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# Longing for Which Home: Evidence from Global Aspirations to Stay, Return or Migrate Onwards\*

By

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## Abstract

Aspirations provide the underlying dynamics of the behavior of individuals whether they are realized or not. Knowledge about the characteristics and motives of those who aspire to leave the host country is key for both host and home countries to formulate appropriate and effective policies in order to keep their valued immigrants or citizens and foster their (re-)integration. Based on unique individual-level Gallup World Polls data, a random utility model, and a multinomial logit we model the aspirations or stated preferences of immigrants across 138 countries worldwide. Our analysis reveals selection in characteristics, a strong role for soft factors like social ties and sociocultural integration, and a faint role for economic factors. Changes in circumstances in the home and host countries are also important determinants of aspirations. Results differ by the host countries' level of economic development.

**Keywords:** Economics of Immigrants; Geographic Labor Mobility; Public Policy; Micro-economic Behavior: Underlying Principles; International Migration; Large Data Sets: Modeling and Analysis

**JEL codes:** J15, J61, J68, D01, F22, C55

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## 1. Introduction

This paper proffers a thorough global analysis of the factors influencing first generation immigrants' aspirations to stay in the host country, return back home or move onwards to another country. While there are many theories that explain the initial migration of people, fewer theories exist about the return and onward migration of immigrants as these are relatively more recent phenomena of the late 20th century (Constant, 2021). With the availability of better data, more and more studies try to calculate the probabilities to out-migrate, address selection issues, estimate circular propensities, and determine the steady state, all in the spirit of modelling actual moves (Constant, 2020). Such studies provide useful information that host, home, and third countries are eager to possess in order to effectively and smoothly encounter the movement of people in their territories.

Yet, there is no consensus about the selection of those who leave. Due to lack of appropriate data, existing empirical studies have typically focused on a particular host country from which people return back to specific home countries (Constant and Massey, 2002; Jensen and Pedersen, 2007; Constant and Zimmermann, 2011; Monti, 2020; Dustmann and Weiss, 2007). Moreover, all studies on the actual or revealed choice of out-migration rely on ex-post information, that is, information about the characteristics of returnees after they exit the host country. This concrete revealed behavior, however, is based on both the willingness to exit the host country and the ability to do so. An effectuated exit includes unplanned out-migration due to force majeure, in which case the selection of the actual emigrants does not offer any meaningful information about the selection of stayers, which is what host countries care about.

Ex-ante information about the selection of out-migrants would be, undoubtedly, more desirable and more valuable to countries, so they can prepare ahead of time and better cope with population shifts related to the exit of immigrants, their return, and onward movement. Such information can be obtained by studying the aspirations, desires, or stated preferences of immigrants. Different than *revealed* preferences (RP), *stated* preferences (SP) come from hypothetical scenarios, in which respondents are provided with options and are asked to choose the “best” alternative in line with a utility maximization model. SP are the basis of the utility function, since – simply put – utility is a convenient way of describing preferences or choice behavior. SP are highly informative and uncover different mechanisms than RP. Such is the value of the (re)locational choice, irrespective of the capability to act upon it.<sup>1</sup>

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<sup>1</sup> We are cognizant of the fact that SP and RP are highly correlated but there is no established causation. Due to the endogeneity of choices, SP cannot determine actual (revealed) preferences (Manski, 1990). For example, as

Thus, whether SP or aspirations to stay, return, or migrate onwards are realized or not, they merit the attention of the literature. Aspirations illustrate how immigrants perceive their present life in a host country and how and where they envision their future. They capture the state of mind of immigrants and are a window into the immigrants' potential to shape their present as well as their future. They reveal clues about how immigrants plan to share and dedicate their time or resources, which can make a difference in their integration and socio-economic success in the host country (Constant, 2021). Aspirations to stay signal satisfaction with the host country and can even convey the notion that immigrants want to better themselves, which in turn could shape the communities in which they live.

Aspirations to leave, in contrast, can disclose dissatisfaction with the host country, which, in turn, can be manifested through a loose (or lack of) attachment to the labor market, potentially leading to lower earnings, resulting in more dissatisfaction as well as more discrimination from natives. Unhappy migrants who face adversity and anticipate leaving might also be less inclined to invest in human capital and acquire skills that are particularly valuable in the host country such as learning the local language, with detrimental effects on their labor market performance. At the same time, immigrants may invest less in relationships and human skills or assets (Carling and Pettersen, 2014). Unhappiness can be equally manifested as deteriorating health, triggering a lower performance, lower economic stability, and more discrimination from the host society. It can easily end up in a vicious circle.

Aspirations or preferences provide powerful information for policymaking decisions in the short, medium, and long-term as well.<sup>2</sup> Knowing the preferences of optimizing immigrants makes policies more desirable and cost-effective. For the host country, aspirations are important when policymakers design integration policies and want to retain their immigrants for whom they may have already made investments. Immigrant aspirations reveal how successful the host country has been in providing for them and incorporating them in the mainstream society and economy. If the majority of immigrants wants to exit, this most likely indicates that immigrants are not comfortable living in the host country. One can argue that in this case, not only the host country has failed in its integration policies, but it cannot recover the investments it has made either. Importantly, selective out-migration can have harmful

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immigrants optimize their stay in the host country and circumstances change they may prolong or shorten their residence abroad, such that SP and RP may not be the same. SP place an upper bound on the probability that an individual will behave in a given way but do not identify this probability (Manski, 1990).

<sup>2</sup> It is possible that preferences to exit the host country capture the swiftness with which immigrants respond to the general situation in the economy. Especially immigrants who have been in the host country for a shorter period of time are more likely to relocate if things change.

effects on the economy (labor markets, tax revenues, the pension system), R&D, naturalization rates, and societal norms of the host country (Constant, 2020). For host countries that want to retain their high skilled immigrants, it is important to also know where immigrants are going after exit. This offers deeper insights about why they are leaving. Besides, if large numbers of immigrants return home, this could affect bilateral relationships and agreements.<sup>3</sup>

Because out-migrants may be a selected subsample of the initial arrivals, this has serious ramifications in migration research. Selective exit may produce extreme bias in assimilation studies and in studies about the impact of immigrants on the host country's economy, welfare, and social and cultural realm, thus resulting in a false narrative.

Home countries are equally eager to know the characteristics of their returnees. Most alarming is the issue of remittances, which constitute the largest source of foreign income for many developing economies and are a lifeline for development. Because self-selection in specific characteristics is inherent in migration, return migration may contribute to regional imbalances, overwhelm the educational system and/or the labor markets of the home country. Policymakers can accordingly decide on the kind of monetary and non-monetary investments they need to implement in order to counterbalance lost remittance inflows. Home countries can also introduce institutional reforms to accommodate the returnees and speed up their reintegration. This is particularly important because many home countries count on their returnees' financial investments, their upgraded skills and knowledge, and their enlarged social capital (Constant, 2020).

Along the same vein, if selected groups of immigrants aspire to move onwards to another host country, this can have grave consequences for the economy and society of the new host. Yet, comparatively less is known about onward moves. Research on the unconstrained preferences of immigrants can improve the ability to forecast trends in migration and to design better and more appropriate policies. Understanding the extent of out-migration and the characteristics of immigrants who leave compared with those who stay might ultimately contribute to global mobility gains to be shared by home, host, and third countries. Nonetheless, the value of aspirations has been largely overlooked by the literature.

In this paper, we make the following contributions. First, we uncover the value of aspirations in the economics of migration research by viewing them as unconstrained preferences that offer insightful mechanisms of immigrant selection for scientists and

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<sup>3</sup> We do not discount the possibility that sometimes host countries want their immigrants to leave. Knowing what prompts immigrants to leave can be equally powerful when enacting policies.

policymakers alike, whether they are realized or not. Using a random utility framework, we empirically investigate the determinants of aspirations to stay, return or move onwards, the three fundamental choices that immigrants face in any host country. We emphasize the modelling of the aspiration to stay, which – while it represents the majority – is often an overlooked choice in studies treated as a corollary. We further model the choice sets return versus stay and onward moving versus stay and underscore the importance of context in these contrasts.

Second, we focus on first generation immigrants (the foreign-born) because they are a rather homogeneous group that share many characteristics independent of the host country they live in. They are a distinct group of individuals, different from higher generations and the native-born who may contemplate an initial migration.

Third, we make use of the unique 21<sup>st</sup> Century individual-level Gallup World Polls (GWP), which gather comparable information from over 160 countries worldwide on respondents' migration status, country of birth, aspirations to migrate internationally, as well as a whole range of individual and household characteristics and opinions. Comparability across countries constitutes the added value of our paper because with the GWP we can carry out a unique global cross-country analysis and explore important but understudied components of migration flows across the world. We go beyond studying the role of traditional determinants and augment our analysis with a novel combination of variables at the individual, community, and country level that could enrich our understanding of out-migration such as individual well-being, social and economic integration in the host and home country, and changing circumstances related to exogenous macroeconomic, environmental, and polity conditions in the host and home countries.

Our holistic analysis allows us to provide a deeper insight into the complexity of immigrants' behavior and how immigrants judge their socio-economic, cultural, and political position in the host country compared to other country options. To the best of our knowledge, our paper is the first to make use of the GWP to study aspirations to stay, return or migrate onwards among first generation immigrants on a global and comparative scale, and to bring together several branches of research in migration. Our results reveal stark differences in selection in characteristics and macroeconomic variables among the three comparative choices that immigrants are confronted with. They are robust to several tests, justifying our conjectures, and derive important labor market and migration policy implications.

The rest of the paper is structured as follows. Section 2 reviews the various strands of literature to which our paper is related. Section 3 discusses our data and presents the descriptive

statistics on immigrants' aspirations regarding the three hypothetical choices. Section 4 provides the theoretical foundations for our empirical analysis and presents the methodology. Section 5 presents the results. Section 6 concludes.

## **2. Related Literature: Actual Behavior versus Aspirations**

Although there has been abundant discussion on the theoretical conceptualisation of return migration over the years (Constant and Massey, 2002; Cassarino, 2004; Dustmann and Weiss, 2007), empirical studies on the determinants of actual return migration are lagging behind. The knowledge gap is even larger when it comes to onward migration. The main reason is the paucity of reliable large-scale quantitative and comparable data across countries on those who out-migrate (Cassarino, 2004; Azose and Raftery, 2019; Constant, 2020). The limited number of host countries that have registers such as the Scandinavian countries and Belgium do not always enforce de-registration upon exit. Researchers typically rely on nationally representative surveys that may not have information about out-migration, and if they do, this information pertains to a specific host country and specific home countries as well as specific populations such as labor migrants or their subsets (guestworkers or the high skilled). Longitudinal surveys may suffer from attrition and/or have a small number of observations to allow for a meaningful analysis. Other surveys that include information about out-migration might not be nationally representative or may lack information on important characteristics, thus limiting their external validity.

Another volatility of empirical studies is that – because selection depends on both data and context – their findings may differ even though they pertain to the same home and host countries, and are based on the same datasets. For the actual behavior to be effectuated, many more attributes of the RP are needed such as travel costs and visa costs for instance. Existing studies try to counterbalance data issues with advanced econometric techniques, and by controlling for a variety of observed and unobserved characteristics.<sup>4</sup> Yet, empirical studies are crucial in supplementing the theories, which may sometimes predict mixed outcomes depending on the initial migration conditions between the countries involved (theory à la Roy). A classic example is that, theoretically, returnees could be the best from the worst or the worst from the best. It is then up to empirical research to settle the score in praxis.

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<sup>4</sup> A comprehensive review about return, onward, and repeat migration in Constant (2020; 2021).

Here we briefly review empirical studies that are the closest to ours and whose findings uncover some important facts about the selection of immigrants who have left a variety of host countries (developed and developing). Overall, there is consensus that out-migration is selective but there are no universal conclusions about the determinants of actual return or onward migration (Constant, 2020). Some exceptions relate to the effect of age on out-migration, which is significant and negative or U-shaped for returnees (Constant and Massey, 2003), and short sojourn in the host country. While rates vary by host country, up to 75% of immigrants leave the host country within the first five years after arrival (OECD, 2008). Less than five years residence is, thus, positively and significantly correlated with return (Constant and Massey, 2003; Dustmann and Weiss, 2007). There is also a steady decrease in the odds of return with additional time spent in the host country due to assimilation, making roots, and/or the fading of ties in the homeland.

Evidence of positive selection in education among returnees is found by Reagan and Olsen (2000), Aydemir and Robinson (2008), Rooth and Saarela (2007), Jensen and Pedersen (2007), Dustmann and Weiss (2007), and Nekby (2006). Klintäll (2013) finds a U-shaped selection in education (the low and the high-educated return), while Constant and Massey (2002; 2003) find no selection in education, although they find evidence of income maximizing strategies among the returnees. A consistently significant deterrent of return migration is attachment to the host country's labor market (Constant and Massey, 2002; 2003; Constant and Zimmermann, 2011; 2012; Monti, 2020). Findings about selection in wages, though, have been more mixed. Bijwaard and Wahba (2014) and Klintäll (2013) find a U-shape between income and return. Other studies find that higher earnings decrease return migration (Reagan and Olsen, 2000), or low earnings increase return (Lubotsky, 2007), yet others find no selection in wages (Constant and Massey, 2002; 2003). Economic integration in the host country measured by occupational prestige (Constant and Massey, 2003), work experience and economic success (Jensen and Pedersen, 2007), better market opportunities and earning power (Reagan and Olsen, 2000) deter return migration.

Conditions in the home countries are important in explaining variations in return rates (Bratsberg et al., 2007; Dustmann and Weis, 2007). Macroeconomic and political conditions in the home countries matter for return (Gonzalez-Ferrer et al., 2014). Non-economic reasons matter as well. Gibson and McKenzie (2011) confirm the limited role of income maximization and liquidity constraints in return among the high skilled, while general family and other lifestyle considerations such as improving career opportunities, boosting poor academic research environments, having better funding for scientific laboratories, the removal of

regulations, more transparency in government, and more democracy are very important in return decisions. Along the same lines, idealistic or altruistic reasons such as the desire to help the home country to economic growth and be part of this development (Gaillard and Gaillard, 2015), and to contribute to the homeland's science and R&D (Constant and D'Agosto, 2010) are equally significant determinants of return among the high skilled.

Speaking the host language, feelings of belonging and identifying with the host country, as well as host country citizenship have been shown to reduce the probabilities of out-migration (Constant and Massey, 2003). Marked differences in return by source country are validated in Aydemir and Robinson (2008) among others. Overall, immigrants residing in host countries with similar living standards to their homeland are more likely to return (OECD, 2008).

Much less is known about the determinants of onward migration, although it constitutes about 28 (Monti, 2020) to 37 (King and Newbold 2007) and up to 66% (Bratsberg et al., 2007) of out-migrants. In the U.S., about 15% of the high skilled immigrants come from a different country than their birth country (Artuç and Özden, 2018). Onward migrants are a specific and selective group, who differ from both immigrant stayers and second generation returnees in several ways (King and Newbold, 2007). They are primarily young, married, and have a bachelor's degree; more educated immigrants are more likely to move onwards than return migrants (Nekby, 2006; Monti, 2020; King and Newbold, 2007). Being employed in the host country – along with receiving social benefits – decreases onward moves (Monti, 2020); lower incomes increase this behavior (Nekby, 2006; King and Newbold, 2007).

Bratsberg et al. (2007) show that out-migration strongly depends on the country of origin. They identify additional factors that increase the probability of onward migration such as the low economic level of the home country, the longer distance of the home from the host, and if the home country is experiencing armed conflicts. In general, immigrants who migrate to countries richer than their home countries are more likely to migrate onwards (OECD 2008). Forced migrants and those from politically more unstable regions tend to migrate onwards as well (Monti 2020).

