



D5.1 Migration intentions and inequality

WP5 Migration and impact on skills and inequality

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Summary

Starting with the first dispersals of humans out of East Africa into other parts of the globe some 70000 years ago, migration has been shaping the course of human history and society. Some scholars have even linked current inequality between countries to the consequences of these past migration patterns and the genetic diversity it generated (Ashraf & Galor, 2013; Galor, 2022).

Fast-forwarding several thousand years to the present-day, most human beings now live in prosperity that seems unprecedented from a historical viewpoint. The powerful forces of globalisation and technological change have decidedly improved living standards across the globe. Yet, they have also led to rising inequalities within countries as economic progress has not lifted all boats. Individuals and groups possessing the “right” skills, technology, and capital have typically gained from globalisation and technology. At the same time, those performing routine tasks or working in jobs negatively affected by trade and offshoring have had a less fortunate fate. Coincidentally, the automatable and offshorable jobs have been concentrated among middle-skilled jobs, thus leading to the hollowing of the middle class in many developed countries. Facing unemployment, job insecurity, and worsened working conditions, these left-behind individuals have been more susceptible to nationalist and populist ideologies that have provided consolation and the promise of redress. In short, while globalisation and automation have provided prosperity overall, they have also brewed social unrest in response to the rising inequality.

Yet, inequality need not be a damaging force for humanity. Societies often tolerate inequality if they view it as a symbol of the possibility of moving ahead in life through hard work. Some inequality can thus be stimulating and incentivizing.

However, inequality can also create a sense of injustice and grievances, especially among those who feel that the rules of the game are rigged and life chances are unequal and unfair. Rising inequality may trigger dissatisfaction in such situations, which can prompt individuals to seek change through the political system, civil disobedience, or, potentially, through “voting with their feet” and emigrating. While the “voice” responses to inequality (i.e. those undertaken through the political system) have been relatively well-explored, there is generally a lack of sufficient understanding of whether and how inequality shapes potential and actual emigration.

This report investigates if inequality triggers potential emigration across individuals living in countries at different levels of economic development around the globe. Specifically, statistical analyses of individual data from the Gallup World Poll, combined with information on country-level income and wealth inequality from the World Inequality Database, reveal that income inequality levels are negatively correlated with emigration intentions and plans. This relationship is robust to alternative specifications and different measures of inequality. We also find similar patterns regarding emigration intentions to the EU and mobility intentions within the EU.

Based on the literature, we explore two potential explanations for our findings. It might be that individuals believe in inequality as a way to get ahead in life, our results may mean that inequality acts as a barrier for individuals and prevents their potential emigration.

Specifically, our results suggest that skills and income can partly cushion some of the thwarting effects of inequality on potential emigration, though not fully offset them. This suggests that inequality imposes a barrier that is larger for those with less financial and human capital. This barrier may arise, for example, because inequality increases the number of poor people in the country who are not able to finance the move. Because migration requires having financial resources to pay for moving costs,

visa fees, tickets, and language courses, only those with sufficient incomes can afford to emigrate. Even if the particular individual or their household is not poor, the fact that fewer compatriots migrate means that information- or cost-sharing becomes more difficult, which may limit that individual's emigration aspirations and actual migration.

This explanation is further supported by additional analyses demonstrating that migration networks, i.e. having family and friends abroad, also mitigate some, but not all, of the negative consequences of inequality for potential immigration. Migration networks are a well-known mechanism for reducing migration costs, especially among the low-skilled.

In high-inequality countries, those who believe in hard work to get ahead in life are more likely to want to move abroad than those without such beliefs. However, inequality is still negatively associated with emigration intentions for all. Again, hard work beliefs cushion some of the negative effects of inequality for emigration, though they do not fully offset them. Moreover, belief in hard work as a means to get ahead in life is not simply a measure of optimism. Our analyses show that individuals who expect that their future well-being will be higher than their current one – our measure of optimism—are less likely to want to emigrate, especially in high inequality countries.

Our analyses compare individuals with similar socio-demographic characteristics and living in countries with similar levels of economic development, corruption, health and well-being, and social capital. All in all, our results suggest that inequality discourages emigration. In other words, inequality reduces potential emigration above and beyond any influence it may have on personal characteristics, social and economic development, well-being, and institutions. Our findings suggest these results are especially strong among the low-skilled and those without networks abroad and financial resources. By discouraging emigration, inequality limits the gains from migration for both origin and destination countries. Our discussion section explores the policy implications and significance of our findings.

1. Introduction

Through reorganising the tasks that workers do, ongoing globalisation and automation processes have both fundamentally changed the global economy and the world of work (Acemoglu & Restrepo, 2019; Arntz, Gregory, & Zierahn, 2016, 2017; Autor, Levy, & Murnane, 2003; Grossman & Rossi-Hansberg, 2008; Nedelkoska & Quintini, 2018). These structural changes have generally led to large efficiency, productivity, and prosperity gains (Graetz & Michaels, 2018; Melitz & Trefler, 2012). Nevertheless, participation in the global economy and technological change have also produced winners and losers, leading to rising income inequality and a hollowing of the middle class (Colantone & Stanig, 2019; Jaimovich & Siu, 2019; Moll, Rachel, & Restrepo, 2021).

Inequality need not be a social problem in and of itself. Some inequality may be necessary to incentivize people to work hard. Consequently, societies may differ in their tolerance of inequality depending on their preferences and characteristics and the nature of their social contracts (Alesina, Di Tella, & MacCulloch, 2004; Alesina & Giuliano, 2011). On the one hand, inequality can symbolise prospects of upward mobility by signalling that society values and rewards skills, talents, and hard work (Benabou & Ok, 2001). On the other hand, individuals may perceive inequality as unfair or immoral, especially if they have been left behind by globalisation and automation. If people believe that inequality is a symptom of dysfunction and injustice, their discontent typically takes two forms – migration or protest, or "exit" and "voice," to borrow Hirschman's dichotomy (Hirschman, 1970).

In recent years, across the rich world, there has been rising dissatisfaction with the functioning of capitalist societies and the levels of inequality. Rising inequality has built up anger and popular discontent expressed through the rise of populism and economic nationalism (Colantone & Stanig, 2019; Rodrik, 2018). Events such as the Occupy Wall Street movement, the elections of Donald Trump and Boris Johnson, Brexit, and the Yellow Vests protests, are some examples of the "voice" strategy of showing dissatisfaction.

Against this backdrop, the role, if any, of inequality in triggering or discouraging "exit" (i.e. emigration) has been relatively unexplored, which is a gap that the current report addresses. Instead, much of the work on international migration has focused on the consequences of immigration for the employment for the labour market outcomes of natives. Despite the lack of a unanimous consensus, the overarching evidence of this vast strand of the literature suggests that immigration has either a small negative effect or no effect on the wages of natives in rich and middle-income countries (Bansak, Simpson, & Zavodny, 2015; Bansak, Simpson, & Zavodny, 2022; Peri, 2014; WorldBank, 2018).

We argue that understanding who migrates and why is a policy-relevant question for both origin and destination countries. Such information can help policymakers design proactive policies that benefit both the origin and host countries and, most importantly, migrants themselves. Furthermore, gleaning insights into how inequality shapes emigration is important to better comprehend the ramification of complex socio-economic processes within societies.

This report focuses on how income and wealth inequality affect *potential* emigration, i.e. individual emigration desires (i.e. aspirations), plans, and preparations. To this end, we utilise individual-level information from the Gallup World Poll and country-level income and wealth inequality from the World Inequality Database. The main focus is on income inequality, while wealth inequality results are supplementary. We find that income inequality is negatively correlated with emigration intentions and plans. These results also hold when we focus on potential emigrants willing to move to the EU and also on EU mobility. In additional specifications, we find that as inequality increases, migrant networks abroad, education, and income cushion some of the negative influence of inequality on potential emigration. Our result implies that income inequality imposes an additional barrier for potential

emigrants that factors, such as contacts abroad, and skills and income, can partially offset. By discouraging potential emigration, inequality limits the gains of migration for both origin and destination countries. Origin countries lose out in terms of remittances and the transfer of social norms and technology from abroad. The destination countries miss potential gains from remigration related to reducing skills shortages and the contributions that migrants make to alleviating the consequences of population ageing.

The report builds on and makes several contributions to the extant literature. First, it utilises information on emigration intentions and plans from over 150 countries worldwide that are at different levels of material prosperity. Second, while the vast majority of previous studies have focused on the Gini coefficient as a measure of inequality, this report utilises four income inequality measures: the top 1% share of pre-tax national income, the top 10% share of pre-tax national income, the top 20% share of pre-tax national income, and the Gini coefficient. In additional analyses, we also provide specifications with wealth inequality. Third, it provides analyses of Europe as a migration destination and EU mobility and suggestive explanations behind the key findings.

Naturally, emigration intentions reported in surveys are not about actual but rather about intended behaviour, and some of those expressing such intentions may never move. Nevertheless, as discussed in Section 4.1 below, there is much evidence that emigration intentions correlate well with actual migration behaviour (Adema, Aksoy, & Poutvaara, 2021; Bertoli & Ruysen, 2018; Creighton, 2013; Docquier, Peri, & Ruysen, 2014; Simmons, 1985; Tjaden, Auer, & Laczko, 2019; Van Dalen & Henkens, 2013). Furthermore, analyses of emigration intentions data offer insight into the prospective emigration flows, thus providing policy input for targeted proactive migration policies. This information can be useful to policymakers in the origin countries who can better understand how to manage emigration flows and ensure that their countries gain from migration and mobility. Simultaneously, policymakers in the prospective destination countries can better understand the selection and composition of prospective immigrant flows (Zaiceva & Zimmermann, 2008a).

While most studies in the literature rely on host-country immigrant stocks, such data may provide biased estimates as the immigrant stocks in destination countries are shaped by migration policies, proximity to the destination, and migration networks (Liebig & Sousa-Poza, 2004). As such, immigrant stocks cannot provide fully credible information about the self-selection and emigration decisions of migrants.

To make this research tractable, we focus on voluntary international migration, which mainly concerns labour migration. We do not study and discuss refugee flows and involuntary displacement.¹ Furthermore, the research report deals with the direct and short-run implications of inequality on emigration. Therefore, it does not investigate the long-term consequences of inequality for changing societal, economic, and institutional features and, as such, indirectly affecting emigration. As suggested in Section 10 below, these are opportune avenues for further empirical explorations on the topic. Finally, the result only focuses on income and wealth inequality, but does not consider inequality of opportunity and other types of inequality (e.g., inequality in well-being).

The rest of the report is structured as follows: Section 2 details the theoretical underpinnings, while Section 3 details the empirical results of related studies. Sections 4 and 5 outline the data and methods, respectively, while Sections 6 and 7 present the descriptive statistics and results. In Section 8, we present results related to emigration intentions to the EU and EU mobility, while Section 9 offers some possible explanations that may underpin our main findings. Finally, Section 10 furnishes a discussion and the policy implications of the main findings and conclusions.

¹ Interested readers are invited to consult Hatton (2013) and Micevska (2021). Appendix C features results related to conflict as an additional explanatory variable.

2. Theoretical insights

2.1 [The emigration decision](#)

Standard economic models view emigration as an investment decision associated with monetary and non-monetary costs and benefits (Becker, 1962; Sjaastad, 1962). Actual moves occur if the expected utility at the destination exceeds that of the origin, net of migration costs. Expected utility is itself a function of income.

Thus, in a simple framework with two time periods, t and t' , the individual i with utility U will emigrate if the utility after migration in period t' exceeds that of the utility at home at time t , net of migration costs C .

$$U_{it'} - U_{it} > C_i \quad (1)$$

Conditional on the individual characteristics X , the probability of migration is thus:

$$Pr(M=1|X_i) = Pr(U_{it'} - U_{it} - C_i > 0|X_i) \quad (2)$$

Migration costs include out-of-pocket expenses, such as fees for visas and passports, plane tickets, and language courses. These costs can be several times higher than the monthly incomes of migrants. In the developing country context, Sharma and Zaman (2013) report that the upfront cost for Bangladeshi emigrants is about five times the country's average GDP per capita. Bertoli, Moraga, and Ortega (2013) find that migration costs for Ecuadoreans moving to the US and Spain are between 3 and 8 times higher for non-college graduates than college graduates. Female non-college graduates to the US face migration costs that are 9.3 times their income.

Furthermore, migration costs can also be of a "psychic" nature (Sjaastad, 1962) and are, for example, related to the pain of separation from family and friends, the loss of social status in the destination, and others. For example, a typical Puerto Rican can increase earnings by 50% by moving to the United States, and there are no migration restrictions as Puerto Ricans are US citizens. Yet, most Puerto Ricans do not leave, which suggests that the psychological costs of moving are very high. Borjas (2014) calculates that the implied non-monetary migration costs are about \$226,000, i.e. ten times the salary of the average Puerto Rican worker. The non-monetary migration costs also relate to the opportunity costs of foregone earnings incurred by travelling and searching for a new job at the destination. Physical distance to the desired destination and migration restrictions amplify migration costs while knowing the host country's language and migrant networks lower them (Bansak et al., 2015).

2.2 Push and pull factors of migration

Building on Lee (1966), migration models have emphasised that *push* and *pull* factors determine emigration decisions. Push and pull factors often work in opposite ways and have similarly-sized effects on the decision to move (Bansak et al., 2015). For example, poor economic conditions in the home country act as a push factor, while favourable economic conditions at the destination act as a factor attracting (i.e. pulling) those who want to move.

More generally, the economics literature has highlighted the role of income differences between countries as a prime driver of emigration. For example, an increase in the average wage differences between origin and 14 OECD destination countries of 1000 USD (at 2000 PPP) increases immigrant flows by 10-11% of their initial levels (Ortega & Peri, 2009).

Additional socio-economic push and pull factors include unemployment, poverty, taxes, public goods and amenities, and institutions. Particular push factors, especially relevant for refugee flows, include climate change, natural disasters, famine, and war.

Studies typically focus on either the push or pull factors of migration. For example, Colussi (2016) finds that economic factors at the destination (i.e. tax rates, average wages, unemployment rates, and GDP growth) are more important than labour market institutions (minimum wages, employment, protection legislation, unions, and unemployment benefits) for both high- and low-skilled migrants. Migrant networks (i.e. compatriots in the destination country) act as another important factor in attracting migrants, lowering migration costs, and helping with assimilation at the destination (Bertoli & Ruysen, 2018; Massey et al., 1993). Evidence from the US shows that annual migrant inflows increase by about five persons if the migrant stock from a particular origin increases by 1000 people (Clark, Hatton, & Williamson, 2007). As Massey, Goldring, and Durand (1994, p. 1502) explain,

"These communities anchor the networks and further reduce the costs and risks of movement by providing a secure and familiar environment within which new migrants can arrive, find housing and employment, and learn the ropes in the receiving country."

In terms of push factors, satisfaction with the living standard, public services, and security in the area of the respondent lower the likelihood of emigration decisions. At the same time, wealth increases emigration desires in sub-Saharan Africa and Asia, but not Latin America (Dustmann & Okatenko, 2014). Households that can finance migration are typically richer than households not considering emigration (Clemens & Mendola, 2020).

Furthermore, individual unhappiness levels determine emigration decisions (Cai, Esipova, Oppenheimer, & Feng, 2014; Chindarkar, 2014; Graham & Markowitz, 2011; Otrachshenko & Popova, 2014). Country-level unhappiness also determines emigration flows (Polgreen & Simpson, 2011). In addition, country-level macro variables (GDP per capita, inequality, and unemployment) indirectly influence emigration decisions by determining life satisfaction (Otrachshenko & Popova, 2014).

Studies looking at both push and pull factors simultaneously are generally rare. In one exception, Mayda (2010) finds that income conditions at the destination attract immigrants, but GDP per capita at the origin is generally not an important push factor. In other words, GDP per capita in the origin country neither encourages nor hinders emigration. However, Mayda (2010) finds that these effects depend on migration policies. When host countries' policies become less restrictive, the host country's income becomes an even stronger pull factor, and even the home country's income level becomes a push factor. Another paper that simultaneously studies the push and pull factors of migration finds that GDP negatively correlates with emigration rates (while the host country's GDP acts as a pull factor)

(Pedersen, Pytlikova, & Smith, 2008). In general, studies find a positive relationship between GDP per capita and emigration in countries at earlier stages of economic development (see a summary of literature in Clemens (2000)).

Recent work focused on GDP per capita as a push factor (Clemens, 2020) demonstrates that emigration increases until country per capita income levels of \$5,000 at PPP, slows between \$5,000-\$10,000, and decreases after that. This suggests that the relationship between GDP per capita at the origin and emigration is non-monotonic.

Despite the work examining push and pull factors of migration, there is a dearth of studies focusing on inequality. Section 3 details the insights from the extant work on the topic.

2.3 [The relationship between inequality and emigration intentions](#)

2.3.1 [Inequality can be negatively associated with emigration intentions](#)

First, inequality levels may signal prospects of upward mobility and high returns to skill. In other words, the social contract may be such that individuals tolerate inequality as a symbol of the high rewards for hard work and individual talent. In this sense, inequality levels may discourage the emigration of individuals who believe that they can get ahead in life and improve their financial circumstances by working hard in their home country.

Specifically, people tolerate inequality if they believe that they can benefit from inequality now or in the future and that inequality results from individual effort (Alesina & Giuliano, 2011).² Often, societies experiencing economic growth and transformation processes are relatively more tolerant of inequality as they view inequality as a marker of future success (Grosfeld & Senik, 2010; Hirschman & Rothschild, 1973; Senik, 2005). Such findings are related to the notion of the prospect of upward mobility (POUM) (Benabou & Ok, 2001) and Hirschman's tunnel effect (Hirschman & Rothschild, 1973).³ Thus, inequality may be negatively associated with emigration intentions if inequality proxies societal-level rewards for hard work and belief in mobility and opportunity.

Second, at the country level, inequality may also discourage emigration through a mechanical effect (McKenzie, 2017). Holding average income constant, higher inequality entails a greater number of poor individuals. Such individuals often lack access to finance and opportunities to borrow to cover the costs associated with moving to another country. This can translate to fewer emigration intentions at the individual level as well. Even if a particular individual is not liquidity-constrained, the fact that fewer compatriots are emigrating may discourage this individual from emigrating as well. This is because the cohort of potential emigrants decreases, which means that the potential to get information about the move, or share costs (e.g., through traveling together) also decreases, which makes emigration more costly and less likely for the individual, independent of income. Inequality may thus impose a migration cost that acts to discourage potential emigration.

2.3.2 [Inequality and emigration intentions may be positively associated](#)

First, high levels of inequality may signal that the system is unfair and inequitable (Oishi, Kesebir, & Diener, 2011) and that the concentration of high incomes at the top of the distribution is the outcome of luck and connections. In such societies, individuals may be inequality-averse, and increasing income disparities may trigger calls for redistribution, protests (i.e. "voice"), demand for nationalist and populist policies, and emigration (i.e. "exit"). In such circumstances, increases in inequality may prompt citizens of all rungs of life, and especially those with below-average incomes, to vote with their feet.

Second, high levels of inequality may accompany low quality of the social fabric and low trust, poor formal and informal institutions, and low-quality public goods. Specifically, in countries with high inequality, the rich prefer private rather than public goods provision, which results in low levels of public investments in education, healthcare, and infrastructure (Anderson, Mellor, & Milyo, 2008; De la Croix & Doepke, 2009; Stiglitz, 2015). Moreover, inequality can lower the incentive to cooperate

²For example, Europeans tend to be relatively inequality-averse, while some research suggests that inequality is unassociated with the subjective well-being of Americans (Alesina et al., 2004). Nevertheless, the results on the relationship between income and happiness for the US diverge across different studies. Like Alesina et al. (2004), Oishi et al. (2011) use data from the United States but show a negative correlation between income and happiness but only for the low-income group.

³ According to the POUM hypothesis, poor people oppose high taxation and redistribution if they believe that such policies will hurt them if or when they or their children become rich (Benabou & Ok, 2001). Hirschman's tunnel effect is a metaphor for inequality as a symbol of future mobility and refers to the hypothetical situation in which an individual is sitting in a traffic jam in a two-lane road. When the other lane starts moving, the individual initially feels optimistic that the traffic jam has broken and that it will soon be his/her turn to move on with the journey. Nevertheless, as only the other lane is moving, individuals stuck in the traffic jam feel frustrated and hopeless as their expectations to also leave the traffic jam have not been met in reality (Hirschman & Rothschild, 1973).

with fellow citizens (Aksoy, 2019; Rothstein & Uslaner, 2005) and may also jeopardize outcomes, such as economic growth (Brueckner & Lederman, 2015; Cerra, Lama, & Loayza, 2021; Cingano, 2014), health (Pickett & Wilkinson, 2015), and happiness (Ferrer-i-Carbonell & Ramos, 2014; Ferrer-i-Carbonell & Ramos, 2020). In other words, inequality may proxy poor quality of the social fabric and a weak social contract, which individuals may be trying to escape through emigrating.

