment at origin and decreasing the degree of mismatch in local labour markets and, in turn, decreasing the incentive effect of emigration. Nevertheless, in some contexts, facilitating access to some occupations at origin can exert a complex and indirect effect on emigration. Bossavie et al. (2020)

¹⁴ In particular, Grogger and Hanson (2011) look at whether absolute or relative differences in income matter for explaining migration intensities across countries.

¹⁵ The findings of Clemens (2020) are consistent with a hump-shape relationship between income and migration. Nevertheless, Bencek and Schneiderheinze (2020) claim that at the aggregate level, the hump-shape relationship is an artefact of cross-sectional analyses and does not survive the use of panel data analyses accounting for unobserved heterogeneity.

look at the intertwining of occupations at origin, temporary emigration, return migration, entrepreneurship and borrowing costs in Bangladesh. A decrease in the borrowing costs to fund entrepreneurship is found to decrease emigration of low-skilled individuals and shorten the length of the emigration period for those who move. In this context, emigration is a substitute for a specific occupation, namely entrepreneurship, that involves an entry cost in the origin country.

1.2.4. Human capital and social context

Beyond the geographic, demographic and economic drivers of migration, the education and social context can have a significant impact on human mobility.

Education and skills

Education or skill transferability is an important component of the probability of success of a migration project. Education is correlated not only with wage at destination but also with the probability of employment at destination. Positive selection in terms of education is one of the most robust stylized facts regarding voluntary human mobility (Docquier and Rapoport, 2012).

Education and migration exhibit complex relationships since they are intertwined. The positive selection of migration with respect to skills might be explained by self and out-selection factors. First, the wage differential tends to increase with higher occupational complexity for many occupations. As a result, skilled individuals have proportionally more incentives to emigrate compared to low-skilled ones. Second, the probability of finding a job increases with education since higher skills mean higher employability. Therefore, it is expected that more educated individuals self-select more in emigration compared to less educated ones. Third, given the nature of immigration policies of the main host countries, the probability of obtaining an immigration visa is higher for more skilled workers. It is true for both countries implementing point-based systems (in which education is an explicit condition for getting the visa) and those with an employer-driven system (in which a job offer is required). This also explains that the probability of irregular migration (as opposed to legal movement) is much higher for unskilled individuals.

Another general reason for the positive selection is that, in line with the analysis of income at origin explained earlier, emigration might be seen as a superior good (Clemens and Mendola, 2020). Households in developing countries might be seen as climbing successive steps of the social ladder. Once education is obtained in the final step of the climb, the external option through emigration is much more frequently considered.

Inequality and social mobility

The degree of socio-economic inequality is often considered a crucial factor shaping the intensity, but also the type of movements, between two countries. In his self-selection model, Borjas (1987) analyses the relation between income distribution and migrants' skills. The model predicts that immigrants from countries with a lower level of income inequality tend to be positively selected (i.e., less skilled than the average worker in both destination and origin countries). While this prediction is subject to debate, it has been supported by some empirical analysis, like in the case of the Mexico-US corridor (McKenzie and Rapoport, 2011).

While relative inequality affects the type of migrants, it is also an important determinant of the intensity of migration flows. Migration constitutes a project accounting for the prospects of individuals' social evolution. Low prospects of progress along the social scale induce people to look for alternative locations with higher (perceived or real) opportunities. In that respect, social mobility is an important goal pursued by individuals. Using a broader approach than income, Clark (2014) provides a measure of social mobility and the persistence of social status across generations of the same lineage. While his estimates show that social mobility is, in general, low, there are significant cross-country variations in its degree. In India, for instance, despite some efforts, such as the reservation system facilitating admission of specific groups to university and government positions, social mobility is almost non-existent due to

prevailing fundamental norms such as castes and group endogamy. In that context, the internal mobility option might not be useful, and emigration might be the optimal strategy to overcome the high hurdles of social promotion.

In this respect, Clemens (2014) lists five alternative classes of migration theory. One theory emphasizes a role for within-country income inequality. At the early stages of economic development, worse-off individuals feel relatively deprived and seek alternative opportunities. It should be nevertheless emphasized that inequality and social mobility are the results of many factors of different types: the economic and demographic structures of the country, but also the nature of redistribution policies and the quality of governance prevailing in the country.

Health and social protection

Social protection is likely to be a determinant of desired emigration. If individuals have no access to social protection, their opportunity cost of emigrating is lower. Conversely, if individuals benefit from social protection and have access to affordable health services, this might induce them to stay. This is the case if social protection is not directly granted in destination countries. Social protection provides, therefore, some kind of an additional indirect or shadow wage at origin that might offset the impact of a positive wage differential with the destination.¹⁶ This might be especially true given that countries have clearly restricted access to social security for fresh immigrants, and some rights are granted only after a waiting period. In case remittances and social protection are substitutes, an explicit strategy of emigration at the household level might be less attractive if all the household members benefit from social protection. On the other hand, in low-income countries, access to social protection can increase the prospects of emigration through the additional cash associated with social transfers financing migration. Therefore, the global impact of social protection is likely to depend on the level of income and development prevailing in the origin country.

1.2.5. Governance

The quality of institutions in a country is an important factor in the living conditions of individuals. It influences the country's economic development and, in turn, plays a role in explaining emigration flows from developing countries. When citizens do not trust their governments, they will have more incentives to leave their countries. In this regard, political instability and corruption, because they translate into worse and unpredictable economic conditions, more insecurity and a lower quality of life, contribute to increasing migration outflows (Baudassé et al., 2018; Poprawe, 2015).

There is some strong evidence that the quality of institutions influences both desired and observed emigration. Using a global indicator encompassing various dimensions of governance quality, Hiskey et al. (2014) find over a sample of 22 Latin American countries that the quality of democratic systems and their ability to fulfil basic governance responsibilities influence the degree to which an individual considers emigration to be a viable life strategy. Regarding observed migration flows, Ariu et al. (2016) look at the effect of various dimensions of governance quality on net and gross migration flows.¹⁷ Their findings support a role for all dimensions of governance quality in explaining the mobility of individuals. The results show that both low-skilled and high-skilled individuals tend to emigrate from countries with low-quality institutions. A low degree of control of corruption, of government effectiveness and of regulatory quality seem particularly important factors. The findings show that while low quality of institutions appears to be a push factor, low-skilled individuals do not seem to favour destinations with high-quality institutions, in contrast with high-skilled emigrants.

¹⁶ Khoudour-Castéras (2008) brings compelling evidence of a negative effect of social protection on emigration in the context of the implementation of social legislation in Germany during the 1880s. Social protection is found to bring indirect wages to prospective emigrants that offset the positive wage differential between Germany and the US (the main destination of German emigrants at the time). Accounting for the increase of social protection tends to solve the puzzle of decreasing German emigration, a phenomenon unobserved in most European countries over this period.

¹⁷ There are basically six main components of institutional quality: Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption (see Ariu et al., 2016, for details).

1.2.6. Conflicts, violence and insecurity

Conflicts, civil wars and political upheavals

Conflicts, civil wars, coups and other political crises are major factors leading to forced displacement. By the end of 2020,¹⁸ there were 26.4 million refugees worldwide and over 4 million asylum seekers, as well as 3.9 million Venezuelans displaced abroad.¹⁹ Syrian refugees currently amount to more than 6 million worldwide. Other major countries of origin of refugees, such as Afghanistan, Myanmar, Somalia and South Sudan, have been equally affected by significant conflicts in the recent past.