Another strand of studies use information on self-reported intentions and expected durations of stay abroad as proxies for actual behavior (Dustmann 2003). Besides facing econometric issues and other limitations, these studies are also based on specific home and host countries and subpopulations. Nonetheless, several contributions in the literature have shown that there is a high correlation between intentions and actual migration worldwide (Creighton, 2013; Docquier et al., 2014; Bertoli and Ruysen, 2018; Manchin and Orazbayev, 2018). Here we review a few studies from several disciplines that give us a glimpse into the willingness of

immigrants to out-migrate and highlight a variety of characteristics. Overall, findings are similar to those of the above-mentioned studies on actual behavior, offering a confused picture of out-migration selectivity (Massey and Akresh, 2006).

Prior research on intentions has documented that the high skilled or educated have a higher probability to intend to return (De Haas and Fokkema, 2011; Paparusso and Ambrosetti, 2017; Makina, 2012). In some settings, a U-shaped relationship is found (Carling and Pettersen, 2014). In others, education did not significantly affect intentions to return (De Haas et al., 2015). Newcomers have higher intentions to return (Makina, 2012), but old-timers with longer residence also express a strong willingness to return (Paparusso and Ambrosetti, 2017; De Haas et al., 2015). While labor market participation may not affect intentions to return (De Haas and Fokkema, 2011; De Haas et al., 2015), insecure employment increases the odds of having return intentions (Carling and Pettersen, 2014). Unemployment per se reduces return intentions (Paparusso and Ambrosetti, 2017). Higher incomes lower the probabilities of return intentions (Makina, 2012), and so does satisfaction with one's income (Tezcan, 2019). An increase in wages, on the other hand, is associated with a decrease in the intended migration duration in the host (Dustmann, 2003). Naturalization decreases the odds of wanting to return (Paparusso and Ambrosetti, 2017).

Immigrants contemplating return or onward migration appear to equally value other non-economic aspects. Perceived xenophobia and concerns about hostility towards foreigners or minorities in the host country can propel intentions to return (Tezcan, 2019). Social reliable networks in the host country affect intentions to return negatively in De Haas and Fokkema (2011) and Snel et al. (2015) but they have no effect in De Haas et al. (2015). Frequent contacts with natives, following the host country media, and speaking the host language also reduce the odds to want to return (Snel et al., 2015). Strong social ties with the home country – measured by the frequency of contact with friends and relatives there, home country visits and sending remittances – increase the intentions to return (Snel et al., 2015; De Haas et al., 2015). Thus both the relative strength of socio-cultural integration in the host country and transnationalism are important for return migration intentions (Carling and Pettersen, 2014). Host countries do affect return intentions albeit very differently (Carling and Pettersen, 2014).

The GWP have been a popular source of data to investigate aspirations to migrate both internally and internationally (Dustmann and Okatenko, 2014; Docquier et al., 2014, 2015; Delogu et al., 2018; Bertoli and Ruysen, 2018; Ruysen and Salomone, 2018; Docquier et al., 2020). To our knowledge, these data have not been used to investigate immigrants' aspirations to return or move onwards. Moreover, existing research on migration aspirations has largely

neglected differentiating between return and onwards migration and has not paid proper attention to the willingness to stay in the host country.

This review shows that there is still insufficient understanding about the factors that prompt immigrants to stay, return, or move onwards. The self-selection of stayers, who are actually the majority of immigrants, is of paramount importance in assimilation studies<sup>5</sup> and studies about the impact of immigrants on natives. Our study has the advantage of examining aspirations among immigrants who live in a plethora of host countries around the world and come from a wide variety of home countries as they envisage to stay, return or move onwards to a great number of other host countries. Comparable questionnaires, the abundance of information on individual and household characteristics, the integration of the surveys with community characteristics, information on various attachments in different countries, and economic as well as social, psychological, environmental, and political factors in the data make our study more representative.

### **3. Data and Descriptive Statistics**

Our analysis rests on unique individual-level data that are longitudinal and comparable across many countries worldwide, extracted from the GWP. The latter measure the attitudes and behaviors of the World's Residents; they are the most comprehensive and farthest-reaching survey of the world. Conducted annually since 2005, these nationally representative surveys represent 99% of the world's civilian and non-institutionalised population aged 15 and above. They contain information from surveys conducted in 166 OECD and developing countries in Africa, Asia, Europe, Latin America, North America, and Oceania. A typical annual GWP survey interviews at least 1,000 individuals randomly selected within an entire country. Surveys include over 100 global questions as well as region-specific items. To produce statistically comparable results, each respondent is interviewed in his or her own language. Telephone surveys are used in countries in which telephone coverage represents at least 80% of the population, or telephone surveys are the customary survey methodology; otherwise Gallup uses face-to-face interviewing (Gallup, 2016).

The GWP provide information on migration status and migration aspirations as well as on many individual and household level characteristics, enriched with information about the

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<sup>5</sup> Lubotsky (2007) finds that proper accounting for the selective out-migration of low earning immigrants results in a slower assimilation rate. Constant and Massey (2003) find that selective out-migration does not appear to distort cross-sectional estimates of earnings assimilation in a relevant way.

communities, and other unique factors. Importantly, the surveys ask the same questions, every time, in the same way, in all countries in order to trend data over time and make direct comparisons. This carries several specific advantages. First, it allows for direct comparison of information across countries and hence a global approach to analyse why some immigrants aspire to return or move onwards, when such aspirations for out-migration are formed, and by whom. Second, it potentially reduces bias in response because migrants from the same origin will comprehend the aspiration questions in a similar way, especially as we consider a uniform sample of first generation international migrants. In addition, because respondents are asked an open question about where they would like to migrate to, we do not have to impose any restrictions on potential destinations, and we can consider simultaneously aspirations to return and to migrate onwards.

To analyse the factors influencing aspirations, we restrict our sample to first generation international immigrants (i.e., those born in another country than the one in which they are currently residing). This is important because the first generation is a distinct and uniformly similar group of people. They already have experienced one international move and they are more likely to move again due to cumulative causation (Massey, 1987). Most notably, the fact that immigrants know the realities of both the home and host countries well minimizes psychic costs and the bias in having one reference point. In addition, first generation immigrants may contemplate a permanent move to a third country in a more serious and responsible manner. The desire to move onwards to a third country could be completing the circle of a pre-planned destination that was not feasible during the initial migration. It could equally well be a reaction to not liking the host or home countries.

We further restrict our sample to immigrants aged 18 to 75 because first generation immigrants below 18 have most likely migrated with their parents and lack the agency to act upon their potential aspiration to migrate back home or onwards. Those over 75 may face more constraints than younger individuals to migrate, making a move less realistic. After we omit observations with missing information on our crucial variables for the years 2009 to 2016, we end up with 28,104 immigrants, interviewed in 138 host countries.

### ***3.1. Aspirations to Stay, Return or Move Onwards***

By definition, aspirations refer to a strong hope, desire, or ambition to achieve something better. Thus, the word has a positive, upward connotation. Aspirations relate to many domains of life (family, work, friendships, financials, community, environment, health, etc.). For

immigrants, aspirations relate to the way migration is experienced. While aspirations relate to the stability and continuity of the present state of being, they are oriented towards the future. As such, they can signal optimism about the present and the future. In reference to the host country, immigrants who aspire stability and the continuation of the status quo will state a preference to stay in the host country (and be content with the current life). Staying in the host country may, on the other hand, also be the default situation of not having other options. Immigrants, in this case, express their desire to improve the present and take advantage of the current situation. Aspirations<sup>6</sup> or SP to out-migrate will be specified by immigrants who want to see changes in their future either by returning home or by moving to another host country.

Aspirations can be categorized into short, medium, and long-term; they can also change over time. Borrowing from the “capabilities” and “functionings” literature (Sen, 1985; 1999), aspirations affect the functioning of individuals, and functioning is what an individual chooses to do or to be. Sen postulates that “[w]hile functioning is central to the notion of human well-being, it is not merely the achieved functionings that matter but the freedom that a person has in choosing from the set of feasible functionings, which is referred to as the person’s capability” (Kaushik and Lopez-Calva, 2011, p. 153).<sup>7</sup>

Stemming directly from the GWP questionnaire, our dependent variable is a categorical variable on migration aspirations. Specifically, the GWP poses the following question: (Q1) *“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?”*. To those answering positively to the first option of the question, a follow-up question is asked about their preferred destination upon exit: (Q2) *“To which country would you like to move?”*. Respondents list their home country or another country. Combining Q1 and Q2 allows us to create our variable that distinguishes the desire to stay (the default value zero) from the desire to out-migrate, and it differentiates between aspirations to return to the country of birth (value one) and aspirations to move onwards to another country (value two).

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<sup>6</sup> The way in which the migration aspiration questions are interpreted might vary across countries. Clemens and Pritchett (2019) underline the risk of using contingent value surveys. Typically, respondents may interpret “opportunity” in light of the possibilities currently available to them (legal migration, irregular life-threatening trip, with or without funding, etc.), which vary across countries (see next subsection for more information about the variables). For this reason, we will only exploit within-country variation in the econometric analysis.

<sup>7</sup> Economists have used aspirations/preferences in several settings, from predicting travel choices in transport research à la McFadden, to creating well-being indices (Daniel et al., 2014), to modeling consumer buying preferences, to designing choice experiments. These studies have proven the validity of preferences. Studying the role of aspirations in economic development, La Ferrara (2019) concludes that “aspirations are a potentially important determinant of individuals’ educational investments and occupational choice. This opens the way for policy interventions aimed at changing people’s aspirations as a way of lifting them out of poverty” (p. 1719).

The phrasing of Q1 bears the following advantages. First, the word “ideally” conveys an unconstrained maximization problem. Second, the words “move permanently” evoke a serious reaction among first generation immigrants, precluding any superficial, exploratory or whimsical thoughts about relocating. This question, hence, captures aspirations to migrate permanently abroad well. These aspirations are somewhat stricter than mere migration considerations, as used for instance in Creighton (2013), since our Q1 uses a stronger formulation that directly asks for the likely response under ideal conditions. Each choice reveals how much the respondents value it. Moreover, using the respondents’ statements on their preferred destination affords us to exploit the bilateral nature of migration aspirations.

We contend that, while Q1 and Q2 are hypotheticals, they are nonetheless meaningful and close to the truth for our sample of immigrants. Because they have already migrated at least once they can adequately evaluate the alternative choices and properly express their preferences. First generation immigrants know the difference between temporary, permanent, and/or circular migration. They are also aware of the perils of the migration journey and they have first-hand experience about the hardships and adversities that come with living in a new country. They are even cognizant of the psychic costs involved. Because immigrants have already migrated once, they are more prone to migrate again either to advance their careers or as a coping strategy. The third country option is, therefore, very real to them. Thus, we evade previous criticisms about the meaning of aspirations or about what aspirations capture (Manchin and Orazbayev, 2018). Another advantage of SP over RP is that individuals are asked to make more than one choice and are presented with trade-offs. In this case, their responses reveal how much immigrants value (or not) the forgone choice or the opportunity cost of not choosing a particular alternative from the choice set.

### ***3.2. Individual and Household Characteristics***

We control for demographics such as the respondents’ age through four dummy variables to capture non-linearities (18-34 as reference, 35-49, 50-64, and 65-75), gender (dummy for being male), marital status (dummy for being married or cohabitating), and household size (the number of children and adults in the household). We also account for human capital by using three dummies capturing the immigrants’ education levels (secondary, tertiary, and elementary education as the reference i.e., up to 8 years of basic education), a dummy for the duration of stay in the host country (whether the individual has moved to the host country within the last

five years), and the GWP's Personal Health Index<sup>8</sup> (measuring perceptions of one's own health status as well as incidence of pain, sadness, and worry) that varies between 0 and 100 with a higher score indicating an overall better health.

We furthermore augment our basic model with rarely available information about the self-reported religion of respondents. Through five dummies for Christianity, Islam, Judaism, other religions, and no religion as a reference category, we seek to examine if religious and spiritual capital plays a discernible role in shaping aspirations to stay, return, or move onwards. Faith in one's God can provide solace to endure hardships in the host country, hope for better days, and/or confidence in succeeding in a new country. Accordingly, we anticipate to find differences among the denominations. Alternatively, we know that when immigrants move to a new country their religion may clash with the majority of the host country. Such a clash may prompt feelings about out-migration.

### ***3.3. Networks, Economic Independence, and Wellbeing***

In our analysis we consider additional categories of variables that can best capture what influences the aspirations of immigrants. Namely, we include network effects, the level of integration in the host country, and wellbeing. Strong networks in the host country or abroad are known to impact and sway aspirations. They provide information that reduces the costs and risks of migration, they help with integration in the host country, with migration in a third country, and with reintegration in the home country; they are especially beneficial to the less-selected migrants, women, and the undocumented (Constant, 2020). Having friends to rely on has been found to be the top reason for happiness in studies ranking countries. We construct these variables using direct information from the GWP. Network abroad is a dummy variable capturing whether respondents have friends or relatives abroad whom they can count on when needed (also referred to as "distance-one connections abroad").<sup>9</sup> The Local Network Index is

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<sup>8</sup> In GWP, Index scores are calculated at the individual record level. For each record, positive answers are scored as "1;" all other answers are assigned a score of "0". An individual record receives an index only if it has valid scores for at least a majority of questions asked. A record's final index score is the mean of valid items times 100. The final country-level index score is the mean of all individual records for which an index score was calculated. Country-level weights are applied to this calculation.

<sup>9</sup> Note that this dummy does not account for the country of residence of distance-one connections. Migrants are, however, likely to state having friends or relatives in their country of birth whom they can count on if needed. To test for this, we employ a follow-up question, which tracks up to three countries of residence for distance-one connections, and construct a bilateral network dummy that takes the value one if the respondent indicates having a distance-one connection in the birth country. Indeed, we find that 61 percent of migrants stating at least one country in which they have distance-one connections actually mention their country of birth. This reassures us to

constructed from principal component analysis of two questions that proxy the intensity of local social ties: (i) *“In the city or area where you live, are you satisfied or dissatisfied with the opportunities to meet people and make friends,”* and (ii) *“If you were in trouble, do you have relatives or friends you can count on to help you if you need them, or not?”*. The index is rescaled to range between zero (no social ties) and one (have full social support in the country).

We measure the economic integration of immigrants in the host country using two behavioral and two attitudinal variables. First, we account for employment status (a dummy taking the value one if the respondent is employed part time or full time – including the self-employed – and zero if (s)he is unemployed or out of the workforce). Second, we include a household wealth index constructed as the polychoric principal component (Dustmann and Okatenko, 2014) of four questions that are available for all countries in our sample. This index captures basic material and financial wealth like having a television, access to the Internet, having enough money to buy food, and ability to provide adequate shelter or housing for one’s family in the past 12 months. Higher values indicate more wealth. Third, we include a dummy measuring whether one lives comfortably on current household income. Fourth, we consider a dummy capturing the respondents’ satisfaction with their standard of living, inclusive of all the things they can buy and do. These aspects are examples of what Sen calls functionings.

Finally, we take advantage of two indices in the GWP that assess the wellbeing of the respondents within their communities such as the freedom to make choices or feeling secure and fulfilled. We include the GWP Diversity Index, which measures the community’s acceptance of people from different racial, ethnic, and cultural groups. To measure satisfaction with aspects of everyday life in a community such as education, environment, healthcare, housing, transportation, and infrastructure, we include the GWP Community Basics Index. A higher score on these indices (both varying between 0 and 100) denotes a more accepting community and a higher satisfaction with everyday life in the community (see footnote 8 for the construction of the indices). These types of freedoms and opportunities for fulfilment relate to Sen’s capabilities.