Finally, according to the New Economics of Labour Migration (NELM), emigration and inequality may be positively associated if inequality is a proxy for relative deprivation (Stark, Byra, & Kosiorowski, 2020). The main idea behind the relative deprivation hypothesis is that individuals are concerned about their relative position in society's income distribution. Income comparisons with peers from relevant reference groups may trigger dissatisfaction and feelings of relative deprivation (Stark, 2006; Stark & Bloom, 1985; Stark et al., 2020; Stark & Taylor, 1989). Migration can therefore be a tool for individuals to change their relative position in the income distribution or change their reference group altogether (Stark & Bloom, 1985). Heightened levels of economic inequality may lead to greater feelings of relative deprivation and trigger emigration. The NELM literature goes as far as claiming that total relative deprivation and not income inequality, is "the true driver of migration behavior" (Stark et al., 2020, p. 3) and that omitting total relative deprivation accounts for the divergent findings (positive and negative) related to the relationship between inequality and migration. Nevertheless, defining and measuring relative deprivation is difficult in practice, as the relevant reference group may itself change with migration (Gelatt, 2013).

2.3.3 [Insights about the relationship between inequality and emigration intentions from the Roy-Borjas selection model](#)

In addition to income levels, inequality also shapes the size and the skill composition of migrant flows (Borjas, 1987, 1991).⁴ If inequality reflects returns to skills, high-skilled individuals will have few incentives to migrate to another country, while middle- and low-skilled individuals will have higher incentives to migrate (Borjas, 1987). This is because less-skilled individuals gain from moving to countries with less income inequality than their own: they can benefit from redistribution and higher wages abroad compared to their home countries. At the same time, high-skilled people prefer moving to countries with higher income inequalities than their own because they can earn more abroad. In other words, higher inequality abroad indicates a high return to skills and relatively higher wages compared to staying in the origin country.

If skills are transferable across national borders, high-skilled workers choose whether to stay or leave depending on the returns to skills in their home country and abroad (Borjas, 2014). In this sense, inequality is a measure of the return to skill – the higher the income inequality, the more that high-skilled individuals can earn. When income inequality is higher in the destination country, and talented individuals can earn more abroad than at home, they will (want to) leave. At the same time, less skilled

⁴ According to the Roy-Borjas model, the distribution of earnings of the home relative to the destination country determines whether migrants with low or high ability (unobserved) and education/skills (observed) will emigrate. If the earnings potential of prospective emigrants is sufficiently positively correlated in the origin and destination country and the destination country is more equal compared to the origin one, emigrants will tend to be negatively selected – i.e. they will be from the lower ends of the ability/income distribution (Borjas, 1987). Similarly, if the returns to education are higher in the origin than in the destination countries, and if migrants' education and skills are transferable across borders, then migrants will tend to be negatively selected on skills (Borjas, 1991). According to the Roy-Borjas model, emigrants from poor to rich countries will be negatively selected, because developing countries have both higher inequality and higher relative returns to skills. Simply put, immigrants from poor and unequal countries will have lower observable and unobservable skills compared to the average levels of skills in their country. Borjas (2014) also shows that the origin country inequality is negatively related to male immigrants' wages in the United States, which is again consistent with the negative selection predictions of the Roy-Borjas model. Nevertheless, several studies find evidence for the positive selection of migrants (Brücker & Defoort, 2009; Grogger & Hanson, 2011).

individuals will not find it advantageous to move abroad as their incomes will be even lower in the high-inequality destination country compared to the lower-inequality home country. This is an example of positive selection. When there is positive selection, further increases in income inequality in the host relative to the origin country imply that emigration flows will become larger but less skilled on average (i.e. positive selection declines with increases in inequality). This is because increases in the already high inequality in the destination relative to the origin country attract emigrants whose skill levels were right below the marginal levels to move (Bansak et al., 2015). In the case of positive selection, increases in income inequality in the home country relative to the destination country mean lower emigration flows and even higher levels of positive selection, whereby even more talented individuals will want to emigrate.

Negative selection occurs when migrants have lower skills and are at the lower end of the income distribution in their home and host countries. Negative selection ensues when income inequality and the return to skills are higher in the home relative to the host country. High inequality in the origin country relative to the destination country means that high-skilled individuals can earn higher wages at home, implying that only the low-skilled individuals have an incentive to move. Low-skilled individuals want to move from their high-inequality home country to the lower-inequality destination nation because they may benefit from more redistribution and earn higher wages than staying at home. In the case of negative selection, increases in income inequality at the origin relative to the host country imply that emigration decreases and becomes even more negatively selected. If inequality levels at the origin decrease relative to the destination, emigration will increase and becomes more positively selected.

Consistent with the negative selection prediction of the Roy-Borjas selection model, Borjas (1987) finds the emigration rates of male immigrants from 41 countries in the United States are negatively associated with income inequality. Increases in inequality in the home country imply that the incentives for the high-skilled to migrate decline even further, which lowers the overall emigration rates, while the lower-skilled will continue to migrate (Borjas, 1987). Nevertheless, as discussed in Section 3, the question of whether the relationship between emigration and inequality is positive or negative is far from settled. The next section explores the different estimates and what underlies them.

3. Empirical findings of previous studies

Very few studies have specifically focused on the relationship between inequality and emigration. Rather, several studies consider inequality as one among several migration determinants (Mayda, 2010; Otrachshenko & Popova, 2014; Zaiceva & Zimmermann, 2008a) or have a different focus of analysis but show additional results featuring inequality (Borjas, 1987; Cooray & Schneider, 2016; Czaika, 2013).⁵

The existing literature on the emigration-inequality nexus offers conflicting results (see Table 1). Several papers find a positive relationship (Liebig & Sousa-Poza, 2004; Zaiceva & Zimmermann, 2008b), others a negative relationship (Borjas, 1987; Czaika, 2013), and still others – no relationship (Fouarge & Ester, 2007; Otrachshenko & Popova, 2014) or a non-linear relationship (Mayda, 2010). One study finds a positive relationship among rich countries but not among poor ones (Mihi-Ramírez, Kumpikaitė-Valiūnienė, & Cuenca-García, 2017). Another one finds a negative relationship that disappears with the inclusion of additional control variables (Maestri, Migali, & Natale, 2017). Yet another report finds a marginally statistically significant positive relationship but only for those with middle levels of education (Fouarge & Ester, 2007).

Part of the explanation for these divergent findings is that the studies use different data, operationalise inequality and emigration (intentions) using different variables, and use distinctive methods and empirical specifications. For example, some studies focus on emigration rates, others on migration stocks, and still others on migration intentions.

Datasets relying on **immigrant stocks** also lack information on pre-migration characteristics, including migrants' earnings and education levels before leaving. This is problematic because researchers cannot properly address the self-selection of migrants into emigration. For example, analyses that omit information about the emigrants' socio-demographic characteristics may wrongly produce a statistically insignificant relationship between emigration and inequality. Specifically, emigrants tend to be relatively young, high-skilled, and male, and this demographic may be relatively uninformed or insensitive to inequality. For example, research shows that women have stronger preferences for redistribution and are more inequality-averse (Alesina & Giuliano, 2011). As such, approaches that include the pre-migration characteristics of those who leave, such as this report, can produce more credible results regarding the relationship between inequality and emigration.

Among studies that rely on **emigration intentions**, there are large differences in the wording of the migration intentions question. Some papers rely on hypothetical migration aspirations (Liebig & Sousa-Poza, 2004) and others – on moving intentions concerning moving to another city, region, or country in the next five years (Zaiceva & Zimmermann, 2008a, 2008b). To our knowledge, no study to date distinguishes between income inequality and tentative emigration desires (i.e. emigration aspirations in a hypothetical ideal situation), emigration plans, and concrete emigration preparations, which is a gap that the present study fills.

The extant studies in the literature also rely on different econometric techniques. While most studies employ multivariate regressions, one study only relies on bivariate correlations between emigration and inequality (Czaika, 2013), and some authors only summarize but do not fully report their empirical results (Maestri et al., 2017; Mihi-Ramírez et al., 2017).

⁵ For example, the working paper of Zaiceva and Zimmermann (2008b) features results about the relationship between emigration and inequality, but the published version – not (Zaiceva & Zimmermann, 2008a).

Additional reasons why there is no consensus on the relationship between inequality and migration are that studies utilise data that do not distinguish between voluntary (e.g. economic vs family-based migrants) and involuntary migrants (i.e. refugees and asylum seekers). Most datasets, including the Gallup World Poll (GWP) used in this report, lack information about the particular motivation behind the emigration decision (Bansak et al., 2015). Inequality levels may be irrelevant or relatively unimportant for family migrants and those escaping climate change. If such groups of migrants dominate the analysis sample, we may wrongly conclude that inequality is not associated with emigration levels. Nevertheless, most international movers are economic migrants (McAuliffe & Triandafyllidou, 2022), which may alleviate such concerns regarding our analysis.

All in all, given the divergence of the findings, it is difficult to draw particular conclusions from the extant literature. This study, therefore, makes several important contributions to the literature.

First, it utilizes the most up-to-date dataset on emigration intentions, plans, and preparations, for over 150 countries worldwide. Importantly, the survey used covers 99% of the world's adult population and countries are at different levels of material prosperity, allowing us to identify global patterns. Second, we offer analyses with four measures of income inequality and also with wealth inequality. Third, we address issues related to EU mobility and migration and fourth, we provide a large battery of robustness checks and unlike previous studies, we attempt to tackle reverse causality issues.

Of course, inequality is one among several factors influencing potential emigration. In this study, we take economic development, institutions, health and life satisfaction, and social cohesion into account in the analyses but we specifically zoom in on inequality. Future studies can expand the analyses presented here to explore whether and how inequality interacts with these other determinants. This study also only focuses on the push factors of migration. This is because with individual level data, we do not have observed "destination-level" information for those who do not wish to migrate. Future research can attempt to integrate the push and pull factors of migration into a single framework with different data on emigration. Finally, we do not consider temporary vs. permanent migration, nor do we distinguish specifically between economic migrants and other types of migrants. Further data collection efforts and datasets can help shed light on these important distinctions.

Table 1: Key related papers

Reference	Measure of inequality	Migration measure	Level of analysis	Data	Econometric technique	Key finding	Heterogeneity and other results
Panel A: Studies finding a positive relationship between migration and inequality (higher inequality => higher emigration)							
Liebig and Sousa-Poza (2004)	i) Gini coefficient, ii) Income share or top 10%, iii) Income share of upper 10%/lower 20%	Emigration intentions based on the question "Would you be willing to move to another country to improve your work or living conditions?" on a scale of 0 ("very unwilling") to 4 ("very willing")	Individual-level	International Social Survey Programme (ISSP) for year 1995; 23 countries – Anglo-Saxon, Western & Eastern Europe, East Asia (28,000 ind.)	Ordered probit regressions (with individual-level and country-level controls)	Higher income inequality => higher intentions to emigrate	Attenuating effect of inequality on the emigration intentions of high-skilled individuals (interaction term between high education and Gini negative)
Mihai-Ramirez et al. (2017)	Gini coefficient	Crude rate of net migration per 1000 people (% population growth minus natural change). Proxy for difference between immigration and emigration.	Country-level	28 European Union countries, 2000-2013	Panel data analysis but no regression shown.	Inequality is positively associated with net migration rates in richer countries in the sample	No econometric results shown. No statistically significant association shown for the poorer countries
Zaiceva and Zimmermann (2008b)	Gini coefficient	Individual migration intentions within the next 5 years (1= move within the same city/region, 2 = move to another region within the same country, 3=move to another country, 0= no migration intention)	Individual-level	Eurobarometer for year 2005, EU 10 for inequality as a determinant (8 Eastern European countries, Malta, and Cyprus, accepted to the EU in 2004)	Multinomial logit model (with individual-level and country-level controls)	Higher income inequality => higher intentions to emigrate	Main focus of paper is on migration determinants. Working paper version shows that higher income inequality => higher willingness to move to another within-country region or abroad but no relationship with intention to move to another city within the region
Panel B: Studies with a negative relationship between migration and inequality (more inequality => lower emigration)							
Borjas (1987)	Income share of top 10% of households relative to bottom 20% of households circa 1970	Emigration rate (probability that an individual migrated to the United States in 1951-1980)	Individual-level	Employed migrant men aged 25-64 from 41 origin countries residing in the United States in the 1970 and 1980 Census	Probit model w. country-level variables, continent dummies estimated using GLS	Countries with more income inequality have lower migration rates	Main finding: negative selection of migrants: those from countries with more income inequality are less skilled, as per the Roy-Borjas model
Czajka (2013)	i) Gini ii) Vertical inequality (i.e. individual deprivation relative to the co-ethnic group) iii) Horizontal inequality (i.e. co-ethnic group relative to other groups)	Emigrant stock by skill level (Docquier & Marfouk, 2006)	Country-level	Migrants from 192 countries living in OECD countries	Correlations between Gini and emigration by skill level SUR, OLS, 3SLS (instrument=per capita rent of natural resources) for the vertical/horizontal inequality analyses	Bivariate correlational evidence: higher Gini inequality => lower emigration rates	Paper focuses on vertical and horizontal inequalities Higher vertical inequality => higher emigration rates (only significant for high and medium-skilled). Results not robust in OLS/3SLS specifications Higher horizontal inequality => lower emigration rates (more negative relationship for the low-skilled)

Reference	Measure of inequality	Migration measure	Level of analysis	Data	Econometric technique	Key finding	Heterogeneity and other results
Panel C: Nil (i.e. non-statistically significant) relationship between inequality and emigration							
Otrachshenko and Popova (2014)	Gini coefficient	Individual intention to migrate within the next 5 years (0 = permanent international, 1=temporary international, 2=internal, 3= no leave)	Individual-level	Eurobarometer 2008 for 27 European countries	Two-level hierarchical model w. random intercepts (+ individual-level and country-level controls), estimated sequentially	Higher income inequality => higher intentions to emigrate but the relationship is not statistically significant	Paper's key finding is that life dissatisfaction motivates emigration intentions. Macroeconomic conditions indirectly affect emigration decisions by affecting life satisfaction.
Maestri et al. (2017)	Gini index data from various sources	Migration rate based on UNDESA migration stock data by country of birth, 5-year frequency	Country- level	Migrant stocks from 231 origin countries, 1990-2015	OLS	Gini is negatively correlated with the emigration rate; relationship non-significant when controlling for origin population growth rates	No results shown. Relationship driven by middle- and high-income countries but non-significant when controlling for origin population growth rates
Fouarge and Ester (2007)	Gini coefficient	Individual emigration intentions within the next 5 years	Individual-level	Eurobarometer survey in 2005, 25 EU countries (including the UK)	Logit (with individual-level and country-level controls)	Higher income inequality => higher intentions to emigrate but relationship not stat sig.	Marginally statistically significant association for the average educated but not for the higher and lower educated
Panel D: Non-linear relationship between inequality and emigration							
Mayda (2010)	Relative inequality (Gini in origin country divided by Gini in destination country) and its squared term	Emigration rate (immigrant inflow from origin to destination country, multiplied by 100,000, divided by origin country's population)	Country- level	Immigrant inflows in 14 OECD countries by country of origin for 1980-1995	OLS with year dummies, and destination and origin country dummies	Inverse U-shaped relationship – at low levels of relative inequality and up to relative inequality of 2.6642, an increase in inequality increases emigration rates;	Main focus of the paper is on emigration determinants; at high levels of relative inequality (when home inequality is greater than host inequality), increases in home inequality decrease the emigration rate

4. Data and variables

4.1 [The Gallup World Poll and information on emigration intentions](#)

Our individual-level data source is the Gallup World Poll (GWP), which surveys individuals living in over 150 countries worldwide, representing 99% of the world's adult population aged 15 and older. While the survey started in 2005/6, our analysis focuses on 2009-2019 as key control variables related to income and employment status are only available since 2009. In 2020, there are only very few countries where the emigration intentions question is asked. Interviews are conducted via the phone in countries and areas where telephone coverage is widespread (Northern America, Western Europe, developed Asia, and Gulf Cooperation Council countries). Data are collected using face-to-face interviews in Central and Eastern Europe, much of Latin America, former Soviet Union states, nearly all of Asia, the Middle East, and Africa.⁶ Different individuals are polled each year, and as such, the dataset presents pooled cross-sections rather than a panel tracing the same individuals over time.

Several surveys, including the Latinobarometer, the EU Neighborhood Barometer (Wave 4), Eurobarometer, and the Life in Transition Survey, include emigration intentions questions (Nikolova, 2016). Nevertheless, several features make the GWP more advantageous than these other data sources for this report's analyses.⁷ First, while other surveys containing information about emigration intentions have limited geographic coverage, the GWP is a nationally representative survey providing at least 1,000 observations per country for a large sample of countries (see Table A1).⁸ Second, the GWP elicits information about different degrees of emigration aspirations: desires, plans, and concrete preparations for the move. Finally, it contains rich individual-level information ranging from household and individual socio-demographics to opinions and attitudes, well-being, and actual and intended behaviours. These variables are important factors for the decision to move and thus feature as control variables in our analysis.

Specifically, we utilise the following questions to capture emigration intentions (see Table 2 for question wording and variable definitions).⁹

⁶ Gallup's sampling procedures differ depending on whether a face-to-face or telephone survey mode was used. In the case of face-to-face interviews, based on the availability of population information from Census or other data, in a first stage, Gallup selected clusters (Primary Sampling Units (PSUs)) based on a stratified single stage or multiple-stage cluster design. In countries where only limited population information was available at the strata level, Gallup used a stratified single stage cluster design and selected PSUs using simple random sampling. The second stage included household selection using random route procedures. In the third stage, the respondent selected randomly an adult (aged 15 and older) within the household to be interviewed. In the case of telephone surveys, Gallup uses random digit dialing (RDD) or a nationally-representative list of numbers. Both landlines and cell phones are sampled. In a second stage, the respondent is selected either by the last birthday method or by random selection (among household members aged 15 and older).

⁷ A number of studies rely on the GWP to investigate the causes and consequences of migration, such as Bertoli and Ruysen (2018); Esipova, Ray, and Pugliese (2011); Graham and Nikolova (2018); Hendriks, Burger, Ray, and Esipova (2018); Ivlevs, Nikolova, and Graham (2019); Migali and Scipioni (2018); Nikolova, Roman, and Zimmermann (2017).

⁸ In small areas or countries, such as Puerto Rico, the survey polls 500 respondents, while large countries such as Russia and China feature at least 2000 respondents. In some countries, the GWP over-samples respondents in major cities or areas of special interest.

⁹ Additionally, Gallup asked an additional question about the likelihood to move: *In the next 12 months, are you likely to move away from the city or area where you live?* This question does not contain information for internal vs. international migration desires. For this reason, we do not include this question as part of the main empirical analyses. Robustness checks, which are available upon request, indicate that our main results and conclusions also hold when we use this dependent variable. However, as expected, the coefficient estimates for the inequality variables are smaller in magnitude.

- **Emigration desires** (2009-2019): *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?*
- **Emigration plans** (asked of respondents with emigration desires and available 2009-2015): *Are you planning to move permanently to another country in the next 12 months, or not?*
- **Emigration preparation** (asked of those with emigration plans and available 2009-2015): *Have you done any preparation for this move?*

A natural question concerns the reliability of emigration intentions data. People can answer survey questions as they wish, and "talk is cheap." According to Manski (1990), intentions reported in surveys are "best-case" predictions of their future behaviour. As Manski (1990, p. 935) points out, "Even if individuals have rational expectations and stated intentions are best predictions of behavior, intentions, and behaviour need not coincide." In a way, this "best-case" aspect of intentions is also directly reflected in the migration desire question in the GWP, which asks respondents to put themselves in an ideal hypothetical situation in which they have the opportunity to migrate. However, the literature shows that migration intentions are reasonably good predictors of future behaviour, especially when it comes to the plans and preparations (Creighton, 2013; Simmons, 1985; Van Dalen & Henkens, 2013).

Using the GWP, Bertoli and Ruysen (2018) show that emigration desires correlate highly with the actual migration flows to OECD destinations (correlations range from 0.4 to 0.8 depending on the model).¹⁰ Docquier et al. (2014) demonstrate that the correlation between emigration desires and actual migration from 138 origin countries to 30 destinations is 0.93 for the college-educated and 0.24 for the non-college educated. According to the authors' estimates, one in five potential emigrants ended up emigrating among the college-educated, while among the non-college-educated, the corresponding figure was one in twenty (Docquier et al., 2014). Regarding emigration plans and preparations, Tjaden et al. (2019) estimate that one person would actually migrate out of 20 respondents who reported emigration plans. Similarly, one in ten respondents preparing to leave will actually emigrate (Tjaden et al., 2019).

These studies suggest that emigration intentions, plans, and preparations may overstate actual emigration but are nevertheless meaningful predictors of potential emigration. As such, understanding the determinants of emigration desires, plans, and preparations is both an academic and policy-relevant exercise.