In a study covering 40 Sub-Saharan countries between 1987 and 1992, Hatton and Williamson (2003) find that civil wars represented the main driver of refugee displacements, while economic and demographic variables played a limited role. However, they also show that civil wars and political upheavals translate into an increase in poverty and destitution, which increases the migration pressure. In other words, people do not always leave as a direct consequence of conflicts, but also because of conflicts' indirect economic and social effects. In the same vein, Naude (2010) shows that a combination of armed conflicts and lack of job opportunities were at the origin of most international movements of people from 45 Sub-Saharan countries between 1995 and 2005. Tabar (2009) also brings compelling evidence of a displacement effect of civil wars in the case of Lebanon: over a period of 15 years (1976–1989) characterized by civil conflicts, the country lost about 40 percent of its population. Therefore, the magnitude and characteristics of the effect of conflicts, civil wars and political upheavals on migration and forced displacement are strongly context-dependant. The recent crisis in Venezuela has also been covered in recent work to document a clear relationship between insecurity and emigration to neighbouring countries (Mahé and Parra-Cely, 2021; Rozo and Vargas, 2021).

The macro evidence has been complemented by studies using individual data. These studies find conditional evidence of an effect of conflict on displacement. Mesnard (2009), for instance, looks at the incidence of violence in rural Colombia on poor households' propensity to move. While higher levels of violence seem to encourage households to leave, this effect is amplified by welfare programmes providing financial resources. Therefore, as for climatic factors, there is strong evidence that conflicts act as self-selection factors (increasing mobility) but also as out-selection factors (increasing liquidity constraints and preventing individuals from moving).

Violence and insecurity

While conflicts and civil wars are events that affect individuals globally and can therefore lead to collective displacements, violence and insecurity exert effects more at the individual level. Due to the difficulty in measuring violence and insecurity, the empirical literature is rather scarce on documenting them as push factors of emigration. Nevertheless, regarding mobility aspirations, Bofao (2016) shows that incidents taking place in the workplace tend to increase emigration intentions of nurses in Ghana. Nurses facing physical abuse are about two times more willing to emigrate compared to their counterparts who had not been involved in these incidents. Similar effects are also found concerning incidents of verbal abuse and sexual harassment.

There is also some evidence that violence leads to documented but also undocumented emigration. Clemens (2021) studies the impact of homicides in the Northern Triangle countries of Central America on migration to the US. He finds compelling evidence that higher homicide rates in municipalities result in an increase in apprehensions of unaccompanied alien children in the US coming from these municipalities. The short-term effects of increased violence in this region are similar to the impacts of economic factors such as income. Furthermore, this initial increase creates additional and persistent effects on emigration. Infosegura (2020) also documents through summary statistics drawn from survey data the importance of security issues and violence as drivers of forced displacement in Northern Triangle countries of Central

¹⁸ UNHCR, Global trends: forced displacement in 2020 (<https://www.unhcr.org/en-us/figures-at-a-glance.html>).

¹⁹ 5.6 million in May 2021 (<https://r4v.info/es/situations/platform>).

America. Victims of insecurity in El Salvador, Guatemala and Honduras express higher interest in moving abroad than do non-affected individuals.

1.2.7. Environment and climate change

A large body of empirical literature has recently been devoted to the assessment of environmental factors and climatic shocks in fostering emigration from affected countries. Environmental factors and climatic shocks include both fast-onset and possibly unexpected factors, such as natural disasters (droughts, floods, earthquakes, storms and hurricanes), and slow-onset climatic factors, such as warming climate and variations in rainfall (as well as the resulting rise in sea level). Fortunately, this body of literature has recently been summarized in numerous surveys (Cattaneo et al., 2019; Berlemann and Steinhardt, 2017; Millock, 2015). The findings and the importance of the methods used have also been analysed and summarized through the lens of meta-analyses (Beine and Jeusette, 2021; Hoffmann et al., 2020).

Overall, the literature on the connection between climatic factors and international emigration gives very mixed results, both in terms of the existence of a clear link and the direction of this link. First, when there is evidence in favour of a displacement effect, this effect is more likely to concern internal mobility than international movements. In developing countries, climate change tends to increase more rural-urban internal migration than international migration. Second, while there is some evidence in favour of a positive relationship between shocks and emigration, a significant proportion of findings favours climatic shocks increasing immobility (Beine and Jeusette, 2021). This can be explained by the fact that shocks decrease income and make would-be migrants less able to pay for mobility costs. Such a phenomenon refers to the case of trapped populations (Black et al., 2013). Recent contributions using high-level spatial resolution data confirm the immobility effect related to climate change (Benveniste et al., 2021; Cruz Alavarez and Rossi-Hansberg, 2021). Third, there is more evidence in favour of conditional effects of climatic shocks; i.e., climatic shocks have heterogeneous effects depending on some characteristics or on the context. For instance, the degree of mobility might depend on the initial occupation, e.g., whether the individual works in the agricultural sector. Fourth, other means of adaptation play a significant role—for instance, switching occupations (Mueller et al., 2020). Finally, when climate change leads to emigration, the effect is often indirect; i.e., the effect of climate change goes through the variation in key drivers of emigration. These changes pertain to income (economic channel) and conflict (see above) or, in some specific context, happen through other channels (e.g., marriage for women).

1.2.8. Gender

Women's reasons for moving highlight some differences with respect to their male counterparts. First, while female mobility might be affected by the same set of factors, women's sensitivity around migration might be different from that of men. A typical example involves risk-aversion that affects women more and results in lower intended and observed emigration (Eckel and Grossman, 2008). Women have also been historically very sensitive to family migration. In most destination countries, even in those conducting selective policies, family reunification remains the main channel of immigration. For instance, despite the point system that favours high-skilled migration, flows under the family reunification scheme represent between 40 and 50 percent of total inward movements in Canada. Therefore, the question of the sensitivity of female immigration to these policies is important.

Docquier et al. (2012) look at the differences in the propensity to migrate between men and women. While they found that women tend in general to move less than men and to be more likely to follow their partner, the differences are attenuated when accounting for differences in education. Skilled women are found to be as migratory as skilled men. In the same vein, Beine and Salomone (2013) find that the sensitivity of migration flows to networks depends not on gender but mainly on education. In short, education seems to matter much more than gender. Over the recent period, a growing number of women migrate on their own or as primary breadwinners due to the international sexual division of labour. Globalization is characterized by a high demand for stereotyped jobs for women, in particular domestic work and care activities, which require lower skills and remain informal.

A specific factor that affects the mobility of women is the existence of gender discrimination. Levels of gender discrimination have been found to influence women's propensity to migrate. Using Gallup data of migration intentions from 148 countries, Ruyssen and Solomone (2018) find that gender discrimination acts as a self-selection factor of emigration. Education also plays a role in the response of women to discrimination. In Mexico, for instance, highly skilled women, who face gender-based discrimination and fewer occupation rewards than men, are more prone to emigrate than are highly skilled men (Kanaiaupuni, 2000). This sensitivity is reflected in observed migration flows. Women are found to migrate more from countries with higher levels of discrimination in social institutions (Ferrant and Tuccio, 2015) and higher levels of gender-based discrimination in the labour market (Baudassé and Baziller, 2014).

Women also exhibit higher sensitivities to violence and insecurity. Infosegura (2020) thus shows that women victims of different forms of violence, including intra-family and sexual aggression, in the Northern Triangle countries of Central America, express a higher desire to emigrate. In general, while men are clearly affected by property crimes, women seem more sensitive to events threatening their integrity.

1.3. Interaction between drivers of migration and forced displacement

While useful for exposition purposes, a typology of the drivers of migration and forced displacement into specific categories tends to overlook the fact that it is often the interaction of these factors that explains why people leave their countries of origin, either by choice or by force. Infosegura (2020) shows that, while they are important drivers of emigration in Central America, the impact of violence and insecurity is very often combined with the role of economic factors, such as income and living conditions.²⁰ Factors of different types are also intrinsically related. Social context and social cohesion deteriorate when economic conditions worsen. Conflicts are fuelled by many factors, including bad economic conditions and pressure on natural resources, and lead in turn to a worsening of these conditions (see Bermeo and Leblang, 2021, for some evidence pertaining to Honduras). Degradation in the environment caused by natural disasters and long-run climate change leads to drops in income, which in turn create an incentive for departures motivated by economic purposes. This high interdependence of factors and their combined influence on the propensity to move hold for both voluntary migration and forced displacement.