### ***3.4. Macroeconomic, Environmental, and Polity Variables***

The last set of variables in our model accounts for the extent to which changes in circumstances in the host or home country influence migration aspirations. First, we employ a proxy for

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continue with the unilateral variable rather than the bilateral one, which is not as relevant for onward migration since we do not differentiate between particular destinations.

improving or worsening economic conditions in the host and home country such as GDP growth taken from the World Development Indicators. Higher GDP growth should attract people to stay or return to that country in hopes that they will flourish along with everybody else. Second, we extract information about the occurrence and frequency of natural disasters in the year before the survey date from the International Disasters database EM-DAT. Examples of natural disasters are earthquakes, floods, heat waves, hurricanes, tornados, wildfires, volcanic eruptions, and tsunamis to name a few. They all have devastating effects and can wipe out entire regions. These phenomena are even worse in developing countries. We hypothesize that immigrants should not aspire to stay in or return to such a ruined area. Third, we consider variables that signal political instability in the host and home countries. We construct these variables as dummies from the Polity IV Index. They are indicating a significant change in the Polity IV Index democracy score in the three years preceding the interview. The Polity IV Index goes from -10 to 10, with -10 being attributed to the more autocratic countries, and +10 to the more democratic ones. We contend that more democratic countries with lower instability would be more attractive and will be chosen.<sup>10</sup>

### ***3.5. Descriptive Statistics***

Table 1 provides summary statistics for the fore-mentioned variables employed in our empirical analysis. To better show the composition of our sample and identify potential differences, we disaggregated the characteristics by the aspiring status of stayers, returnees, and onward movers. Our dependent variable shows that 75% of the first generation immigrants in our sample aspire to stay permanently in the host country in which they reside, while only 8% aspire to return to their country of birth, and 17% aspire to move onwards to another country.

These raw statistics portray somewhat different profiles of immigrants, depending on their aspiration status. The stayers are, on average, the oldest (47 years old), indicating the “ageing in place” of immigrants. This is 10 years older than those who want to move to a third country (the youngest group) and 5 years older than the returnees. Among the stayers and the returnees we see a predominantly female sample, although the gender ratio balances out among the onward movers. All three groups have a higher percentage of people being married or in domestic partnership, with an average household size of four. Regarding secondary and tertiary

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<sup>10</sup> Note that much of the host country characteristics are absorbed by the country fixed effects so that the only remaining source of identification is within-country variation over time.

education, the groups are not very different. Across all three aspiring groups, over 50% of immigrants have secondary education, over a quarter have tertiary education and close to 20% have up to eight years of elementary education.

**Table 1:** Descriptive Statistics

	Stay		Aspire to		Move Onwards	
	Mean	SD	Return Mean	SD	Mean	SD
<u>Dependent variable</u>						
Aspire to stay	0.75	0.431				
Aspire to return			0.08	0.267		
Aspire to move onwards					0.17	0.376
<u>Explanatory variables</u>						
<i>Demographics</i>						
Age in years	46.689	15.883	41.525	15.371	37.417	13.905
Age 18-34	0.270	0.444	0.385	0.487	0.497	0.500
Age 35-49	0.284	0.451	0.300	0.458	0.287	0.452
Age 50-64	0.271	0.444	0.220	0.415	0.169	0.375
Age 65-75	0.175	0.380	0.095	0.293	0.047	0.212
Male	0.426	0.495	0.407	0.491	0.496	0.500
Married or live with domestic partner	0.637	0.481	0.589	0.492	0.524	0.499
Household size (continuous number)	3.547	2.512	3.733	2.596	4.120	2.987
<i>Human Capital</i>						
Elementary education	0.200	0.400	0.223	0.416	0.190	0.393
Secondary education	0.524	0.499	0.526	0.499	0.550	0.498
Tertiary education	0.277	0.447	0.251	0.434	0.260	0.439
Residence in host $\leq 5$ years	0.163	0.369	0.253	0.435	0.248	0.432
Personal Health Index (0–100)	69.451	28.223	63.995	29.394	65.632	28.005
<i>Spiritual Capital</i>						
Christianity	0.572	0.495	0.595	0.491	0.540	0.498
Islam	0.205	0.403	0.269	0.444	0.289	0.453
Judaism	0.066	0.247	0.015	0.120	0.033	0.180
Other religions	0.043	0.204	0.027	0.161	0.036	0.187
No religion	0.114	0.318	0.095	0.293	0.101	0.301
<i>Networks</i>						
Network abroad	0.596	0.491	0.792	0.406	0.662	0.473
Local Network Index (0–1)	0.811	0.295	0.755	0.318	0.743	0.327
<i>Individual Economic Indicators</i>						
Employed	0.580	0.494	0.564	0.496	0.614	0.487
Basic Wealth Index (0–1)	0.777	0.268	0.718	0.280	0.708	0.298
Living comfortably on household income	0.260	0.439	0.212	0.409	0.185	0.388
Satisfaction with standard of living	0.652	0.476	0.547	0.498	0.494	0.500
<i>Community Wellbeing</i>						
Community Diversity Index (0–100)	58.411	35.349	53.230	35.474	52.695	34.017
Community Basics Index (0–100)	61.827	27.021	52.507	28.205	51.000	28.425
<i>Macroeconomics</i>						
GDP growth (Host)	2.476	3.812	2.424	4.210	2.510	4.295
GDP growth (Birth)	2.723	4.778	2.819	4.910	3.323	6.342
<i>Environment</i>						
Disaster frequency (Host)	1.517	2.472	1.304	2.300	1.286	1.809
Disaster frequency (Birth)	3.258	5.796	2.833	4.622	2.719	5.218

**Table 1:** Descriptive Statistics

	Aspire to					
	Stay		Return		Move Onwards	
	Mean	SD	Mean	SD	Mean	SD
<i>Polity</i>						
Political instability (-10 to 10) (Host)	0.045	0.208	0.055	0.228	0.067	0.250
Political instability (-10 to 10) (Birth)	0.059	0.236	0.052	0.221	0.081	0.273
Observations	21,153		2,174		4,777	

Source: Authors' calculations with GWP data.

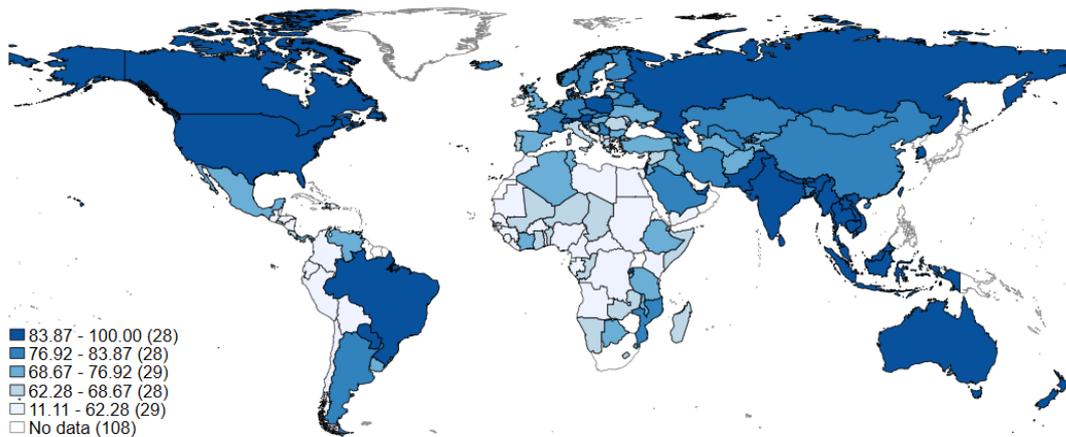
Notes: The number of observations is reduced when we add Networks, Individual Economic Indicators, and Community Wellbeing variables. The GWP Indices for Personal Health, Diversity and Community Basics vary between 0 and 100, while the first principal components of the Local network and Basic Wealth have been rescaled to vary between 0 and 1.

Table 1 also shows a smaller percentage of newcomers among the stayers (16%) and a larger percentage among the out-migrants (25%). Overall, our sample has good health, although the health index is slightly lower among the returnees. Christianity is invariably the majority religion, followed by Islam, no religion, and Judaism. Among those who aspire to move onwards, we find a smaller share of Christians and a higher share of Muslims than among the stayers and the returnees. Noticeable is the higher percentage of Jews who want to stay in the host country, which is Israel for most of them, than to return or move onwards.

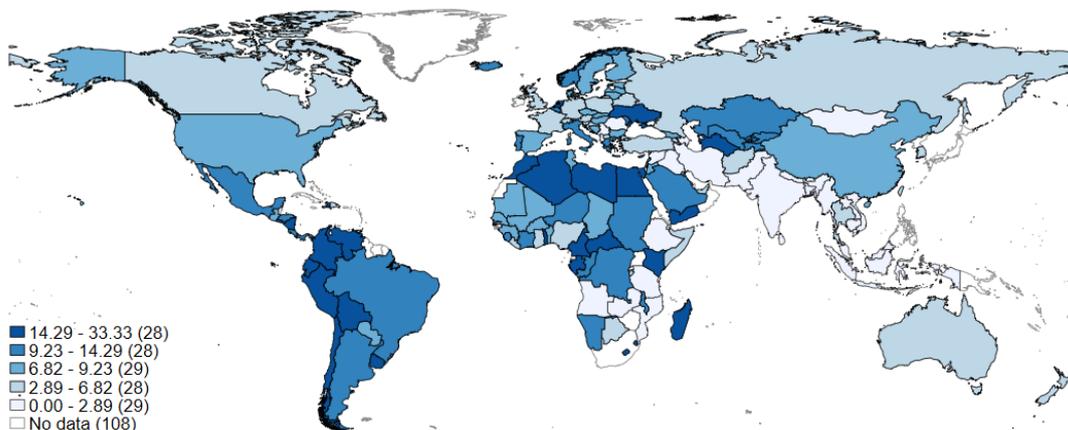
Interesting are the high scores of the networks indicating how well connected immigrants are both locally and internationally. Among those who aspire to return we find the highest percentage of having networks abroad (79%). Our sample of stayers has an astonishing network in the host country as indicated by the high local network index score of 0.81. Although our entire sample includes the unemployed and those out of the labor force, we still observe high shares of employed immigrants across all three aspiring groups. A larger percentage of the employed is found among those who aspire to move to another host country. All three aspiration groups have a high index for basic wealth. This is because the index covers minimum material and financial wealth. While over a quarter of the aspiring stayers feel comfortable with the household income, only 19% feel comfortable among the onward movers. Among the stayers, 65% are satisfied with their standard of living but among the onward movers only 49% are satisfied. The community indices are higher among the stayers; more people believe that they live in accepting and progressive communities with good infrastructure that care for their residents and provide for their health and needs, compared to the two other groups. Finally, in the group of aspiring stayers we find the highest number for disaster frequency in the birth country.

To further elucidate the role of the host country on the three aspiring groups we calculate their shares by country of current residence. Figure 1 illustrates the shares of aspiring stayers (Panel A), returnees (Panel B) and onward movers (Panel C). Darker colors indicate higher shares of individual aspirations to stay, return or move onwards; lighter colors denote lower shares. First, it is evident that the lowest shares of the aspiring stayers are invariably found in Africa and Latin/South America; namely Liberia, Sierra Leone, Peru, and the Dominican Republic. Albania has the lowest shares in Europe. Second, the highest shares of aspiring returnees are also found in Africa and Latin America especially in the Central African Republic, Lesotho, Madagascar, Bolivia, and Venezuela. This is in stark contrast to no aspirations to return among immigrants living in other African countries (Mozambique, Tanzania, Ethiopia, and Angola). Similarly, we do not find aspiring returnees in several Asian host countries (Bangladesh, Bhutan, Indonesia, Laos, Mongolia, among others). Thus the share of immigrants aspiring to return varies widely by host country. Finally, Panel C shows that the highest shares of people aspiring to move to another country are in Albania, Peru, the Dominican Republic, Liberia, and Sierra Leone.

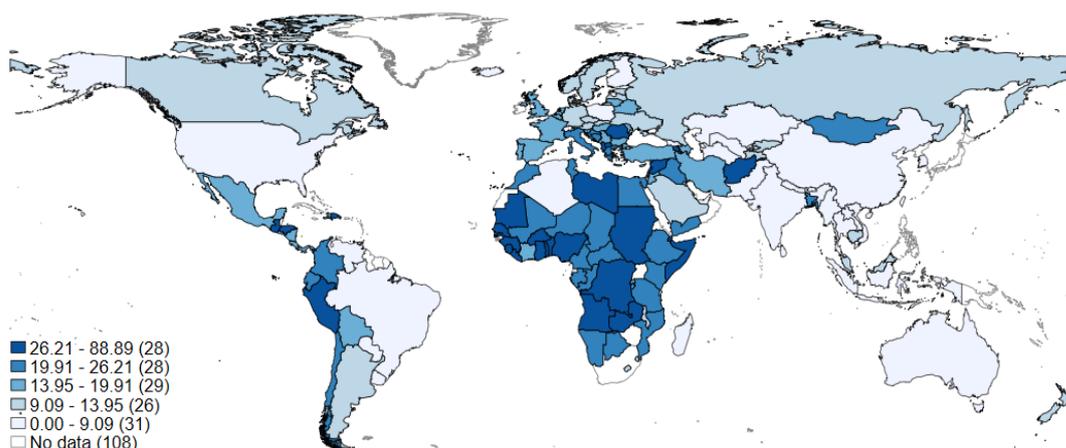
Panel A: Aspiring Stayers by Host Country



Panel B: Aspiring Returnees by Host Country



Panel C: Aspiring Onward Movers by Host Country



**Figure 1:** Share of immigrants aspiring to stay, return, and move onwards by host countries

Source: Authors' elaboration on GWP data

Notes: Darker colours indicate a higher share of individuals reporting an aspiration to, respectively, stay, return to their country of birth, or move onwards, while lighter colours denote lower shares.

Figure A1 in the Appendix encapsulates the shares of immigrants aspiring to stay and return by birth country (Panels A and B). Immigrants from Bhutan, Cambodia, and Lesotho have the highest shares of aspiring to stay abroad. Those originating from Suriname, Australia, and Canada have the highest shares of aspiring to return to their countries. Panel C shows the share of migrants aspiring to move to another country by preferred destination, over the total number of migrants who want to move to another country. Clearly, most migrants aspiring to move to another country are aiming at OECD countries. The U.S. is by far the most attractive country for onward migration (17.55% declare the U.S. as their preferred destination), followed by Canada and Germany.

#### 4. Theoretical Foundations and Methodology

Our analysis is based on the aspirations or  $SP^{11}$  of first generation immigrants with respect to staying in the destination, returning to their country of birth or migrating onwards to another country. The model that we bring to the data to analyze these migration aspirations is a random utility maximization (RUM) model of migration. Respondents maximize their utility by choosing the best alternative from the choice set. This maximization problem is unconstrained,

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<sup>11</sup> SP ask for discrete choices and are put in a behavioral choice context. As we argued in the introduction, they both complement and supplement revealed preferences, as it has been amply shown in the literature on consumer choices in market research and commuting behavior in transportation economics (Ben-Akiva et al., 2019).

based on free will. That is, if immigrants choose the option to move permanently to another country – either to their birth country or another country – this expresses their *willingness* to out-migrate, net of their *ability* to do so.<sup>12</sup>

Hence, the choice set  $D$  contains three alternatives: staying ( $k=0$ ), returning ( $k=1$ ) and migrating onwards ( $k=2$ ). The immigrants' choice to stay in the host country is considered the default. It represents a steady state of happiness and contentment. It equally expresses a commitment to make their stay a success even if life in the host country may not be perfect. One possibility is that immigrants choose to stay as a reaction when the alternative of return is not feasible or appealing. It could also be that they do not want to go through the process of obtaining a new visa, go through a new migration journey again, or through a new integration process in another host country.