4.2 Inequality data and measures

Extant studies have utilised several measures of within-country income inequality (see Table 1). The majority of studies have focused on the Gini coefficient, which captures how much the country's income distribution differs from a perfectly equal distribution. It ranges between 0 (perfect income equality) and 100 (complete income inequality). A Gini score of 100 entails that one entity (e.g. a person or a household) appropriates all of the income in that country.

Furthermore, income shares capture what proportion of the country's total income accrues to a particular percentile at the top or bottom of the income distributions, e.g. the top 1% or the bottom 10%. Finally, there are inequality measures expressed in income ratios, such as the ratio of the income share of the top 10% to the percentage accruing to the bottom 20 % of households.

¹⁰ Dustmann and Okatenko (2014) calculate that the correlation between responses to the GWP question about likelihood of moving away from city/area in the next 12 months with actual internal migration rates since 2000 is 0.30.

Specifically, inequality is typically negatively correlated with people's subjective well-being, suggesting that inequality bothers individuals (Clark & d'Ambrosio, 2015; Ferrer-i-Carbonell & Ramos, 2020). The explanation behind this finding is that individuals care about their relative position in the income distribution (i.e. whether they earn more or less compared to similar others) and fairness issues brought by inequality (Bjørnskov, Dreher, Fischer, Schnellenbach, & Gehring, 2013).

Furthermore, individuals' inequality perceptions often deviate from actual inequality levels. The extant literature has interpreted such results as an indication that people misperceive inequality and their own position in the income distribution (Gimpelson & Treisman, 2018; Hauser & Norton, 2017). Nevertheless, Bussolo, Ferrer-i-Carbonell, Giolbas, and Torre (2021) argue and empirically demonstrate that inequality perceptions correlate with a broader view of inequality that captures poverty and unemployment and perceptions of fairness and social mobility. In other words, questions of inequality perceptions capture more than the individual understanding of the level of inequality. Furthermore, individuals are more or less sensitive to the level of inequality based on their beliefs and ideology, but that does not mean that individuals misperceive or are misinformed about actual inequality levels (Bussolo et al., 2021). Furthermore, changes in actual inequality over time are also correlated with changes in inequality perceptions (Bussolo et al., 2021).

As no single measure of inequality can provide a complete picture of a country's income distribution (Alvaredo et al., 2020),¹¹ we utilise several indicators sourced from the World Inequality Database (WID). These measures include the top 1% share, the top 10% share, the top 20% share, and the Gini coefficient. Furthermore, while the main focus is on *income* inequality, we also include complementary analyses with *wealth* inequality as the key independent variable.

Unlike other inequality data sources that primarily rely on household surveys, the WID uses a wide variety of datasets to construct its measures, such as tax data, national accounts, surveys, and wealth rankings (WID, 2022).¹²

4.3 Other data sources

We utilise additional country-level controls (life satisfaction, GDP per capita, social support, generosity, healthy life expectancy, freedom to make life choices, and corruption perceptions from the Statistical Appendix of the World Happiness Reports in 2021 (Helliwell, Huang, Wang, & Norton, 2021). We impute missing information from the nearest neighbouring observation for each country, or in a few cases, from the average values for neighbouring countries. The World Happiness Report is based on the Gallup World Poll and provides the most complete coverage of country-level information for the countries in the GWP.

Country-level life evaluations are a broad measure of the quality of life (Nikolova & Graham, 2022). The rest of the country-level variables capture important factors related to economic well-being,

¹¹ Simultaneous processes, such as poverty reduction, increases in top incomes and also a decline in the income share of the middle class, may be particularly challenging for computing inequality measures (Alvaredo et al., 2020). In such circumstances, utilizing several inequality measures can provide a better understanding of the causes and consequences of inequality.

¹² For a critical review of the WID and the problems associated with the consistency of tax data as well as coverage, see (Galbraith, 2019). Using an alternative data source, such as the Luxembourg Income Study (LIS), which is based on micro-level information from household surveys is not possible for this project, as the LIS does not cover all of the countries in this paper. Likewise, measures of consumption inequality and wealth inequality are unavailable for the full sample size considered in this paper. The WID coverage during our analysis period is about 170 countries, while that of the LIS is 26-47 countries.

health, and social fabric quality.¹³ GDP per capita is originally sourced from the World Development Indicators and the Penn World Tables¹⁴, and the healthy life expectancy comes from the World Health Organization's (WHO) Global Health Observatory data repository. All other country-level controls are based on country-level averages of variables from the Gallup World Poll (see Table 2 for further clarifications and definitions).

¹³ The variables GDP per capita, social support, generosity, healthy life expectancy, freedom to make life choices, generosity, and corruption perceptions explain three quarters of the variation in life evaluations across 140-150 countries around the globe (Helliwell, Huang, Wang, & Norton, 2020).

¹⁴ We do not rely on GDP from the Penn World Tables as this data source does not include all countries in our analysis sample.

Table 2: Definitions of the key variables used in the analyses

Variable	Definition
Individual variables	
Emigration intention	A binary variable based on the question (WP1325) "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?"; 1 = Yes; 0 = No
Emigration plan	A binary variable based on the question (WP10252) "Are you planning to move permanently to another country in the next 12 months, or not?" (Asked only of those who would like to move to another country); 1 = Yes; 0 = No; When the variable had missing information, we checked whether there were valid answers given to the question WP6880 asked in 2008/9 "Are you planning to move permanently to that country in the next 12 months, or not?" (Asked only of those who specified a country to which they would like to move)
Emigration preparation	A binary variable based on the question (WP9455) "Have you done any preparation for this move?" (Asked only of those who are planning to move to another country in the next 12 months); 1 = Yes; 0 = No
Female	Respondent's biological sex; 0 = Male, 1 = Female
Age	Respondent's age in years
Immigrant	An indicator of whether the respondent was born in the country of interview; 1 = Yes, 2 = No, 3 = Missing information
Rural location	An indicator capturing whether the respondent's location is rural or not. 1 = Rural; 2 = Small town, large city, suburb, 3 = No information
Married	A binary indicator capturing the respondent's marital status; 1 = Married/Domestic Partnership; 0 = Single/Widowed/Divorced
Tertiary education	A binary indicator capturing the respondent's educational level; 1 = Completed four years of education beyond high school and/or received a 4-year college degree; 0 = Completed elementary education or completed secondary education
Children in the household	A binary indicator capturing whether the respondent has children living in the household; 1 = Yes, 0 = No
Income tertile	An indicator variable indicating the within-country per capita annual household income in International USD; 1 = Bottom income tertile; 2 = middle income tertile; 3 = top third tertile; 4 = missing information
Unemployed	Whether the respondent is unemployed or not. 1 = unemployed; 2 = working or out of the workforce
Key independent variables (country-level)	
Top 1% income share (lag)	Top 1% share of pre-tax national income for adults, including elderly (20+), equal-split adults (i.e. income or wealth divided equally among spouses), lagged one time period, based on the WID
Top 10% income share (lag)	Top 10% share of pre-tax national income for adults, including elderly (20+), equal-split adults (i.e. income or wealth divided equally among spouses), lagged one time period, based on the WID
Top 20% income share (lag)	Top 20% share of pre-tax national income for adults, including elderly (20+), equal-split adults (i.e. income or wealth divided equally among spouses), lagged one time period, based on the WID

Gini coefficient (lag)	The Gini index ranges from 0 (perfect quality) to 100 (perfect inequality). It is a measure of how much the income distribution deviates from a perfectly equal distribution, based on the WID
Country-level controls	
Life evaluations (lag)	Average country-level variable based on the responses to the question asking respondents to position their current lives on an 11-step ladder, where 0 denotes the worst possible life they can imagine for themselves, and 10 denotes the best possible life they can imagine for themselves from the Statistical Appendix to the World Happiness Report 2021. The variable's original source is the Gallup World Poll. The variable is lagged one time period.
Log GDP per capita (lag)	Log-transformed GDP per capita (variable name GDP) in purchasing power parity (PPP) at constant 2017 international dollar prices from the Statistical Appendix to the World Happiness Report 2021. The original data source is the World Development Indicators (WDI), and data from Taiwan, Syria, Palestine, Venezuela, Djibouti and Yemen are from the Penn World Table. Before log-transforming this variable, we added 1 to 0 observations. The variable is lagged one time period.
Social support (lag)	Share of respondents in the country of interview answering "Yes" to the binary question "If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?" from the Statistical Appendix to the World Happiness Report 2021. The variable's original source is the Gallup World Poll. The variable is lagged one time period.
Healthy life expectancy (lag)	Healthy life expectancies at birth are from the World Health Organization's (WHO) Global Health Observatory data repository (last updated: 2020-09-28). The original data are for 2000, 2005, 2010, 2015 and 2016. The World Happiness Report researchers interpolated and extrapolated missing data for the analysis period 2005-2020. The data are derived from the Statistical Appendix to the World Happiness Report 2021. The variable is lagged one time period.
Freedom (lag)	Share of respondents in the country of interview answering "Yes" to the question "Are you satisfied or dissatisfied with your freedom to choose what you do with your life?" from the Statistical Appendix to the World Happiness Report 2021. The variable's original source is the Gallup World Poll. The variable is lagged one time period.
Generosity (lag)	The residual of regressing national average of response to the GWP question "Have you donated money to a charity in the past month?" on GDP per capita from the Statistical Appendix to the World Happiness Report 2021. The variable's original source is the Gallup World Poll and the World Development Indicators. The variable is lagged one time period.
Corruption perceptions (lag)	Average country-level variable based on the responses to the questions "Is corruption widespread throughout the government or not" and "Is corruption widespread within businesses or not?" The variables are coded as 0 = No and 1 = Yes, then added up and averaged. The data are from the Statistical Appendix to the World Happiness Report 2021. The variable's original source is the Gallup World Poll. The variable is lagged one time period.

5. Methods

5.1 Baseline empirical specification

The emigration intention M of individual i in time period t living in country j is:

$$M_{ijt} = \alpha + \gamma \text{inequality}_{jt-1} + X'_{ijt} \beta + C'_{jt-1} \varphi + \pi_r + \tau_t + \pi_r \times d + u_{ijt}, \quad (3)$$

where inequality_{jt-1} is the within-country inequality measured as the top 1% income share of pre-tax national income, the top 10% income share of pre-tax national income, the top 20% income share of pre-tax national income, or the Gini index, lagged one time period, X is a vector of individual-level control variables (age, gender, immigrant status, marital status, education level, income, presence of children in the household, urban or rural location, employment status), C captures country-level variables (life evaluations, log GDP per capita, social support, healthy life expectancy, freedom perceptions, generosity, and corruption perceptions), π_r are the geographic region of residence dummies, τ_t are time dummies, $\pi_r \times d$ are interactions between the region of residence and a linear time trend, and u_{ijt} is the stochastic error term.

In separate analyses, for completeness, we also include wealth inequality, measured by the net personal wealth share held by the top 1%, top 10%, top 20%, and the wealth Gini index.¹⁵

Inequality and other country characteristics are lagged one time period to account for the fact the link between inequality and emigration intentions is not instantaneous or that the country-level data may be released after the Gallup interview date. The choice of the individual controls follows the literature on emigration intentions using the GWP (Adema et al., 2021; Cai et al., 2014; Dustmann & Okatenko, 2014; Graham & Nikolova, 2018) and captures standard socio-demographic controls that are correlated with the emigration decision. Including these variables mitigates issues related to the self-selection of individuals into migration, i.e. the worry that who migrates is non-random.

All regressions are estimated using the Gallup-provided survey weight and use standard errors that are clustered at the *country×year* level to reflect the variation in the key independent variable inequality. Like Adema et al. (2021) and Dustmann and Okatenko (2014), for ease of interpretation, we estimate Equation (3) using a linear probability model. Logit and probit estimations, available upon request, provide qualitatively similar results.

We do not include country fixed effects in regression (3) because within-country inequality does not change much over time.¹⁶ Adding country fixed effects essentially absorbs all the within-country variation and wrongly produces statistically non-significant results. Therefore, like other papers in the literature that deal with inequality, instead of country fixed effects, we include in our statistical analyses region fixed effects and a rich set of country-level variables capturing the socio-economic and institutional conditions. Furthermore, we include the $\pi_r \times d$ fixed effects to account for particular economic or political development trends within geographic regions. Such trends could relate to particular shocks (e.g. climate or economic shocks) that affect some regions but not others.

¹⁵ Net personal wealth captures the total value of non-financial and financial assets (such as, housing, land, deposits, bonds, and equities) held by households, net of their debts.

¹⁶ The within-standard deviation of the lagged inequality measures in our analysis sample ranges between 0.012 to 0.014 in our analysis sample. For comparison purposes, the within-country standard deviation of lagged life satisfaction is 0.337.

Because the relationship between inequality and emigration intentions can depend on selection based on skills, following Liebig and Sousa-Poza (2004), we also estimate Equation (3) by including an interaction term between the respondent's own education level and the level of inequality. This interaction term can provide some suggestive evidence regarding Roy-Borjas hypotheses related to self-selection outlined in Section 3.3.3 above. We use education as a proxy for skills, as is commonly done in the literature.

In separate analyses, we estimate Equation (3) only for two additional analyses samples: i) for respondents who want to move to EU destination countries and ii) for respondents who would like to engage in EU mobility (i.e. EU residents of one country expressing moving intentions to another EU country).

5.2 [Econometric challenges and causality](#)

The main challenge to studying the causal effect of inequality on emigration is reverse causality: while inequality may affect migration, migration also affects inequality through, for example, remittances (Alpaslan et al., 2021). Remittances refer to the money migrants working abroad send to their family and friends back home. In some countries, such as El Salvador, Liberia, and Nepal, remittances account for more than 20% of GDP (Alpaslan et al., 2021).

Our analysis is based on *intended* rather than *actual* emigration, which somewhat mitigates the issue. Nevertheless, to the extent that emigration decisions are correlated with actual migration behaviour, some endogeneity concerns remain.

To deal with this endogeneity issue, in Appendix B, we report results based on an instrumental variable technique. We instrument current inequality levels with information on traditional inheritance practices. These causal results are in line with our baseline findings, which increases the confidence in our main conclusions. In the next section, we first present descriptive statistics related to our main variables of interest and then turn to the multivariate regression results.

6. Descriptive statistics

Figures 1 and 2 below depict the top 1% income share distribution and the Gini coefficient across the globe. Darker colours indicate higher income inequality. The top 1% share ranges from 0.07 (i.e. the richest 1% of individuals earn 7% of the national income) in the Netherlands, North Macedonia, and Slovenia and is as high as 0.30 in Mozambique and 0.31 in the Central African Republic.

Similar patterns regarding the geographic distribution of inequality also emerge when we plot the Gini coefficient (Figure 2). The countries with the lowest income inequality according to this measure are the Czech Republic, Iceland, Slovakia, Sweden, Norway, and the Netherlands, while the Central African Republic, South Africa, and Namibia are among the countries with the highest Gini index inequality.

Figure 1: Top 1% income share in the analysis sample, by country (2009-2019)

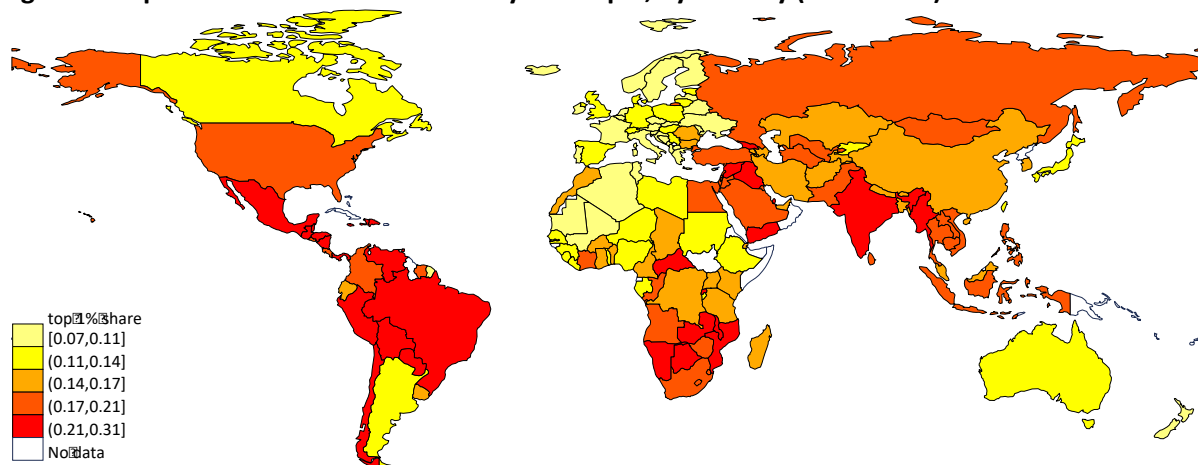
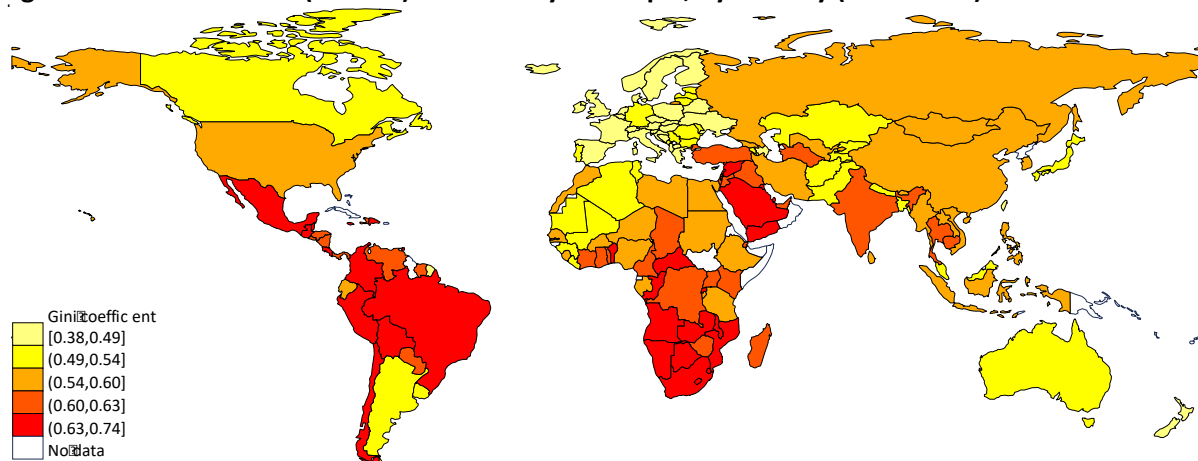


Figure 2: Gini coefficient (income) in the analysis sample, by country (2009-2019)



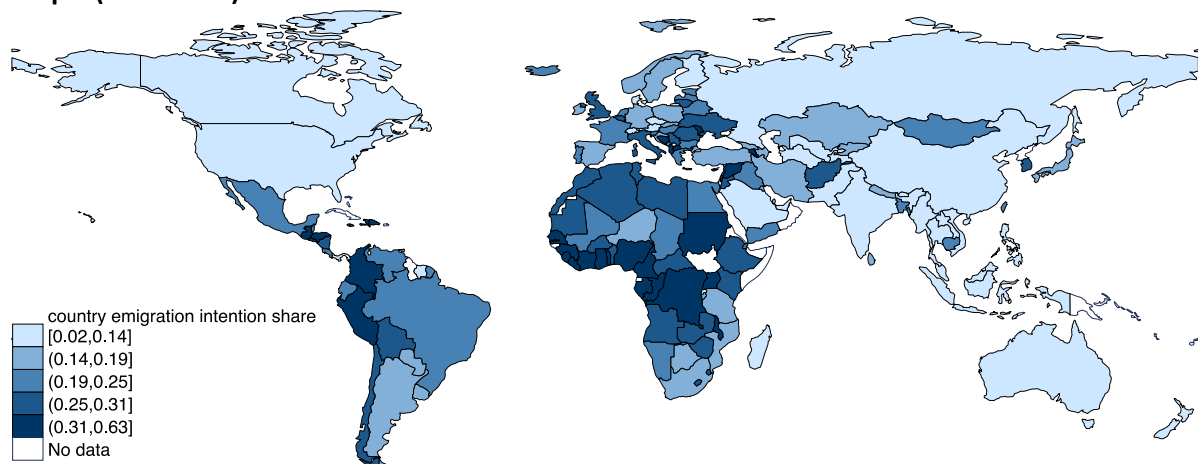
We next discuss our measures of potential emigration. Across all years and countries in our analysis sample, about a fifth of respondents reported emigration intentions, which is comparable to the figures reported in other work using the GWP and emigration intentions (Adema et al., 2021; Cai et al., 2014; Graham & Nikolova, 2018). The share of those with emigration intentions (i.e. those who ideally

would like to move permanently to another country if they had the opportunity) ranges from 0.02 in Indonesia and 0.03 in Thailand to over 0.5 in Haiti, Liberia, and Sierra Leone (Figure 3).

