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Economic Preferences and the Self-selection of Immigrants

Crystal Zhan[1] and Sumit Deole[2]

Abstract

Classical theories hypothesize individual economic preferences, including preferences toward risk, time, and trust, as determinants for migration intention. In the paper, we combine data from the German Socio-Economic Panel, European Social Survey, and World Values Survey to investigate how immigrants to Germany are self-selected from the origin population based on their preferences. We find a higher migration propensity among individuals who are more altruistic, patient, and trusting, conditional on age, gender, education, and a series of origin country's economic and political factors. However, individuals are positively selected on risk appetite in low-risk countries but adversely selected in high-risk countries. The degree of selectivity regarding preferences is also heterogeneous across demographics and origin-country characteristics.

Keywords: self-selection, economic preferences, refugees, reasons for migration, origin country

JEL Codes: F22, J15, J6, O15, Z1

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1. Introduction

Seminal migration economics research records a higher degree of selection in international migrant groups (Borjas, 1987; Borjas et al., 2019). The research also underscores emphasizing the profound and long-lasting impacts of migrant selection on the human capital accumulation and economic development of the source and destination countries (Beine et al., 2001; Beine et al., 2008; Docquier & Rapoport, 2012). However, most of the existing literature on migrant selection focuses on the effects of demographic and socioeconomic attributes, such as height (Spitzer & Zimran, 2018), human capital (Aksoy & Poutvaara, 2021), migration networks (McKenzie & Rapoport, 2010), income (Grogger & Hanson, 2011), and wealth (Dustmann & Okatenko, 2014).

Fewer papers look at the role of values, attitudes, and preferences in migrant selectivity (*e.g.*, Polavieja et al., 2018; Berlinschi & Harutyunyan, 2019; Berman & Rzakhanov, 2020). Consequently, this paper contributes to this literature by investigating how international migrants are selected based on their economic preferences, conditional on individual-level demographic and socioeconomic factors.

Economic preferences are critical to both micro-and macro-economic outcomes, such as human capital investment, occupational choices, entrepreneurship, marriage and fertility, trade, and adoption of new technologies (Knack & Keefer, 1997; Algan & Cahuc, 2010; Falk et al., 2018). Studies also show evidence of intergenerational transmission of economic preferences and preferences being stable for generations (Dinesen, 2012; Dohmen et al., 2012). Consequently, analyzing the impacts of economic preferences on the self-selection of international migrants can have important policy implications for the sending and receiving economies. First, understanding the selection of immigrants based on their economic preferences, above and beyond the socioeconomic factors and networks, helps predict their post-migration economic performance more precisely. Particularly, if the selection on preferences is heterogeneous across individual and origin-country traits, immigrants of different backgrounds are likely to contribute to the destination economy differently. In response to this possibility, host-country policymakers will need to design immigration policies to target and attract specific types of migrants. Second, insights into the migrant selection may help policymakers evaluate the possible economic and social consequences of the migration flows on both the source country and the destination

country. If only individuals with specific preferences migrate, the flows of migrants can bring fundamental changes to society's overall attitudes and preferences and likely influence economic and political outcomes. To this end, social policies that address these changes may prove beneficial.

Our analysis considers the role of the following four economic preferences in determining an individual's migration propensity: willingness to take risks, altruism, time preference, and social trust. The investigation begins by presenting a theoretical explanation of how economic preferences may affect the migration propensity of an individual and how the selection on preferences varies by other factors determining migration intention, such as the expected income change. The model builds on Borjas (1987) and Grogger & Hanson (2011) and demonstrates a positive connection between the propensity for international migration and one's altruism, patience, and trust levels. However, the model shows a positive selection of migrants on risk appetite in a relatively low-risk origin country but a negative selection if individuals face a high risk at the origin. Moreover, the selection on risk appetite (conditional on a positive selection), altruism, and patience is more positive if the expected income gains from the migration are lower or individuals face a higher cost or risk of migration. Migrants are also more positively selected on trust if the income is expected to increase by a smaller amount, but less so if the risk at the origin is higher.