The development by international institutions of synthetic indicators characterizing the global contexts in which individuals live is a good illustration of this high degree of interdependence. OECD (2020) has developed a fragility indicator that captures the extent to which individuals in a specific country face difficult situations that may induce them to leave their current location. The situation is characterized by the combination of different complementary dimensions: economic, environmental, political, security and societal factors. The indicators perfectly illustrate how the different determinants are intertwined and how a simple change of one dimension in isolation might not produce the expected results.

About 23 percent of the world's population live in fragile contexts, and this proportion could rise to 31 percent by 2050. In 2020, 54 countries were classified as fragile, a number on the rise since the first analysis of fragility in 2014. One third of children now live in fragile contexts, a share that is also expected to increase in the future. Fragile contexts represent a disproportionate share of violent events and armed conflicts (76 percent in 2020). About half the fragile countries are characterized by a high degree of vulnerability to climate change and to environmental degradation. Fragile contexts include three fourths of individuals living in extreme poverty. Two thirds of the fragile countries have authoritarian regimes and only two out of 54 countries have democratic regimes. More than 90 percent of refugees in 2019 originated from countries with fragile contexts.

²⁰ In El Salvador, for instance, while 7.5 percent of those expressing a desire to emigrate mention insecurity issues alone as the main reason, 28.2 percent mention a combination of insecurity and income issues.

Effects of targeted interventions at origin on emigration

2

Human mobility not only helps improve the well-being of migrants and their families, it also contributes to enhancing the sustainable development of countries of origin and destination alike (UNDP, 2020). But the decision to migrate should be, to the extent possible, a choice and not a necessity. And it also should be channelled through legal pathways to prevent the risks that irregular migration represents for people on the move. In this context, the 2018 Global Compact for Safe, Orderly and Regular Migration (GCM) insists on the need to minimize the adverse drivers of migration. However, such an objective is difficult to achieve in practice since the reasons to move, as emphasized in the previous sections, are multi-dimensional and interconnected.

Against this background, this section tries to analyse the role that international aid and targeted interventions, either at the local or sectoral level, can have in terms of human mobility. It focuses on the evidence concerning the relationship between interventions and programmes implemented in migrants' areas of origin on the one hand and emigration outcomes or intentions on the other. The programmes and interventions can exert complex and indirect effects on the propensity to move internationally. These effects call for a careful definition of who could be affected. Economic interventions such as subsidies or training programmes targeted at some individuals can affect decisions at the household level and can, therefore, influence the decisions and actions of other individuals.

The section reviews the literature that addresses the efficiency of international aid in curbing emigration and covers the evidence regarding the potential effects of targeted interventions, especially those with a sectoral or local dimension, on mobility intentions and outcomes in developing countries.

2.1. International aid and migration flows

Before focusing on the role of targeted interventions at the local or sectoral level, it is useful to analyse the literature on the impact of international aid to help better understand the various channels at stake when understanding the role of policies and programmes. The various effects of international aid put forward in the literature illustrate the complexity of the impact of a policy intervention on human mobility.

By increasing the number of available resources in origin countries, international aid can have a direct or indirect effect on beneficiary countries' emigration rates (Dreher et al., 2019; Marchal et al., 2020). First, along the human capital channel (Borjas, 1987), by reducing the wage differential, aid is a self-selection factor aimed at decreasing the incentive to emigrate. If aid is effective, this can lead over time to a reduction in the development gap with the rest of the world. This has been coined the 'development channel' of foreign aid (see Lanati and Thiele, 2018, for migration in general, and Dreher et al., 2019, for refugee flows). However, by reducing the liquidity constraints that prevent individuals from covering migration costs, aid can also act as an out-selection factor and increase emigration in some contexts. This might happen if aid is unconditional. This is the 'credit constraint channel'. An additional channel might be that bilateral aid can boost the relationships between donor and beneficiary countries, which in turn can increase the attractiveness of the donor country as a privileged destination. This is the 'information channel'. Finally, aid can be strategically used by the donor as a way to influence the policies of the receiving countries, for instance, by preventing or restricting undocumented migration. This conditionality is called the 'instrumentation channel'. If this is effective, bilateral aid can exert a negative effect on emigration. Therefore, we see that aid exerts different mechanisms on emigration, with potential effects in opposite directions.

It is, therefore, not surprising that the empirical evidence suggests that the relationship between aid and observed emigration is not straightforward and might be context-dependent (Clist and Restelli, 2020). Clemens and Postel (2018) review part of the literature on the relationship between aid and emigration. Their conclusion is twofold. First, there is little evidence in favour of a development channel. Even if aid were effective, it would take too much time to deter migration incentives, as the speed at which the development gap can be reduced is too slow to produce tangible effects. Second, the existence of the development channel is highly related to the type of relationship between income and emigration. For low-income countries, i.e., countries that are the main recipients of aid, this relationship is likely to be positive, which suggests that the development channel is non-operative (Marchal et al., 2020). Overall, the quantitative impact of aid seems very limited for both regular and irregular migration.

2.2. Assessing the impact of targeted interventions on human mobility

To mitigate the adverse drivers of irregular migration and forced displacement, it is key to understand how specific programmes and interventions can affect, directly or indirectly, mobility intentions and outcomes. Targeted interventions analysed here are based on the following objectives: (i) generating employment opportunities; (ii) alleviating poverty; (iii) protecting against adverse shocks; (iv) providing access to better information; (v) strengthening social cohesion and governance; (vi) preventing insecurity and violence and preventing conflicts; (vii) mitigating the consequences of climate change.

2.2.1. Generating employment opportunities

Conditions in the labour markets (at origin and destination) are intrinsically linked to economic migration. Changes in these conditions can affect the extent to which individuals plan to move internationally and succeed in doing so. Policies that affect these conditions by attempting to create more and better employment opportunities and improve the employability of potential migrants, especially youth, can therefore affect emigration outcomes.

Employment agencies

The creation of employment agencies that provide more information about vacant jobs at home is likely to affect the willingness to move. The degree of mismatch in the labour market is likely to be important in developing countries and can explain the high rate of emigration intentions. The creation of employment agencies that provide information leads to an improvement in the matching between employers' needs and the labour supply emanating from job seekers. The specific impact of employment agencies in origin countries on the propensity to migrate has not, to the best of our knowledge, been addressed in the literature.²¹ OECD (2017) finds, nevertheless, that in most countries where employment services were offered, those who found jobs through these agencies were more willing to stay. However, interpreting this result as causal evidence should be done with caution since selection of individuals into these services might drive the results. The low rate of usage of these services suggests that many individuals self-select into other forms of job seeking.

Public employment programmes

Public employment programmes are another way to influence the evolution of the labour market. These programmes take diverse forms. They vary by purpose, duration and the level of income they generate, as well as by the covered population. Depending on the exact features, the use of the additional income of beneficiaries might trigger different effects in terms of emigration. Whether the incentive effect dominates the liquidity constraints effect will determine the net effect on emigration intensity. Results from OECD (2017) vary across countries, but when statistically significant effects emerge, they suggest that the effect of these programmes on emigration is positive in low-income countries such as Haiti and Cambodia. In general, the effect of this type of intervention seems limited. Results should be taken with caution in the absence of clear identification strategies to control for some selection bias. Ahuja et al. (2011) study the

²¹ The literature addressing the impact of hiring agencies based in the origin countries on the emigration of workers is not covered here.

impact of the Mahatma Gandhi Rural Employment Guarantee Act (MGNREGA) implemented in rural India in 2008. They find contrasting results on the out-migration intensity of beneficiaries: while the impact on emigration is negative in the less developed district of Mewat, the beneficiaries tend to migrate more in the more economically advanced district of Karnal. Data also confirm an extensive self-selection process of participation in those programmes, with households owning some land tending to refrain from taking part.