Furthermore, only about 15% of those with emigration intentions have concrete emigration plans to leave in the next year (or about 3% of all respondents overall). The share of those with emigration plans ranges from 0.01 in Japan to 0.51 in Libya.

Finally, about a third of those with emigration plans are preparing for the move (or about 1% of the analysis sample overall). The share of respondents preparing to leave ranges from 0.05 in Madagascar to 0.92 in Thailand. Figures A1 and A2 in the appendix detail the corresponding shares of respondents reporting emigration plans and preparations, respectively.

Figure 3: Average country-level share of respondents reporting emigration intentions in the analysis sample (2009-2019)



The top desired and planned destination countries included the United States, Germany, France, Canada, and the United Kingdom.

Table 3 reports the summary statistics for the analysis sample concerning emigration intentions, and Tables A2 and A3 report this information for the analysis sample based on emigration plans and preparations, respectively. Table 3 details that respondents with and without emigration intentions differ along with key socio-demographic variables, such as age, rural/urban location, marital status, employment status, and the presence of children in the household. Self-selection into migration is an important issue in migration economics (Borjas, 1987; Chiswick, 1999; Nikolova, 2015). We, therefore, control for these socio-demographic characteristics to rule out the possibility that the self-selection drives our results into migration based on these observable socio-demographic characteristics.

Table 3: Summary statistics, emigration intentions sample 2009-2019

	Overall sample, N=1,455,295		Emigration intentions=Yes, N = 316,512		Emigration intentions=No, N =1,138,783	
Individual variables	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Emigration intention	0.223	0.417				
Biological sex						
Male	0.490	0.500	0.534	0.499	0.477	0.499
Female	0.510	0.500	0.466	0.499	0.523	0.499
Age	39.257	17.395	32.345	14.083	41.246	17.745
Immigrant status						
Native	0.921	0.270	0.916	0.277	0.922	0.268
Immigrant	0.052	0.222	0.059	0.236	0.050	0.217
No information	0.028	0.164	0.025	0.155	0.028	0.166
Location						
Rural location	0.704	0.456	0.748	0.434	0.691	0.462
Urban location	0.278	0.448	0.235	0.424	0.291	0.454
No information	0.018	0.131	0.017	0.130	0.018	0.132
Marital status						
Married	0.580	0.494	0.459	0.498	0.615	0.487
Not married/divorced/widowed	0.420	0.494	0.541	0.498	0.385	0.487
Education						
Primary or secondary education	0.883	0.321	0.872	0.334	0.886	0.318
Tertiary education	0.117	0.321	0.128	0.334	0.114	0.318
Children in the household						
Yes	0.562	0.496	0.603	0.489	0.550	0.498
No	0.438	0.496	0.397	0.489	0.450	0.498
Within-country income tertile						
Poorest third	0.395	0.489	0.383	0.486	0.399	0.490
Middle third	0.323	0.468	0.314	0.464	0.326	0.469
Richest third	0.251	0.434	0.263	0.440	0.248	0.432
No information	0.030	0.170	0.039	0.194	0.027	0.163
Unemployment status						
Not unemployed	0.910	0.286	0.875	0.330	0.921	0.270
Unemployed	0.066	0.248	0.105	0.307	0.054	0.227
Missing information	0.024	0.152	0.019	0.138	0.025	0.156
Key independent variables (country-level)						
Top 1% income share (lag)	0.162	0.050	0.161	0.051	0.163	0.050
Top 10% income share (lag)	0.456	0.088	0.460	0.088	0.455	0.088
Top 20% income share (lag)	0.602	0.082	0.606	0.081	0.601	0.082
Gini (lag)	0.565	0.082	0.569	0.082	0.564	0.082

Country-level controls						
Life evaluations	5.391	1.072	5.223	1.039	5.439	1.076
Log GDP per capita	9.331	1.114	9.158	1.119	9.381	1.108
Social support	0.805	0.120	0.792	0.119	0.809	0.119
Healthy life expectancy	63.138	7.119	62.056	7.625	63.449	6.935
Freedom	0.732	0.142	0.711	0.139	0.738	0.142
Generosity	-0.009	-0.163	-0.022	-0.142	-0.006	-0.168
Corruption perceptions	0.748	0.181	0.778	0.157	0.740	0.187

Notes: See Table 2 for variable definitions. The values are calculated using the Gallup-provided survey weight.

7. Results

7.1. Results concerning the global sample

Table 4 presents our baseline results based on estimating Equation (3). Panel A presents the main results, and Panel B – the findings with interactions between income inequality and education. We report the findings for all four inequality measures and three dependent variables denoting emigration *intentions* (Models (1)-(4) in Panels A and B), *plans* (Models (5)-(8) in Panels A and B), and *preparations* (Models (9)-(12) in Panels A and B). All regressions control for individual-level socio-demographic factors (including education), country-level characteristics, and year, region, and timeXregion fixed effects and report standard errors clustered at the countryXyear level. For brevity, we only report the coefficient estimates of the key independent variables, while full econometric output is available upon request.

Our empirical specifications include control variables, allowing us to compare individuals with similar socio-demographic characteristics, living in comparable country circumstances, and subject to like observed and unobserved shocks, such as the economic crisis of 2007-2009. We also account for region-level peculiarities and regional shocks using region fixed effects and timeXregion fixed effects, respectively.

First, Models (1)-(4) of Panel A in Table 4 demonstrate that emigration intentions are negatively correlated with all inequality measures. Specifically, according to Model (1), a one percentage point increase in the top 1% income share is associated with a 0.541 percentage point decrease in emigration intentions. Given that the average share of those reporting emigration intentions in our sample is 0.22 and the top 1% income share is 0.16 (see Table 3), our estimate implies that increasing the top 1% share from 0.16 to 0.17 would imply a decrease in the probability of reporting emigration intentions from 0.220 to 0.215. All in all, in terms of its economic significance, this is a rather modest, though meaningful, impact. So far, our results are in line with Borjas (1987), who found that income inequality was associated with lower male immigration to the US, implying the negative selection of immigrants.

One thing to note about Table 4 and subsequent analyses is that the R^2 of the models is rather low, which is also the case in other studies of migration intentions (e.g. Liebig & Sousa-Poza, 2004; Zaiceva and Zimmermann, 2008a; 2008b). While we include individual-level and country-level controls and fixed effects, this suggests that there are determinants of intended emigration behaviour that we are not capturing. Such determinants can be traits, such as risk-tolerance, personality traits, and other individual idiosyncratic factors that we cannot measure and cannot include in the analyses. There are many more factors influencing emigration intentions, in addition and above and beyond inequality.

The results regarding the consequences of inequality for emigration plans (Models (5)-(8) of Panel A, Table 4) are also negative, though smaller in magnitude, compared to those related to emigration intentions. One explanation for this finding could be that inequality may more strongly affect those who are still considering whether to emigrate or not and have not yet made concrete plans. In other words, home-country inequality may be a less relevant push factor once individuals have made their emigration decisions and are in the stage of planning the move. In line with this explanation, we find that emigration preparations are generally unaffected by inequality, as evidenced by the non-statistically significant coefficient estimates on inequality in Models (9)-(12). An alternative explanation for the lack of association between emigration preparations and inequality is the lack of sufficient statistical power to identify the relationship, given that few individuals are planning and preparing to move. All in all, our first set of results implies that inequality acts as a deterrent and not a propeller of emigration decisions.

The difference between the results in Panel A and Panel B of Table 4 is that in addition to education, Panel B also includes an interaction between inequality and education, while the analyses in Panel A of Table 4 only include education but no interaction. The analyses in Panel B of Table 4 explore whether inequality has a differential impact on emigration intentions depending on whether individuals have tertiary education or not. We still find that higher income inequality is associated with lower emigration intentions and plans and that high-skilled individuals are generally less likely to want to move abroad. Nevertheless, the negative association between inequality and emigration intentions is lower in magnitude for the high-skilled. This is evident from the fact that while the coefficient estimates on all inequality measures are negative, the interaction term between inequality and tertiary education is positive. In other words, while inequality hinders emigration, its negative effects are slightly less negative for the high-skilled. Education, therefore, cushions, though it does not fully offset, the deterring costs of inequality for emigration. These results differ from those in Liebig and Sousa-Poza (2004) who find that inequality is positively associated with emigration intentions in 1995, the more educated are more likely to want to leave. Still, at the same time, in high inequality countries, the high-skilled have fewer incentives to migrate. The differences between our results and those in Liebig and Sousa-Poza (2004) can be due to several factors, but most notably the larger number of countries and the coverage of countries at lower levels of economic development that we use in our estimations. By contrast, Liebig and Sousa-Poza (2004) utilise 23 countries in 1995 only, which are mostly high-income or upper-middle-income countries.¹⁷ They use also a different emigration intentions variable and different control variables.

Furthermore, the results we document in Panel B of Table 4 could reflect the fact that inequality raises the costs of migration but being more educated mitigates parts of this additional cost, which is an explanation we consider in Section 8 below.

7.2. Results based on geographic region of residence

Our main finding is that globally, emigration intentions and plans are negatively associated with emigration intentions. In other words, increases in within-country income inequality correspond to decreases in potential emigration. Nevertheless, these global patterns may conceal important differences across different geographic regions. To better understand these heterogeneities, we re-estimate equation (1) by the region of residence for the respondent.¹⁸ Table 5 details the estimations, which exclude the region fixed effects and the regionXlinear time trend interactions.

Inequality is negatively associated with the emigration intentions of respondents living in the post-Soviet world, South Asia, and Sub-Saharan Africa. In East Asia, high inequality triggers potential emigration. There is generally no association between emigration intentions and inequality in Southeast Asia and MENA. These findings are robust across different measures of inequality. For the rest of the world regions, the results differ across the different inequality measures.

For respondents living in Europe, broadly defined, only the top 1% income share seems to discourage potential emigration. In Latin America, inequality generally pushes emigration, though not when it comes to the top 1% share. There are no clear patterns for the Australia-New-Zealand/Northern America regions.

¹⁷ Conducting the analyses for the 23 countries in Sousa-Poza, we find a negative but not statistically significant or marginally statistically significant association between inequality and emigration intentions. The results are available upon request. Note that we technically use 22 countries as we only have data on Germany and not West Germany and East Germany as in Liebig and Sousa Poza (2004).

¹⁸ Table A4 details the country composition of the Gallup World Poll geographic regions. In Table 5, we group Australia, New Zealand, Canada, and the US together or else we have too few observations.

The main takeaway from Table 5 is that there are regional differences in the relationship between income inequality and emigration intentions. These findings can also explain the divergent findings in the literature detailed in Table 1. These results suggest that which countries are included in the analyses matters for the final conclusion, which may explain the divergent findings in the literature.

7.2 Robustness checks

We check whether our results are just a data artefact based on how we have set up our empirical models. To that end, we conduct specification curve analyses (Simonsohn, Simmons, & Nelson, 2015, 2020). The main idea behind these additional analyses is to estimate modifications of Equation (3) using alternative control variables, weighting schemes, and subsamples and present the results graphically so that the reader can quickly view the distribution of the results and their confidence intervals.

Figure 4 below provides the results concerning the emigration intentions sample for the top 1% income share. We first present the main specification corresponding to the results in Model (1) in Table 4, Panel A. These results are highlighted in blue and denote the included control variables (all socio-demographic variables, country-level controls, and year, region, and yearXtime fixed effects).¹⁹

We consequently plot the estimates and confidence intervals from alternative specifications. Specifically, i) we estimate Equation (3) by only including as control variables the year, region, and yearXtime fixed effects but no other control variables. All subsequent specifications include the year, region, and yearXtime fixed effects. We then ii) include only exogenous demographic variables and exclude so-called “bad controls” (Angrist & Pischke, 2009), which may be the outcome of inequality themselves. Specifically, the exogenous variables we include are gender, age, and immigrant status. The exogenous demographics exclude socio-demographics related to rural/urban location, marital, employment, education status, children's presence in the household, and household income. Next, iii) we include the lagged country-level controls (life satisfaction, log real GDP per capita, social support, life expectancy, freedom perceptions, generosity, and corruption perceptions). The next set of specifications iv) exclude the Gallup weight; v) limit the analysis sample to respondents between 18-60 to better capture economic migrants of working age; and vi) we exclude the foreign-born whose emigration may reflect return migration intentions. The last set of specifications excludes one geographic region at a time.

This battery of robustness checks provides confidence that our results are not driven by choice of the controls, the weighting scheme, or particular subsamples. Similar specification curve analyses for the emigration plans and emigration preparations samples are available in Figures A3 and A4 in Appendix A.

In addition, Appendix B documents our results related to instrumental variable techniques, which provide the causal estimate of the effects of inequality on prospective emigration.

We also check whether our results hold when we use wealth inequality and not income inequality measures (Table 6). Figures A5 and A6 in the appendix plot the geographic distribution of wealth inequality. The Gini index wealth inequality is lowest in Spain and highest in South Africa. The top 1% share is lowest in Belgium and Slovakia and highest in South Africa.

The results in Table 6 show that wealth inequality is negatively associated with emigration intentions but not plans and preparations. The coefficient estimates in Panel A of Table 6 are also lower than

¹⁹ For brevity, we only provide the results related to the top 1% share as a key independent variable. The specification curve analyses for the other key independent variables are available upon request.

those in Models (1)-(4) of Table 4. A potential explanation for these findings is that, unlike income inequality, wealth inequality does not immediately produce a larger number of poor people in the country and thus does not constrain their ability to migrate to the same extent that income inequality does. Alternatively, individuals may be more informed about and thus sensitive to income rather than wealth inequality.

Table 4: The relationship between income inequality levels and emigration intentions, plans, and preparations, 2009-2019

	Emigration intentions 2009-2019				Emigration plans, 2009-2015				Emigration preparations, 2009-2015			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Panel A: Baseline												
Top 1% share (lag)	-0.541*** (0.070)				-0.260*** (0.096)				-0.265 (0.179)			
Top 10% share (lag)		-0.355*** (0.050)				-0.183** (0.072)				-0.233* (0.139)		
Top 20% share (lag)			-0.364*** (0.054)				-0.166** (0.077)				-0.242 (0.155)	
Gini index (lag)				-0.317*** (0.052)				-0.141** (0.072)				-0.200 (0.148)
R ²	0.091	0.091	0.090	0.090	0.045	0.045	0.045	0.045	0.060	0.060	0.060	0.060
Panel B: Education Interactions												
Top 1% share (lag)	-0.559*** (0.071)				-0.275*** (0.098)				-0.236 (0.181)			
Top 1% share (lag) X Tertiary ed.	0.196*** (0.046)				0.143** (0.071)				-0.278 (0.223)			
Top 10% share (lag)		-0.370*** (0.051)				-0.196*** (0.073)				-0.227 (0.140)		
Top 10% share (lag) X Tertiary ed.		0.153*** (0.025)				0.124*** (0.040)				-0.053 (0.129)		
Top 20% share (lag)			-0.382*** (0.054)				-0.183** (0.078)				-0.237 (0.156)	
Top 20% share (lag) X Tertiary ed.			0.170*** (0.028)				0.143*** (0.043)				-0.043 (0.139)	
Gini index (lag)				-0.335*** (0.052)				-0.158** (0.073)				-0.196 (0.150)
Gini index (lag) X Tertiary ed.				0.156*** (0.027)				0.142*** (0.042)				-0.034 (0.139)
Tertiary education	0.002	-0.034***	-0.067***	-0.053***	0.006	-0.026	-0.056**	-0.050**	0.155***	0.133**	0.136	0.129

R ²	(0.007) 0.091	(0.011) 0.091	(0.016) 0.091	(0.015) 0.090	(0.011) 0.045	(0.017) 0.045	(0.025) 0.045	(0.023) 0.045	(0.038) 0.060	(0.061) 0.060	(0.086) 0.060	(0.081) 0.060
Observations	1,455,295	1,455,295	1,455,295	1,455,295	184,295	184,295	184,295	184,295	24,101	24,101	24,101	24,101
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country-level controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Region FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Region X Linear time trend	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes: The table reports OLS results using robust standard errors clustered at the countryXYear level. The dependent variable in Models (1)-(4) is emigration intentions, in Models (5)-(8) is emigration plans, and in Models (9)-(12) is emigration preparations. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), Region fixed effects, regionXtime trend controls, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions.

*** p<0.01, ** p<0.05, * p<0.1

Table 5: The relationship between inequality levels and emigration intentions, by geographic region of residence (2009-2019)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Post-						South	Southeast	
	AU+NZ+US+CAN	Soviet	East Asia	Europe	LAC	MENA	Asia	Asia	SSA
Panel A: Top 1% share (lag)									
Top 1% share (lag)	-0.120 (0.640)	-1.059*** (0.168)	1.324*** (0.357)	-0.469*** (0.163)	0.136 (0.111)	-0.217 (0.170)	-2.647*** (0.466)	0.509 (0.415)	-0.573*** (0.129)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.047	0.118	0.117	0.104	0.095	0.078	0.075	0.071	0.084
Panel B: Top 10% share (lag)									
Top 10% share (lag)	0.200 (0.213)	-0.643*** (0.135)	0.690*** (0.144)	-0.019 (0.118)	0.196** (0.081)	-0.247* (0.128)	-1.206*** (0.168)	0.366 (0.313)	-0.463*** (0.102)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.047	0.116	0.117	0.103	0.095	0.078	0.077	0.071	0.085
Panel C: Top 20% share (lag)									
Top 20% share (lag)	0.537* (0.294)	-0.505*** (0.155)	0.656*** (0.152)	0.119 (0.110)	0.280*** (0.095)	-0.226 (0.139)	-1.542*** (0.217)	0.392 (0.358)	-0.527*** (0.115)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.047	0.114	0.117	0.103	0.096	0.078	0.077	0.071	0.085
Panel D: Gini index (lag)									
Gini index (lag)	0.835* (0.457)	-0.339** (0.145)	0.609*** (0.144)	0.105 (0.099)	0.309*** (0.088)	-0.220 (0.139)	-1.590*** (0.231)	0.430 (0.370)	-0.493*** (0.117)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.047	0.113	0.117	0.103	0.096	0.078	0.076	0.071	0.084

Notes: The table reports OLS results using robust standard errors clustered at the countryXyear level. The dependent variable in all models is emigration intentions. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions. See Table A4 for the list of countries per geographic region. The Australia-New Zealand and Northern America regions are combined in this table.

Figure 4: Specification curve analysis, emigration intentions sample, results related to the top 1% share

◆ Main spec. ♦ Point estimate ■ 95% CI

Coefficient estimate top 1% share (lag)



Specification																
All demographics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Country-level controls	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Year, Region, RegionXTime FE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Exogenous demographics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
No weight	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Age groups 18-60	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Non-immigrant sample	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
World Regions																
Australia-New Zealand	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Post-Soviet	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
East Asia	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Europe	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Latin America & Caribbean	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Middle East and North Africa	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Northern America	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Asia	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Southeast Asia	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sub-Saharan Africa	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Table 6: The relationship between wealth inequality levels and emigration intentions, plans, and preparations 2009-2019

	(1)	(2)	(3)	(4)
Panel A: Emigration intentions 2009-2019				
Top 1% share (lag)	-0.315*** (0.038)			
Top 10% share (lag)		-0.299*** (0.038)		
Top 20% share (lag)			-0.305*** (0.047)	
Gini index (lag)				-0.250*** (0.043)
Observations	1,449,317	1,449,317	1,449,317	1,449,317
R ²	0.091	0.091	0.091	0.090
Panel B: Emigration plans, 2009-2015				
Top 1% share (lag)	-0.072 (0.059)			
Top 10% share (lag)		-0.050 (0.059)		
Top 20% share (lag)			-0.058 (0.069)	
Gini index (lag)				-0.058 (0.060)
Observations	183,400	183,400	183,400	183,400
R ²	0.045	0.044	0.044	0.044
Panel C: Emigration preparations, 2009-2015				
Top 1% share (lag)	-0.004 (0.107)			
Top 10% share (lag)		0.002 (0.105)		
Top 20% share (lag)			0.019 (0.126)	
Gini index (lag)				0.030 (0.113)
Observations	24,065	24,065	24,065	24,065
R ²	0.060	0.060	0.060	0.060
Year FE	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y
Country-level controls	Y	Y	Y	Y
Region FE	Y	Y	Y	Y
Region X Linear time trend	Y	Y	Y	Y

Notes: The table reports OLS results using robust standard errors clustered at the countryXyear level. The dependent variable in Panel A is emigration intentions, in Panel B is emigration plans, and in Panel C, emigration preparations. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), Region fixed effects, regionXtime trend controls, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions.

*** p<0.01, ** p<0.05, * p<0.1

8. Emigration intentions to the EU and EU mobility

According to Eurostat (2022), in 2019, 2.7 million immigrants from non-EU countries moved to the EU, and about 1.4 million people moved from one EU member state to another. Germany, Spain, Italy, and France reported the highest number of immigrants (Eurostat, 2022).