The aspiration to return to the home country expresses a longing and nostalgia. This could be because it was always understood that they will return. Alternatively, they might want to return because they are unhappy in the host country and/or have a negative migration experience. Besides, circumstances in the home country may have changed, so that returning becomes an attractive option. Altruism to go back and help rebuild the country after a disaster could be another motive for the willingness to return. Finally, the aspiration to migrate to a new host country captures an optimism to try something new and different along with some risk loving tendencies. It is well known that immigrants move to places where there is demand for their skills. The move onwards could have been the plan all along, but it was not feasible to migrate to this new host country directly. It is also possible that people are unhappy with their life in the current host country and they hope for a better life in the new country. Or maybe they have already visited the new host country and want to go back to a strong social network.<sup>13</sup>

It is important to note that, while this is a hypothetical scenario, for immigrants this scenario is meaningful and very close to reality. Immigrants who have migrated at least once are fully aware of these choices. It is plausible to assume that in the eyes of each immigrant decision-maker, the three choices of staying, returning home, and moving onwards are distinct and weighted independently. These choices constitute, in other words, the entire universe of choices

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<sup>12</sup> Constrained utility maximization subject to time and budget constraints is related to RP or the actual move. RP have the advantage of avoiding potential problems associated with hypothetical responses. The drawback is their potentiality to fail to properly consider behavioral and budget constraints. When studying the actual move, the analysis is restricted to this particular observable action. When quantifying preferences for which the attribute cannot be observed or there is no variation, RP are not the appropriate technique. Conversely, these become strengths of SP, which reveal the first unconstrained best while constrained RP may reveal a second best.

<sup>13</sup> The underlying assumption is that host countries as well as prospective third countries are more economically developed than home countries.

(i.e., a complete set of choices). In addition, once a move has taken place, immigrants are more prone to move again because migration-specific capital builds momentum and causes a self-perpetuating phenomenon (Constant and Zimmermann, 2011; 2012).

Let  $U_{ikt}$  denote the perceived utility that individual  $i$  would derive if opting for alternative  $k \in D$  at time  $t$ . We assume that this alternative-specific utility includes a deterministic component  $V_{ikt}$  and a stochastic component  $\varepsilon_{ikt}$ , i.e.,  $U_{ikt} = U(V_{ikt}, \varepsilon_{ikt})$ , conventionally simplified as an additive formulation  $U_{ikt} = V_{ikt} + \varepsilon_{ikt}$ . If the stochastic component follows an independent and identically distributed Extreme Value Type 1 (EVT-1) distribution, then the probability  $p_{ikt}$  that  $k \in D$  will be the utility-maximizing alternative is given by:

$$p_{ikt} = \frac{e^{V_{ikt}}}{\sum_{l \in D} e^{V_{ilt}}}. \quad (1)$$

The relative probability of returning to the birth country ( $k=1$ ) over staying in the host country ( $k=0$ ) writes as:

$$\frac{p_{i1t}}{p_{i0t}} = e^{V_{i1t} - V_{i0t}}. \quad (2)$$

The relative probability of migrating onwards ( $k=2$ ) over staying in the host country ( $k=0$ ) writes as:

$$\frac{p_{i2t}}{p_{i0t}} = e^{V_{i2t} - V_{i0t}}. \quad (3)$$

Hence, the relative probability of aspiring to leave the host country (irrespective of the destination) over staying is given by:

$$\frac{p_{i1t} + p_{i2t}}{p_{i0t}} = \frac{e^{V_{i1t}} + e^{V_{i2t}}}{e^{V_{i0t}}}. \quad (4)$$

Relative choice probabilities are solely determined by the difference in the levels of utility associated to each pair of alternatives (and not by the levels themselves). Hence, we can normalise the utility associated to the baseline option (staying) to zero. Thus, the estimated coefficient for all the regressors gives the differential effect of each variable on the attractiveness of moving versus staying.

In the estimation analyses we control for influences that shape aspirations and their relationship to functioning à la Sen (1985). Assuming a Cobb-Douglas function of monotonic, convex, continuous, and transitive preferences, and denoting the home country index by  $h$  and the host country index by  $j$ , we can write the reduced-form expression for the utility differential between moving options and staying as:

$$V_{ihjt} = \alpha_0 + \gamma X_i + \delta W_{ht-1} + \lambda Z_{jt-1} + \alpha_t + \alpha_j + \eta_{ihjt}. \quad (5)$$

where  $X_i$  contains the individual and household characteristics and the variables measuring integration in the host country (network effects, economic integration and wellbeing), and

where  $W_{ht-1}$  and  $Z_{jt-1}$  denote, respectively, the home and host country characteristics. It is important to note that the latter are largely absorbed by the inclusion of host country fixed effects ( $\alpha_j$ )<sup>14</sup> so that we mainly pick up changing conditions within host countries over time. These fixed effects furthermore control for time-invariant unobserved spatial heterogeneity in the aspirations to move.  $\eta_{iht}$  is an idiosyncratic error term that captures unobserved variations in tastes and in the attributes of alternatives and errors in the perception and optimization by the individual (Maddala, 1992). In addition, we also include dummies for the year in which individual  $i$  was interviewed ( $\alpha_t$ ) to control for global time-varying determinants of these aspirations.

Let  $d_{ijt}$  represent the dependent variable, which takes the values 0, 1, or 2 if individual  $i$  residing in country  $j$  and interviewed in year  $t$  expresses, respectively, no aspiration to move, an aspiration to return, or an aspiration to migrate onwards to another country. We estimate the following multinomial logit model (MNL):

$$Pr(d_{ijt} = k) = \frac{e^{\alpha_0 + \gamma X_i + \delta W_{ht-1} + \lambda Z_{jt-1} + \alpha_t + \alpha_j}}{\sum_{k=0}^2 e^{\alpha_0 + \gamma X_i + \delta W_{ht-1} + \lambda Z_{jt-1} + \alpha_t + \alpha_j}} \quad (6)$$

Our MNL regression presents two unique possible pairings, i.e. (i) return versus stay and (ii) move onwards versus stay. The econometric analysis is conducted on individuals who can act upon their aspiration to migrate. As a sensitivity test to the power of contextual factors in these choice sets we also estimate a logit on the unique contrast return versus moving onwards.

A possible concern related to the data is that individuals might have moved between the occurrence of a shock (like a disaster or war outbreak) and the date in which they are interviewed by Gallup. If immigrants with the highest propensity to leave again have already moved by the time of the survey, then we would be missing them entirely. Our conjecture is that migration takes time so that potential leavers remain in the pool of respondents in the first year following a shock.

## 5. Results

The empirical model defined in Equation (6) is estimated using a multinomial logit (MNL) estimator, unless stated otherwise. Each specification includes host country and year fixed

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<sup>14</sup> Note that in the MNL we do not include country of birth fixed effects as they are putting too much of a burden on the estimation. But we include them in the binomial logit exercise when we estimate the choice between return and move onwards. We also do not include other destination fixed effects as we do not differentiate between potential destinations for moving onwards in the choice set.

effects to control, respectively, for time-invariant unobserved heterogeneity in migration aspirations across countries of residence and for common time trends. Standard errors (reported in parentheses) are robust to heteroskedasticity, serial correlation and clustered by host country. The results of each choice probability in aspirations are always explained in comparison to the forgone choice.

### ***5.1. Estimates for Aspirations to Return or Move Onwards versus Stay***

Table 2 reports our benchmark MNL results about the probability to aspire to return to the birth country as opposed to stay (Panel A) and the probability to aspire to migrate onwards (Panel B) as opposed to stay. We start with the minimum model specification that includes demographics as well as other human and spiritual capital variables, contained in Columns (1). We gradually build up our complete model by adding specific groups of explanatory variables, presented in Columns (2)-(5). We find that the odds to aspire to return and to move onwards are systematically lower for older age groups, compared to the 18-34 year olds in the reference group. Put differently, being 35 or more decreases the odds to aspire to out-migrate significantly and monotonically, increasing gradually with each age interval. This finding is consistent across all five specifications (Columns 1 to 5).

Being male, makes no significant difference in the odds to aspire to return (except in the basic specification). But it significantly increases the odds to aspire to move on to a third country, *ceteris paribus*. This finding could reflect that men are generally thought to be more risk-loving (Bonin et al., 2009) and more mobile, or that men feel more pressure to provide for their family by seeking a better future elsewhere. Married people and people with domestic partners are less likely to express aspirations to return, though only in three out of five specifications. Being married is on the other hand a strongly significant deterrent to aspire out-migration. This captures the essence of discrepancies in individual and family migration decisions and the increasing role of the spouse in the aspirations to exit and relocate.

The educational variables reveal stark differences in their role on return versus stay and onward moving versus stay. Having secondary or tertiary education is not a significant determinant when aspiring to return (and no different from having only elementary education). But more education certainly becomes an important attribute when the choice is to migrate to another country. This is very intuitive because the more educated are more marketable and can compete in the global market for human capital and advance their careers. In congruence with

**Table 2:** Probabilities to Aspire to Return or Move Onwards versus Stay

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)
Age 35-49	-0.211*** (-3.38)	-0.165** (-2.09)	-0.179** (-2.25)	-0.183** (-2.23)	-0.187** (-2.18)	-0.435*** (-9.56)	-0.392*** (-6.44)	-0.389*** (-6.21)	-0.387*** (-6.02)	-0.376*** (-5.37)
Age 50-64	-0.394*** (-4.91)	-0.388*** (-3.45)	-0.419*** (-3.78)	-0.430*** (-3.77)	-0.425*** (-3.62)	-0.890*** (-14.20)	-0.894*** (-11.79)	-0.899*** (-11.41)	-0.904*** (-11.38)	-0.914*** (-10.90)
Age 65-75	-0.764*** (-6.89)	-0.707*** (-4.86)	-0.814*** (-5.42)	-0.821*** (-5.26)	-0.790*** (-4.97)	-1.709*** (-18.45)	-1.714*** (-14.29)	-1.742*** (-13.64)	-1.731*** (-13.49)	-1.696*** (-12.85)
Age 18-34	-	-	-	-	-	-	-	-	-	-
Male	-0.083* (-1.93)	-0.026 (-0.40)	0.011 (0.16)	0.002 (0.03)	0.004 (0.06)	0.257*** (7.42)	0.297*** (6.66)	0.305*** (6.56)	0.291*** (6.25)	0.317*** (6.92)
Married or domestic partner	-0.082 (-1.58)	-0.135* (-1.88)	-0.137* (-1.84)	-0.131* (-1.69)	-0.092 (-1.14)	-0.339*** (-9.00)	-0.339*** (-6.55)	-0.334*** (-5.79)	-0.325*** (-5.56)	-0.318*** (-5.21)
Household size	-0.011 (-0.84)	-0.005 (-0.32)	-0.008 (-0.51)	-0.006 (-0.40)	-0.011 (-0.66)	0.013 (1.46)	0.007 (0.63)	0.004 (0.42)	0.003 (0.27)	0.001 (0.09)
Secondary education	0.088 (1.29)	0.056 (0.61)	0.092 (0.97)	0.069 (0.70)	0.037 (0.37)	0.465*** (8.93)	0.473*** (6.55)	0.479*** (6.79)	0.435*** (6.05)	0.442*** (5.97)
Tertiary education	0.098 (0.99)	0.124 (1.02)	0.194 (1.60)	0.156 (1.28)	0.109 (0.86)	0.633*** (9.09)	0.610*** (7.48)	0.653*** (8.10)	0.581*** (7.04)	0.581*** (7.14)
Elementary education	-	-	-	-	-	-	-	-	-	-
Residence in host $\leq$ 5 years	0.335*** (5.09)	0.269*** (2.90)	0.264*** (3.06)	0.281*** (3.10)	0.271*** (2.85)	0.123*** (2.96)	0.053 (0.93)	0.064 (1.13)	0.097* (1.72)	0.098* (1.65)
Personal Health Index	-0.007*** (-7.88)	-0.007*** (-6.64)	-0.006*** (-5.88)	-0.006*** (-5.09)	-0.005*** (-4.76)	-0.007*** (-11.38)	-0.006*** (-8.95)	-0.004*** (-5.24)	-0.003*** (-3.88)	-0.003*** (-3.55)
Christianity	-0.175 (-1.48)	-0.229 (-1.62)	-0.229 (-1.64)	-0.200 (-1.43)	-0.228 (-1.59)	-0.255*** (-2.77)	-0.289*** (-2.76)	-0.292*** (-2.75)	-0.263** (-2.53)	-0.312*** (-2.94)
Islam	-0.245 (-1.09)	-0.244 (-1.11)	-0.190 (-0.89)	-0.127 (-0.60)	-0.109 (-0.50)	-0.309*** (-2.90)	-0.292** (-2.35)	-0.258** (-2.11)	-0.204* (-1.68)	-0.282** (-2.26)
Judaism	-0.416 (-0.57)	-0.875 (-1.53)	-0.793 (-1.32)	-0.829 (-1.31)	-0.891 (-1.44)	-0.752* (-1.69)	-0.794 (-1.01)	-0.720 (-0.87)	-0.777 (-0.92)	-0.858 (-1.11)

**Table 2:** Probabilities to Aspire to Return or Move Onwards versus Stay

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)
Other religions	-0.253 (-1.32)	-0.265 (-1.25)	-0.291 (-1.36)	-0.289 (-1.30)	-0.376 (-1.59)	0.018 (0.18)	-0.071 (-0.51)	-0.066 (-0.46)	-0.028 (-0.20)	-0.067 (-0.43)
No religion	-	-	-	-	-	-	-	-	-	-
Network abroad		1.095*** (11.27)	1.123*** (11.63)	1.095*** (11.14)	1.093*** (10.52)		0.335*** (5.68)	0.397*** (6.75)	0.388*** (6.45)	0.406*** (6.23)
Local Network Index		-0.656*** (-5.15)	-0.566*** (-4.36)	-0.383*** (-2.85)	-0.380*** (-2.68)		-0.603*** (-5.90)	-0.477*** (-4.53)	-0.313*** (-2.85)	-0.322*** (-2.85)
Employed			-0.127* (-1.73)	-0.112 (-1.50)	-0.112 (-1.46)			-0.018 (-0.33)	0.000 (0.00)	-0.009 (-0.16)
Basic Wealth Index			-0.092 (-0.61)	-0.084 (-0.58)	-0.086 (-0.58)			0.041 (0.32)	0.040 (0.29)	0.024 (0.17)
Living comfortably on HH income			0.039 (0.41)	0.091 (0.99)	0.119 (1.27)			-0.097 (-1.29)	-0.078 (-1.02)	-0.069 (-0.89)
Satisfaction w. standard of living			-0.299*** (-3.85)	-0.235*** (-3.12)	-0.247*** (-3.05)			-0.457*** (-7.33)	-0.384*** (-5.89)	-0.400*** (-5.91)
Community Diversity Index				-0.003** (-2.26)	-0.003** (-2.17)				-0.003*** (-3.13)	-0.003*** (-2.83)
Community Basics Index				-0.008*** (-4.54)	-0.008*** (-4.34)				-0.008*** (-7.64)	-0.008*** (-7.00)
GDP growth (Host)					-0.010 (-0.53)					0.009 (0.89)
GDP growth (Birth)					-0.018** (-1.97)					0.014*** (3.20)
Disaster frequency (Host)					-0.016 (-0.42)					-0.023 (-0.89)
Disaster frequency (Birth)					0.026*** (3.27)					-0.015* (-1.71)
Political instability (Host)					0.138					0.222*

**Table 2:** Probabilities to Aspire to Return or Move Onwards versus Stay

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)
Political instability (Birth)					(0.63)					(1.68)
					-0.263					-0.047
					(-1.37)					(-0.46)
Constant	-2.128*** (-6.00)	-2.424*** (-6.64)	-2.352*** (-6.81)	-2.143*** (-6.29)	-2.181*** (-4.90)	-0.640*** (-2.88)	-0.458** (-2.00)	-0.534** (-2.34)	-0.273 (-1.18)	-0.240 (-0.79)
Log likelihood	-18132.252	-10367.845	-9711.027	-9463.565	-8818.052	-18132.252	-10367.845	-9711.027	-9463.565	-8818.052
Observations	28,104	16,215	15,316	15,021	14,122	28,104	16,215	15,316	15,021	14,122
Countries	138	138	137	135	126	138	138	137	135	126

Notes: Each model specification includes host country and year fixed effects. *t*-statistics in parentheses. Standard errors are robust to heteroskedasticity and serial correlation and clustered by host country. \*, \*\*, \*\*\* denote significance at the 1, 5, and 10% confidence level, respectively.

previous studies, newly arriving immigrants (within the last five years) have the highest probability to aspire to return. While newcomers are also more likely to want to move onwards, this effect is not significant across all specifications. Interestingly, we find that healthier immigrants exhibit a lower probability to aspire to out-migrate (towards either destination) throughout all five model specifications. In other words, healthier people are more likely to aspire to stay in the host country.