Next, we empirically test the theoretical predictions of migrant selectivity noted above. To do this, we employ data from the German Socio-economic Panel (SOEP), European Social Survey (ESS), and World Values Survey (WVS). All three surveys contain detailed questions on economic preferences. We focus on the immigrant sample in SOEP and link the migrants to the natives in their origin countries in the ESS and WVS datasets. This way, we inspect how international migrants to Germany are self-selected from the origin population in terms of economic preferences. The final estimation sample consists of information on immigrants to Germany originating from 43 countries.

Our empirical estimates suggest that an individual's altruism, patience, and social trust positively predict his/her likelihood of moving to Germany. A one standard deviation increase in the respective preference is connected to an increase of 0.2, 0.9, and 0.1 percentage point increase in the migration propensity. In contrast, we find ambiguous results concerning the role

of risk appetite in predicting the chance of migration, demanding careful consideration of individual and country-level differences.

The analysis subsequently performed establishes substantial heterogeneity in the selection across individual demographics and origin-country traits. Specifically, females and individuals aged 40 years or over are more positively selected on risk appetite than males and younger individuals; the effect of altruism and trust is greater on highly educated individuals than on their less-educated counterparts; the effect of patience and trust is smaller on older individuals than younger ones. In addition, migrants from low-income countries, countries outside Europe, or at war, where the risk may be higher, appear negatively selected on the risk appetite. On the contrary, more risk-tolerant individuals exhibit a higher likelihood of migrating from Eastern Europe and countries at peace. We also find a more positive selection on altruism and patience in European countries than elsewhere and a more positive selection on trust in middle-income countries and Eastern European countries. Finally, we find no significant impacts of the preferences on the propensity to migrate as refugees, presumably because the migration of this group is more forced than voluntary conditional on their means to emigrate. The above findings generally confirm the predictions of the theoretical model. These results are also robust to alternative sample criteria, preference measures, and model specifications that address the concerns of potential economic preference evolvement and different measurement errors across data sources.

This paper contributes to two strands of literature. First, it contributes to the research examining the selection of international migrants. Most of the existing research investigates the role of socioeconomic traits and migration networks in migration decisions (*e.g.*, Borjas, 1987; McKenzie & Rapoport, 2010; Grogger & Hanson, 2011; Abramitzky & Boustan, 2017). A few papers in this literature look at the effects of preferences, attitudes, and values, including risk attitudes (Jaeger et al., 2010; Gibson & McKenzie, 2011; Berlinschi & Harutyunyan, 2019), time preference (Gibson & McKenzie, 2011; Chapela, 2022), trust in institutions (Dustmann & Okatenko, 2014), gender discrimination (Ruyssen & Salomone, 2018), intergenerational altruism (Berman & Rzakhanov, 2020), preferences for redistribution (Kauppinen & Poutvaara, 2019), and aspirations (Creighton, 2013; Polavieja et al., 2018). However, most of these studies inspect a single country or a small set of countries. This paper contributes to the literature by underscoring the importance of multiple economic preferences in migrant selection. Conducting

a systematic cross-national assessment of many origin countries, the paper finds new evidence of adverse selection on risk tolerance from certain origins.

The second literature strand focuses on economic preferences, their determinants, and the influences on economic outcomes. In particular, examining preferences worldwide, Falk et al. (2018) and L'Haridon & Vieider (2019) find substantial heterogeneity within and across countries, which may stem from the differences in demographics, economic development, culture, and history (Zak & Knack, 2001; Rapoport & Vidal, 2007; Borghans et al., 2009; Schurer, 2015; Galor & Özak, 2016; L'Haridon & Vieider, 2019; Drnovšek Zorko, 2020). A series of studies also show the effects of preferences on a wide range of economic behaviors, such as education, labor market choices, prosocial behaviors, technological adoption, trade, and war (Rohner et al., 2013; Falk et al., 2018; Hanushek et al., 2021). Some specifically focus on the behaviors of international migrants in the host countries, including remittances (Batista & Umblijs, 2016), entrepreneurship (Batista & Umblijs, 2014; Azoulay et al., 2022), and savings decisions (Islam et al., 2013). Our paper adds to this literature by examining how economic preferences affect the migration decisions of individuals.