To our knowledge, no existing papers or reports provide evidence about how inequality shapes emigration intentions from third countries to the EU or how inequality determines EU mobility. Our data reveal that the most desirable destinations for respondents reporting emigration intentions to the European Union are Germany, France, the United Kingdom, Spain, and Italy. The same countries are also the desired host countries for EU residents wishing to move to another EU country (i.e. those who would like to engage in EU mobility).

Table 7 details the results related to emigration intentions from countries all over the world to the European Union (Models (1)-(4)) and emigration intentions from one EU country to another (i.e. EU mobility) in Models (5)-(8).^{20,21} The dependent variable in Models (1)-(8) is coded as 1 if the respondent has emigration intentions to the EU and 0 if they have emigration intentions to another (i.e. non-EU) country. The results report the consequences of inequality for emigration to the EU or outside the EU and can be taken as an intensive margin estimation.

In Models (5)-(8), we restrict the origin countries to the EU-28. Almost a third (31%) of respondents with emigration intentions worldwide would like to move to an EU country. Furthermore, almost half (50%) of EU residents with emigration intentions would like to move to another EU country.

Panel A of Table 7 reveals that the relationship between inequality and emigration intentions that we documented for the global sample (Table 4) also holds regarding emigration intentions to the EU. Specifically, inequality is negatively associated with emigration intentions and mobility intentions within Europe, though the latter relationship is marginally statistically significant (Models (5)-(8) of Table 7, Panel A). Furthermore, the negative self-selection and the attenuation effect we documented for more educated respondents in the global sample also holds for those with emigration intentions to the EU (Panel B, Models (1)-(4)).

Interestingly, Models (5)-(8) of Panel B reveal that the negative consequences of inequality for EU mobility are fully driven by high-skilled respondents, as evidenced by the negative coefficient on the interaction term between tertiary education and inequality and the non-statistically significant coefficient estimate on inequality. Nevertheless, these results are not always robust across all inequality measures, and readers should only take them as suggestive evidence. Yet, Table 7 suggests that there is a negative selection of immigrants into the EU. Still, there seem to be patterns pointing to positive selection when it comes to EU mobility patterns.

²⁰ Given the analysis period, our definition of the European Union is based on the EU-28 and includes the following countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

²¹ We do not provide such analyses related to emigration plans and preparations due to the small number of observations.

Table 7: The relationship between inequality levels and emigration intentions to the European Union, 2009 -2019

	Emigration intentions to the EU (from all origin countries)				Mobility intentions (from one EU country to another)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Baseline								
Top 1% share (lag)	-0.781*** (0.129)				-0.501 (0.362)			
Top 10% share (lag)		-0.470*** (0.095)				-0.444* (0.254)		
Top 20% share (lag)			-0.505*** (0.103)				-0.447* (0.237)	
Gini index (lag)				-0.459*** (0.098)				-0.372* (0.223)
R ²	0.086	0.085	0.084	0.084	0.042	0.042	0.042	0.042
Panel B: Education Interactions								
Top 1% share (lag)	-0.821*** (0.131)				-0.380 (0.369)			
Top 1% share (lag) X Tertiary ed.	0.365*** (0.075)				-0.754*** (0.300)			
Top 10% share (lag)		-0.486*** (0.096)				-0.382 (0.258)		
Top 10% share (lag) X Tertiary ed.		0.138*** (0.044)				-0.410*** (0.204)		
Top 20% share (lag)			-0.523*** (0.104)				-0.399* (0.241)	
Top 20% share (lag) X Tertiary ed.			0.141*** (0.048)				-0.318 (0.196)	
Gini index (lag)				-0.478*** (0.099)				-0.330 (0.226)
Gini index (lag) X Tertiary ed.				0.148*** (0.047)				-0.285 (0.179)

Tertiary education	-0.049*** (0.012)	-0.053*** (0.020)	-0.075*** (0.028)	-0.073*** (0.026)	0.075** (0.034)	0.134* (0.071)	0.151 (0.098)	0.124 (0.084)
R ²	0.086	0.085	0.084	0.084	0.042	0.042	0.042	0.042
Mean D.V.	0.308	0.308	0.308	0.308	0.499	0.499	0.499	0.499
Observations	316,512	316,512	316,512	316,512	47,528	47,528	47,528	47,528
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y	Y	Y	Y	Y
Country-level controls	Y	Y	Y	Y	Y	Y	Y	Y
Region FE	Y	Y	Y	Y	Y	Y	Y	Y
Region X linear time trend	Y	Y	Y	Y	Y	Y	Y	Y

Notes: The table reports OLS results using robust standard errors clustered at the countryXyear level. The dependent variable in Models (1)-(4) is emigration intentions to the EU coded as 1 if the respondent from any origin country reported emigration intentions to any EU country and 0 if they reported emigration intentions to a non-EU country, in Models (5)-(8) is mobility intentions coded as 1 if the respondent has intentions to move from one EU country to another EU country and 0 if they plan to move to another non-EU country. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), Region fixed effects, regionXtime trend controls, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions. See Table 2 for variable definitions.

*** p<0.01, ** p<0.05, * p<0.1

9. Mechanisms and explanation

Our results thus far suggest that inequality discourages international moves, which implies that it acts as a barrier to potential emigration. As discussed in Section 2.3.1, this could be due to two mechanisms, and in this section, we explore to which extent each of these may underpin our findings. Table 8 details the results.

First, it may be possible that inequality signifies to individuals the high economic rewards possible through hard work, effort, and entrepreneurship. To test the explanatory power of this mechanism, we employ two additional variables. First, we include a variable based on whether the respondent believes that hard work is a way to get ahead in life or not. Models (1)-(4) in Panel A of Table 8 demonstrate that inequality continues to be negatively associated with emigration intentions and that those who believe that hard work is a means to success are less likely to express emigration intentions. Nevertheless, this particular work attitude partially offsets the negative effect of inequality on emigration intentions. In other words, while inequality is discouraging for emigration intentions overall, the extent to which it prevents potential emigration is smaller for those who believe in hard work as a means to get ahead in life. If the explanation regarding inequality as a signal of success were correct, we would have expected that the coefficient estimate on inequality would become statistically insignificant, while the coefficient estimate on belief in hard work would be negative and significant. Alternatively, suppose belief in hard work was a partial explanation behind our findings. In that case, it should have amplified and not dampened the negative effect of inequality and the interaction term between inequality and hard work attitudes. This is not what our results show. In fact, our results suggest that hard work beliefs cushion some of the negative consequences of inequality for emigration intentions, suggesting that they partially reduce, but not fully offset, the migration costs imposed by inequality.

In Models (5)-(8) of Table 8 (Panel B), we explore whether the consequences of inequality for emigration intentions depend on the respondent's future well-being expectations compared to their current perceived well-being. Specifically, we make use of a variable denoting whether the respondent expects their future life satisfaction to be higher than their current one or not. The results demonstrate that the negative consequences of inequality for emigration intentions are even stronger among individuals with higher future expectations about their well-being. This suggests that people living in high inequality countries may be optimistic about how this inequality may play out for them in the future, making them less likely to want to move. An alternative explanation of this finding is that high inequality imposes emigration barriers on optimists by making them despondent and unlikely to want to leave.

We explore a second explanation for why inequality may discourage emigration. Even if the respondent and their household may have the necessary financial resources to migrate, inequality means that poverty in the country increases, thus making others less likely to move. Our results hold household income constant and thus compare individuals at similar income levels. Yet, given that some emigration happens through networks and compatriots who co-move abroad, inequality may discourage the emigration of individuals, even when holding their incomes constant. This will then be reflected in their emigration aspirations. When fewer compatriots emigrate, individuals can no longer benefit to the full extent from information exchange or cost-sharing when it comes to undertaking the move. Inequality thus imposes a burden on the ability to migrate, independent of the individual's income. This is consistent with our results that the discouraging effect imposed by inequality is smaller for those with high skills (i.e. those with tertiary education).

To further explore the explanatory power of this explanation, we interact inequality with an indicator for whether the respondent belongs to the richest third of households in their origin country or not. The results are similar to the findings we saw in Table 4, Panel B. Specifically, while those with higher incomes are less likely to migrate in general, in high inequality countries, having a high income slightly mitigates the negative consequences of inequality for forming emigration intentions. This result is consistent with the explanation of migration costs, which belonging to a richer income group (and having richer peers) can help cushion (Panel C of Table 8).

Finally, having networks of family and friends abroad can often lower migration costs and encourage more mobility. In Panel D of Table 8, we show that having networks abroad to encourage prospective emigration and mitigate the negative consequences of inequality for emigration, which suggests that part of the reason inequality discourages emigration could be through imposing additional migration costs individuals. Networks mitigate (though do not fully offset) these costs.

All in all, our results suggest that inequality imposes a burden on potential emigration. Several factors, including hard work attitudes, income, education, and having contacts abroad, mitigate these costs. We discuss the implications of these findings in the next section.

Table 8: The relationship between inequality levels and emigration intentions, mechanisms, 2009-2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: Interactions with Hard Work Attitudes				Panel B: Interaction with higher future life satisfaction			
Top 1% share (lag)	-0.683*** (0.084)				-0.402*** (0.071)			
Top 1% share (lag) X Variable	0.170*** (0.058)				-0.196*** (0.037)			
Top 10% share (lag)		-0.463*** (0.060)				-0.258*** (0.050)		
Top 10% share (lag) X Variable		0.120*** (0.033)				-0.143*** (0.021)		
Top 20% share (lag)			-0.465*** (0.064)				-0.255*** (0.054)	
Top 20% share (lag) X Variable			0.117*** (0.035)				-0.164*** (0.022)	
Gini index (lag)				-0.412*** (0.061)				-0.212*** (0.052)
Gini index (lag) X Variable				0.112*** (0.034)				-0.162*** (0.023)
Variable	-0.117*** (0.009)	-0.144*** (0.014)	-0.160*** (0.020)	-0.152*** (0.019)	0.036*** (0.006)	0.069*** (0.009)	0.103*** (0.013)	0.096*** (0.013)
R ²	1,318,793	1,318,793	1,318,793	1,318,793	1,455,295	1,455,295	1,455,295	1,455,295
Observations	0.096	0.096	0.096	0.095	0.091	0.091	0.091	0.090
	Panel C: Interactions with Income Category				Panel D: Interactions with Networks			
Top 1% share (lag)	-0.598*** (0.071)				-0.556*** (0.068)			
Top 1% share (lag) X Variable	0.232*** (0.028)				0.294*** (0.057)			
Top 10% share (lag)		-0.393*** (0.050)				-0.365*** (0.049)		
Top 10% share (lag) X Variable		0.151*** (0.015)				0.151*** (0.032)		
Top 20% share (lag)			-0.404*** (0.054)				-0.385*** (0.054)	

Top 20% share (lag) X Variable		0.161*** (0.015)		0.160*** (0.034)				
Gini index (lag)		-0.357*** (0.052)		-0.346*** (0.052)				
Gini index (lag) X Variable		0.156*** (0.015)		0.166*** (0.033)				
Variable	-0.036*** (0.005)	-0.067*** (0.007)	-0.094*** (0.009)	-0.086*** (0.009)	0.053*** (0.010)	0.032** (0.015)	0.005 (0.021)	0.008 (0.019)
R ²	1,455,295	1,455,295	1,455,295	1,455,295	1,352,058	1,352,058	1,352,058	1,352,058
Observations	0.091	0.091	0.091	0.090	0.102	0.102	0.101	0.101
Year FE	Y	Y	Y	Y	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y	Y	Y	Y	Y
Country-level controls	Y	Y	Y	Y	Y	Y	Y	Y
Region FE	Y	Y	Y	Y	Y	Y	Y	Y
Region X linear time trend	Y	Y	Y	Y	Y	Y	Y	Y

Notes: The table reports OLS results using robust standard errors clustered at the countryXyear level. The dependent variable in all models is emigration intentions. The table presents the results from regressions with different interaction variables. In Panel A, the interaction variable is hard work attitudes, in Panel B, it is expected higher future life satisfaction, in Panel C, it is high-income category, and in Panel D, it is having a network of family and friends abroad. In Panel A, hard work attitudes is based on the question of whether the respondent believes in hard work as a means of getting ahead in life or not; in Panel B, expected future life satisfaction is a dummy variable indicating if the respondent expects that their future life satisfaction in 5 years would be higher than their higher than their current level, in Panel C, it is an indicator of whether the respondent belongs to the top tertile in their country of origin's income distribution, and in Panel D, it is an indicator of whether the respondent has a network of family and friends abroad. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), Region fixed effects, regionXtime trend controls, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions.

*** p<0.01, ** p<0.05, * p<0.1

10. Discussion and policy implications

Our results show that overall, inequality does not push people to emigrate. On the contrary, it imposes an additional barrier to potential emigration, thus discouraging from moving those who would like to live and work abroad. There is some variation and heterogeneity based on geographic region of residence of the respondents.

What do these results mean for policy and practice? We argue that the fact that inequality is negatively associated with emigration intentions implies missed opportunities for both origin and destination countries.

From a policy perspective, these results could be viewed from several vantage points. From the viewpoint of the origin countries, high inequality may be embedded in the quality of the social fabric and, as such, act as a deterrent to migration. A positive interpretation of this finding is that because of inequality, the high-skilled and highly educated individuals are less likely to want to move abroad, which prevents the exodus of talent and a so-called “brain drain.” Additionally, by having their relatives not move abroad, migrant families left behind at the origin would be spared the pain of separation resulting from the emigration of their loved ones (Ivlevs et al., 2019). Yet, such a view is arguably short-sighted, and restricting migration typically does not have the intended effects of promoting the economic prosperity in developing countries (Clemens, 2013).

The fact that inequality stops potential emigration means that it also halts the benefits of migration for the origin countries related to remittances and the transfer of social norms from abroad. Both monetary and social remittances (i.e. the diffusion of social norms acquired abroad) generally help with the economic development of origin countries. Specifically, a large literature suggests that migration has multiple beneficial consequences for the left behind (Barsbai, Rapoport, Steinmayr, & Trebesch, 2017; Nikolova et al., 2017; Tuccio & Wahba, 2020). Migrants help spread social norms from abroad that help their origin countries develop civic norms, adopt democratisation processes, change fertility norms, and others. Moreover, remittances help with the economic development of the home countries (Giuliano & Ruiz-Arranz, 2009). Furthermore, migrants themselves increase their financial prosperity and well-being by moving (Graham & Nikolova, 2018; Hendriks et al., 2018; Nikolova & Graham, 2015; Stillman, Gibson, McKenzie, & Rohorua, 2015), which implies that factors deterring the mobility of people also diminish the potential of migration to act as an economic development tool. In other words, by stopping emigrants, inequality also potentially limits the ability of migration to act as an economic and social development mechanism.

Furthermore, from the viewpoint of destination countries, it is helpful to understand the barriers to international migration and EU mobility and what factors help mitigate them. Many host countries rely on migrants to deal with skill shortages and ageing populations. Newly-arrived migrants often take low-skilled jobs that natives eschew, and high-skilled migrants bring talents and knowledge that help reduce skill shortages at the destination. Many migrants want to move abroad only temporarily, and at least some potential emigration is in response to skills shortages in the destination countries (Nikolova, 2016). In both OECD and non-OECD destinations, migrants add to the labour force and the relative labour supply and reduce dependency ratios (WorldBank, 2018).

At the same time, destination countries often have to balance the benefits of migration with the societal (mis-)perceptions of migrants (Alesina, Miano, & Stantcheva, 2018) and grievances against migrants among the native populations. Immigrants often positively contribute to the public finances

of their host societies, at least in the OECD (OECD, 2013). Yet, natives who have lost out due to globalisation and automation view immigrants as a threat.

The fact that inequality may hinder potential emigrants means many missed economic development opportunities for both origin and destination countries. Understanding how to promote mobility and migration and remove the barriers to moving is a multi-faceted task that involves policymakers in both origin and destination countries and relevant international organisations, migrant diasporas, and NGOs.

All in all, this report contributes novel evidence related to the relationship between inequality and migration. Nevertheless, it leaves several opportune avenues for future research into the topic. Future work should prioritise the understanding of whether the patterns identified in this report hold across time and space. Better understanding the potential emigration of non-economic migrants, such as refugees and migrants joining their families abroad, is an important further step that necessitates data collection efforts to cover these populations. Finally, with the help of additional datasets and data collection efforts, it is necessary to study nuances related to temporary vs. permanent migration and also whether other types of inequality (e.g., inequality of opportunity or well-being) also matter for potential emigration.

11. References

- Acemoglu, D., & Restrepo, P. (2019). Automation and new tasks: How technology displaces and reinstates labor. *Journal of Economic Perspectives*, 33(2), 3-30.
- Adema, J., Aksoy, C. G., & Poutvaara, P. (2021). *Mobile Internet Access and Desire to Migrate*. Retrieved from <https://www.cesifo.org/en/publikationen/2022/working-paper/mobile-internet-access-and-desire-emigrate>
- Aksoy, O. (2019). Crosscutting circles in a social dilemma: Effects of social identity and inequality on cooperation. *Social Science Research*, 82, 148-163.
- Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and Happiness: Are Europeans and Americans Different? *Journal of Public Economics*, 88(9-10), 2009-2042.
- Alesina, A., & Giuliano, P. (2011). Preferences for redistribution. In *Handbook of social economics* (Vol. 1, pp. 93-131): Elsevier.
- Alesina, A., Miano, A., & Stantcheva, S. (2018). *Immigration and redistribution*. Retrieved from <https://www.nber.org/papers/w24733>
- Alpaslan, B., Kayaoglu, A., Meckl, J., Naval, J., Vanore, M., & Ziesemer, T. H. (2021). Economic Effects of Remittances on Migrants' Country of Origin. In K. Kourtit, B. Newbold, P. Nijkamp, & M. Partridge (Eds.), *The Economic Geography of Cross-Border Migration* (pp. 449-483): Springer Cham.
- Alvaredo, F., Atkinson, A. B., Blanchet, T., Chancel, L., Bauluz, L., Fisher-Post, M., . . . Martínez-Toledano, C. (2020). *Distributional National Accounts Guidelines, Methods and Concepts Used in the World Inequality Database*. Retrieved from <https://wid.world/document/distributional-national-accounts-guidelines-2020-concepts-and-methods-used-in-the-world-inequality-database/>
- Anderson, L. R., Mellor, J. M., & Milyo, J. (2008). Inequality and public good provision: An experimental analysis. *The Journal of Socio-Economics*, 37(3), 1010-1028.
- Angrist, J. D., & Pischke, J.-S. (2009). *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton, NJ: Princeton University Press.
- Arntz, M., Gregory, T., & Zierahn, U. (2016). The risk of automation for jobs in OECD countries: A comparative analysis. OECD, Paris. Retrieved from: https://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en
- Arntz, M., Gregory, T., & Zierahn, U. (2017). Revisiting the risk of automation. *Economics Letters*, 159, 157-160.
- Ashraf, Q., & Galor, O. (2013). The 'Out of Africa' Hypothesis, Human Genetic Diversity, and Comparative Economic Development. *The American Economic Review*, 103(1), 1-46.
- Autor, D. H., Levy, F., & Murnane, R. J. (2003). The skill content of recent technological change: An empirical exploration. *The Quarterly Journal of Economics*, 118(4), 1279-1333.
- Bansak, C., Simpson, N., & Zavodny, M. (2015). *The Economics of Immigration*. Abingdon, Oxon and New York: Routledge.
- Bansak, C., Simpson, N. B., & Zavodny, M. (2022). Immigrants and their Effects on Labor Market Outcomes of Natives. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics*. Cham: Springer International Publishing.
- Barsbai, T., Rapoport, H., Steinmayr, A., & Trebesch, C. (2017). The effect of labor migration on the diffusion of democracy: evidence from a former Soviet Republic. *American Economic Journal: Applied Economics*, 9(3), 36-69.