Against our hypotheses and intuition about clashing religions and the role of spiritual capital on aspirations, we find no significant effects of religion on the aspirations to return versus stay, meaning that there is no difference among the five religious denominations. A plausible explanation is that most host countries allow immigrants to practice their religion freely. However, we do find significant effects of religion when the choice set is to move to another country versus stay. Christians and Muslims are significantly less likely to express a willingness to move onwards, compared to the no religion group. This result is robust across all five specifications. Judaism also decreases the odds to aspire to move onwards, although the coefficient is at the margin of significance and only in Column (1) (Panel B). Notice that the majority of first generation Jewish immigrants are in Israel, from which they are not planning to leave.<sup>15</sup>

In Columns (2), we proceed with the effect networks have on the probability to aspire to return or move onwards. In line with the literature, having solid international networks on which one can rely plays a key role in shaping out-migration aspirations: immigrants having friends or family abroad are both more likely to aspire to return and to move onwards. Networks reduce illusions and uncertainty about the future, provide information, help with repatriation as well as relocation, and reduce psychic costs. Moreover, stronger local networks in the host country significantly reduce aspirations to return or move onwards, as expected. Local networks act as retainers that hold immigrants in the host country. Network effects remain robust in all five specifications.

Next, we report results about the specification with added economic and labor market integration in the host country. Being employed, *ceteris paribus*, decreases the probability to have return aspirations. This reflects that attachment to the labor market in the host country is a strong deterrent against returning home. However, the coefficient loses its significance when we add other variables. Employment in the host country does not significantly affect aspirations

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<sup>15</sup> Israel's *raison d'être* is the in-gathering and retention of Jewish immigrants. The "Law of Return" states that Israel should become home to all Jews around the globe who wish to return to their homeland (Constant et al., 2018).

to migrate onwards. One possibility is that immigrants have already found a job abroad. It is also possible that they are confident to find a job when they move there. It is important to keep in mind that our sample is not restricted to working age individuals.<sup>16</sup> Oddly, our index for basic household wealth is not a significant determinant of out-migration, neither is feeling comfortable with the household income in the host country. Lastly, satisfaction with one's standard of living significantly curtails the odds to aspire to out-migrate (return or move onwards) and thus increases the odds to aspire to stay.

In Columns (4) we add the two indicators measuring immigrants' wellbeing in their community. In line with expectations, both the Community Diversity and the Community Basics Indices have a negative and significant coefficient for either destination out of the host country. Specifically, immigrants are less likely to aspire to leave the host country when they feel they live in a community that is more open and acceptant of people from different racial, ethnic and cultural groups. Likewise, aspirations to return or move onwards are lower among immigrants who are more satisfied with everyday life in the community where they live, including opportunities for education, the environment, healthcare, housing, transportation, and infrastructure. These are important non-economic factors that make a strong difference in the immigrants' decision-making. They remain significant even after we include more variables in Columns (5).

GDP growth in the home country reveals an interesting, and at first sight, counterintuitive finding: it decreases the odds of aspiring to return home and increases the odds of aspiring to move onwards, *ceteris paribus*. We tie our explanation to the theory of relative deprivation (Stark and Taylor, 1991). Accordingly, when GDP in the birth country increases, everybody is better off in absolute terms. But immigrants rather care about their relative income compared to other households at home. Since their situation in the host country has not improved, they reckon that their status has deteriorated comparatively. Therefore, they choose to stay abroad and earn more money in order to improve their relative position back home. The same rationale explains why immigrants may want to go to a third country in hopes of a better job and better income that will enable them to be positioned comparatively better than their neighbors.

Curiously, a higher frequency of natural disasters in the home country significantly increases the probability to aspire to return home versus staying in a safe host country. We advance the following justification. A higher frequency of devastating and catastrophic events

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<sup>16</sup> Leaving out employment status from the empirical specification does not alter the results for the remaining regressors.

may evoke acute altruism and a sense of national pride that prompts immigrants to go back home permanently, help their compatriots, and rebuild their country. Moreover, such a gesture could earn them the gratitude and recognition by their compatriots that sweetens the opportunity cost of return. At the same time, we find that a higher frequency of natural disasters in the home country significantly decreases the probability to aspire to move onwards. One explanation is that immigrants may need to send financial support to the affected country and so they need to stay in the host country and avoid venturing to new lands. As for political instability, we find that only instability in the host country has an influence and only on the aspiration to move onwards. This instability is not enough of a push to aspire a return home.

## ***5.2. Estimates by Development Level***

Subsequently, we explore the extent to which results differ across groups of host countries that are at disparate economic development levels. Specifically, we differentiate between developing countries (low and middle-income) and developed countries (high-income) following the World Bank country classification. Tables 3 and 4 show the results of MNL for individuals residing in developing and developed countries, respectively, who aspire to return versus stay or move onwards versus stay.

Most of the estimated findings are remarkably stable (at least in qualitative terms) across the different country groups. Aspirations to return or move onwards – when the alternative is to stay – among immigrants living in either developing (Table 3) or developed host countries (Table 4) are always lower for older age groups (compared to the 18-34 years old). Overall, this echoes our results in Table 2. In both developing and developed host countries, gender does not significantly influence aspirations to return versus stay (except for a significant and negative effect in Column 1, Panel A of Table 3). But male immigrants are more likely to aspire to move to another country instead of staying where they are. These are the same effects as in Table 2. Being married is not different than not being married in the probability to aspire to return versus stay in both Tables 3 and 4. As in Table 2, marriage makes a difference (negative) when the choice is between moving onwards and stay, no matter the host country.

A few differences between Tables 3 and 4 are worth noting. Tertiary education renders immigrants more likely to aspire to return but only when they reside in low to middle-income countries. Newcomers are also more likely to express a willingness to move to a third country when they live in a low to middle-income country (Table 3) but not when they live in a high-income country (Table 4).

**Table 3:** Results by Host Country Development Level: Low to Middle-Income Countries

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Age 35-49	-0.242*** (-2.75)	-0.188* (-1.88)	-0.218** (-2.25)	-0.230** (-2.30)	-0.222** (-2.03)	-0.394*** (-5.63)	-0.387*** (-4.69)	-0.387*** (-4.45)	-0.384*** (-4.26)	-0.376*** (-3.70)
Age 50-64	-0.409*** (-2.91)	-0.333** (-2.13)	-0.384** (-2.52)	-0.383** (-2.42)	-0.381** (-2.30)	-0.932*** (-10.23)	-0.882*** (-7.55)	-0.865*** (-7.03)	-0.863*** (-6.90)	-0.880*** (-6.63)
Age 65-75	-0.718*** (-4.47)	-0.658*** (-2.96)	-0.757*** (-3.40)	-0.787*** (-3.29)	-0.727*** (-2.92)	-1.914*** (-11.34)	-1.849*** (-11.18)	-1.866*** (-10.76)	-1.853*** (-10.43)	-1.797*** (-9.56)
Age 18-34	-	-	-	-	-	-	-	-	-	-
Male	-0.123** (-2.08)	-0.107 (-1.21)	-0.051 (-0.54)	-0.065 (-0.68)	-0.064 (-0.64)	0.250*** (4.67)	0.255*** (4.25)	0.262*** (4.13)	0.237*** (3.74)	0.250*** (3.79)
Married or domestic partner	-0.045 (-0.59)	-0.126 (-1.41)	-0.132 (-1.42)	-0.126 (-1.31)	-0.051 (-0.51)	-0.296*** (-5.05)	-0.316*** (-4.39)	-0.305*** (-3.65)	-0.294*** (-3.52)	-0.290*** (-3.28)
Household size	-0.014 (-0.93)	-0.015 (-0.85)	-0.020 (-1.06)	-0.020 (-1.08)	-0.022 (-1.05)	0.013 (1.24)	0.006 (0.54)	0.002 (0.23)	-0.000 (-0.04)	0.001 (0.06)
Secondary education	0.118 (1.34)	0.086 (0.83)	0.123 (1.10)	0.096 (0.83)	0.033 (0.29)	0.476*** (7.70)	0.483*** (6.07)	0.496*** (6.40)	0.444*** (5.52)	0.450*** (5.33)
Tertiary education	0.271** (2.24)	0.301** (1.96)	0.335** (2.31)	0.338** (2.40)	0.299* (1.96)	0.729*** (7.35)	0.711*** (6.50)	0.726*** (6.69)	0.637*** (5.86)	0.636*** (6.00)
Elementary education	-	-	-	-	-	-	-	-	-	-
Residence in host $\leq$ 5 years	0.320*** (3.19)	0.305** (2.54)	0.308*** (2.72)	0.316*** (2.65)	0.297** (2.31)	0.147** (2.58)	0.078 (1.15)	0.115 (1.62)	0.147** (2.09)	0.156** (2.11)
Personal Health Index	-0.006*** (-4.67)	-0.006*** (-5.22)	-0.006*** (-5.12)	-0.006*** (-4.45)	-0.005*** (-3.97)	-0.006*** (-7.92)	-0.006*** (-6.40)	-0.005*** (-4.34)	-0.004*** (-3.33)	-0.003*** (-2.61)
Christianity	0.071 (0.33)	0.227 (0.82)	0.308 (1.19)	0.388 (1.47)	0.379 (1.43)	-0.441*** (-3.53)	-0.356** (-2.36)	-0.385*** (-2.65)	-0.363** (-2.40)	-0.407*** (-2.70)
Islam	-0.244 (-0.85)	0.039 (0.13)	0.191 (0.63)	0.318 (1.09)	0.288 (0.97)	-0.622*** (-3.84)	-0.442** (-2.36)	-0.428** (-2.37)	-0.376** (-2.06)	-0.437** (-2.41)
Other religions (+ Judaism)	-0.219 (-0.60)	0.114 (0.28)	0.103 (0.23)	0.100 (0.21)	0.125 (0.25)	-0.389* (-1.82)	-0.209 (-0.93)	-0.191 (-0.85)	-0.161 (-0.69)	-0.162 (-0.70)

**Table 3:** Results by Host Country Development Level: Low to Middle-Income Countries

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
No religion	-	-	-	-	-	-	-	-	-	-
Network abroad		1.094*** (8.70)	1.111*** (8.71)	1.064*** (8.06)	1.062*** (7.49)		0.350*** (4.98)	0.417*** (5.72)	0.397*** (5.29)	0.415*** (5.14)
Local Network Index		-0.573*** (-3.56)	-0.477*** (-2.78)	-0.293 (-1.55)	-0.294 (-1.41)		-0.280** (-2.48)	-0.150 (-1.26)	0.012 (0.10)	0.024 (0.19)
Employed			-0.125 (-1.23)	-0.104 (-0.99)	-0.105 (-0.97)			-0.020 (-0.29)	0.012 (0.17)	-0.000 (-0.00)
Basic Wealth Index			0.028 (0.16)	0.030 (0.18)	0.062 (0.35)			0.018 (0.11)	0.012 (0.07)	-0.011 (-0.06)
Living comfortably on HH income			0.053 (0.35)	0.125 (0.85)	0.194 (1.27)			-0.042 (-0.41)	-0.026 (-0.24)	-0.030 (-0.26)
Satisfaction w. standard of living			-0.376*** (-3.52)	-0.335*** (-3.04)	-0.363*** (-3.01)			-0.390*** (-4.67)	-0.299*** (-3.67)	-0.322*** (-3.68)
Community Diversity Index				-0.003* (-1.94)	-0.003** (-2.00)				-0.001 (-0.95)	-0.001 (-0.86)
Community Basics Index				-0.006*** (-3.20)	-0.005*** (-2.92)				-0.008*** (-6.06)	-0.008*** (-5.69)
GDP growth (Host)					-0.014 (-0.70)					0.023*** (2.60)
GDP growth (Birth)					-0.023** (-2.01)					0.012** (2.20)
Disaster frequency (Host)					-0.063 (-1.37)					-0.048 (-1.52)
Disaster frequency (Birth)					0.039*** (3.21)					-0.015 (-1.13)
Political instability (Host)					0.099 (0.47)					0.242* (1.78)
Political instability (Birth)					-0.067					0.004

**Table 3: Results by Host Country Development Level: Low to Middle-Income Countries**

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Constant	-2.096*** (-4.34)	-2.878*** (-5.46)	-2.872*** (-5.63)	-2.760*** (-5.75)	-2.614*** (-5.21)	-0.431* (-1.84)	-0.441 (-1.53)	-0.454 (-1.61)	-0.217 (-0.77)	-0.239 (-0.63)
Log likelihood	-8917.462	-5928.337	-5469.263	-5256.858	-4790.295	-8917.462	-5928.337	-5469.263	-5256.858	-4790.295
Observations	12,517	8,480	7,855	7,570	6,998	12,517	8,480	7,855	7,570	6,998
Countries	97	97	96	94	89	97	97	96	94	89

Notes: The table displays estimated coefficients for our benchmark model in which we restrict the sample to respondents residing in low and middle-income countries. Each model includes host country and year fixed effects. *t*-statistics in parentheses. Standard errors are robust to heteroskedasticity and serial correlation and clustered by host country. \*, \*\*, \*\*\* denote significance at the 1, 5 and 10% confidence level, respectively.