The remainder of the paper is organized as follows: Section 2 describes and summarizes the relevant literature; Section 3 introduces the theoretical framework and states several testable predictions; Section 4 documents the data sources and sample criteria; Section 5 presents the empirical model; Section 6 presents the estimation results, and Section 7 concludes the paper.

2. Literature Review

Classical theories often assume the role of economic preferences in an individual's migration choice. For instance, Chiswick (1978) argues that migrants are more motivated for economic success and more risk-tolerant than average in their home country. However, to the best of our knowledge, fewer studies empirically test how economic preferences drive migration selectivity. In this section, we summarize the existing studies on the role of economic preferences in the context of international migration, including the research investigating the impacts of preferences on post-migration performance, to motivate their pertinence in the decision to undertake the act of migration. Notably, existing papers typically consider the impacts of a single preference; some

studies look at regional migration, and those on international migration often focus on a specific pair of origin and destination or a small set of sending countries.

Risk Preference

Seminal economics research argues that risk preferences are inherent to individual migration decisions (Chiswick, 1978; Todaro, 1980). Existing empirical studies find supportive evidence by examining different groups of international and domestic migrants. For instance, Jaeger et al. (2010) focus on internal migration in Germany; Gibson & McKenzie (2011) study the case of emigration from a small Pacific country; Nowotny (2014) and Berlinschi & Harutyunyan (2019) investigate the case of migration from Eastern European countries. All these studies verify the positive link between individual risk tolerance and the likelihood of migration.

The risk attitudes of immigrants also impact their post-migration performance. For instance, immigrants' risk appetite is positively associated with their self-employment and entrepreneurship (Batista & Umblijs, 2014) but negatively related to their tendency to send remittances (Batista & Umblijs, 2016). As immigrants are likely to save more than natives (Islam et al., 2013), their risk preferences can be instrumental in generating new investments and becoming productive members of the host society. Despite the expectation of international migrants being more risk-loving, new research consistently finds immigrants as less risk-tolerant than natives at the destination (Bonin et al., 2009; Deole & Rieger, 2022).

Altruism

To the best of our knowledge, not many studies investigate the role of altruism in individual migration decisions; a few inspect the role of intergenerational altruism. Multiple papers (Tcha, 1995; Berman & Rzakhanov, 2020; Gardner, 2020) show evidence that more altruistic parents have a higher chance of migration, as they value the migration-associated benefits of future generations more. Studies also investigate the impact of altruism on post-migration performance, further reinforcing their intergenerational motives. For example, Berman & Rzakhanov (2020) demonstrate that due to the positive selection on intergenerational altruism, immigrants tend to have higher fertility and spend more time with grandchildren than natives in the host country; Azizi (2017) finds that the altruism of migrants is a primary incentive for remittances.

Patience

Many researchers demonstrate a positive link between an individual's time preference (patience) and migration propensity (Gibson & McKenzie, 2011; Goldbach & Schlüter, 2018). Using regional data from Spain, Chapela (2022) finds that being impatient reduces the migration propensity by approximately 13%. On the contrary, Nowotny (2014) argues that patience can also result in a reduced emigration propensity if the benefits from staying behind outweigh the benefits of migration. Fewer studies look at the relationship between patience and immigrant outcomes in a receiving society, except for those using German data. While Deole & Rieger (2022) show that immigrants in Germany are more patient than natives, Constant et al. (2011) do not find a significant difference among the unemployed second-generation immigrants and unemployed natives using older versions of the same dataset.

Trust

Finally, we review the research investigating the part of individual trust. Several studies posit that an individual's trust level, including their generalized and institutional trust, positively predicts the chance of emigration (Lam, 2002; Dustmann & Okatenko, 2014; Berlinschi & Harutyunyan, 2019). One possible explanation is that trust can promote social interactions, a crucial component of immigrant integration into the host environment.