- Becker, G. S. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, 70(5, Part 2), 9-49.
- Benabou, R., & Ok, E. A. (2001). Social mobility and the demand for redistribution: the POUM hypothesis. *The Quarterly Journal of Economics*, 116(2), 447-487.
- Bertoli, S., Moraga, J. F.-H., & Ortega, F. (2013). Crossing the border: Self-selection, earnings and individual migration decisions. *Journal of Development Economics*, 101, 75-91.
- Bertoli, S., & Ruysen, I. (2018). Networks and migrants' intended destination. *Journal of Economic Geography*, 18(4), 705-728.
- Bjørnskov, C., Dreher, A., Fischer, J. A., Schnellenbach, J., & Gehring, K. (2013). Inequality and happiness: When perceived social mobility and economic reality do not match. *Journal of Economic Behavior & Organization*, 91, 75-92.
- Borjas, G. J. (1987). Self-selection and the earnings of immigrants. *The American Economic Review*, 531-553.
- Borjas, G. J. (1991). Immigration and Self-Selection. In J. M. Abowd & R. B. Freeman (Eds.), *Immigration, Trade, and the Labor Market* (pp. 29-76). Chicago: University of Chicago Press.
- Borjas, G. J. (2014). *Immigration economics*. Cambridge, Massachusetts and London, England: Harvard University Press.
- Brücker, H., & Defoort, C. (2009). Inequality and the self-selection of international migrants: theory and new evidence. *International Journal of Manpower*, 30, 742-764.
- Brueckner, M., & Lederman, D. (2015). Effects of income inequality on aggregate output. *World Bank Policy Research Working Paper*(7317).
- Bussolo, M., Ferrer-i-Carbonell, A., Giolbas, A., & Torre, I. (2021). I perceive therefore I demand: The formation of inequality perceptions and demand for redistribution. *Review of Income and Wealth*, 67(4), 835-871.
- Cai, R., Esipova, N., Oppenheimer, M., & Feng, S. (2014). International migration desires related to subjective well-being. *IZA Journal of Migration*, 3(1), 1-20.
- Cerra, M. V., Lama, M. R., & Loayza, N. (2021). Links between growth, inequality, and poverty: a survey. Retrieved from: <https://www.imf.org/en/Publications/WP/Issues/2021/03/12/Links-Between-Growth-Inequality-and-Poverty-A-Survey-50161#:~:text=The%20evidence%20suggests%20that%20growth,several%20channels%20mediate%20the%20relationship>
- Chindarkar, N. (2014). Is subjective well-being of concern to potential migrants from Latin America? *Social Indicators Research*, 115(1), 159-182.
- Chiswick, B. (1999). Are immigrants favorably self-selected? *American Economic Review*, 89(2), 181-185.
- Cingano, F. (2014). Trends in income inequality and its impact on economic growth. *OECD Social, Employment and Migration Working Papers*, No. 163, OECD Publishing. <http://dx.doi.org/10.1787/5jxrjncwv6j-en>.
- Clark, A. E., & d'Ambrosio, C. (2015). Attitudes to income inequality: Experimental and survey evidence. In A. Atkinson & F. Bourguignon (Eds.), *Handbook of Income Distribution* (Vol. 2A, pp. 1147-1208): Elsevier.
- Clark, X., Hatton, T. J., & Williamson, J. G. (2007). Explaining U.S. Immigration, 1971–1998. *The Review of Economics and Statistics*, 89(2), 359-373.
- Clemens, M. A. (2013). *What do we know about skilled migration and development*. Retrieved from chrome-

- extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.migrationpolicy.org/pubs/SkilledMigration-Development.pdf
- Clemens, M. A. (2020). The emigration life cycle: How development shapes emigration from poor countries. *CGD Working Paper 539*. Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/emigration-life-cycle-howdevelopment-shapes-emigration-poor-countries>.
- Clemens, M. A., & Mendola, M. (2020). Migration from Developing Countries: Selection, Income Elasticity and Simpson's Paradox. *Centro Studi Luca d'Agliano Development Studies Working Paper*(465).
- Colantone, I., & Stanig, P. (2019). The surge of economic nationalism in Western Europe. *Journal of Economic Perspectives*, 33(4), 128-151.
- Colussi, T. (2016). *What Moves Talent? The Role of Institutions in Attracting High-skilled Immigrants*. Retrieved from IZA Research Report commissioned by Randsad: <https://www.iza.org/publications/r/182/people-to-jobs-jobs-to-people-global-mobility-and-labor-migration>
- Cooray, A., & Schneider, F. (2016). Does corruption promote emigration? An empirical examination. *Journal of Population Economics*, 29(1), 293-310.
- Creighton, M. J. (2013). The role of aspirations in domestic and international migration. *The Social Science Journal*, 50(1), 79-88.
- Czaika, M. (2013). Are unequal societies more migratory? *Comparative Migration Studies*, 1(1), 97-122.
- De la Croix, D., & Doepke, M. (2009). To segregate or to integrate: education politics and democracy. *The Review of Economic Studies*, 76(2), 597-628.
- Docquier, F., & Marfouk, A. (2006). International migration by education attainment, 1990–2000. In Ç. Özden & M. Schiff (Eds.), *International migration, remittances and the brain drain* (pp. 151-199). Washington, DC: World Bank and Palgrave Macmillan.
- Docquier, F., Peri, G., & Ruysen, I. (2014). The cross-country determinants of potential and actual migration. *International Migration Review*, 48(1), 37-99.
- Dustmann, C., & Okatenko, A. (2014). Out-migration, wealth constraints, and the quality of local amenities. *Journal of Development Economics*, 110, 52-63.
- Esipova, N., Ray, J., & Pugliese, A. (2011). *Gallup World Poll: the many faces of global migration*: IOM Migration Research Series 43, Geneva: International Organization for Migration.
- Eurostat. (2022). Eurostat Dataset: Migration and Migrant Population Statistics, http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics
- Ferrer-i-Carbonell, A., & Ramos, X. (2014). Inequality and Happiness. *Journal of Economic Surveys*, 28(5), 1016-1027.
- Ferrer-i-Carbonell, A., & Ramos, X. (2020). Inequality and Happiness. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics* (pp. 1-17). Cham: Springer International Publishing.
- Fouarge, D., & Ester, P. (2007). *Factors determining international and regional Migration in Europe*. European Foundation for the Improvement of Living and Working Conditions. Retrieved from Dublin: <http://www.eurofound.europa.eu/publications/htmlfiles/ef0709.htm>
- Galbraith, J. K. (2019). Sparse, Inconsistent and Unreliable: Tax Records and the World Inequality Report 2018. *Development and Change*, 50(2), 329-346.

- Galor, O. (2022). *The Journey of Humanity: The Origins of Wealth and Inequality*: Bodley Head.
- Gelatt, J. (2013). Looking down or looking up: status and subjective well-being among Asian and Latino immigrants in the United States. *International Migration Review*, 47(1), 39-75.
- Gimpelson, V., & Treisman, D. (2018). Misperceiving inequality. *Economics & Politics*, 30(1), 27-54.
- Giuliano, P., & Nunn, N. (2018). Ancestral characteristics of modern populations. *Economic History of Developing Regions*, 33(1), 1-17.
- Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics*, 90(1), 144-152.
- Graetz, G., & Michaels, G. (2018). Robots at work. *Review of Economics and Statistics*, 100(5), 753-768.
- Graham, C., & Markowitz, J. (2011). Aspirations and Happiness of Potential Latin American Immigrants. *Journal of Social Research and Policy*, 2, 9-25.
- Graham, C., & Nikolova, M. (2018). Chapter 5: Happiness and International Migration in Latin America. In J. F. Helliwell, R. Layard, J. Sachs, & J. E. De Neve (Eds.), *World Happiness Report 2018* (pp. 88-114). New York.
- Grogger, J., & Hanson, G. H. (2011). Income maximization and the selection and sorting of international migrants. *Journal of Development Economics*, 95(1), 42-57.
- Grosfeld, I., & Senik, C. (2010). The emerging aversion to inequality: Evidence from subjective data 1. *Economics of Transition*, 18(1), 1-26.
- Grossman, G. M., & Rossi-Hansberg, E. (2008). Trading tasks: A simple theory of offshoring. *American Economic Review*, 98(5), 1978-1997.
- Hager, A., & Hilbig, H. (2019). Do inheritance customs affect political and social inequality? *American Journal of Political Science*, 63(4), 758-773.
- Hatton, T. J. (2013). Refugee and asylum migration. In A.F. Constant and K.F. Zimmermann, (Eds.), *International Handbook on the Economics of Migration*: Edward Elgar Publishing.
- Hauser, O. P., & Norton, M. I. (2017). (Mis) perceptions of inequality. *Current Opinion in Psychology*, 18, 21-25.
- Helliwell, J. F., Huang, H., Wang, S., & Norton, M. (2020). Social environments for world happiness. In J. F. Helliwell, R. Layard, J. Sachs, & J. E. De Neve (Eds.), *World Happiness Report 2020* (pp. 12-45). New York: Sustainable Development Solutions Network.
- Helliwell, J. F., Huang, H., Wang, S., & Norton, M. (2021). Statistical Appendix 1 for Chapter 2 of World Happiness Report 2021. In J. F. Helliwell, R. Layard, J. Sachs, & J. E. De Neve (Eds.), *The World Happiness Report 2021*. New York: Sustainable Development Solutions Network. Retrieved from: <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://happiness-report.s3.amazonaws.com/2021/Appendix1WHR2021C2.pdf>
- Hendriks, M., Burger, M., Ray, J., & Esipova, N. (2018). Do international migrants increase their happiness and that of their families by migrating? In J. F. Helliwell, R. Layard, J. Sachs, & J. E. De Neve (Eds.), *World Happiness Report 2018* (pp. 44-66). New York, NY: UN Sustainable Development Solutions Network.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge: Harvard University Press.

- Hirschman, A. O., & Rothschild, M. (1973). The changing tolerance for income inequality in the course of economic development: With a mathematical appendix. *The Quarterly Journal of Economics*, 87(4), 544-566.
- Ivlevs, A., Nikolova, M., & Graham, C. (2019). Emigration, remittances, and the subjective well-being of those staying behind. *Journal of Population Economics*, 32(1), 113-151.
- Jaimovich, N., & Siu, H. E. (2019). How automation and other forms of IT affect the middle class: Assessing the estimates. *Brookings Economic Studies, Report*.
- Lee, E. S. (1966). A Theory of Migration. *Demography*, 3(1), 47-57. doi:10.2307/2060063
- Liebig, T., & Sousa-Poza, A. (2004). Migration, self-selection and income inequality: an international analysis. *Kyklos*, 57(1), 125-146.
- Maestri, V., Migali, S., & Natale, F. (2017). The Relationship between Inequality in the Origin Country and Emigration. *JRC Contribution to Policy Documents. European Commission*.
- Manski, C. F. (1990). The use of intentions data to predict behavior: A best-case analysis. *Journal of the American Statistical Association*, 85(412), 934-940.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: a review and appraisal. *Population and Development Review*, 19(3), 431-466.
- Massey, D. S., Goldring, L., & Durand, J. (1994). Continuities in transnational migration: An analysis of nineteen Mexican communities. *American Journal of Sociology*, 99(6), 1492-1533.
- Mayda, A. M. (2010). International migration: A panel data analysis of the determinants of bilateral flows. *Journal of Population Economics*, 23(4), 1249-1274.
- McAuliffe, M., & Triandafyllidou, A. (2022). *World Migration Report 2022*. Retrieved from <https://publications.iom.int/books/world-migration-report-2022>
- McKenzie, D. (2017). Poverty, inequality, and international migration: Insights from 10 years of migration and development conferences. *Revue d'économie du développement*, 25(3), 13-28.
- Melitz, M. J., & Trefler, D. (2012). Gains from trade when firms matter. *Journal of Economic Perspectives*, 26(2), 91-118.
- Menchik, P. L. (1980). Primogeniture, equal sharing, and the US distribution of wealth. *The Quarterly Journal of Economics*, 94(2), 299-316.
- Micevska, M. (2021). Revisiting forced migration: A machine learning perspective. *European Journal of Political Economy*, 70, 102044. doi:<https://doi.org/10.1016/j.ejpoleco.2021.102044>
- Migali, S., & Scipioni, M. (2018). A global analysis of intentions to migrate. *European Commission, JRC111207*.
- Mihi-Ramírez, A., Kumpikaitė-Valiūnienė, V., & Cuenca-García, E. (2017). An inclusive analysis of determinants of international migration. The case of European rich and poor countries. *Technological and Economic Development of Economy*, 23(4), 608-626.
- Moll, B., Rachel, L., & Restrepo, P. (2021). *Uneven growth: automation's impact on income and wealth inequality*. Retrieved from <https://www.nber.org/papers/w28440>
- Nedelkoska, L., & Quintini, G. (2018). *Automation, skills use and training*. Retrieved from OECD Paris, France: <https://www.sipotra.it/wp-content/uploads/2018/05/Automation-skills-use-and-training.pdf>
- Nikolova, M. (2015). Migrant well-being after leaving transition economies. *IZA World of Labor 2015: 195* doi: 10.15185/izawol.195.

- Nikolova, M. (2016). *What will move talent?* Retrieved from IZA Research Report commissioned by Randsad: <https://www.iza.org/publications/r/182/people-to-jobs-jobs-to-people-global-mobility-and-labor-migration>
- Nikolova, M., & Graham, C. (2015). In transit: The well-being of migrants from transition and post-transition countries. *Journal of Economic Behavior & Organization*, 112, 164-186.
- Nikolova, M., & Graham, C. (2022). The Economics of Happiness. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics* (pp. 1-33). Cham: Springer International Publishing.
- Nikolova, M., Roman, M., & Zimmermann, K. F. (2017). Left behind but doing good? Civic engagement in two post-socialist countries. *Journal of Comparative Economics*, 45(3), 658-684.
- OECD. (2013). *The fiscal impact of immigration in OECD countries. International Migration Outlook 2013*. Retrieved from https://www.oecd-ilibrary.org/social-issues-migration-health/international-migration-outlook-2013/the-fiscal-impact-of-immigration-in-oecd-countries_migr_outlook-2013-6-en
- Oishi, S., Kesebir, S., & Diener, E. (2011). Income inequality and happiness. *Psychological Science*, 22(9), 1095-1100.
- Ortega, F., & Peri, G. (2009). *The causes and effects of international migrations: Evidence from OECD countries 1980-2005*. Retrieved from <https://www.nber.org/papers/w14833>
- Otrachshenko, V., & Popova, O. (2014). Life (dis) satisfaction and the intention to migrate: Evidence from Central and Eastern Europe. *The Journal of Socio-Economics*, 48, 40-49.
- Pedersen, P. J., Pytlikova, M., & Smith, N. (2008). Selection and network effects—Migration flows into OECD countries 1990–2000. *European Economic Review*, 52(7), 1160-1186.
- Pettersson, T., Davies, S., Deniz, A., Engström, G., Hawach, N., Högladh, S., & Öberg, M. S. M. (2021). Organized violence 1989–2020, with a special emphasis on Syria. *Journal of Peace Research*, 58(4), 809-825.
- Peri, G. (2014). Do immigrant workers depress the wages of native workers? *IZA World Of Labor*, 42, 1-10. doi:doi: 10.15185/izawol.42
- Pickett, K. E., & Wilkinson, R. G. (2015). Income inequality and health: A causal review. *Social Science & Medicine*, 128, 316-326.
- Polgreen, L. A., & Simpson, N. B. (2011). Happiness and international migration. *Journal of Happiness Studies*, 12(5), 819-840.
- Rodrik, D. (2018). Populism and the economics of globalization. *Journal of International Business Policy*, 1(1), 12-33.
- Rothstein, B., & Uslaner, E. M. (2005). All for all: Equality, corruption, and social trust. *World Politics*, 58(1), 41-72.
- Senik, C. (2005). Income distribution and well-being: what can we learn from subjective data? *Journal of Economic Surveys*, 19(1), 43-63.
- Sharma, M., & Zaman, H. (2013). Who migrates overseas and is it worth their while? An assessment of household survey data from Bangladesh. *The Journal of Developing Areas*, 281-302.
- Simmons, A. B. (1985). Recent studies on place-utility and intention to migrate: An international comparison. *Population and Environment*, 8(1), 120-140.
- Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2015). Better P-curves: Making P-curve analysis more robust to errors, fraud, and ambitious P-hacking, a Reply to Ulrich and Miller (2015).

- Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2020). Specification curve analysis. *Nature Human Behaviour*, 4(11), 1208-1214.
- Sjaastad, L. A. (1962). The costs and returns of human migration. *Journal of Political Economy*, 70(5, Part 2), 80-93.
- Stark, O. (2006). Inequality and migration: A behavioral link. *Economics Letters*, 91(1), 146-152.
- Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. *The American Economic Review*, 75(2), 173-178.
- Stark, O., Byra, L., & Kosiorowski, G. (2020). On the precarious link between the Gini coefficient and the incentive to migrate. *Economics Letters*, 187, 108880.
- Stark, O., & Taylor, J. E. (1989). Relative deprivation and international migration. *Demography*, 26(1), 1-14.
- Stiglitz, J. E. (2015). The price of inequality: How today's divided society endangers our future. *Sustainable Humanity, Sustainable Nature: Our Responsibility*, 379-399.
- Stillman, S., Gibson, J., McKenzie, D., & Rohorua, H. (2015). Miserable Migrants? Natural Experiment Evidence on International Migration and Objective and Subjective Well-Being. *World Development*, 65(0), 79-93.
- Sundberg, R., & Melander, E. (2013). Introducing the UCDP georeferenced event dataset. *Journal of Peace Research*, 50(4), 523-532.
- Tjaden, J., Auer, D., & Laczko, F. (2019). Linking migration intentions with flows: Evidence and potential use. *International Migration*, 57(1), 36-57.
- Tuccio, M., & Wahba, J. (2020). Social Remittances. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics* (pp. 1-13). Cham: Springer International Publishing.
- Van Dalen, H. P., & Henkens, K. (2013). Explaining emigration intentions and behaviour in the Netherlands, 2005–10. *Population Studies*, 67(2), 225-241.
- WID. (2022). Methodology. Retrieved from <https://wid.world/methodology/>
- WorldBank. (2018). *Moving for prosperity: Global migration and labor markets*: The World Bank.
- Zaiceva, A., & Zimmermann, K. F. (2008a). Scale, diversity, and determinants of labour migration in Europe. *Oxford Review of Economic Policy*, 24(3), 427-451.
- Zaiceva, A., & Zimmermann, K. F. (2008b). Scale, Diversity, and Determinants of Labour Migration in Europe. *IZA DP No. 3595*.

Appendix A: Additional Tables and Figures

Figure A1: Average country-level share of respondents reporting emigration plans in the analysis sample (2009-2015)

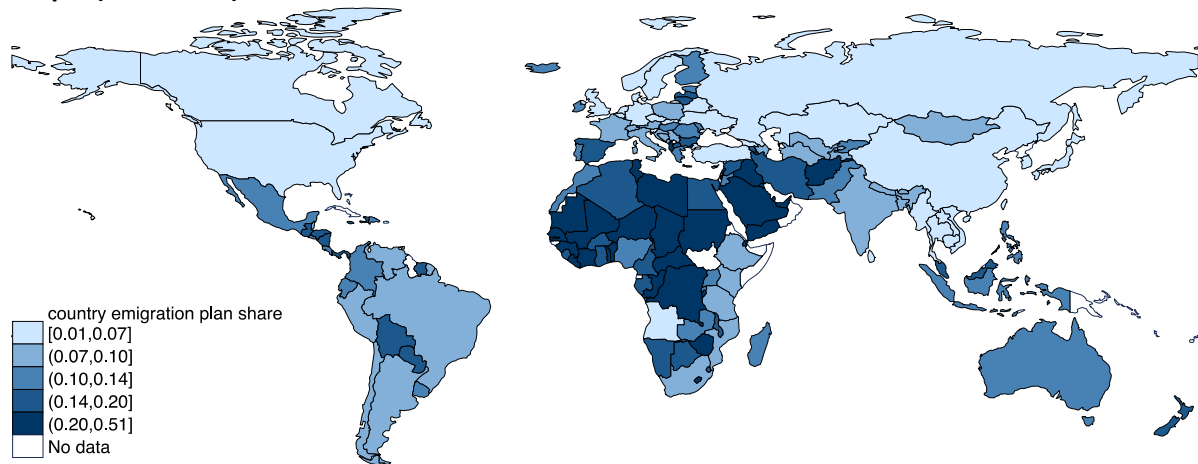


Figure A2: Average country-level share of respondents reporting emigration preparations in the analysis sample (2009-2015)