**Table 4: Results by Host Country Development Level: High-Income Countries**

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Age 35-49	-0.149* (-1.65)	-0.116 (-0.84)	-0.111 (-0.80)	-0.111 (-0.78)	-0.139 (-0.98)	-0.462*** (-7.65)	-0.424*** (-4.36)	-0.431*** (-4.43)	-0.437*** (-4.57)	-0.425*** (-4.33)
Age 50-64	-0.329*** (-3.30)	-0.391** (-2.37)	-0.392** (-2.31)	-0.413** (-2.39)	-0.426** (-2.49)	-0.839*** (-9.79)	-0.916*** (-9.62)	-0.961*** (-9.74)	-0.971*** (-10.28)	-0.981*** (-9.70)
Age 65-75	-0.742*** (-4.63)	-0.687*** (-3.60)	-0.786*** (-3.74)	-0.766*** (-3.56)	-0.783*** (-3.71)	-1.549*** (-14.04)	-1.611*** (-8.55)	-1.647*** (-7.90)	-1.640*** (-7.90)	-1.635*** (-8.07)
Age 18-34	-	-	-	-	-	-	-	-	-	-
Male	-0.050 (-0.82)	0.063 (0.69)	0.065 (0.72)	0.063 (0.69)	0.065 (0.69)	0.264*** (5.77)	0.340*** (4.97)	0.341*** (4.67)	0.334*** (4.61)	0.374*** (5.45)
Married or domestic partner	-0.127 (-1.59)	-0.175 (-1.36)	-0.168 (-1.32)	-0.162 (-1.22)	-0.144 (-1.04)	-0.395*** (-8.75)	-0.375*** (-5.25)	-0.374*** (-5.25)	-0.376*** (-5.06)	-0.352*** (-4.82)

**Table 4:** Results by Host Country Development Level: High-Income Countries

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Household size	0.005 (0.22)	0.041 (1.16)	0.041 (1.23)	0.051 (1.54)	0.034 (1.04)	0.023 (1.19)	0.020 (0.57)	0.019 (0.56)	0.026 (0.73)	0.004 (0.11)
Secondary education	-0.011 (-0.10)	-0.092 (-0.53)	-0.062 (-0.35)	-0.059 (-0.32)	-0.044 (-0.24)	0.394*** (4.77)	0.332** (2.42)	0.333** (2.34)	0.346** (2.41)	0.362** (2.53)
Tertiary education	-0.062 (-0.40)	-0.101 (-0.55)	-0.025 (-0.13)	-0.065 (-0.33)	-0.067 (-0.33)	0.522*** (5.22)	0.403*** (3.60)	0.483*** (4.03)	0.472*** (3.84)	0.483*** (3.89)
Elementary education	-	-	-	-	-	-	-	-	-	-
Residence in host $\leq$ 5 years	0.368*** (5.07)	0.216 (1.59)	0.203* (1.65)	0.232* (1.83)	0.230* (1.87)	0.086 (1.50)	-0.020 (-0.20)	-0.074 (-0.84)	-0.028 (-0.31)	-0.039 (-0.42)
Personal Health Index	-0.008*** (-6.48)	-0.007*** (-4.04)	-0.006*** (-3.20)	-0.005*** (-2.75)	-0.006*** (-2.68)	-0.009*** (-8.96)	-0.006*** (-6.16)	-0.003** (-2.52)	-0.002 (-1.46)	-0.003** (-1.99)
Christianity	-0.272** (-2.14)	-0.384** (-2.36)	-0.404** (-2.50)	-0.373** (-2.35)	-0.410** (-2.53)	-0.250** (-2.38)	-0.280** (-2.20)	-0.268** (-2.08)	-0.235* (-1.90)	-0.272** (-2.09)
Islam	-0.063 (-0.23)	-0.113 (-0.34)	-0.133 (-0.43)	-0.124 (-0.44)	-0.008 (-0.03)	-0.178 (-1.48)	-0.167 (-1.21)	-0.151 (-1.08)	-0.114 (-0.73)	-0.195 (-1.12)
Judaism	-0.573 (-0.75)	-1.187*** (-3.06)	-1.120*** (-2.82)	-1.169*** (-2.76)	-1.205*** (-2.95)	-0.899** (-2.52)	-1.012* (-1.67)	-0.928 (-1.41)	-1.006 (-1.47)	-1.083* (-1.83)
Other religions	-0.215 (-0.98)	-0.295 (-1.23)	-0.282 (-1.20)	-0.242 (-1.03)	-0.353 (-1.42)	0.139 (1.35)	0.040 (0.24)	0.022 (0.12)	0.055 (0.31)	0.024 (0.12)
No religion	-	-	-	-	-	-	-	-	-	-
Network abroad		1.086*** (7.44)	1.132*** (7.76)	1.139*** (7.85)	1.130*** (7.67)		0.284** (2.42)	0.334*** (3.02)	0.338*** (3.08)	0.360*** (3.02)
Local Network Index		-0.787*** (-3.91)	-0.707*** (-3.59)	-0.531*** (-2.89)	-0.532*** (-2.82)		-1.152*** (-13.22)	-1.008*** (-11.60)	-0.823*** (-9.07)	-0.837*** (-8.67)
Employed			-0.100 (-1.00)	-0.096 (-0.94)	-0.089 (-0.88)			-0.008 (-0.09)	-0.014 (-0.14)	0.000 (0.00)
Basic Wealth Index			-0.387 (-1.30)	-0.396 (-1.40)	-0.445 (-1.58)			-0.028 (-0.12)	-0.021 (-0.08)	0.004 (0.02)

**Table 4:** Results by Host Country Development Level: High-Income Countries

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Living comfortably on HH income			0.046 (0.42)	0.087 (0.77)	0.086 (0.80)			-0.161 (-1.56)	-0.128 (-1.28)	-0.102 (-1.11)
Satisfaction w. standard of living			-0.147 (-1.47)	-0.077 (-0.83)	-0.073 (-0.76)			-0.555*** (-6.81)	-0.508*** (-5.78)	-0.499*** (-5.62)
Community Diversity Index				-0.003 (-1.20)	-0.002 (-1.10)				-0.004*** (-3.80)	-0.004*** (-3.61)
Community Basics Index				-0.011*** (-3.16)	-0.011*** (-3.23)				-0.009*** (-5.05)	-0.008*** (-4.65)
GDP growth (Host)					-0.010 (-0.39)					-0.019 (-0.80)
GDP growth (Birth)					-0.012 (-0.64)					0.018** (1.98)
Disaster frequency (Host)					0.052 (0.81)					0.039 (0.66)
Disaster frequency (Birth)					0.014 (1.30)					-0.014 (-1.19)
Political instability (Host)					0.000 (.)					0.000 (.)
Political instability (Birth)					-1.144** (-2.20)					-0.182 (-0.93)
Constant	-1.946*** (-7.94)	-2.070*** (-5.89)	-1.764*** (-3.86)	-1.154** (-2.00)	-1.327** (-2.18)	-1.878*** (-6.38)	-1.320*** (-5.81)	-1.130*** (-4.43)	-0.532* (-1.82)	-0.696 (-1.59)
Log likelihood	-9173.213	-4398.275	-4197.092	-4154.763	-3968.872	-9173.213	-4398.275	-4197.092	-4154.763	-3968.872
Observations	15,587	7,735	7,461	7,451	7,124	15,587	7,735	7,461	7,451	7,124
Countries	41	41	41	41	37	41	41	41	41	37

Notes: The table displays estimated coefficients for our benchmark model in which we restrict the sample to respondents residing in high income countries. Each model includes host country and year fixed effects. *t*-statistics in parentheses. Standard errors are robust to heteroskedasticity and serial correlation and clustered by host country. \*, \*\*, \*\*\* denote significance at the 1, 5 and 10% confidence level, respectively.

Results on religion are the same as in Table 2 when immigrants live in developing countries.<sup>17</sup> However, the role of religion is somewhat different when immigrants live in high-income countries. We find that Christians and Jews are less likely to choose to out-migrate versus stay, compared to the no religion individuals. Muslims and people of other religions are not significantly different than people with no religion.

While local networks act as a retainer when people live in a high-income host country, this is not the case when they live in low to middle-income countries. It is interesting that the effect of local networks is not stable across the model specifications in Table 3. Another notable difference is found in the satisfaction with one's standard of living, which loses its significant effect on the probability to want to return when one lives in high-income host countries (Table 4). Moreover, the effect of the Diversity Index is not significant for aspirations to move onwards among immigrants in low to middle-income countries and for aspirations to return among immigrants in high-income countries.

Remarkably, in Table 3, we find that GDP growth in the host country stimulates aspirations to move onwards but only when immigrants live in low to middle-income countries. Our interpretation is that as immigrants benefit from economic prosperity in the host country, they can afford to move on (or closer) to a better country or their preferred destination. We also remark that GDP growth in the birth country – when one lives in a high-income country – has no significant effect in the choice set return versus stay. Immigrants in developed countries earn sufficiently more so that the relative deprivation theory is not applicable.

Finally, it is only in the low to middle-income countries that immigrants have higher aspirations to return home after environmental disasters in their home country. This is probably what drives the result in Table 2. We conjecture that in high-income host countries immigrants earn higher salaries, thus they can send more money home via remittances as a substitute for their presence. Immigrants in developing countries may not have this luxury. The last difference between host countries development levels is related to the political instability in the host country. In developing countries, political instability in the host prompts immigrants to move onwards whereas in developed countries this is not a significant determinant.

In sum, preferences to stay or out-migrate are highly selective, and selection changes depending on the context. Worth noting is that employment and other individual economic indicators are not part of the decision-making process and choice of contrasts.

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<sup>17</sup> Note that due to the very small number of Jewish immigrants living in a developing country we combined these observations with the "other religion." The overwhelming majority of Jewish immigrants in a developed country lives in Israel.

### **5.3. *Robustness Checks***

A possible concern related to our estimation strategy may be that some countries have only a limited number of observations, which may bias our results. Indeed, fixed effects logit models may produce biased coefficients and standard errors due to the incidental parameter problem (Neyman and Scott, 1948). To mitigate this concern, we re-estimate the empirical specifications presented in Table 2 dropping from our sample countries of residence with less than 16 observations (the threshold to obtain unbiased estimates, defined by Katz, 2001). We present these estimated coefficients in the Appendix Table B1. Reassuringly, we obtain similar results to those reported above in both qualitative and quantitative terms.

Additionally, given that we do not differentiate by concrete destination for onward migration, we cannot include destination fixed effects in our multinomial logit setting. As an alternative, we therefore estimate two separate binary logit models; one for aspiring to return versus staying and one for aspiring to migrate onwards versus staying. In the former we can now also include country of birth fixed effects alongside the host country and year fixed effects. Our results are qualitatively robust to this alternative fixed effects structure and allay our concerns. Results from this exercise are readily available upon request.

### **5.4. *Estimates for Aspirations to Return versus Migrating Onwards***

In this section we seize the opportunity to analyze novel results from the contrast aspire to return home versus moving onwards. In this hypothetical scenario, we study aspiring out-migrants and how they perceive moving to different locations outside the host country. Because selection depends on the forgone choice and context, this analysis helps us check the sensitivity of our results. We apply a standard binary logit framework and present the results from this exercise in Table B2 in the Appendix. The table follows the same format of building up our models as Table 2 and pinpoints stark differences with Panel A in Table 2.

Results on age show that older immigrants are invariably more likely to aspire to return home when the alternative is to move to another country, compared to the 18-34 years old. This finding is robust across all model specifications and increases with older age monotonically. This different selection in age (compared to Table 2) reveals the important role of the forgone choice. This is attributable to two facts. First, as one ages it becomes more difficult to relocate to a new country. According to human capital theory, comparatively older immigrants will have lower potential returns from any human capital investment and greater psychic costs.

Second, returning to one's homeland is more appealing and related to retirement. Men are less likely to aspire to return home and would rather move onwards. This is consistent with the risk-loving tendencies of men compared to women, as we demonstrated in Table 2.

However, marriage and cohabitation strongly increase the probability to aspire to return compared to moving onwards. This result reveals intricate family decision-making that changes when the alternative changes. While first generation immigrants were less likely to aspire to return when the alternative was to stay in the host country, they are now more likely to aspire to return instead of moving onwards. This also highlights risk averse tendencies for married people, *ceteris paribus*.

Next, we find that better educated immigrants, compared to those with elementary schooling, have significantly lower aspirations to return when the alternative is to move onwards. In agreement with human capital theory, educated people seek to move to places where they can match their talents and receive the best remuneration they can. They have a wider vision for the opportunities in a third country and are more marketable. This choice probably also indicates that immigrants know that their education is not valued nor rewarded in their home country, or that the home country is not ready yet to appreciate them. As established in Table 2, newcomers who arrived in the host country within the past five years are more likely to aspire to return than to move onwards, *ceteris paribus*. This finding shows that those who cannot make it in the host country or cannot cope with the "foreign land" are eager to return rather than seek new opportunities elsewhere.

Having close ties and a solid network abroad to rely on (see footnote 9) acts as a booster to return aspirations in this choice set, as it was in Table 2. The power of these networks remains strong in all specifications. In contrast, it is interesting that, in general, economic factors are not significant in this exercise.

Shifts in circumstances in the birth country such as GDP growth influence aspirations to return negatively. This is a recurrent finding (Table 2, Panel A) and attributable to the theory of relative deprivation. Accordingly, it is not enough to be successful and enjoy financial security in absolute terms in order to return. One needs to feel successful in relative terms as well. A GDP growth that "raises all boats" in the home country leaves immigrants behind in the income distribution, and unwilling to return. Controlling for everything else, people aspire to return to their homeland when it experiences high frequency of environmental disasters, similar to Table 2. This is irrespective of the alternative choice and explained by the altruistic behavior of immigrants when their birth country is in danger.

## 6. Conclusions

Selective out-migration may create serious demographic, socioeconomic, cultural, and political imbalances for host, home, and third countries alike. By knowing the characteristics that affect the willingness to out-migrate or to stay – ahead of time – the involved countries can be proactive and formulate appropriate and effective policies in order to counterbalance population shifts, and benefit from the immigrants they have or may receive. As a result, better bilateral or trilateral agreements will benefit all.

It is equally valuable to migration researchers to know the selection of the out-migrants, who are a subsample of the initial arrivals and most likely not randomly drawn. Such selection can bias assimilation results based on the comparison of immigrant stayers to natives. It also biases results from studies on the impact of immigrant stayers on several facets of the host country and inadvertently creates a false narrative and stereotypes. By the same token, understanding out-migrant selection can help assess the effectiveness of immigration policies.

In this paper, we argued that aspirations or stated preferences about out-migration can provide such useful knowledge. While studies on actual out-migration are very important, there is a caveat. Based on revealed preferences effectuated actual out-migration contains in it the various constraints that allow immigrants to exit the host country and enter new ones. Therefore, the selection of the out-migrants after they exit is not necessarily the opposite of the stayers. Mostly due to the paucity of data, existing studies are typically case studies on specific host and home countries as well as on specific subpopulation of immigrants and have not adequately studied onward migration. Studies that use intentions as a proxy for actual behavior have drawbacks as well. Because immigrants optimize their stay in the host country and circumstances change, they may prolong or shorten their time abroad, such that even the most sincere intentions may not be realized.

We analyze the aspirations of immigrants who are offered hypothetical scenarios about staying, returning or moving onwards assuming a random utility maximization model of migration. Aspirations or stated preferences are unconstrained and at the heart of utility. They reveal what immigrants would like to do irrespective of any financial, family, political, and visa constraints. Deciding on a choice set, immigrants show how much they value the chosen alternative and how much they are willing to forgo the non-chosen alternative. This results in a natural, not forced selection that governments can use to their advantage. Instead of imposing harsh immigration policies and raising barriers to entry and exit, governments can manipulate the right exogenous forces that will enable them to retain or receive the immigrants they need.

Exploiting the very rich Gallup World Polls, this paper proffers a thorough global analysis of the factors influencing first generation immigrants' aspirations to stay, return back home or move onwards to another country. Our data are representative of 138 countries from around the world and have comparable metrics. They allow us to overcome the current limitations of empirical studies, whose results are highly country-specific without external validity.

We find that three fourths of the first generation immigrants in our sample aspire to stay permanently in the host country, while only 8% aspire to return to their country of birth. Another 17% aspire to move onwards to another country. The highest shares of immigrants aspiring to return and move onwards are found in developing host countries, especially in Africa and Latin/South America, although there is wide variation.

Our empirical analysis reveals some interesting patterns about the selection of out-migrants when the forgone choice is to stay in the host country. Aspirations to return or to move onwards are systematically higher for younger immigrants, and this is robust across all model specifications. Aspirations to out-migrate are also higher for the non-married, those who reside in the host country for a shorter period of time, and those who have lower health scores. Gender, higher education, and religion do not uniformly affect out-migration. They only affect the choice between moving onwards versus staying. Namely, men, the higher educated, Christians, Muslims, and Jews are more likely to aspire to migrate onwards to another country.

Our results confirm the strong role of international and local social networks on aspirational choices. They act as a motivating and encouraging factor to aspire out-migration and a retaining factor to aspire to stay, respectively. Oddly, economic integration in the host country – captured by employment, basic wealth, and comfortable feelings about household income – is not important in the aspirations to out-migrate. The exception is satisfaction with one's standard of living which prompts immigrants to stay in place. Other "soft" factors like the perception of living in a community that accepts people from different racial, ethnic, and cultural backgrounds as well as being satisfied with opportunities for education, the environment, healthcare, housing, and infrastructure in the community where one lives, are significant and reduce aspirations to out-migrate. These factors appear to overrule economic considerations.