The existing research investigates the foundations of immigrant trust and its role in shaping their migration propensity and post-migration performance. For instance, Bilodeau & White (2016) discuss that immigrants distinguish between trust in other people, in general, and trust in natives. The authors also argue that the former may be grounded in their pre-migration cultural influences, while the latter responds to their experiences in the host country. In a similar vein, Dinesen (2013) shows the role of origin-country and host-country factors, including origin culture and destination institutional quality, in determining the generalized trust of migrants. Lastly, Caragliu et al. (2013) employ the cross-country data of migration flows within Europe and show that a smaller trust distance between the origin and host country is associated with more significant migration flows.

3. Theoretical Framework

3.1 Model Setup

Individuals migrate to improve their social and economic status relative to their peers (Stark & Taylor, 1991). Because migrants face a trade-off between short-term costs and long-term benefits, their emigration decision is generally formulated as a multiple-period utility maximization problem. Accordingly, we build our model to incorporate various preferences directly.

We consider household *h* deciding whether to migrate from source country *s* to destination country *d*. Let y_{hi}^{p} denote the income of household *h* earned by the parents per period and y_{hi}^{c} denote the income earned by the children per period in country *i*, *i* = *s* or *d*. The present value of an income flow of *y* per period starting from period t_1 for *n* periods is

$$Y = \sum_{t=t_1}^{t_n} \delta^t y \tag{1}$$

where δ stands for a household-specific discount factor, $0 \leq \delta \leq 1$. A larger δ implies a higher level of patience.

We assume parents discount the future incomes of theirs and their children at the same rate. The current period is period 0. Parents work from period 1 till period T_h. Children start to work in a certain future period, τ_h, and work for *T* periods. Households evaluate the present value of future incomes (from period 1 and on). Let us define $\varphi_h^p = \sum_{t=1}^{T_h} \delta_h^t$ and $\varphi_h^c = \sum_{t=\tau_h}^{\tau_h+T-1} \delta_h^t$. Accordingly, the present value of the parents' lifetime income in country *i*, *i* = *s* or *d*, can be written as $\varphi_h^p \, y_{hi}^p$, and that of the children's is $\varphi_h^c y_{hi}^c$.

Following Grogger & Hanson (2011), we assume linear utility for simplicity. We write the utility of household *h* staying in their country of origin, U_{hs}, as follows:

$$U_{hs} = \left(\varphi_h^p \, y_{hs}^p + \rho_h \, \varphi_h^c y_{hs}^c\right)(1 - r_s) - r_s \omega_h. \tag{2}$$

Here, ρ_h represents intergenerational altruism, $0 \leq \rho_h \leq 1$. Parents place a higher weight on the economic success of their children if they are more altruistic toward them, even if the children's income does not necessarily translate to the parents' consumption. r_s stands for the risk in country *s*, and $0 \leq r_s \leq 1$. This risk can be associated with political and economic instability; it may represent the chance of unemployment that reduces the expected income. Assume all

individuals are risk-averse but to different degrees. Risk r_s leads to a disutility $r_s\omega_h$, where ω_h is positive and reflects the household's risk aversion: a larger ω_h indicates a household being more risk-averse or less risk-tolerant. Denoting $y_{hs}^{p\prime} = y_{hs}^{p}(1 - r_s)$ and $y_{hs}^{c\prime} = y_{hs}^{c}(1 - r_s)$, we rewrite Equation (2) as

$$U_{hs} = \varphi_h^p \, y_{hs}^{p\prime} + \rho_h \, \varphi_h^c y_{hs}^{c\prime} - r_s\omega_h. \tag{3}$$