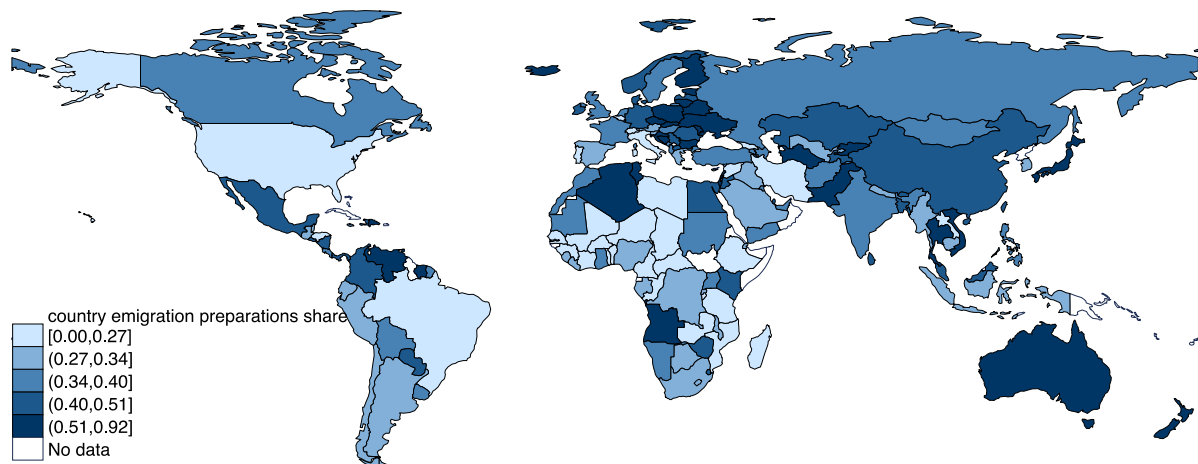


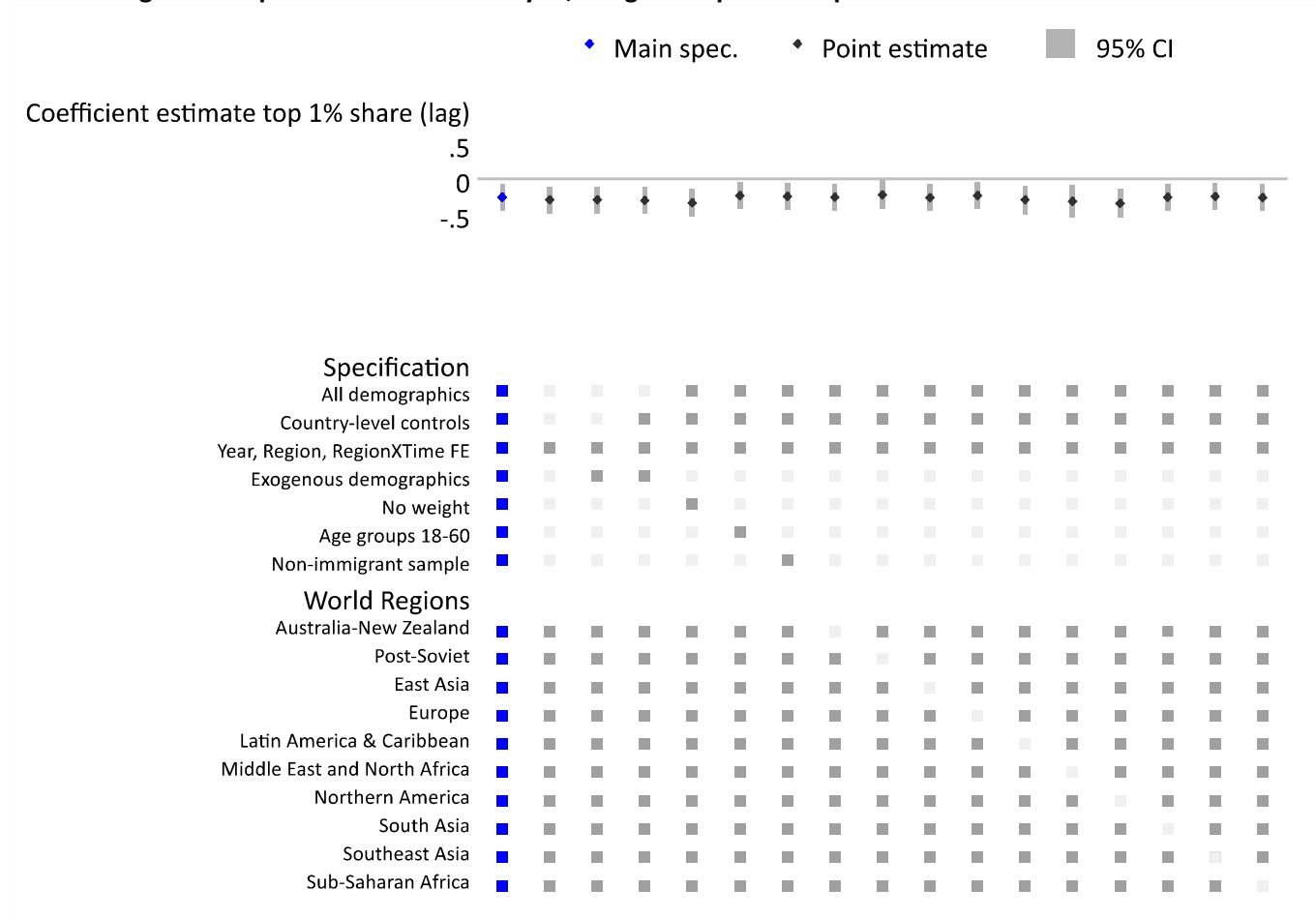
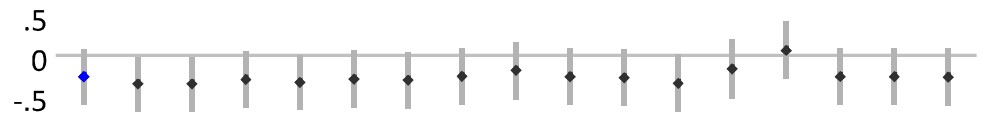
Figure A3: Specification curve analysis, emigration plans sample


Figure A4: Specification curve analysis, emigration preparations sample

◆ Main spec. ♦ Point estimate ■ 95% CI

Coefficient estimate top 1% share (lag)



Specification															
All demographics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Country-level controls	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Year, Region, RegionXTime FE	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Exogenous demographics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
No weight	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Age groups 18-60	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Non-immigrant sample	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
World Regions															
Australia-New Zealand	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Post-Soviet	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
East Asia	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Europe	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Latin America & Caribbean	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Middle East and North Africa	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Northern America	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
South Asia	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Southeast Asia	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sub-Saharan Africa	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Figure A5: Top 1% wealth share in the analysis sample, by country (2009-2019)

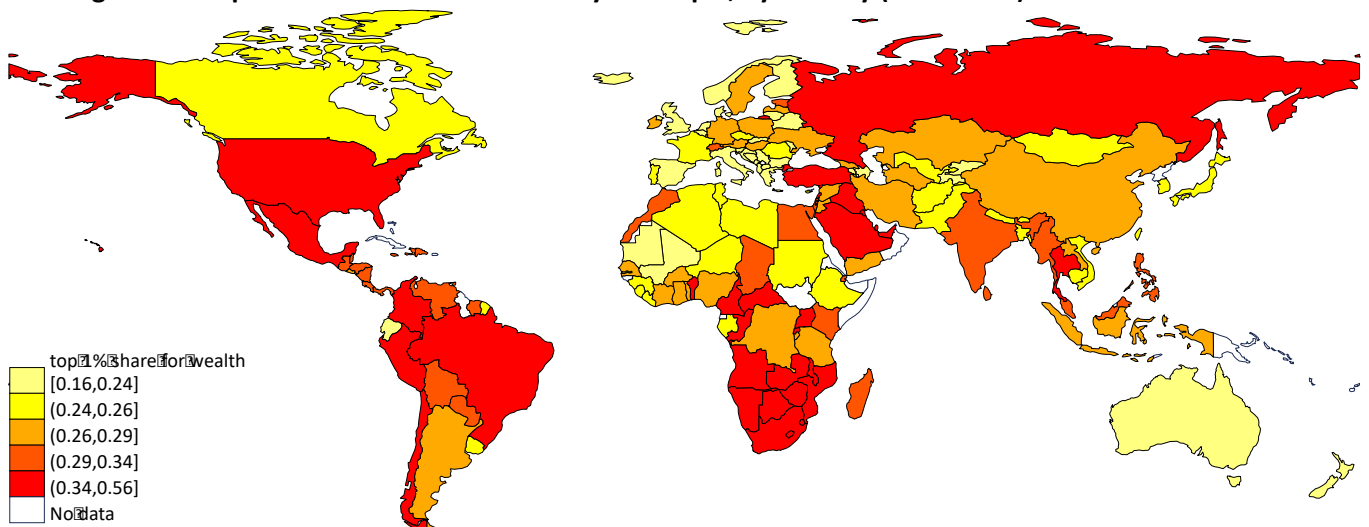


Figure A6: Gini income (share) in the analysis sample, by country (2009-2019)

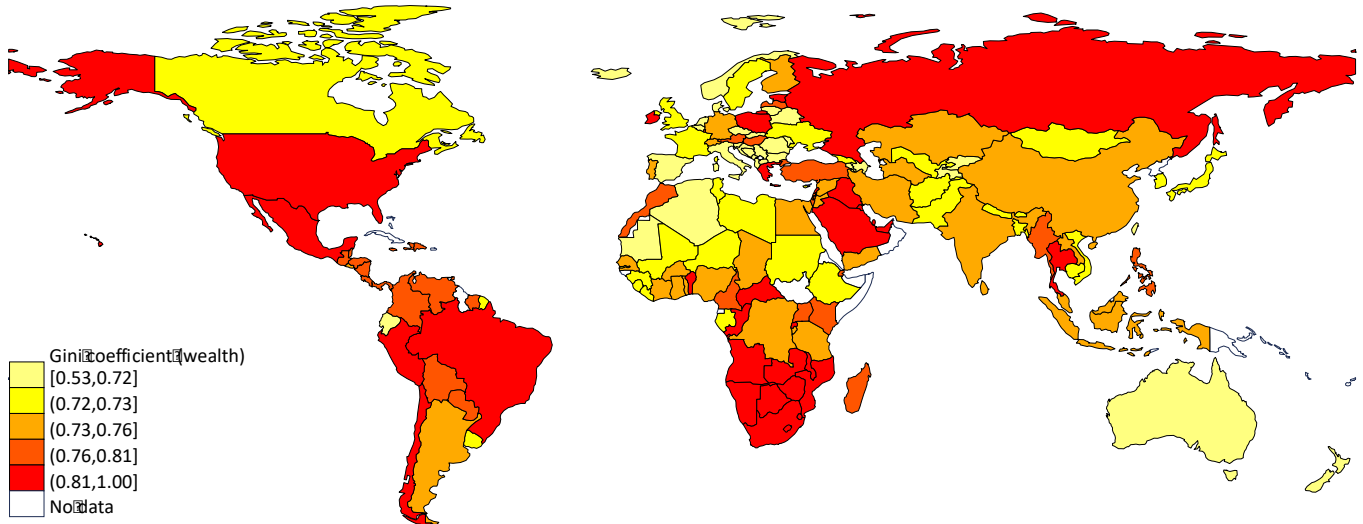


Table A1: Analysis sample, emigration intentions, by country and year of interview

Country	Year of interview										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Afghanistan	1,791	948	934	1,961	997	965	926	982	991	998	
Albania		867	923	955	963	989	992	990	990	992	1,069
Algeria		999	1,991	1,989		1,000		980	951	931	
Angola			843	815	968	979					
Argentina	979	980	988	977	983	984	860	977	989	991	1,050
Armenia	946	962	966	967	957	979	957	974	980	964	1,044
Australia		985	992	974	989	954	968	963	972		
Austria		1,938	972	975	978	977	983	872	977		
Azerbaijan	939	959	939	931	922	933	943	938	927	955	977
Bahrain	961	1,975	1,894	956	982		1,973	989	1,044		
Bangladesh	924	982	971	2,949	996	990	986	990	982	994	
Belarus	917	886	861	927	901	928	946	939	973	946	1,016
Belgium		906	915	935	953	975	1,024	991	979		
Belize						483					
Benin			986	988	988	979	981	962	925	939	
Bhutan					983	979	996				
Bolivia	979	953	979	995	993	979	986	804	984	983	
Bosnia Herzegovina		928	967	969	960	956	967	957	962	929	995
Botswana		996	996	986	994	981	980	971	975	954	
Brazil	1,018	1,029	1,033	990	1,998	1,000	999	996	983	989	2,961
Bulgaria		1,797	956	952	962	948	936	927	914	916	1,001
Burkina Faso		994	989	998	1,001	967	985	963	948	946	
Burundi	999		999			991					
Cambodia	991	995	993	986	987	993	995	995	1,529	986	
Cameroon	995	1,197	995	967	984	982	966	962	962	953	
Canada	973	980	977	966	964	977		972	979	995	
Central African Republic		990	987					912	954		
Chad	989	988	989	998	975	992	995	947	949	943	
Chile	979	949	976	981	977	911	1,024	981	1,016	986	
China	3,706	3,718	4,099	4,126	4,107	4,464	4,139	4,113	3,968	3,507	
Colombia	976	989	992	994	976	993	991	988	991	981	971
Comoros	986	1,989	1,988	997						970	
Congo (Kinshasa)	960		901	966	916	933	962	942	948		
Congo Brazzaville			975	991	982	902	961	951	931	870	
Costa Rica	987	953	992	960	968	993	857	839	990	980	985
Croatia		945	939	890	880	914	975	961	897	944	1,024
Cyprus	490	988	976	490	490	955	994	949	969		
Czech Republic		1,922	901	926	922	943	962	948	964	949	
Denmark	971	980	975	979	741	974	980	983	983		
Djibouti	996	994	970								
Dominican Republic	983	991	985	986	971	935	982	901	930	953	1,014
Ecuador	923		983	978	986	939	992	996	993	988	980

Egypt	1,027	2,042	5,254	4,171	1,148	998	996	1,000	999	990	
El Salvador	969	960	980	977	979	988	797	807	981	984	1,061
Estonia	560		982	946	971	946	945	960	956	952	1,039
Ethiopia					989	980	980	994	990	996	
Finland		993	982	977	735	981	988	984	994		
France	966	979	972	1,938	712	959	985	989	990		
Gabon			991	960	997	985	958	945	921	869	
Georgia	975	970	960	965	974	945	988	984	953	978	1,042
Germany	1,950	990	3,196	3,384	725	988	988	849	975		
Ghana	937	995	991	992	997	950	978	967	903	964	
Greece	980	983	968	981	985	987	990	978	985	985	1,060
Guatemala	983	994	985	978	990	984	805	808	986	963	995
Guinea			991	1,000	1,003	993	995	982	917	930	
Haiti		424	468	488	496	391	488	427	490	480	
Honduras	945	887	979	966	976	980	976	717	980	984	977
Hong Kong	715	724	986	941		807		876	929		
Hungary	969	962	1,004	968	981	933	919	951	973	953	1,045
Iceland				946	483			1,094	478		
India	2,757	5,731	3,401	9,741	2,663	2,819	2,837	2,854	2,844	2,898	
Indonesia	1,066	1,066	971	2,975	992	969	985	994	982	983	
Iran			977	981	961	994	994	990	987	998	
Iraq	915	1,903	1,844	1,887	998	993	990	998	981		981
Ireland	469	940	936	975	966	962	989	992	969		
Israel	959	936	951	928	951	934	927	950	959	967	
Italy	934	933	864	1,911	983	983	989	992	994		
Ivory Coast	994				997	982	964	971	981	948	
Jamaica			447		489	468			471		
Japan	984	985	984	1,958	959	968	969	976	962	959	
Jordan	974	1,888	1,903	1,965	996	994	991	990	995	988	
Kazakhstan	892	869	892	903	892	867	925	912	937	894	990
Kenya		981	997	990	994	994	987	996	997	978	
Kuwait	958	1,949	1,945	929	998		1,962	986	977		976
Kyrgyzstan	988	965	991	980	949	946	983	982	983	976	1,044
Laos			995						955		
Latvia	478		971	929	943	944	946	966	949	961	1,002
Lebanon	988	2,002	1,965	1,985	994	992	996	995	988	987	
Lesotho			994					970	987		
Liberia		982			933	855	951	960	986	982	
Libya							999	983	994	988	
Lithuania	438	910	912	921	877	885	901	877	900	846	874
Luxembourg	458	946	946	957	465	974	992	990	985		
Macedonia		925	874	826	931	951	967	946	970	967	1,029
Madagascar			1,000	994	1,005	1,004	995	988	991	982	
Malawi	994		1,000	1,000	999	997	974	991	991	980	
Malaysia	935	943	924	981	986	962	935			963	
Maldives											951

Mali	993	995	994	983	996	996	992	976	966	928	
Malta	482	979	980	984	487	1,001	993	1,007	1,000		
Mauritania	929	1,968	1,970	970	976	962	967	916	903	782	
Mauritius			979			990		987	990	993	
Mexico	945	892	914	1,709	886	958	1,005	954	955	1,024	963
Moldova	940	949	948	948	942	909	893	931	931	927	1,019
Mongolia		968	965	968	970	974	979	982	985	975	
Montenegro		928	949	947	946	984	977	970	957	901	1,023
Morocco			972	2,919	977		2,026	989	993	978	
Mozambique			998				937		957	962	
Myanmar				1,016	1,016	1,020	1,019	1,019	1,587	992	
Namibia						942			978	967	
Nepal	963	981	969	1,970	1,049	1,043	989	982	982	987	
Netherlands		974	941	972	734	988	992	990	992		
New Zealand		715	959	952	487	928	959	962	969	954	
Nicaragua	992	962	977	960	986	983	788	973	982	985	1,053
Niger	994	1,000	998	999	1,002	992	971	957	947	839	
Nigeria	850	1,000	993	1,872	861	949	965	962	957	981	
Norway				949		970	952	976	983		
Pakistan	2,924	904	968	2,954	997	986	1,000	1,000	1,562	981	
Palestine	984	1,967	1,979	1,992	995	994	998	997	994	994	
Panama	994	939	948	946	991	972	986	764	984	970	1,058
Paraguay	968	934	967	981	988	989	954	986		1,959	1,072
Peru	973	954	962	970	965	972	984	977	984	983	989
Philippines	994	994	983	1,987	996	993	999	996	996	989	
Poland	898	1,821	946	904	912	969	890	918	944	926	965
Portugal		1,887	946	953	969	999	1,007	987	990		
Qatar	916	927		1,913							
Romania	953	915	926	953	964	947	978	981	985	977	1,041
Russia	1,883	3,664	1,788	2,673	1,784	1,839	1,883	1,852	1,910	1,892	
Rwanda	987			999	999	997	995	990	985	991	
Saudi Arabia	885	951	961	1,046	1,964	986	1,003	948	978	996	
Senegal	965	996	995	995	982	997	976	953	923	947	
Serbia		952	934	988	955	911	936	943	914	927	1,037
Sierra Leone		976	1,000		990	988	905	961	979	976	
Singapore	981	992	985		935	940	933	932	953	983	
Slovakia		965	968	963	940	952	963	953	947	967	1,046
Slovenia	498	978	973	969	980	1,002	984	986	980		
South Africa	982	986	997	1,975	995	978	981	977	981	970	
South Korea	972	982	973	1,964	978	857	979	975	991	971	
Spain	989	976	977	1,972	990	996	986	992	991		
Sri Lanka	976	1,005	984	1,978	988	1,036	1,042		1,081	1,088	
Sudan	824	1,781	1,957	991		698					
Suriname				450							
Swaziland			976							975	
Sweden	949	964	963	963	721	957	972	967	968		

Switzerland	966			966		988	488	979	974		
Syria	980	1,919	1,435	1,300	726		747				
Taiwan		969	963	970	978	979	964	968	981	978	
Tajikistan	950	963	969	980	922	974	951	959	968		1,036
Tanzania	975	994	994	993	979	989	993	995	994	992	
Thailand	1,005	987	998	1,992	995	991	981	985	981	986	
The Gambia									923	955	
Togo			970			978	891	965	927	944	
Trinidad & Tobago			485		484				487		
			1,96		1,04						
Tunisia	945	2,052	7	2,010	5	1,033	976	989	946	956	
Turkey	929	964	993	1,913	962		970	988	916	949	
Turkmenistan	984		997	985	984	950	970	993	988	830	1,030
Uganda		994	995	981		981	953	998	974	980	
Ukraine	907	920	906	901	936	928	915	856	878	876	1,010
United Arab Emirates			1,87								
Emirates	961	1,907	8	1,910	911		2,836	1,825	1,773	1,788	1,372
			2,00								
United Kingdom	958	939	1	2,156	723	961	983	980	984		
United States	987	977	968	995	982	968		989	1,003	983	1,017
Uruguay	972	934	953	971	944	977	856	816	990	988	
Uzbekistan	979	989	984	983	982	985	990	992	992	990	1,073
Venezuela	815	933	962	971	971	970	928	979	988	989	1,072
Vietnam	963	934	866	1,783	968	967	968	988		967	
			1,96								
Yemen	990	1,987	7	1,982	983	997	983	988	972	983	
Zambia	941		995	994	994	982	962	958	973	986	
Zimbabwe	979	985		991	965	967	981	979	988	985	

Notes: The table details the number of observations for the analysis sample whereby the dependent variable is emigration intentions.