The share of informal work is significant in many developing countries. OECD (2017) reports that the proportion of informal jobs can be as high as 70 percent in countries such as Côte d'Ivoire. Given that benefits other than wages come with a formal contract, any intervention that would lead to a conversion of informal jobs to formal ones could translate into a drop in emigration intentions. OECD (2017) reports a negative correlation at the aggregate level between the share of formal contracts for non-agricultural workers and the willingness to emigrate. This relationship is also obtained with individual data in the case of Morocco but not for other developing countries. There is yet a need for a specific causal identification strategy to refine the evidence. Also, interventions leading to a conversion of contracts are in line with interventions increasing social protection for potential emigrants, which can have some impact on emigration (see below).

Vocational training

Vocational training has been implemented in many countries. Like training programmes in agriculture, vocational training increases employability and can exert different effects on the propensity to emigrate. UNDP is involved in projects of this kind. For instance, the SALAM Project, financed by the UN and the Government of Finland, supports technical vocational education and training in Afghanistan. This project was launched in 2017 for a period of four years.

OECD (2017) finds that vocational training tends to increase the willingness to emigrate. This implies that people might participate in these programmes with the explicit goal of emigrating, in line with the incentive effect of emigration on human capital (Beine et al., 2008; Abarcar and Theoharides, 2020). Nevertheless, the net effect on the actual variation in the number of educated people might depend on the degree of matching between the skills accumulated in these programmes and the demand in the local labour market. Another effect of these programmes is that, in the medium run, higher skills usually come with an increase in income, which might lead to the emigration of another household member. Evidence given by OECD (2017) seems to show that the household effect is stronger than the individual effect. There are apparently no specific studies that investigate the impact of vocational training in origin countries on the propensity to move.²²

Training programmes in agriculture also attempt to lead to an improvement of the productivity of farmers, hence increasing the sustainability of their activities. These interventions can potentially generate two effects. On the one hand, they may increase employability, at home and abroad, to the extent agricultural skills are reasonably transferable across borders. This improvement might increase the propensity to emigrate. In economies characterized by a declining agricultural sector, training might be seen as a strategy to develop one's skills and increase the attractiveness of the foreign option. This incentive effect leads to higher emigration, as found in Cambodia or Georgia by OECD (2017). This effect holds at both the individual and household levels. On the other hand, improvement in skills tends to boost productivity and income generated by current agricultural activities, which may increase the attractiveness of the home location and decrease the incentive to emigrate.

2.2.2. Alleviating poverty

As highlighted in the previous section, one key barrier to increased mobility is the financial constraint that prevents poor people from moving abroad. For this reason, economic development does not always translate into less emigration. In fact, an increase in GDP per capita tends to induce more migration movements from developing countries. In this respect, interventions aimed at reducing poverty and alleviating the financial

²² However, an ongoing research project looks at the effect of easier access to vocational training on the willingness to emigrate in The Gambia using a lab-in-the-field experimental approach (Baj et al., 2021).

constraints that prevent the investment in, for instance, human or physical capital might have an impact in terms of human mobility. But this impact might be ambivalent. It is therefore important to study in more depth the effects of poverty-alleviation interventions, for instance, through conditional cash transfers or production subsidies, on beneficiaries' propensity to move.

Conditional Cash Transfers (CCTs)

One of the most-used educational programmes in developing countries,²³ CCTs can affect education choices and migration in different ways. CCTs are likely to decrease incentives to leave by subsidizing education. Nevertheless, even if this incentive effect holds, the global effect might vary over time: CCTs might have a negative effect in the short run but a positive effect in the long run, once the targeted education level has been achieved. CCT programmes might nevertheless have a positive effect even in the short run if allocated to households that would have invested in education even in the absence of such support. In that case, the cash transfer might relax liquidity constraints. This really depends, therefore, on the initial income level of the beneficiary household.

The discussion above stresses the importance of the conditionality dimension of the transfer in generating particular effects on migration. Enforcement of the CCT ensures the cash is used primarily for the purpose of the transfer. By contrast, when cash transfers are unconditional or when conditionality is not enforced, this additional source of income may translate into an increase in emigration at the household level.

The diversity of effects of CCT programmes and their variability in the degree of enforcement of the allocation rules explains the mixed evidence reported in the literature. The degree of conditionality of the CCT programmes seems to be of primary importance. Angelucci (2012) reports that in the short run, the CCT programme *Oportunidades* in Mexico might have had no effect on some households but positive effects on low-skilled households. This is consistent with the fact that these monetary transfers relax some of the constraints that prevent more people from moving. OECD (2017) thus identifies positive effects on intended emigration in Haiti, where the conditionality dimension of transfers is not enforced. By contrast, in countries with higher levels of development and stronger enforcement of the conditions, effects tend to be negative. This is consistent with the negative effect of subsidized education on emigration. However, the evidence tends to confirm that in the long run, CCTs contribute to increasing emigration (Azuara, 2009; Rubalcava and Teruel, 2006). Scholarships seem to exert similar effects as CCT programmes, with mixed evidence on emigration intentions and outcomes. OECD (2017) finds positive effects in low-income countries, such as Burkina Faso, but negative effects in middle-income countries, like the Philippines. There was also some evidence in favour of no effect of scholarships on the decision to migrate.

Production subsidies

The impact of production subsidies is related in some senses to the effect of international aid. Subsidies are targeted to specific individuals or sectors, of which the agricultural sector is one of the main recipients in developing countries. Subsidies can exert an incentive to stay by increasing the efficiency of the economic activity in the home location; hence it is attractive, in line with the development channel of aid. On the other hand, subsidies might be used to increase the capacity to fund emigration costs, in line with the so-called 'liquidity constraint' channel.

Whether the development channel or the liquidity constraint channel dominates depends on two prominent factors. First, the impact might depend on the context at home and on the initial level of productivity of the subsidized sector. OECD (2017) finds that agricultural subsidies tended to reduce emigration at the household level in lower-middle-income countries like Morocco and the Philippines but tended to increase emigration in low-income countries, such as Cambodia, Burkina Faso and, to a lesser extent, Côte d'Ivoire. The rationale might be that, in the first case, the incentive effect dominates while, in the second case, the liquidity constraint effect dominates. This finding is consistent with the global evidence drawn from more developed economies.

²³ Angelucci (2012) reports that, as of 2009, there were 29 CCT programmes in the developing world.

Investigating the role of the Common Agricultural Policy in the European Union at the regional level, Olper et al. (2014) find that production subsidies, as well as structural aid to rural regions, contributed to maintaining employment in rural European regions. In particular, Pillar I subsidies (production subsidies) had a negative effect on the out-migration intensity of the farming labour force. A second dimension is, therefore, the conditionality of the subsidies. Subsidies conditional on investment, such as subsidized loans, might trigger a specific development effect, while subsidies for seeds or for fuel in agriculture might be seen as just an additional amount of income and do not increase investment activity to the extent that these costs would have been incurred without the subsidies (the so-called ‘dead weight’ effect).

2.2.3. Protecting against adverse shocks

Another purpose of targeted interventions with potential effects on the propensity to move is to decrease the vulnerability of the individuals to the occurrence of different shocks. Two main types of adverse shocks are considered here: economic and personal shocks.

Insurance mechanisms

Insurance in the agricultural sector may have mixed effects in terms of human mobility, partly because of the variety of insurance mechanisms. OECD (2017) finds that insurance mechanisms tend to foster emigration in Georgia. In this case, insurance tended to generate stable and guaranteed sources of revenues, which in turn allowed for financing emigration at the household level. This contrasts with the negative effect on emigration observed in Armenia, where insurance takes the form of a programme compensating ex post for losses associated with natural shocks. This suggests that to generate an incentive effect rather than a liquidity constraint effect, insurance in the agriculture sector should take the form of in-kind benefits usable in the future and not cash-based benefits contingent on current agricultural output.

Increasing social protection and better access to health services

Several projects conducted by the UNDP and its partners explicitly include interventions to improve essential local services such as sanitation and access to health, social and education services. An example of such a programme is the Migration and Local Development project in Moldova, which amounted to about US\$1 million between 2012 and 2018 (UNDP, 2019).