If household *h* migrates to country *d* in the current period, their utility, U_{hd}, becomes

$$U_{hd} = \varphi_h^p \, y_{hd}^{p\prime} + \rho_h \, \varphi_h^c y_{hd}^{c\prime} - r_d\omega_h - (1 - \iota_h)r_{hsd}\omega_h - C_{hsd}. \tag{4}$$

r_d, $0 \le r_d \le 1$, stands for the risk of unemployment in country *d*. $y_{hd}^{p\prime} = y_{hd}^{p}(1 - r_d)$, and $y_{hd}^{c\prime} = y_{hd}^{c}(1 - r_d)$. Migrants face an additional risk associated with migration and starting life in a new place, r_{hsd}. The risk may arise due to the physical and cultural/social distance between the origin and the destination, language barriers, etc., and vary by household. For example, higher-educated migrants may face a lower risk of migration and social integration than less-educated ones; the act of migration may be riskier for refugees and irregular migrants than for regular migrants. $\iota_h, 0 \le \iota_h \le 1$, captures the social trust of household *h*. A larger ι_h indicates a higher level of trust. More trusting individuals may be more willing to engage in social interactions, reducing the uncertainty of settling down in a new country. Lastly, C_{hsd} denotes household-specific migration costs, both monetary and psychological. C_{hsd} may increase with the physical and cultural distance between the origin and the destination and thus be positively correlated with r_{hsd}.

Consequently, the difference in the utility between emigrating to country *d* and staying in the origin country *s* is

$$\begin{aligned}
\Delta U_{hsd} &= U_{hd} - U_{hs} \\
&= \varphi_h^p\left(y_{hd}^{p\prime} - y_{hs}^{p\prime}\right) + \rho_h \, \varphi_h^c(y_{hd}^{c\prime} - y_{hs}^{c\prime}) - [r_d + (1 - \iota_h)r_{hsd} - r_s]\omega_h - C_{hsd} \\
&= \varphi_h^p \Delta y_{hsd}^{p\prime} + \rho_h \varphi_h^c \Delta \, y_{hsd}^{c\prime} - \Delta r_{hsd}\omega_h - C_{hsd},
\end{aligned} \tag{5}$$

where $\Delta y_{hsd}^{p\prime}$ and $\Delta \, y_{hsd}^{c\prime}$ denote the expected destination-origin income difference of any period for the parents and the children, respectively; $\Delta r_{hsd} = r_d + (1 - \iota_h)r_{hsd} - r_s$ is the difference in the risk that household *h* faces when migrating relative to stay.

The necessary condition for household *h* to migrate is $\Delta U_{hsd} > 0$, or

$$\varphi_h^p \Delta {y_{hsd}^p}' + \rho_h \varphi_h^c \Delta\, {y_{hsd}^c}' > \Delta r_{hsd} \omega_h + C_{hsd}. \quad (6)$$

The propensity of migration, $Prob_{hsd}$, can be written as a function of the net utility change:

$$Prob_{hsd} = \begin{cases} 0, \ if\ \Delta U_{hsd} \leq 0 \\ f(\Delta U_{hsd}), if\ \Delta U_{hsd} > 0 \end{cases} \quad (7)$$

where $f'(\Delta U_{hsd}) > 0$.

3.2 Propositions

The literature on the selection of international migration finds that workers migrate for income maximization (Borjas, 1987; Grogger & Hanson, 2011; Aksoy & Poutvaara, 2021). Hence, we expect most international migrants to move from low-income countries to high-income countries (so that $\Delta {y_{hsd}^p}'$ and $\Delta\, {y_{hsd}^c}'$ are positive) and from less stable regimes with lower-performing labor markets (*e.g.*, with a high r_s) to stable ones with more prosperous markets (*e.g.*, with a low r_d) (Besley & Persson, 2011), while exceptions can be possible. In what follows, we state the main testable predictions regarding each of the four economic preferences.

Risk Preference

According to Inequation (6), household *h* may migrate from country *s* to country *d* when

$$\omega_h < \frac{\varphi_h^p \Delta {y_{hsd}^p}' + \rho_h \varphi_h^c \Delta\, {y_{hsd}^c}' - C_{hsd}}{\Delta r_{hsd}} \text{ and } \Delta r_{hsd} > 0, \quad (8)$$

or

$$\omega_h > \frac{\varphi_h^p \Delta {y_{hsd}^p}' + \rho_h \varphi_h^c \Delta\, {y_{hsd}^c}' - C_{hsd}}{\Delta r_{hsd}} \text{ and } \Delta r_{hsd} < 0. \quad (9)$$

Risk preference does not affect the migration propensity if $\Delta r_{hsd} = 0$. In the case of migration, $\frac{\partial Prob_{hsd}}{\partial \omega_h} = f'(\Delta U_{hsd}) \cdot \frac{\partial \Delta U_{hsd}}{\partial \omega_h} = -f'(\Delta U_{hsd}) \cdot \Delta r_{hsd}$.