Table A2: Summary statistics, emigration plans sample 2009-2015

	Overall sample, N=184,295		Emigration plans=Yes, N = 27,875		Emigration plans=No, N =156,420	
Individual variables	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Emigration plan	0.147	0.354				
Biological sex						
Male	0.535	0.499	0.587	0.492	0.526	0.499
Female	0.465	0.499	0.413	0.492	0.474	0.499
Age	32.028	13.942	30.472	12.343	32.296	14.182
Immigrant status						
Native	0.910	0.286	0.895	0.306	0.913	0.282
Immigrant	0.054	0.227	0.078	0.268	0.050	0.219
No information	0.035	0.184	0.027	0.162	0.037	0.188
Location						
Rural location	0.734	0.442	0.759	0.428	0.730	0.444
Urban location	0.241	0.428	0.217	0.412	0.245	0.430
No information	0.025	0.155	0.025	0.156	0.025	0.155
Marital status						
Married	0.459	0.498	0.419	0.493	0.466	0.499
Not married/divorced/widowed	0.541	0.498	0.581	0.493	0.534	0.499
Education						
Primary or secondary education	0.878	0.327	0.872	0.334	0.879	0.326
Tertiary education	0.122	0.327	0.128	0.334	0.121	0.326
Children in the household						
Yes	0.606	0.489	0.648	0.477	0.599	0.490
No	0.394	0.489	0.352	0.477	0.401	0.490
Within-country income tertile						
Poorest third	0.379	0.485	0.353	0.478	0.383	0.486
Middle third	0.309	0.462	0.288	0.453	0.313	0.464
Richest third	0.259	0.438	0.286	0.452	0.255	0.436
No information	0.053	0.224	0.072	0.259	0.049	0.217
Unemployment status						
Not unemployed	0.868	0.338	0.833	0.373	0.874	0.331
Unemployed	0.105	0.306	0.139	0.346	0.099	0.298
Missing information	0.027	0.163	0.029	0.167	0.027	0.162
Key independent variables (country-level)						
Top 1% income share (lag)	0.162	0.051	0.164	0.049	0.161	0.051
Top 10% income share (lag)	0.463	0.088	0.476	0.081	0.460	0.089
Top 20% income share (lag)	0.609	0.082	0.623	0.074	0.607	0.083
Gini (lag)	0.572	0.083	0.586	0.075	0.570	0.084
Country-level controls						
Life evaluations	5.193	1.055	4.916	1.016	5.241	1.054
Log GDP per capita	9.105	1.132	8.796	1.152	9.159	1.120
Social support	0.792	0.118	0.768	0.124	0.796	0.116
Healthy life expectancy	61.368	7.983	59.075	7.980	61.764	7.917
Freedom	0.693	0.141	0.672	0.141	0.696	0.141
Generosity	-0.017	-0.145	-0.025	-0.122	-0.015	-0.149
Corruption perceptions	0.782	0.158	0.784	0.147	0.782	0.160

Notes: See Table 2 for variable definitions. The values are calculated using the Gallup-provided survey weight.

Table A3: Summary statistics, emigration preparations sample 2009-2015

Individual variables	Overall sample, N=24,101		Emigration preparations=Yes, N = 8,903		Emigration preparations=No, N =15,198	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Emigration preparations	0.353	0.478				
Biological sex						
Male	0.584	0.493	0.598	0.490	0.577	0.494
Female	0.416	0.493	0.402	0.490	0.423	0.494
Age	30.540	12.381	31.160	12.287	30.201	12.419
Immigrant status						
Native	0.890	0.313	0.878	0.327	0.896	0.305
Immigrant	0.080	0.272	0.093	0.290	0.073	0.260
No information	0.030	0.170	0.029	0.167	0.030	0.172
Location						
Rural location	0.763	0.425	0.780	0.414	0.754	0.431
Urban location	0.213	0.409	0.195	0.396	0.222	0.416
No information	0.025	0.155	0.025	0.157	0.024	0.154
Marital status						
Married	0.413	0.492	0.412	0.492	0.414	0.493
Not married/divorced/widowed	0.587	0.492	0.588	0.492	0.586	0.493
Education						
Primary or secondary education	0.864	0.342	0.805	0.396	0.897	0.304
Tertiary education	0.136	0.342	0.195	0.396	0.103	0.304
Children in the household						
Yes	0.636	0.481	0.579	0.494	0.668	0.471
No	0.364	0.481	0.421	0.494	0.332	0.471
Within-country income tertile						
Poorest third	0.348	0.476	0.292	0.455	0.379	0.485
Middle third	0.289	0.453	0.282	0.450	0.293	0.455
Richest third	0.292	0.455	0.361	0.480	0.254	0.435
No information	0.071	0.256	0.065	0.247	0.074	0.261
Unemployment status						
Not unemployed	0.842	0.365	0.858	0.349	0.833	0.373
Unemployed	0.148	0.355	0.131	0.338	0.157	0.364
Missing information	0.010	0.101	0.011	0.103	0.010	0.100
Key independent variables (country-level)						
Top 1% income share (lag)	0.164	0.049	0.163	0.050	0.165	0.049
Top 10% income share (lag)	0.476	0.081	0.469	0.084	0.479	0.079
Top 20% income share (lag)	0.622	0.075	0.616	0.078	0.625	0.073
Gini (lag)	0.585	0.075	0.579	0.078		
Country-level controls					0.588	0.073
Life evaluations	4.966	1.027	5.152	0.982	4.864	1.037

Log GDP per capita	8.856	1.139	9.051	1.098	8.750	1.147
Social support	0.775	0.122	0.796	0.108	0.764	0.128
Healthy life expectancy	59.561	7.875	60.855	7.604	58.855	7.931
Freedom	0.680	0.138	0.684	0.140	0.678	0.137
Generosity	-0.027	0.123	-0.029	0.130	-0.026	0.118
Corruption perceptions	0.782	0.146	0.782	0.155	0.782	0.141

Notes: See Table 2 for variable definitions. The values are calculated using the Gallup-provided survey weight.

Table A4: World Regions in the Gallup World Poll

Europe	United Kingdom, France, Germany, Netherlands, Belgium, Spain, Italy, Poland, Hungary, Czech Republic, Romania, Sweden, Greece, Denmark, Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Luxembourg, North Macedonia, Malta, Montenegro, Norway, Portugal, Serbia, Slovakia, Slovenia, Switzerland
Post-Soviet	Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Ukraine, Armenia, Azerbaijan, Tajikistan, Turkmenistan, Uzbekistan
Australia-New Zealand	Australia, New Zealand
Northern America	United States, Canada
Southeast Asia	Indonesia, Singapore, Philippines, Vietnam, Thailand, Cambodia, Laos, Myanmar, Malaysia
South Asia	Pakistan, Bangladesh, India, Sri Lanka, Afghanistan, Bhutan, Maldives, Nepal
East Asia	Hong Kong, Japan, China, South Korea, Taiwan, Mongolia
Latin America/Caribbean	Venezuela, Brazil, Mexico, Costa Rica, Argentina, Belize, Bolivia, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad & Tobago, Uruguay
Middle East and North Africa	Egypt, Morocco, Lebanon, Saudi Arabia, Jordan, Syria, Turkey, Iran, Israel, Palestinian Territories, Algeria, Bahrain, Iraq, Kuwait, Libya, Qatar, Tunisia, United Arab Emirates, Yemen
Sub-Saharan Africa	Nigeria, Kenya, Tanzania, Ghana, Uganda, Benin, Madagascar, Malawi, South Africa, Angola, Botswana, Ethiopia, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Zambia, Burkina Faso, Cameroon, Sierra Leone, Zimbabwe, Burundi, Central African Republic, Chad, Comoros, Congo Kinshasa, Congo Brazzaville, Djibouti, Gabon, Guinea, Ivory Coast, Lesotho, Liberia, Mauritius, Namibia, Sudan, Eswatini, The Gambia, Togo

Appendix B: Instrumental Variables Techniques

In this section, we consider that while inequality may affect emigration intentions, actual emigration may also affect inequality (see the discussion in Section 5.2).

To this end, we instrument income and wealth inequality with information on the inheritance distribution for movable property from Giuliano and Nunn (2018). The dataset in Giuliano and Nunn is based on the Ethnographic Atlas by Murdock, which offers information on the pre-industrial characteristics and practices of 1265 ethnic groups. The Atlas is at the ethnic-group and not the country-level and lacks information on Eastern Europe and the former Soviet Union. The authors thus complement the dataset with additional sources and convert it to the country level.

Specifically, we utilise information on the fraction of the country's population with ancestors for which movable property inheritance was distributed (relatively) equally. The logic behind using this instrument is that the equal distribution of movable property should prevent the structural concentration of wealth and income as more community members can benefit from the inheritance. We specifically rely on movable property and not land inheritance as land inheritance may create the concentration of wealth as those who inherit land are discouraged from moving elsewhere.

To our knowledge, the idea of using inheritance practices as an instrument for inequality is relatively new and has not been done before, even though several papers in the literature link inheritance practices with present-day inequalities and inequities (Hager & Hilbig, 2019; Menchik, 1980).

There are several caveats to using this instrument. The first is the exclusion restriction – i.e. the condition that the instrument should affect emigration intentions indirectly through current inequality. It may be the case that past inheritance practices continue to affect socio-economic aspects of life today, which prompt individuals to move. Nevertheless, we have included a large number of current country-level characteristics, which should mitigate this issue. The second issue is that the instrument is only correlated with levels of inequality caused by deeply-rooted factors but not with levels of inequality caused by structural changes in the economies and idiosyncratic factors. While we warn readers to consider the instrumental variable results with caution, the fact that the results are broadly in line with the OLS results provides some further confidence in the credibility of the main findings and conclusions.

Table B1 details the second-stage results. Specifically, while the coefficient estimates in the emigration intentions sample are slightly lower compared with the main ones in Table 4, those for emigration plans increase significantly in magnitude. For example, a one percentage point in the top 1% share increases emigration plans by almost 2 percentage points (Model (1), Panel B of Table B1).

The first stage results, reported in Table B2, suggest a strong relationship between the instrument and inequality. All in all, these instrumental variable results are in line with our main specifications and conclusions that inequality deters migration.

Table B1: The effect of inequality on emigration intentions, plans, and preparations, second stage IV

	(1)	(2)	(3)	(4)
Panel A: DV: Emigration intentions				
Top 1% share	-0.494*** (0.070)			
Top 10% share		-0.274*** (0.039)		
Top 20% share			-0.312*** (0.044)	
Gini index				-0.307*** (0.043)
Number of observations	1,406,792	1,406,792	1,406,792	1,406,792
R ²	0.090	0.090	0.090	0.090
Panel B: DV: Emigration plans				
Top 1% share	-1.953*** (0.136)			
Top 10% share		-1.155*** (0.080)		
Top 20% share			-1.302*** (0.090)	
Gini index				-1.269*** (0.088)
Number of observations	178,660	178,660	178,660	178,660
R ²	0.012	0.023	0.021	0.020
Panel C: DV: Emigration preparations				
Top 1% share	0.287 (0.468)			
Top 10% share		0.197 (0.320)		
Top 20% share			0.225 (0.367)	
Gini index				0.218 (0.355)
Number of observations	23,454	23,454	23,454	23,454
R ²	0.054	0.054	0.054	0.054

Notes: The table reports results from 2SLS regressions of emigration intentions (Panel A), plans (Panel B), and preparations (Panel C) on inequality. The first stage results are in Table B2. All regressions include individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), Region fixed effects, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions. Robust standard errors are reported in parentheses. The instrumental variable is the share of the country's population with ancestors for which movable property inheritance was distributed (relatively) equally.

*** p<0.01, ** p<0.05, * p<0.1

Table B2: The effect of inequality on emigration intentions, plans, and preparations, first stage IV

	(1)	(2)	(3)	(4)
Panel A: Emigration intentions sample				
	Top 1% share	Top 10% share	Top 20% share	Gini index
Inheritance practices	-0.016*** (0.000)	-0.029*** (0.000)	-0.025*** (0.000)	-0.026*** (0.000)
Number of observations	1,406,792	1,406,792	1,406,792	1,406,792
1st stage F-stat	24675	41870	39249	35964
Panel B: Emigration plans sample				
	Top 1% share	Top 10% share	Top 20% share	Gini index
Inheritance practices	-0.019*** (0.000)	-0.033*** (0.000)	-0.029*** (0.000)	-0.030*** (0.000)
Number of observations	178,660	178,660	178,660	178,660
1st stage F-stat	4870	7509	7400	6909
Panel C: Emigration preparations sample				
	Top 1% share	Top 10% share	Top 20% share	Gini index
Inheritance practices	-0.022*** (0.001)	-0.031*** (0.001)	-0.028*** (0.001)	-0.028*** (0.001)
Number of observations	23,454	23,454	23,454	23,454
1st stage F-stat	765.1	860.9	806.4	772.8

Notes: The table reports results from the first stages of 2SLS regressions of for the emigration intentions sample (Panel A), plans sample (Panel B), and preparations sample (Panel C) on inequality. The second stage results are reported in Table B1. All regressions include individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), region fixed effects, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions. Robust standard errors are reported in parentheses. The instrumental variable is the share of the country's population with ancestors for which movable property inheritance was distributed (relatively) equally.

*** p<0.01, ** p<0.05, * p<0.1

Appendix C: Additional analyses with data on conflict

An alternative explanation for our results is that emigration intentions are driven by conflict rather than by considerations of inequality or that inequality levels are correlated with conflict. Our main specifications include regional dummies and regionXtime trend controls, which should capture the more conflict-prone nature of certain world regions and also the eruption of conflict in particular regions in particular times, to the extent that such conflict affects the whole geographic region. Yet, the analyses do not capture country-specific conflict and violence eruptions.

To investigate the explanatory power of the conflict mechanism, we utilize the Uppsala Conflict Data Program UCDP Georeferenced Event Dataset (GED) Global version 21.1 (Peterson et al., 2021; Sunder & Melander, 2013). We use the information on whether the country experienced state-based conflict, non-state conflict, or one-sided violence in the previous year or not. In this sense, the dataset contains information on wars, conflicts, and terrorist acts in particular countries. We merge this information with our analysis dataset and include in the analyses an additional variable for whether the respondent lives in a country that experienced conflict or violence in the year before the interview or not. About 34 percent of all respondents lived in countries that experienced conflict or violence in the previous year.

The analyses in Table C1 include both inequality and conflict variables as key independent variables, alongside all standard controls and fixed effects included in the previous specifications. The main difference between Table 4, Panel A and Table C1 is that Table C1 includes conflict as an additional variable. Both the conflict and inequality variables are standardized to have a mean of 0 and standard deviation of 1 and are thus measured on the same scale, which allows the direct comparison of the coefficient estimates. Table C1 details that conflict in the previous year discourages international emigration desires and preparations, but does not influence emigration plans. On a global scale, these findings are unsurprising – given that most asylum migration tends to be within very short distance, often within the border of the same country (WorldBank, 2018). Those fleeing conflict relocate quickly, often suddenly, and do not form emigration intentions expressed in surveys. Finally, Gallup pollsters do not go to areas where their safety is compromised. All in all, all these factors act to discourage the international emigration intentions of those living in conflict-ridden countries.

To explore the nuances across regions, in Table C2, we split the analysis in Table C1 according to region of residence. Conflict is generally not statistically significantly associated with emigration intentions in many regions, including East Asia, Europe, Latin America, MENA, South Asia, and Southeast Asia. This result is logical given that the sudden eruption of war and conflict may trigger immediate action rather than long-term aspirations or migration plans that respondents report in surveys. As noted above, areas or territories that are heavily affected by conflict are also unlikely to be surveyed by the Gallup Organization's staff. Nevertheless, some interesting results emerge. Conflict in Australia/New Zealand and North America, Canada is conducive to emigration intentions, while conflict in the post-Soviet countries and sub-Saharan Africa seems to discourage long-term emigration aspirations.

Table C1: The relationship between conflict, inequality levels and emigration intentions, 2009-2019

	Emigration intentions 2009-2019				Emigration plans, 2009-2015				Emigration preparations, 2009-2015			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Top 1% share (lag, standardized)	-0.026*** (0.003)				-0.013*** (0.005)				-0.014* (0.009)			
Top 10% share (lag, standardized)		-0.030*** (0.004)				-0.016** (0.006)				-0.024** (0.012)		
Top 20% share (lag, standardized)			-0.029*** (0.004)				-0.014** (0.006)				-0.024** (0.012)	
Gini index (lag, standardized)				-0.026*** (0.004)				-0.012** (0.006)				-0.021* (0.012)
Conflict in the previous year (standardized)	-0.009*** (0.003)	-0.010*** (0.003)	-0.011*** (0.003)	-0.011*** (0.003)	0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)	-0.019*** (0.006)	-0.020*** (0.006)	-0.020*** (0.006)	-0.020*** (0.006)
R ²	0.091	0.091	0.091	0.091	0.045	0.045	0.045	0.045	0.061	0.061	0.061	0.061
Observations	1,455,295	1,455,295	1,455,295	1,455,295	184,295	184,295	184,295	184,295	24,101	24,101	24,101	24,101
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country-level controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Region FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Region X linear trend	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes: The table reports OLS results using robust standard errors clustered at the countryXyear level. The dependent variable in Models (1)-(4) is emigration intentions, in Models (5)-(8) is emigration plans, and in Models (9)-12 emigration preparations. Conflict in the previous year is based on the UCDP dataset and captures state-based violence, non-state-based violence, or one-sided violence on the territory of a particular country in the previous year. The inequality measures and the variable conflict in the previous year are both standardized to have a mean of 0 and standard deviation of 1 to allow the comparisons between the coefficient estimates of the two variables. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), Region fixed effects, regionXtime trend controls, and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions.

*** p<0.01, ** p<0.05, * p<0.1

Table C2: The relationship between conflict, inequality levels and emigration intentions, by geographic region of residence (2009-2019)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Southeast								
	AU+NZ+US+CAN	Post-Soviet	East Asia	Europe	LAC	MENA	South Asia	Asia	SSA
Panel A: Top 1% share (lag)									
Top 1% share (lag, standardized)	-0.041 (0.638)	-0.724*** (0.165)	1.290*** (0.371)	-0.482*** (0.161)	0.079 (0.129)	-0.190 (0.172)	-2.835*** (0.439)	0.540 (0.439)	-0.657*** (0.126)
Conflict in the previous year (standardized)	0.052** (0.022)	-0.060*** (0.011)	-0.007 (0.018)	0.025 (0.015)	0.011 (0.012)	0.018 (0.015)	0.033 (0.025)	-0.011 (0.021)	-0.045*** (0.014)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.047	0.121	0.117	0.104	0.095	0.078	0.076	0.071	0.086
Panel B: Top 10% share (lag)									
Top 10% share (lag, standardized)	0.208 (0.207)	-0.404*** (0.127)	0.687*** (0.146)	-0.024 (0.117)	0.185** (0.092)	-0.220* (0.133)	-1.206*** (0.169)	0.431 (0.357)	-0.540*** (0.100)
Conflict in the previous year (standardized)	0.053** (0.021)	-0.066*** (0.011)	-0.016 (0.016)	0.022 (0.016)	0.003 (0.012)	0.015 (0.015)	0.000 (0.022)	-0.015 (0.023)	-0.048*** (0.014)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.047	0.121	0.117	0.103	0.095	0.078	0.077	0.071	0.087
Panel C: Top 20% share (lag)									
Top 20% share (lag, standardized)	0.526* (0.272)	-0.281* (0.142)	0.658*** (0.156)	0.116 (0.109)	0.286** (0.111)	-0.192 (0.146)	-1.546*** (0.220)	0.472 (0.416)	-0.612*** (0.114)
Conflict in the previous year (standardized)	0.051** (0.020)	-0.073*** (0.012)	-0.018 (0.017)	0.022 (0.016)	-0.001 (0.012)	0.015 (0.015)	-0.006 (0.022)	-0.015 (0.024)	-0.047*** (0.014)
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108
R ²	0.048	0.120	0.117	0.103	0.096	0.078	0.077	0.071	0.087

Panel D: Gini index (lag)										
Gini index (lag, standardized)	0.840*	-0.160	0.609***	0.104	0.323***	-0.184	-1.597***	0.506	-0.573***	
	(0.430)	(0.133)	(0.148)	(0.098)	(0.106)	(0.147)	(0.234)	(0.420)	(0.116)	
Conflict in the previous year (standardized)	0.053**	-0.076***	-0.017	0.022	-0.003	0.014	-0.008	-0.015	-0.046***	
	(0.020)	(0.012)	(0.017)	(0.016)	(0.013)	(0.015)	(0.022)	(0.024)	(0.014)	
Observations	34,334	134,653	84,787	321,138	199,529	206,119	101,080	79,547	294,108	
R ²	0.048	0.119	0.117	0.103	0.096	0.078	0.076	0.071	0.086	

Notes: The table reports OLS results using robust standard errors clustered at the countryXYear level. The dependent variable in all models is emigration intentions. Conflict in the previous year is based on the UCDDP dataset and captures state-based violence, non-state-based violence, or one-sided violence on the territory of a particular country in the previous year. The inequality measures and the variable conflict in the previous year are both standardized to have a mean of 0 and standard deviation of 1 to allow the comparisons between the coefficient estimates of the two variables. All regressions include year fixed effects, individual controls (biological sex, age, immigrant status, children, marital status, rural/urban location, education, income group, unemployment status), and country-level controls (life satisfaction, corruption, generosity, social support, GDP per capita, life expectancy, and freedom perceptions). See Table 2 for variable definitions. See Table A4 for the list of countries per geographic region.

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