The evidence drawn from contemporaneous migration patterns is more mixed. OECD (2017) finds, for a sample of developing countries, a negative correlation at the aggregate level between the share of public expenditures in GDP and the rate of desired emigration. Such correlation does not convey a clear causal dimension but reflects that both dimensions are intertwined. The observed impact of social protection depends on the type of individuals benefiting from these programmes and is mixed. Hagen-Zanker and Himmelstine (2013) review 29 studies on the relationship between social protection and emigration. Different types of programmes are covered: conditional cash transfers, unemployment insurance, free medical care, day care for children, old age pensions and employment guarantee schemes. The studies cover international mobility and internal migration and use both individual and aggregate data. Half of the studies find a positive effect, while the other half find a negative effect of social protection on migration.

The results vary by types of programmes, for instance, those regarding the conditionality dimension. Effects depend on the context, especially the level of development at origin. The more fragile the context, the stronger the effect on mobility in the long run. In any case, while social protection and emigration are often complementary, the former cannot systematically curb emigration in isolation. In line with this global evidence, OECD (2017) reports that access to a labour union is associated positively with desired emigration in some countries. Having access to health services through a labour contract is also positively associated with planned emigration in Costa Rica. Denied access to health care leads some individuals to be less willing to emigrate in countries such as Armenia, Costa Rica, the Dominican Republic and Morocco.

2.2.4. Providing access to better information

Improving the quality of information can have an impact on both intentions to migrate and the conditions in which people move. In this respect, several countries, such as India, Nepal, the Philippines and Uganda, have adopted programmes to provide better information to prospective emigrants. These programmes focus on preparation plans for departure, administrative immigration procedures, advice for settlement, job search, financial management, building a network at destination and maintaining ties with the origin country. Barsbai et al. (2020) study the impact of these kinds of programmes in the form of pre-departure orientation seminars organized by the Filipino authorities for people willing to migrate to the United States. They find little effect on settlement and employment outcomes. Nevertheless, they find that individuals benefiting from these programmes tend to rely less on networks at destination. These results suggest that these information programmes substitute for networks and that networks play an important role in the acquisition of information for immigrants at destination.

The impact of such interventions might strongly depend on the details of the content of these programmes. Depending on the type of information that is provided, but also depending on the cultural distance between the origin and the destination, these information interventions at the origin might be more or less effective. While interesting, the absence of a significant impact on employment found by Barsbai et al. (2020) should be confirmed in other contexts and with other types of information programmes.

Information can also respond to the purpose of curbing undocumented migration and emphasize the dangers of the mobility process. Using an incentivized lab-in-the-field experiment in rural The Gambia, Bah and Batista (2020) find that information that corrects the expectations of potential emigrants can alter their decision to emigrate. In particular, having accurate numbers about the probability of obtaining legal residency status and the probability of dying while crossing the Mediterranean Sea marginally changes the decision to engage in irregular migration.²⁴

2.2.5. Strengthening social cohesion and governance

Social cohesion is a complex and multi-dimensional concept that can be defined as “the extent of trust in government and within society and the willingness to participate collectively toward a shared vision of sustainable peace and common development goals” (UNDP, 2020b, p. 16). More cohesive societies imply fewer inequalities, better health and education outcomes and more support for democracy and institutions. In this respect, good governance and rule of law, combined with low levels of corruption, can only contribute to improving social cohesion. Therefore, interventions aimed at strengthening social cohesion and governance are likely to have a significant impact on human mobility.

While the effects of institutions on migration and forced displacement have been frequently assessed in the literature, research on the effects of social cohesion on the decision to move is quite limited, probably due to the methodological challenges in finding the adequate indicators to ‘measure’ social cohesion. Yet, governance and social cohesion are areas where development actors can play a key role at both the national and local levels. Even though interventions in these areas do not explicitly target a specific outcome in terms of migration or forced displacement, the indirect or unintended effects are potentially important and are worth being evaluated.

2.2.6. Preventing insecurity, violence and conflicts

While development actors implement programmes to fight against insecurity, violence and conflicts, destination countries sometimes express the same interest in decreasing the immigration pressures they face. A new component of the United States immigration policy reform proposed by the Biden Administration involves the implementation of programmes to improve security conditions in the Northern Triangle of Central America, from where originate many documented and undocumented immigrants in the United States. Initiatives, such as Infosegura (2020), which aims precisely at formulating better evidence-based

²⁴ Paradoxically, since potential emigrants from The Gambia tend to overestimate the death risk in crossing the sea, the study finds that providing official figures tends to increase the likelihood of irregular emigration.

and gender-sensitive policies to improve security in Central America, can help assess the impact of such policies on the propensity to move, either by choice or by force.

In the same way, interventions aimed at fostering security at a local level, such as the Lake Chad Stabilization initiative,²⁵ which provides response mechanisms for local authorities to curtail Boko Haram insurgency at the Nigerian border, can indirectly contribute to curbing irregular migration and forced displacement in the region.

2.2.7. Mitigating the consequences of climate change

With the potential growing impact of climate change and environmental degradation on human mobility, sectoral interventions aimed at creating climate-resilient activities are key to help address the adverse drivers of irregular migration and forced displacement. In this respect, UNDP carries out a number of projects that could contribute to mitigating both climate change and its impact on the propensity to move. The Lake Chad Stabilization initiative, for instance, undertaken in collaboration with the Lake Chad Basin Commission and the Global Environmental Fund for a period of two years (2019–2021), focuses on initiating the implementation of the regional Strategic Action Plan with the overall objective of achieving climate-resilient activities. Likewise, the Disaster Response and Recovery Facility (DRRF) aims to enhance disaster response and recovery functions to address natural disasters and humanitarian crises in Bangladesh. In Honduras, the Systemic Resilience and Reduced Vulnerability of Urban Poor Project aims at increasing resilience to climate change through better management and planning of water resources. These examples illustrate the type of climate-change initiatives with potential impacts on human mobility that would be worth evaluating.

Evidence on the potential effects of these programmes can be drawn from Benonnier et al. (2019), who provide some global evidence about the relationship between irrigation and actual emigration. They show that irrigation reduces the poverty trap associated with higher temperatures. Since climate change and decreasing water resources for agriculture tend to have a negative effect on mobility (the so-called ‘trapped-population’ phenomenon), improved irrigation tends to increase internal migration in these countries. This illustrates the complex relationships between interventions of this type and the expected outcomes in terms of human mobility.

²⁵ <https://www.africa.undp.org/content/rba/en/home/presscenter/articles/2021/stabilization-in-the-lake-chad-basin--rebuilding-communities-acr.html>

While there is a growing concern among policymakers, especially in high-income destination countries, and development actors about the need to mitigate the adverse drivers of irregular migration and forced displacement, the means to do so are not clear. The fact that economic development tends to translate into more emigration from developing countries rather than less means that investing in development does not automatically lead to a reduction in migration pressures in most vulnerable countries. However, targeted intervention at the local or sectoral level is likely to affect the propensity to move. In this respect, the goal should not be to prevent people from migrating but rather to reduce the worst forms of human mobility, which are often related to irregular migration and forced displacement. The methodological approach developed here aims for a better understanding of the way targeted interventions can have an impact on human mobility intentions and outcomes, with the objective of designing the policy tools that will help people migrate by choice and, to the extent possible, through legal pathways.

3.1. Monitoring migration and forced displacement pressures

A first step towards mitigating the adverse drivers of irregular migration and forced displacement is the design of a tool that can help monitor the different factors that influence people's propensity to move. In this respect, current emigration rates, whether they are drawn from actual movements or from intentions, might be a rather poor predictor of future migration movements. The reason is basically twofold. First, a given individual might not have accurate expectations about the future or may simply be unable to integrate future trends about their current place of location into their decision to move. For instance, individuals located in areas prone to natural disasters can have a biased assessment of the future probability of occurrence of these natural disasters. Furthermore, some natural disasters, such as earthquakes, are to a large extent unpredictable in most of the key dimensions (magnitude, exact location, timing).