Proposition 1: Less risk-averse individuals emigrate from a low-risk country, and more risk-averse individuals may emigrate from a high-risk country.

Proposition 2: When migrants are positively selected on their risk appetite, the selection is more positive if the expected income increase is smaller, or the migration cost and the migration-associated risk are higher; when migrants are negatively selected, the selection is more negative when the migration cost and the migration-associated risk are higher.

Proof: When $\Delta r_{hsd} > 0$, or $r_s < r_d + (1 - \iota_h) r_{hsd}$, household h may choose to migrate if Inequation (8) holds. This suggests that only households with a risk aversion below a specific threshold may emigrate. Also, the probability of migration decreases with ω_h, as $\frac{\partial Prob_{hsd}}{\partial \omega_h} < 0$.

Holding other things constant, the right-hand side of Inequation (8) is lower if the expected income differences for household h, $\Delta y_{hsd}^{p\,\prime}$ and $\Delta\, y_{hsd}^{c\,\prime}$, are smaller, resulting in a more positive selection based on the willingness to take risks. The cutoff also lowers if C_{hsd}, as well as r_{hsd}, increases.

On the other hand, when $\Delta r_{hsd} < 0$, or $r_s > r_d + (1 - \iota_h) r_{hsd}$, household h would choose to migrate if Inequation (9) holds. Notably, if the destination country has a significantly lower risk than the origin, the former may also have a higher income level than the latter so that $\varphi_h^p \Delta y_{hsd}^{p\,\prime} + \rho_h \varphi_h^c \Delta\, y_{hsd}^{c\,\prime}$ is positive. If the migration cost $C_{hsd} \leq \varphi_h^p \Delta y_{hsd}^{p\,\prime} + \rho_h \varphi_h^c \Delta\, y_{hsd}^{c\,\prime}$, the right-hand side of Inequation (9) is negative. Then people of all risk aversion degrees may choose to emigrate: the selection is neutral in the risk preference. In contrast, if C_{hsd} is high and $C_{hsd} > \varphi_h^p \Delta y_{hsd}^{p\,\prime} + \rho_h \varphi_h^c \Delta\, y_{hsd}^{c\,\prime}$, the right-hand side of Inequation (9) becomes positive. In this case, only individuals whose risk aversion exceeds a certain level may emigrate. Since $\frac{\partial Prob_{hsd}}{\partial \omega_h} > 0$ when $\Delta r_{hsd} < 0$, we expect more risk-averse individuals to have a higher migration propensity. For instance, source countries undergoing armed conflicts or political turmoil have a large r_s. Migrants from these countries, some of whom may migrate as refugees or asylum seekers, may also face a very high cost of moving. These people are likely to be negatively selected on risk appetite, as moving to a safer country leads to a risk reduction and a utility increase. In addition, the right-hand side of Inequation (9) increases with C_{hsd} and r_{hsd}.

Hence, the selection on risk appetite is more negative when the social and physical distance between the origin and the destination increases, as long as $\Delta r_{hsd} < 0$, or $r_{hsd} < \frac{r_s - r_d}{1-\iota_h}$.

Altruism

Based on Inequation (6), household *h* would migrate from country *s* to country *d* if

$$\rho_h > \frac{\Delta r_{hsd}\omega_h + C_{hsd} - \varphi_h^p \Delta {y_{hsd}^p}'}{\varphi_h^c \Delta {y_{hsd}^c}'}, \quad (10)$$

when the children expect an income increase post their parents' migration. In the case of $\Delta U_{hsd} > 0$, $\frac{\partial Prob_{hsd}}{\partial \rho_h} = f'(\Delta U_{hsd}) \frac{\partial \Delta U_{hsd}}{\partial \rho_h} = f'(\Delta U_{hsd}) \varphi_h^c \Delta {y_{hsd}^c}'$.