Changing circumstances in the host country, expressed by GDP growth and frequency of disasters, do not influence aspirations to return or move onwards. Yet, political instability in the host country increases aspirations to move onwards. An interesting trait about our sample of immigrants is that they compare themselves to their compatriots both in absolute and relative terms. Thus, consistent with the relative deprivation theory, GDP growth in the birth country decreases aspirations to return and increases aspirations to move onwards. Lastly, we find that

while immigrants may feel comfortable living in the host country, their bond with the birth country appears unbreakable. When the birth country is in trouble – for instance after it experiences a few disasters – they will run to its rescue.

Differentiating between immigrants living in developing and developed countries, we find some heterogeneous effects. Marital status is irrelevant for aspiring returnees, irrespective of the host country's economic development. Tertiary education is significant and stimulates aspirations to return but only when immigrants reside in low to middle-income countries. In high-income countries, newcomers are no different than old-timers in their aspirations to move onwards. In these countries, the probability to aspire to return is significantly lower only for Christians and Jews, compared to those with no religion. Also, local social networks are not as relevant in making people aspire to stay in a developing country. Satisfaction with the standard of living is irrelevant in the choice return versus staying when the host country is high-income.

Worth noting is that employment and other individual economic indicators are not part of the decision-making process and choice of contrasts. The analysis by development level revealed that the principle of relative deprivation is immaterial when one lives in a high-income country. Interesting is the role that the frequency of disasters plays by host development level. Immigrants in developing countries are more likely to aspire to return to the affected homeland, which we attribute to altruism. In contrast, immigrants in developed countries do not express such a tendency. We speculate that these immigrants may use remittances as a surrogate for their physical presence. Our results are robust to several tests.

Exploring, subsequently, the choice set that out-migrants face (aspire to return when the forgone choice is moving onward to a third host country) we find noted differential results. The older immigrants become, the more likely they are to aspire to return. The married, the newcomers, and those with strong networks abroad are more likely to aspire to return than to move onwards. In contrast, men and higher skilled immigrants exhibit lower aspirations to return. Birth country circumstances remain strong in influencing aspirations to return.

By focusing on migration aspirations, our analysis has brought immigrants in the center of forming and shaping their immigrant careers and life trajectories. Aspirations provide the underlying dynamics of the behavior of immigrants. Those who aspire to out-migrate are expected to make fewer investments in their current locality be it emotional, social or financial. They may also not identify with the host society and refrain from participating in any form. Hence, aspirations can influence the immigrants' integration process.

Our study offers insights into the selection of immigrants, highlights the multiplicity of factors contributing to determining individual aspirations, emphasizes the role of soft factors, underlines the impact of external circumstances, and signals the importance of context.

## References

- Artuç, Erhan, and Çağlar Özden. 2018. "Transit Migration: All Roads Lead to America." *The Economic Journal* 128(612):F306–F334.
- Aydemir, Abdurrahman, and Chris Robinson. 2008. "Global Labour Markets, Return and Onward Migration." *Canadian Journal of Economics* 41(4):1285–1311.
- Azose, Jonathan J., and Adrian E. Raftery. 2019. "Estimation of Emigration, Return Migration, and Transit Migration Between All Pairs of Countries." *Proceedings of the National Academy of Sciences* 116(1):116–122.
- Ben-Akiva, Moshe E., Daniel McFadden, and Kenneth Train. 2019. "Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis." *Foundations and Trends® in Econometrics* 10(1-2):1–144
- Bertoli, Simone, and Ilse Ruysen. 2018. "Networks and Migrants' Intended Destination." *Journal of Economic Geography* 18(4):705–728.
- Bijwaard, Govert E., and Jackline Wahba. 2014. "Do High-income or Low-income Immigrants Leave Faster?" *Journal of Development Economics* 108:54–68.
- Bonin, Holger, Amelie Constant, Konstantinos Tatsiramos, and Klaus F. Zimmermann. 2009. "Native-Migrant Differences in Risk Attitudes." *Applied Economics Letters* 16(15):1581–1586.
- Bratsberg, Bernt, Oddbjørn Raaum, and Kjetil Sørli. 2007. Foreign-born Migration to and from Norway." In *International Migration, Economic Development and Policy*, eds. Çağlar Özden and Maurice Schiff, 259–291. The World Bank/Palgrave Macmillan, Washington, DC/New York. Chapter 9.
- Carling, Jørgen, and Silje Vatne Pettersen. 2014. "Return Migration Intentions in the Integration–Transnationalism Matrix." *International Migration* 52(6):13–30.
- Cassarino, Jean-Pierre. 2004. "Theorising Return Migration: The Conceptual Approach to Return Migrants Revisited." *International Journal on Multicultural Societies* 6(2):253–279.
- Clemens, Michael A., and Lant Pritchett. 2019. "The New Case for Migration Restrictions: An Assessment." *Journal of Development Economics* 138:153–164.
- Constant, Amelie F. 2020. "Time-Space Dynamics of Return and Circular Migration." In *Handbook of Labor, Human Resources and Population Economics*, ed. Klaus F. Zimmermann, 1–40. Springer, Cham. Chapter 7.
- Constant, Amelie F. 2021. "Return, Circular, and Onward Migration Decisions in a Knowledge Society." In *The Economic Geography of Cross-Border Migration*, ed. Karima Kourtit, Bruce Newbold, Peter Nijkamp, and Mark Partridge, 133–156. Springer, Cham.
- Constant, Amelie F. and Elena D'Agosto. 2010. "Where Do the Brainy Italians Go?" In *The labour market impact of the EU enlargement*, ed. Floro E. Caroleo, and Francesco Pastore, 247–271. Physica-Verlag, Heidelberg.
- Constant, Amelie, and Douglas S. Massey. 2002. "Return Migration by German Guestworkers: Neoclassical versus New Economic Theories." *International Migration* 40(4):5–38.

- Constant, Amelie, and Douglas S. Massey. 2003. "Self-selection, Earnings, and Out-migration: A longitudinal Study of Immigrants to Germany." *Journal of Population Economics*, 16(4):631–653.
- Constant, Amelie F., and Klaus F. Zimmermann. 2011. "Circular and Repeat Migration: Counts of Exits and Years Away from the Host Country." *Population Research and Policy Review* 30(4):495-515.
- Constant, Amelie F., and Klaus F. Zimmermann. 2012. "The Dynamics of Repeat Migration: A Markov Chain Analysis." *International Migration Review*, 46(2):362-388.
- Constant, Amelie F., Teresa García-Muñoz, Shoshana Neuman, and Tzahi Neuman. 2018. "A "Healthy Immigrant Effect" or a "Sick Immigrant Effect"? Selection and Policies Matter." *European Journal of Health Economics* 19(1):103-121.
- Creighton, Mathew J. 2013. "The Role of Aspirations in Domestic and International Migration." *The Social Science Journal* 50(1):79–88.
- Daniel, J. Benjamin, Ori Heffetz, Miles S. Kimball, and Nichole Szembrot. 2014. "Beyond Happiness and Satisfaction: Toward Well-Being Indices Based on Stated Preference." *American Economic Review* 104(9):2698–2735.
- De Haas, Hein, and Tineke Fokkema. 2011. "The Effects of Integration and Transnational Ties on International Return Migration Intentions." *Demographic Research* 25:755–782.
- De Haas, Hein, Tineke Fokkema, and Mohamed Fassi Fihri. 2015. "Return Migration as Failure or Success?" *Journal of International Migration and Integration* 16(2):415–429.
- Delogu, Marco, Frédéric Docquier, and Joël Machado. 2018. "Globalizing Labour and the World Economy: The Role of Human Capital." *Journal of Economic Growth* 23(2):223–258.
- Docquier, Frédéric, Giovanni Peri, and Ilse Ruyssen. 2014. "The Cross-country Determinants of Potential and Actual migration." *International Migration Review* 48(1\_suppl):37–99.
- Docquier, Frédéric, Aysit Tansel, and Riccardo Turati. 2020. "Do Emigrants Self-select Along Cultural Traits? Evidence from the MENA Countries." *International Migration Review* 54(2):388–422.
- Dustmann, Christian. 2003. "Return Migration, Wage Differentials, and the Optimal Migration Duration." *European Economic Review* 47(2):353–367.
- Dustmann, Christian and Anna Okatenko. 2014. "Out-migration, Wealth Constraints, and the Quality of Local Amenities." *Journal of Development Economics* 110:52–63.
- Dustmann, Christian, and Yoram Weiss. 2007. "Return Migration: Theory and Empirical Evidence from the UK." *British Journal of Industrial Relations* 45(2):236–256.
- Gaillard, Anne-Marie, and Jacques Gaillard. 2015. "Return Migration of Highly Skilled Scientists and Engineers to Morocco: Return or Circulation?" *Science, Technology and Society* 20(3):414–434.
- Gallup (2016). *Worldwide Research Methodology and Codebook*. Report, Gallup, Washington D.C.
- Gibson, John, and David McKenzie. 2011. "The Microeconomic Determinants of Emigration and Return Migration of the Best and Brightest: Evidence from the Pacific." *Journal of Development Economics* 95:18–29.
- Gonzalez-Ferrer, Amparo, Pau Baizan, Cris Beauchemin, Elisabeth Kraus, Bruno Schoumaker, and Richard Black. 2014. "Distance, Transnational Arrangements, and Return Decisions of Senegalese, Ghanaian, and Congolese Migrants." *International Migration Review* 48(4):939–971.
- Haug, Sonja. 2008. "Migration Networks and Migration Decision-making." *Journal of Ethnic and Migration Studies* 34(4):585–605.
- Jensen, Peter, and Peder J. Pedersen. 2007. "To Stay or Not to Stay? Out-migration of Immigrants from Denmark." *International Migration* 45(5):87–113.

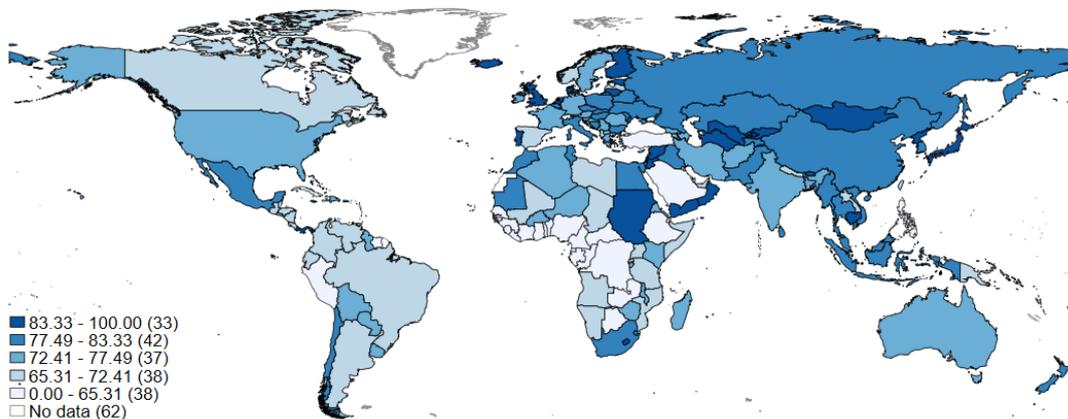
- Katz, Ethan. 2001. "Bias in Conditional and Unconditional Fixed Effects Logit Estimation." *Political Analysis* 9(4):379–384.
- Kaushik, Basu, and Luis F. Lopez-Calva. 2011. "Functionings and Capabilities." In *Handbook of Social Choice and Welfare*, Volume 2, 153–187. Elsevier.
- King, Karen M., and Bruce K. Newbold. 2007. "Onward Emigration to the United States by Canadian Immigrants between 1995 and 2000." *International Migration Review* 41(4):909–929.
- Klinthäll, Martin. 2013. "Older Immigrants Leaving Sweden." In *Return Migration in later life: International perspectives*, ed. John Percival, 21–42. Policy Press at the University of Bristol, Bristol, Chapter 2.
- La Ferrara, Eliana. 2019. "Presidential Address: Aspirations, Social Norms, and Development." *Journal of the European Economic Association* 17(6):1687–1722.
- Lubotsky, Darren H. 2007. "Chutes or Ladders? A Longitudinal Analysis of Immigrant Earnings." *Journal of Political Economy* 115(5):820–867.
- Maddala, Gangadharrao S. 1992. *Limited Dependent and Qualitative Variables in Econometrics*. Cambridge University Press, New York.
- Makina, Daniel. 2012. "Determinants of Return Migration Intentions: Evidence from Zimbabwean Migrants Living in South Africa." *Development Southern Africa* 29(3):365–378.
- Manchin, Miriam, and Sultan Orazbayev. 2018. "Social Networks and the Intention to Migrate." *World Development* 109(C):360–374.
- Manski, Charles F. 1990. "The Use of Intentions Data to Predict Behavior: A Best-case Analysis." *Journal of American Statistical Association* 85:934–940.
- Massey, Douglas S. 1987. "Understanding Mexican Migration to the United States." *American Journal of Sociology* 92(6):1372–1403.
- Massey, Douglas S., and Monica Espinoza Higgins. 2021. "The Effect of Religious Affiliation on Choice of Destination by New Immigrants to the United States." OPR Discussion Paper. Princeton University.
- Massey, Douglas S., and Ilana Redstone Akresh. 2006. "Immigrant Intentions and Mobility in a Global Economy: The Attitudes and Behavior of Recently Arrived U.S. Immigrants." *Social Science Quarterly* 87(5):954–971.
- Monti, Andrea. 2020. "Re-emigration of Foreign-born Residents from Sweden: 1990–2015." *Population, Space and Place* 26(2):e2285.
- Nekby, Lena. 2006. "The Emigration of Immigrants, Return vs. Onward Migration: Evidence from Sweden." *Journal of Population Economics* 19:197–226.
- Neyman, Jerzy, and Elizabeth L. Scott. 1948. "Consistent Estimates Based on Partially Consistent Observations." *Econometrica* 16:1–32.
- OECD. 2008. "Return Migration: A New Perspective." In *International Migration Outlook: SOPEMI*. Paris: OECD Publishing. Part III, 161–222.
- Paparusso, Angela, and Elena Ambrosetti. 2017. "To Stay or to Return? Return Migration Intentions of Moroccans in Italy." *International Migration* 55(6):137–155.
- Reagan, Patricia B., and Randall J. Olsen. 2000. "You Can Go Home Again: Evidence from Longitudinal Data." *Demography* 37(3):339–350.
- Rooth, Dan-Olof, and Jan Saarela. 2007. "Selection in Migration and Return Migration: Evidence from MicroData." *Economics Letters* 94(1):90–95.
- Ruysen, Ilse, and Sara Salomone, 2018. "Female Migration: A Way Out of Discrimination?" *Journal of Development Economics* 130:224–241.
- Sen, Amartya. 1985. *Commodities and Capabilities*, New York, NY: Elsevier Science.
- Sen, Amartya. 1999. *Development as Freedom*, Oxford: Oxford University Press.

- Snel, Erik, Marije Faber, and Godfried Engbersen. 2015. "To stay or Return? Explaining Return Intentions of Central and Eastern European Labour Migrants." *Central and Eastern European Migration Review* 4(2):5–24.
- Stark, Oded, and J. Edward Taylor. 1991. "Migration Incentives, Migration Types: the Role of Relative Deprivation." *Economic Journal* 101(408):1163–1178.
- Tezcan, Tolga. (2019). "Return Home? Determinants of Return Migration Intention amongst Turkish Immigrants in Germany." *Geoforum* 98:189–201.