A second reason is that fundamental factors of emigration are likely to change. A good example is provided by demographic trends. Young people are more prone to migrate. Women are, in general, less migratory as principal migrants, but tend to rely a good deal on networks when they exist.²⁶ Large families tend to send emigrants for risk diversification, which also explains the role of fertility on top of a simple proportional relationship between population and migration. In an area in which fertility is high, where the share of young people is high and networks exist, one can expect that future emigration pressures will be as high or even higher than current ones. By contrast, in areas characterized by demographic transition (decreasing fertility), future pressures are expected to be lower than current ones.

This calls for going beyond the simple use of current emigration rates. One solution is to design and operationalize a dashboard of key indicators of emigration and forced displacement pressures. These indicators should integrate past and current emigration rates at the national and sub-national levels, as well as the intentions to move abroad, such as revealed through surveys (see below). In addition, the dashboard could incorporate a series of factors in line with the typology of drivers discussed in Section 1. They should integrate all important dimensions, such as demographic, economic, social and environmental ones. They also should include indicators likely to induce forced displacement. The exact composition of these indicators and the optimal way to combine them is beyond the scope of this paper but should be developed in future research.

²⁶ For instance, in 2018, while they represent a more or less equal share than men in immigration, female immigrants in the United States were more likely than men to obtain legal permanent resident status based on the family-based preference channel and as immediate relatives of a US citizen. By contrast, male immigrants were more likely than their female counterparts to get the legal permanent resident status based on employment (see American Immigration Council, 2020, for further details).

3.2 Assessing the impact of targeted interventions on migration and forced displacement

3.2.1. Intended and unintended effects of targeted interventions

One important dimension of targeted interventions, either at the local or sectoral level, concerns the intentionality of the programmes. The theoretical development channel of international aid suggests that such interventions might be implemented to boost development with the explicit purpose of curbing intended and effective people's movements. This view is in line with Objective 2 of the GCM, which clearly highlights the need to "minimize the adverse drivers and structural factors that compel people to leave their country of origin". Nevertheless, this view has lost some credibility over time among researchers and policymakers, and thus the number of such programmes seems to have significantly decreased over time.

As a matter of fact, most policies aimed at improving the living and working conditions in source countries do not include an explicit purpose related to emigration. Most interventions follow multiple objectives related to welfare as well as living and working conditions. But the implemented policies and the improvement of security may still have an indirect impact on the propensity to move. It is, therefore, important to think about how to evaluate the effect of local or sectoral policies on emigration (both voluntary and forced), even though, in most cases, the potential impact is indirect or unintended. The unintended dimension of targeted interventions indeed has an impact on how to evaluate these initiatives in a consistent way.

3.2.2. Targeting the right population

Because local and/or sectoral interventions are costly and donors and funding institutions have limited resources, it is crucial to design specific tools to evaluate the effect(s) of such interventions. One methodological proposal is to target sub-populations in such a way that evaluation is meaningful. One option is to carry out interventions in territories where potential emigration rates are relatively high. The rationale is that high observed emigration rates usually correspond to high levels of intentions of emigration. As shown by Docquier et al. (2014), while there is a huge discount from intentions to realizations of emigration, high levels of intentions are observed in countries located in regions with high observed emigration rates. Nevertheless, this is not true for low emigration rates. The reason is once again due to the multiple channels through which variations in conditions at origin translate into actual movements. As already mentioned, one important reason is the presence of liquidity constraints that prevent people from covering migration costs. Another one is that intended emigrants from low- and middle-income countries face restrictive immigration policies, especially from high-income countries.

Czaika and De Haas (2017) compute data capturing bilateral visa restrictions. The data show that the number of restrictions faced by a country (as a proxy of exposition to restrictive immigration policies) is highly negatively correlated with income at origin. The existence of liquidity constraints and restrictive immigration and asylum policies primarily indicates that, in many poor areas, there is a high degree of movement of migrant workers and refugees to contiguous countries despite their relatively low economic attractiveness. For some low-income countries, though, especially islands, this possibility does not exist. Since these countries are primarily the ones where local interventions are useful, it is important to account for this aspect.

How can such an approach be operationalized? An interesting source of information is provided by the Gallup World Poll Surveys (GWPSs). Gallup conducts surveys in more than 160 countries (including 99 percent of the world's population aged 15 and over). In most countries, at least 1,000 individuals are surveyed through phone and face-to-face interviews (Gallup, 2018). The sample of individuals interviewed is representative of the resident population older than 15 years. GWPS data are probably the most comprehensive source of data on migration desires. Two relevant questions on migration desires are raised. The most important question for the purpose of this paper is: "Ideally, if you had the opportunity, would you like to move permanently to another country, or would you prefer to continue living in this country?" The idea is to exploit the information related to the first question. An additional appealing feature of the intention data is that GWPSs are carried out in all the various geographical units within one country.

It is, therefore, possible to identify the areas that exhibit the highest levels of intended emigration rates. A second important advantage concerns irregular migration. While actual emigration rates might not include accurately undocumented movements, the question in the GWPSs is relevant for intentions of emigration of regular and irregular types.

It might also be relevant to look at the sub-national level to understand whether there is a significant variation of these rates across countries. The patterns of regional desired emigration rates within the poorest countries in the world captured by the GWPSs can help address this.²⁷ For each country, we use the GWPSs over all available waves containing a regional breakdown of the location of the respondents over the 2006–2019 period. Since the respondents are not the same across waves, we pool the data and treat this as a cross-section. Table 2 provides descriptive statistics relative to the desired emigration rates for 34 low- and middle-income countries. Columns (1) and (2) provide the maximum and minimum desired emigration rates across the regions of each country, while column (3) gives the range. Column (4) provides the standard deviation as a measure of the degree of heterogeneity within countries. Columns (5) and (6) provide the unweighted and weighted mean of the desired emigration rate. Column (7) provides the number of regions considered by the GWPS for the country and column (8) the number of waves on which these figures are based. Column (9) provides the average number of respondents per wave in the GWPS, while column (10) reports the observed annual emigration rates computed from bilateral migration stocks. These rates are inferred from differences in stocks between two censuses (2015 and 2010) and are subject to measurement errors.

Statistics from Table 2 suggest that for a subsequent number of countries, emigration intentions vary significantly across regions. For some countries, the highest regional rate can be as much as five times the lowest rate in another part of the country. In some countries like Madagascar, Mali and Rwanda, a preliminary analysis at the regional level would be highly relevant, as it would avoid the need to conduct evaluation programmes in regions with a relatively low share of intended emigrants. In many countries, heterogeneity is substantial, with a standard deviation as high as 10 percent. This global evidence argues in favour of using intention data in general and Gallup data in particular as a pre-screening tool before carrying out rigorous evaluations of targeted interventions.²⁸ The preliminary evaluation based on such a tool could be combined with the other indicators included in the dashboard mentioned above.

²⁷ 'Desired emigration rates' means the counterpart of observed emigration rates but based on intentions or desires. They are computed as the share of respondents in a survey expressing an intention to leave their countries. The literature uses other terms, such as 'aspirational' or 'intended' emigration rates.

²⁸ This procedure could be applied to measures regarding preparation plans for emigration, as used, for instance, by Clemens and Mendola (2020). However, the samples on which this measure is provided are much more limited compared to the intention data used here.