Proposition 3: Altruistic individuals are more likely to migrate if they expect their children to enjoy an income increase.

Proposition 4: The selection on altruism is more positive when the expected income gains are smaller, or the risk and the cost of migration are greater.

Proof: Household *h* may migrate from country *s* to *d* if Inequation (10) holds and $\Delta {y_{hsd}^c}' > 0$. The right-hand side of Inequation (10) increases with Δr_{hsd} and C_{hsd} but decreases with $\Delta {y_{hsd}^p}'$ and $\Delta {y_{hsd}^c}'$. Indeed, if the income increase for the parents is so large that $\Delta r_{hsd}\omega_h + C_{hsd} \leq \varphi_h^p \Delta {y_{hsd}^p}'$, the right-hand side of Inequation (10) is zero or negative, and all individuals may choose to migrate regardless of their altruism. In contrast, if the parents expect a smaller income increase or a high migration cost and a high migration-associated risk, and $\Delta r_{hsd}\omega_h + C_{hsd} > \varphi_h^p \Delta {y_{hsd}^p}'$, only individuals with a certain level of altruism or higher would choose to migrate, suggesting a positive selection of migrants. In extreme cases, highly altruistic individuals may migrate even if $\Delta {y_{hsd}^p}' \leq 0$. That is, these parents sacrifice their own earnings for the economic success of their offspring. When $\Delta U_{hsd} > 0$ the probability of migration increases with altruism, as $\frac{\partial \Delta U_{hsd}}{\partial \rho_h} = \varphi_h^c \Delta {y_{hsd}^c}' > 0$.

Notably, the increase in children's earnings may result from a higher overall income level in the destination country. It is also possible that if parents have a higher income post-migration, they can invest more in the children's human capital, leading to higher future incomes.[3]

Patience

The discount factor, δ_h, captures the patience of household h. A more patient household would have larger φ_h^p and φ_h^c, both increasing with δ_h. Moreover, φ_h^p increases with T_h, the number of periods that the parents earn an income, and φ_h^c decreases with τ_h, the period when the children start to work. $\frac{\partial Prob_{hsd}}{\partial \delta_h} = f'(\Delta U_{hsd}) \frac{\partial \Delta U_{hsd}}{\partial \delta_h} = f'(\Delta U_{hsd})[\Delta y_{hsd}^{p\,\prime} \frac{\partial \varphi_h^p}{\partial \delta_h} + \rho_h \Delta\, y_{hsd}^{c\,\prime} \frac{\partial \varphi_h^c}{\partial \delta_h}]$, when $\Delta U_{hsd} > 0$.

Proposition 5: More patient individuals are more likely to migrate.

Proposition 6: The selection on patience is more positive when the expected income gains are smaller or when the migration costs are higher.

Proposition 7: The migration propensity of younger individuals relies on patience more than that of older individuals.

Proof: Unlike risk preferences and altruism, it is hard to derive a single condition for the time preference, δ_h, from Inequation (6). Nevertheless, the left-hand side of Inequation (6) increases with φ_h^p and φ_h^c. Therefore, conditional on all the other factors, the inequation is more likely to hold for households with a larger δ_h, suggesting a positive selection of migrants on patience. Also, in the case that $\Delta U_{hsd} > 0$, the probability of migration increases with patience, as $\frac{\partial \Delta U_{hsd}}{\partial \delta_h} = \Delta y_{hsd}^{p\,\prime} \frac{\partial \varphi_h^p}{\partial \delta_h} + \rho_h \Delta\, y_{hsd}^{c\,\prime} \frac{\partial \varphi_h^c}{\partial \delta_h} > 0$, $\Delta y_{hsd}^{p\,\prime}$ and $\Delta\, y_{hsd}^{c\,\prime}$ being positive.