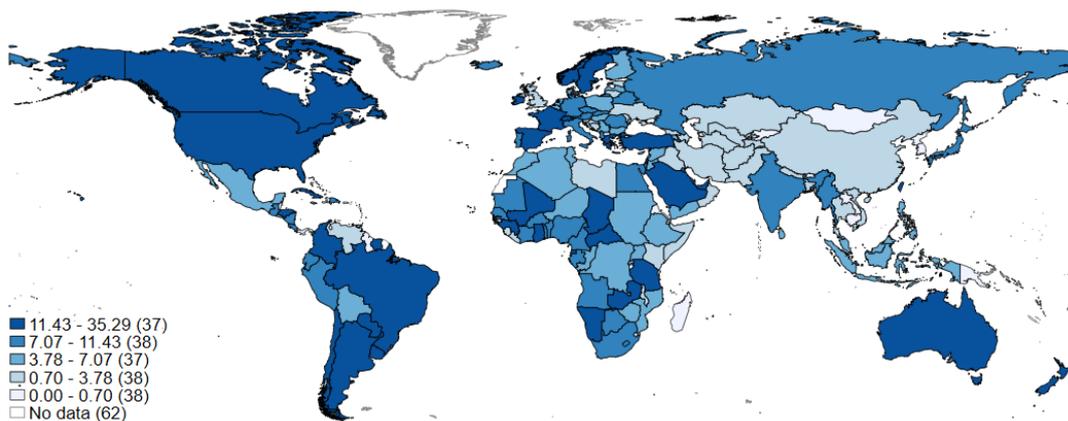
# Appendix

## A. Appendix Figures

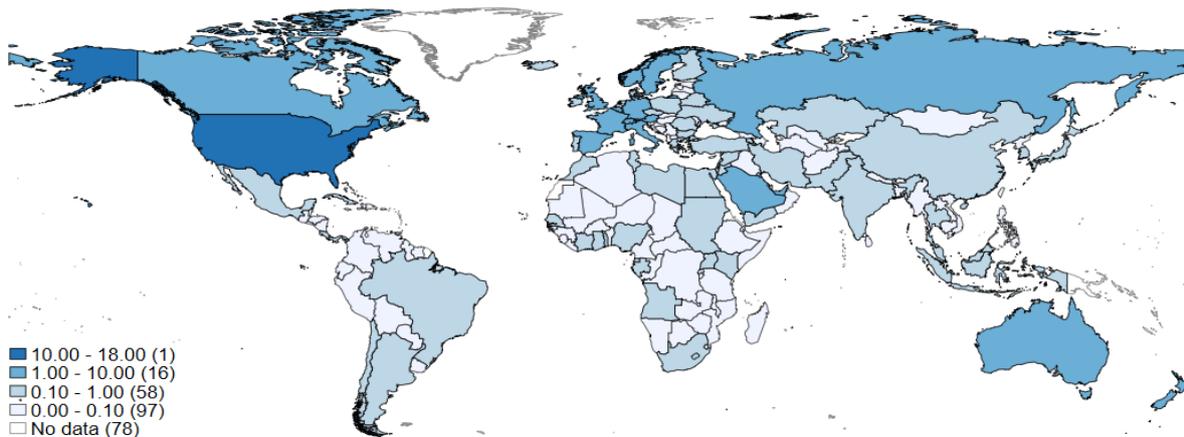
Panel A. Aspiring Stayers by Birth Country



Panel B. Aspiring Returnees by Birth Country



Panel C. Aspiring Onward Movers by Destination Country



**Figure A1:** Share of immigrants aspiring to stay or return by birth, and move onwards by host

Source: Authors' elaboration on GWP data.

Notes: Darker colours indicate a higher share of individuals reporting an aspiration to, respectively, stay, return to their country of birth, or move onwards, while lighter colours denote lower shares.

## B. Appendix Tables

**Table B1:** Probabilities to Aspire to Return or Move Onwards versus Stay(after dropping countries with few observations)

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Age 35-49	-0.210*** (-3.36)	-0.164** (-2.08)	-0.180** (-2.25)	-0.183** (-2.24)	-0.188** (-2.19)	-0.434*** (-9.52)	-0.393*** (-6.43)	-0.390*** (-6.22)	-0.389*** (-6.04)	-0.378*** (-5.38)
Age 50-64	-0.393*** (-4.90)	-0.388*** (-3.44)	-0.420*** (-3.78)	-0.431*** (-3.77)	-0.425*** (-3.63)	-0.889*** (-14.16)	-0.895*** (-11.78)	-0.901*** (-11.41)	-0.905*** (-11.38)	-0.916*** (-10.90)
Age 65-75	-0.770*** (-6.92)	-0.720*** (-4.92)	-0.828*** (-5.49)	-0.837*** (-5.34)	-0.806*** (-5.06)	-1.717*** (-18.47)	-1.731*** (-14.31)	-1.758*** (-13.66)	-1.748*** (-13.52)	-1.715*** (-12.91)
Age 18-34	-	-	-	-	-	-	-	-	-	-
Male	-0.083* (-1.93)	-0.024 (-0.37)	0.013 (0.20)	0.005 (0.07)	0.007 (0.10)	0.257*** (7.40)	0.298*** (6.66)	0.306*** (6.57)	0.293*** (6.27)	0.319*** (6.95)
Married or domestic partner	-0.085 (-1.62)	-0.141** (-1.96)	-0.141* (-1.89)	-0.135* (-1.74)	-0.095 (-1.18)	-0.343*** (-9.12)	-0.346*** (-6.72)	-0.342*** (-5.95)	-0.333*** (-5.72)	-0.325*** (-5.34)
Household size	-0.012 (-0.88)	-0.006 (-0.39)	-0.009 (-0.57)	-0.007 (-0.46)	-0.012 (-0.71)	0.013 (1.45)	0.007 (0.62)	0.004 (0.41)	0.003 (0.26)	0.001 (0.11)
Secondary education	0.086 (1.25)	0.051 (0.56)	0.088 (0.92)	0.063 (0.65)	0.031 (0.31)	0.459*** (8.79)	0.465*** (6.42)	0.469*** (6.65)	0.425*** (5.91)	0.432*** (5.82)
Tertiary education	0.096 (0.96)	0.120 (0.99)	0.189 (1.56)	0.151 (1.24)	0.103 (0.81)	0.626*** (8.98)	0.602*** (7.38)	0.643*** (7.97)	0.571*** (6.92)	0.571*** (7.02)
Elementary education	-	-	-	-	-	-	-	-	-	-
Residence in host ≤ 5 years	0.339*** (5.15)	0.276*** (2.98)	0.268*** (3.10)	0.286*** (3.14)	0.276*** (2.90)	0.127*** (3.07)	0.060 (1.06)	0.070 (1.23)	0.103* (1.82)	0.107* (1.81)
Personal Health Index	-0.007*** (-7.90)	-0.007*** (-6.64)	-0.006*** (-5.89)	-0.006*** (-5.10)	-0.005*** (-4.77)	-0.007*** (-11.39)	-0.006*** (-8.92)	-0.004*** (-5.23)	-0.003*** (-3.89)	-0.003*** (-3.56)
Christianity	-0.175 (-1.48)	-0.228 (-1.61)	-0.228 (-1.63)	-0.199 (-1.42)	-0.226 (-1.58)	-0.254*** (-2.75)	-0.283*** (-2.70)	-0.287*** (-2.70)	-0.259** (-2.48)	-0.307*** (-2.89)
Islam	-0.244 (-1.09)	-0.243 (-1.10)	-0.189 (-0.88)	-0.126 (-0.60)	-0.107 (-0.49)	-0.309*** (-2.89)	-0.288** (-2.31)	-0.255** (-2.08)	-0.202* (-1.66)	-0.277** (-2.21)

**Table B1:** Probabilities to Aspire to Return or Move Onwards versus Stay(after dropping countries with few observations)

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)	Demographics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeconomics, Environment, Polity (5)
Judaism	-0.415 (-0.57)	-0.874 (-1.53)	-0.792 (-1.32)	-0.828 (-1.31)	-0.889 (-1.44)	-0.751* (-1.68)	-0.791 (-1.01)	-0.719 (-0.87)	-0.774 (-0.91)	-0.855 (-1.11)
Other religions	-0.250 (-1.30)	-0.256 (-1.21)	-0.282 (-1.32)	-0.276 (-1.25)	-0.360 (-1.52)	0.023 (0.24)	-0.057 (-0.41)	-0.056 (-0.39)	-0.016 (-0.11)	-0.052 (-0.34)
No religion	-	-	-	-	-	-	-	-	-	-
Network abroad		1.095*** (11.25)	1.122*** (11.60)	1.094*** (11.12)	1.092*** (10.49)		0.332*** (5.62)	0.394*** (6.67)	0.384*** (6.38)	0.404*** (6.19)
Local Network Index		-0.663*** (-5.20)	-0.571*** (-4.38)	-0.388*** (-2.88)	-0.385*** (-2.71)		-0.603*** (-5.87)	-0.479*** (-4.53)	-0.317*** (-2.88)	-0.325*** (-2.86)
Employed			-0.127* (-1.72)	-0.112 (-1.49)	-0.112 (-1.46)			-0.016 (-0.29)	0.002 (0.04)	-0.008 (-0.14)
Basic Wealth Index			-0.091 (-0.60)	-0.081 (-0.56)	-0.085 (-0.57)			0.052 (0.40)	0.050 (0.36)	0.029 (0.21)
Living comfortably on HH income			0.040 (0.43)	0.093 (1.01)	0.121 (1.29)			-0.096 (-1.27)	-0.077 (-1.00)	-0.068 (-0.87)
Satisfaction w. standard of living			-0.301*** (-3.87)	-0.237*** (-3.14)	-0.249*** (-3.07)			-0.457*** (-7.29)	-0.384*** (-5.87)	-0.398*** (-5.86)
Community Diversity Index				-0.003** (-2.27)	-0.003** (-2.18)				-0.003*** (-3.10)	-0.002*** (-2.79)
Community Basics Index				-0.008*** (-4.54)	-0.008*** (-4.35)				-0.008*** (-7.54)	-0.008*** (-6.93)
GDP growth (Host)					-0.009 (-0.51)					0.009 (0.91)
GDP growth (Birth)					-0.018** (-1.99)					0.014*** (3.18)
Disaster frequency (Host)					-0.017 (-0.44)					-0.022 (-0.83)
Disaster frequency (Birth)					0.027*** (3.29)					-0.015* (-1.70)

**Table B1:** Probabilities to Aspire to Return or Move Onwards versus Stay(after dropping countries with few observations)

	Panel A. Aspire to Return versus Stay					Panel B. Aspire to Move Onwards versus Stay				
	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)	Demograph ics, Human & Spiritual Capital (1)	Networks (2)	Individual Economic Indicators (3)	Community Wellbeing (4)	Macroeco nomics, Environm ent, Polity (5)
Political instability (Host)					0.138 (0.63)					0.223* (1.68)
Political instability (Birth)					-0.262 (-1.36)					-0.039 (-0.38)
Constant	-2.121*** (-5.98)	-2.407*** (-6.58)	-2.337*** (-6.75)	-2.127*** (-6.24)	-2.166*** (-4.86)	-0.633*** (-2.85)	-0.455** (-1.98)	-0.533** (-2.33)	-0.276 (-1.19)	-0.263 (-0.86)
Log likelihood	-18093.548	10334.707	-9680.394	-9434.011	-8791.051	-18093.548	-10334.707	-9680.394	-9434.011	-8791.051
Observations	28,005	16,131	15,237	14,942	14,051	28,005	16,131	15,237	14,942	14,051
Countries	123	123	122	120	111	123	123	122	120	111

Notes: The table displays estimated coefficients when we restrict the sample to countries with over 16 observations. Each model includes host country and year fixed effects. *t*-statistics are in parentheses. Standard errors are robust to heteroskedasticity and serial correlation and clustered by host country. \*, \*\*, \*\*\* denote significance at the 1, 5 and 10% confidence level, respectively.

**Table B2: Probabilities on Aspirations to Return versus Migrating Onwards**

	Demographics, Human & Spiritual Capital		Individual Economic Indicators	Community Wellbeing	Macroeco nomics, Environment, Polity
Age 35-49	0.182*** (2.60)	0.227** (2.31)	0.232** (2.22)	0.226** (2.15)	0.207* (1.87)
Age 50-64	0.424*** (4.32)	0.462*** (3.33)	0.464*** (3.17)	0.459*** (3.13)	0.460*** (3.01)
Age 65-75	0.874*** (6.07)	0.901*** (4.97)	0.838*** (4.56)	0.838*** (4.50)	0.841*** (4.30)
Age 18-34	-	-	-	-	-
Male	-0.347*** (-6.10)	-0.313*** (-3.91)	-0.275*** (-3.31)	-0.268*** (-3.20)	-0.267*** (-2.94)
Married or with domestic partner	0.230*** (3.46)	0.174** (2.09)	0.166* (1.95)	0.156* (1.81)	0.177** (2.00)
Household size	-0.023** (-2.01)	-0.016 (-1.17)	-0.015 (-1.03)	-0.014 (-0.98)	-0.018 (-1.20)
Secondary education	-0.445*** (-6.10)	-0.487*** (-5.17)	-0.437*** (-4.05)	-0.433*** (-3.95)	-0.445*** (-3.93)
Tertiary education	-0.600*** (-4.84)	-0.530*** (-3.89)	-0.477*** (-3.33)	-0.459*** (-3.25)	-0.477*** (-3.44)
Elementary education	-	-	-	-	-
Residence in host ≤ 5 years	0.213*** (2.80)	0.209** (2.01)	0.200** (2.02)	0.175* (1.71)	0.141 (1.31)
Personal Health Index	0.000 (0.25)	-0.001 (-0.76)	-0.002 (-1.48)	-0.002 (-1.61)	-0.002 (-1.41)
Christianity	0.082 (0.63)	0.053 (0.34)	0.041 (0.24)	0.041 (0.24)	0.044 (0.25)
Islam	0.124 (0.59)	0.151 (0.66)	0.139 (0.59)	0.132 (0.55)	0.208 (0.84)
Judaism	-0.052 (-0.17)	-0.519 (-1.27)	-0.485 (-1.15)	-0.473 (-1.11)	-0.479 (-1.16)
Other religions	-0.297 (-1.33)	-0.213 (-0.90)	-0.270 (-1.04)	-0.302 (-1.13)	-0.379 (-1.24)
No religion	-	-	-	-	-
Network abroad		0.735*** (7.50)	0.696*** (6.93)	0.694*** (6.96)	0.659*** (6.33)
Local Network Index		0.064 (0.45)	0.040 (0.28)	0.036 (0.25)	0.028 (0.18)
Employed			-0.163* (-1.70)	-0.158 (-1.64)	-0.154 (-1.54)
Basic Wealth Index			-0.114 (-0.48)	-0.086 (-0.36)	-0.065 (-0.27)
Living comfortably on HH income			0.086 (0.74)	0.094 (0.79)	0.132 (1.06)
Satisfaction with standard of living			0.159 (1.43)	0.146 (1.34)	0.156 (1.33)
Community Diversity Index				-0.000 (-0.06)	-0.000 (-0.13)
Community Basics Index				0.001 (0.70)	0.001 (0.57)
GDP growth (Host)					-0.014 (-0.62)

**Table B2: Probabilities on Aspirations to Return versus Migrating Onwards**

	Demographics, Human & Spiritual Capital	Networks	Individual Economic Indicators	Community Wellbeing	Macroeconomics, Environment, Polity
GDP growth (Birth)					-0.035*** (-2.93)
Disaster frequency (Host)					-0.001 (-0.02)
Disaster frequency (Birth)					0.048*** (3.39)
Political instability (Host)					-0.174 (-0.84)
Political instability (Birth)					-0.086 (-0.38)
Constant	-1.598*** (-5.13)	-2.105*** (-6.47)	-1.908*** (-5.86)	-1.924*** (-5.83)	-1.964*** (-4.36)
Log likelihood	-3869.386	-2220.710	-2097.256	-2062.368	-1908.096
Observations	6,875	3,999	3,762	3,691	3,418
Countries	117	111	110	107	99

Notes: The table displays estimated coefficients for the logit model for aspirations to return versus migrating to another country. Each model includes host country and year fixed effects. *t*-statistics in parentheses. Standard errors are robust to heteroskedasticity and serial correlation and clustered by host country. \*, \*\*, \*\*\* denote significance at the 1, 5 and 10% confidence level, respectively.

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