Table 2: Regional heterogeneity of desired emigration rates in low- and middle-income countries

COUNTRY	DESCRIPTIVE STATISTICS									
	(1) (MAX)	(2) (MIN)	(3) (RANGE)	(4) (STD)	(5) (UN. MEAN)	(6) (W. MEAN)	(7) (REGIONS)	(8) (WAVES)	(9) (AV. RESP.)	(10) (EMIG. RATE)
Afghanistan	57.14%	10.00%	47.14%	10.45%	27.05%	27.66%	34	12	1178	13%
Algeria	46.15%	14.89%	31.27%	6.71%	28.11%	26.86%	37	8	1268	4%
Bangladesh	42.68%	25.71%	16.97%	9.13%	24.22%	24.45%	7	14	1308	4%
Burkina Faso	38.57%	15.00%	23.57%	6.12%	29.36%	31.36%	45	10	1001	7%
Burundi	55.92%	10.42%	45.50%	11.40%	19.86%	18.09%	17	5	1000	2%
Centr. Afr. Rep.	46.86%	14.14%	32.72%	10.95%	25.71%	23.14%	9	5	1000	5%
Congo Braz.	44.96%	20.44%	24.51%	8.53%	34.71%	40.26%	12	9	1010	0.6%
Dem. Rep. Congo	68.24%	32.28%	35.96%	12.20%	50.64%	49.35%	11	8	1000	0.3%
Ethiopia	49.49%	16.54%	32.96%	9.20%	30.38%	30.06%	11	8	1278	1%
The Gambia	70.00%	17.65%	52.35%	11.93%	38.97%	40.22%	38	3	1040	4%
Guinea	55.03%	27.92%	27.11%	8.31%	37.46%	38.00%	8	9	1016	0.24%
Haiti	70.00%	47.06%	22.94%	6.66%	57.19%	56.85%	10	9	503	10%
Liberia	72.44%	45.74%	26.71%	6.67%	57.50%	57.53%	15	9	1000	6%
Madagascar	35.00%	3.13%	31.88%	9.42%	13.18%	12.12%	22	10	1002	1%
Malawi	46.43%	7.14%	39.29%	7.25%	28.28%	33.80%	26	6	1000	2%
Mali	35.71%	5.62%	30.10%	6.15%	19.23%	20.07%	29	6	1022	5%
Mexico	29.69%	9.43%	20.26%	4.48%	18.85%	19.55%	33	10	1108	0.45%
Morocco	36.36%	4.88%	31.49%	6.43%	23.75%	24.54%	63	10	1209	8%
Mozambique	24.26%	8.45%	15.81%	4.68%	19.17%	22.05%	11	6	1000	2%
Niger	21.26%	10.36%	10.90%	3.84%	17.22%	18.15%	8	12	1001	2%
Rwanda	25.00%	4.79%	20.21%	4.87%	11.48%	11.45%	30	6	1000	3%
Senegal	49.09%	25.72%	23.37%	6.73%	38.10%	38.79%	15	12	1000	0.23%
Somalia	27.22%	8.05%	19.17%	6.11%	16.42%	17.98%	14	3	1064	3.4%
South Sudan	38.58%	15.58%	23.00%	7.31%	26.49%	28.08%	10	4	1000	4%
Sudan	51.16%	23.32%	27.83%	7.00%	34.91%	35.06%	12	5	1518	4%
Sierra Leone	84.35%	50.00%	34.35%	9.39%	63.08%	64.32%	14	9	1016	2%
Somaliland	39.67%	18.15%	21.52%	7.72%	28.79%	28.08%	6	4	1000	—
Syria	44.82%	34.94%	9.88%	3.16%	40.44%	40.53%	13	7	1635	18%
Tajikistan	22.33%	7.53%	14.79%	5.99%	12.37%	9.96%	5	14	1149	7%
Tunisia	39.66%	12.79%	26.86%	8.73%	26.61%	27.28%	23	11	1299	0.4%
Tchad	31.28%	15.34%	15.94%	4.21%	22.36%	24.45%	15	12	1009	0.1%
Togo	70.45%	30.00%	40.45%	11.07%	50.09%	46.01%	22	4	1032	6%
Yemen	49.28%	15.32%	33.95%	8.46%	26.40%	24.98%	20	11	1376	4%
Uganda	44.56%	31.12%	13.44%	5.62%	39.11%	38.09%	4	12	1000	0.1%

Notes. Outcome variable: Desired emigration (Gallup code WP1325). Number of usable waves refers only to waves including a regional location indicator for respondents. Unweighted mean: mean across regions. Weighted mean: mean across regions weighted by regional weight in the sample. Average respondents: average number of respondents per usable wave. Emigration rate in column (10) gives the actual emigration rate between 2015 and 2010 based on five-year intervals of total emigrants and total populations as provided for by UN DESA.

3.2.3. Evaluation methods

While the identification of the right target population is important, a key question remains regarding how to undertake an evaluation of the effect of local interventions, including gender-responsive initiatives, on migration and forced displacement. This question is not trivial since programme evaluation raises ethical issues and needs to be done carefully. A typical ‘naïve’ approach would be to measure the difference in the average propensity to move between individuals benefiting from the interventions (the ‘treated subjects’) and those not exposed to the intervention (the ‘non-treated subjects’). Unfortunately, this naïve approach is likely to be misleading. The reason is the existence of a selection bias that confounds the evaluation of the effect.²⁹

Selection bias

A major source of bias in policy evaluation is selection (Angrist and Pischke, 2009). In many set-ups of local interventions using observed real data, estimated impacts on the mobility of individuals are affected by self or out-selection bias. Employment agencies represent a good example of that. One expected impact is that making information about job opportunities available will bring an increase in the expected probability of employment and, in turn, a decrease in the probability of moving. Individuals using employment agencies to find a job are more likely to have similar characteristics than those who do not. Yet, individuals will most likely self-select in relying on the services provided by these agencies. More connected and more dynamic individuals might use alternative channels. The issue is that individuals have characteristics that will differently affect their respective probabilities of finding a job and moving abroad. In this example, the naïve approach will result in an underestimation of the impact in terms of emigration.

There are three possibilities for solving this issue. One is the use of **instrumental variables**. In this example, an exogenous variation in the probability of using employment agencies’ services can be used. Distance between the living place of the individual and the location of the agency could be one option. The idea is that the higher the distance, the more costly the use of these services, but that individuals living farther away are similar to those living close to the location of these services. Nevertheless, there are two issues with this solution. The first is that this information might simply be unavailable. Second, if available, this variable might not be correlated with the unobserved characteristics of the individuals, which would affect their probability of employment and emigration. This last assumption might be unrealistic in many contexts. For instance, if employment agencies are located in cities, the longer the distance, the more rural, on average, the living place of the individual. If individuals living in rural areas have, for instance, less education or the same level of education but with lower quality (with quality being unobserved), then this approach based on distance will not provide an appropriate solution.

Randomized Control Trials as a potential solution

A second solution suited mainly for intervention with individuals is to generate data such that participation in the programme is randomly decided. Randomized controlled trials (RCTs) make sure that selection into a programme is random and, therefore, should be uncorrelated *ex ante* with any individual characteristic that would affect the outcome. *Ex post*, this might not be the case for all characteristics, but if the unbalanced characteristics are observed, appropriate regressions can account for that. Therefore, if appropriately designed, an RCT could deliver a correct estimation of an intervention on the probability of moving abroad. This methodological approach could help assess the way agricultural subsidies affect human mobility in rural areas by randomly choosing the farmers benefiting from these subsidies and those who do not. Likewise, RCTs could contribute to better understanding the impact of conditional or unconditional cash transfers on migration intentions and outcomes.

Yet, RCTs raise several concerns. First, this approach tends to generate unequal treatment between treated and control groups, thus potentially creating ethical issues (Abramowicz and Szafarz, 2019). For instance, local monetary interventions in an RCT or interventions that result in an increase of resources

²⁹ This applies to collective interventions such as climate change mitigation or adaptation. In this case, the interventions can benefit a certain sub-population, e.g., agricultural workers. The distinction between treated and untreated might be more subtle. For instance, all individuals might be treated, but the intensity (i.e., the benefit) of the intervention might vary across individuals.

for the treated subjects imply that some individuals will be favoured over others. To a certain extent, this has implications on the type of interventions researchers should consider in an RCT devoted to the effects of local interventions on the propensity to move. One way to integrate this ethical aspect of RCTs is by running randomized interventions without any monetary implications.³⁰

An example of a non-monetary intervention would be an RCT to evaluate the impact of the creation of employment agencies on the propensity to move with the aim of avoiding the confounding effects of the selection bias. It is thus possible to randomly draw the individuals that could have access to the employment agencies. Ideally, this should be done in a stratified way, for instance, using distance of type of location as the stratification criterion. The evaluation of the effect of employment agencies could be done by comparing mobility intentions and outcomes between those who had access to employment agencies' services and those who did not. An important aspect would be the enforcement of the random selection, especially to convince individuals they should use these agencies' services if selected.³¹

A second interesting example of non-monetary intervention is the ongoing research project by Baj et al. (2021), who study the impact of better access to vocational training at origin on the willingness to emigrate. Using an RCT approach in The Gambia, this study looks at the impact of the opportunity to enrol in a tuition-free vocational training programme on the willingness to move, either internationally or internally. At the time of the writing of this paper, the results of the study were not yet known.

While RCTs represent a useful method to evaluate the effect of policy interventions on the behaviour of individuals (and their households), the difference-in-differences approach (diff-in-diff) provides an interesting tool when assessing the impact of collective interventions. The diff-in-diff evaluation requires the collection of aggregate data before and after the intervention (see Angrist and Pischke, 2009). The classical case is the comparison between a treated unit (i.e., a unit subject to the intervention) and an untreated one with similar characteristics before the implementation of the intervention. Nevertheless, this approach is also applicable when the intensity of the effect of the intervention applies to different units with similar characteristics.

Such an approach would require the collection of data from at least two entities with a similar evaluation before the implementation of the intervention, but differences either in the impact or in the occurrence of the intervention. One potential intervention would be to measure the propensity to move triggered by the implementation of an irrigation system in one particular village and to compare its consequences with another village with similar characteristics but not benefiting from such intervention. The choice of the second village as a control unit should be made in a way that ensures the two places are similar in terms of observed and intended emigration rates as well as in terms of climatic conditions before the implementation of the irrigation infrastructure. Since most of the interventions of development actors, such as the UNDP, do not usually cover the whole set of regions in a country, due to budgetary constraints, for instance, this approach can be useful.³² The identification of the untreated unit can be made using the dashboard of indicators as well as the data on intended emigration.

Evaluating the bias

While RCTs provide a convenient approach for the evaluation of targeted interventions, they are not without drawbacks. Beyond the ethical dimension explained above, a more fundamental limitation is that RCTs require an ex-ante design of the programmes, and the exact design of the randomization depends on the effect to be evaluated. Yet, as explained above, most development actors carry out their targeted interventions without a specific goal in terms of emigration. Even if these interventions included some randomization process, the absence of connection with potential migration outcomes makes them subject to potential selection bias with respect to the effect on migration.

³⁰ Ethical aspects do not invalidate the use of RCTs for the evaluation of interventions involving monetary aspects, such as cash transfers and production subsidies, but should at least be considered. In fact, these ethical aspects are not strictly specific to monetary interventions since randomization implies, by nature, preventing some individuals from benefiting from targeted interventions.

³¹ To a certain extent, the intervention should also be designed such that the non-selected individuals do not have access to the information provided by these agencies.

³² This approach could also be implemented for the evaluation of the effects of employment agencies evoked above.

One (second-best) solution would be to (1) conduct some simple (“naïve”) comparisons, (2) estimate the potential size of the selection bias and (3) provide a bias-adjusted causal estimate of the programme. More precisely, theoretically speaking, the selection bias is the difference in the average outcome without an intervention between the beneficiaries of an intervention and the others. If this difference in the average outcome is negative (or, respectively, positive), then the naïve comparison between the treated and the untreated groups underestimates (or, respectively, overestimates) the real impact. To give an example, if treated farmers (i.e., those who received a production subsidy) were less likely to emigrate without a subsidy compared to those who did not receive the subsidy, then the simple difference in the proportion of emigrants between the treated and untreated group will underestimate the true impact of the subsidy on emigration. An important question is how to estimate the size of the selection bias. Addressing this is beyond the scope of this paper and is left for future research.

Conclusion

4

The significant increase in human mobility over the last 50 years reflects the desire of individuals to find better and safer living conditions for themselves and their relatives. In many cases, the choice of moving to another country is a voluntary one and follows legal pathways. This type of mobility is, in general, beneficial for migrants themselves and their families, as well as for their origin and host countries. In other cases, human mobility results from forced displacement, triggered by a set of adverse shocks such as conflicts, insecurity or detrimental consequences of environmental degradation and climate change. This type of movement often turns out to be dangerous for those forcibly displaced and leads to suboptimal outcomes in terms of rights protection and socio-economic integration. To a certain extent, this also holds for irregular voluntary movements. Even when migration is voluntary, the lack of legal pathways can translate into exacerbated irregular flows. These situations contribute to fuelling racism, xenophobia and discrimination among transit and host communities.

For such reasons, mitigating the adverse drivers of irregular migration and forced displacement is at the core of the concerns of many humanitarian, development and peace actors, as reflected in both the Global Compact for Safe, Orderly and Regular Migration (GCM) and the Global Compact on Refugees (GCR). Understanding how public policies and targeted interventions can contribute, either directly or indirectly, to this objective is, therefore, key. In this respect, peace and development actors implement a number of interventions at the local or sectoral level in the countries of origin of potential people on the move. While most initiatives do not include an explicit objective in terms of human mobility, their effects on living and working conditions are likely to affect the intentions and decision to move of the individuals and communities benefiting from these interventions.

How these interventions, including gender-responsive initiatives, affect the beneficiaries' propensity to move is complex since the potential effects involve the combination of different channels, sometimes complementary and other times conflicting. Targeted interventions with monetary implications, such as production subsidies or cash transfers (conditional or unconditional), are supposed to encourage local populations to develop productive activities and/or invest in human capital. However, by relieving the financial constraints that prevent the poorest from leaving their countries, such interventions might generate an incentive effect on people's decisions to move. The resulting effect is therefore uncertain, and its empirical assessment requires specific evaluation.

While the literature on the many reasons why people move is quite extensive, studies devoted specifically to the causal impact of targeted interventions on migration and forced displacement are more limited. One methodological explanation is the existence of a selection bias. Interventions at the individual level, for instance, to generate employment opportunities or alleviate poverty, might thus affect specific persons, due in particular to self-selection in terms of participation in the programmes. Collective-type interventions aimed at strengthening social cohesion and governance or mitigating the consequences of climate change affect people in different ways, due, for instance, to their initial professional occupations. The two cases span two different sources of the bias, but the statistical consequences are the same. The existence of such selection biases tends to confound the assessment of the causal effect of targeted interventions in simple ("naïve") statistical analyses, hence calling for alternative methodological approaches. While a couple of recent attempts work to overcome these problems, most of the existing analyses overlook this crucial aspect.

This paper offers several possible methodological approaches for better understanding how targeted interventions can affect human mobility:

- A **dashboard of indicators** to monitor migration and forced displacement pressures can help summarize the different dynamics affecting the propensity to move. Indicators such as demographic trends, economic and social conditions, political stability and the consequences of climate change

can be combined with data on intended and actual emigration rates to yield a global picture of migration and forced displacement pressures. They can also help identify the right sub-national areas to target for local or sectoral interventions.

- **Impact evaluation** is key to truly assessing the ways targeted interventions influence human mobility intentions and outcomes.
 - The use of **randomized control trials (RCTs)**, which randomly select beneficiaries and compare their outcomes with control groups, offers a solution for capturing the causal effect of targeted interventions. However, RCTs are not always applicable to some programmes, such as those targeting the whole community rather than specific individuals.
 - In that case, a **difference in difference approach (diff-in-diff)**, which collects data before and after the intervention, can measure the effect of a change in policy that affects only a subset of communities. It represents a good option whenever it is possible to get a relevant comparison unit, that is, a similar community or municipality.
 - An **evaluation of the bias** associated with simple (“naïve”) statistical analyses remains possible if the previous solutions are not possible. That implies evaluating the potential error in the assessment of the average outcome with and without an intervention (counterfactual analysis) between the beneficiaries of such intervention and the others.

Despite the methodological challenges that the evaluation of the impact of targeted interventions on human mobility implies, it is key to developing and implementing the tools that will help provide a better understanding of how to efficiently address the adverse drivers of irregular migration and forced displacement.

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