Moreover, for Inequation (6) to hold, φ_h^p and φ_h^c need to have larger values if the income gains, $\Delta y_{hsd}^{p\,\prime}$ and $\Delta\, y_{hsd}^{c\,\prime}$, are smaller and the right-hand side is given. Similarly, given $\Delta y_{hsd}^{p\,\prime}$ and $\Delta\, y_{hsd}^{c\,\prime}$, φ_h^p and φ_h^c need to be larger if the cost of migration C_{hsd} or the migration-

[3] While the model assumes that migrants' children (live and) work in the destination country, a parent may migrate to another country temporarily for higher pay, and the children remain in the country of origin. By sending remittances home, the family in the source country enjoys higher incomes, and more human capital investments may be made in the children. Therefore, these children also expect higher future incomes.

associated risk r_{hsd} is larger to satisfy Inequation (6). Therefore, we may expect a more positive selection on patience in higher-income origin countries or when the physical and cultural distance is longer between the origin and the destination.

Lastly, because $\frac{\partial \varphi_h^p}{\partial \delta_h}$ is positive in T_h, the number of periods that the parents work, patience may play a more important role in the migration propensity of younger than older individuals.

Social Trust

To satisfy Inequation (6), we need

$$\iota_h > 1 + \frac{C_{hsd} + (r_d - r_s)\omega_h - \varphi_h^p \Delta y_{hsd}^p{}' - \rho_h \varphi_h^c \Delta y_{hsd}^c{}'}{r_{hsd}\omega_h}. \quad (11)$$

When $\Delta U_{hsd} > 0$, $\frac{\partial Prob_{hsd}}{\partial \iota_h} = f'(\Delta U_{hsd}) \frac{\partial \Delta U_{hsd}}{\partial \iota_h} = f'(\Delta U_{hsd}) r_{hsd}\omega_h > 0$.

Proposition 8: More trusting individuals are more likely to migrate.

Proposition 9: The selection on trust is more positive if the migration-related income increase is smaller, or when individuals face a lower risk in the origin country.

Proof: *Ceteris paribus*, household *h* may choose to migrate if Inequation (11) is satisfied. If the right-hand side of this inequation is positive, only individuals whose trust level is above the threshold would emigrate. When $\Delta U_{hsd} > 0$, the migration propensity also increases in the level of trust.

Because $\frac{C_{hsd} + (r_d - r_s)\omega_h - \varphi_h^p \Delta y_{hsd}^p{}' - \rho_h \varphi_h^c \Delta y_{hsd}^c{}'}{r_{hsd}\omega_h}$ decreases with r_s, $\Delta y_{hsd}^p{}'$, $\Delta y_{hsd}^c{}'$, and r_{hsd}, the lower bound of ι_h for migration to happen is higher if the income gain from migrating to the destination country is lower, or household *h* face a lower risk in the origin labor market. In these cases, the selection based on trust would be more positive. Because C_{hsd} and r_{hsd} move in the same direction, it is unclear whether the right-hand side of Inequation (11) would increase or decrease if both C_{hsd} and r_{hsd} increase.

3.3 Remarks

In considering the theoretical model, a few limitations should be noted. First, we use the model to illustrate how each economic preference enters the utility function and affects the propensity of international migration. For simplicity, we do not consider the interactive effects of preferences. Admittedly, the selection on a particular preference may depend on the others, while an individual's preferences can be correlated with each other (Falk et al., 2018). We revisit the intercorrelation between economic preferences in Section 6. Second, the theoretical model derives the cutoffs for initiating migration and predicts the relationship between selection and other factors, including migration cost and expected income increase. However, because the average preferences vary across nations (Albanese et al., 2017; Falk et al., 2018), the predictions of the model may not apply to the cross-country comparison of the degree of selection. For example, two migrants are positively selected on risk appetite from two countries, implying they are more risk-loving than the stayers in their respective origins. Even if they have the same risk preference, the first individual appears more positively selected than the second when the former origin country is overall more risk-averse than the latter. Third, the empirical tests may not correspond to the model perfectly given the current data. For instance, we assume migration is a household decision. But the data we employ are at the individual level. While the utility function would be somewhat similar for an individual and a household, we may observe differential selection patterns for primary migrants and tied migrants.

4. Data

4.1 Data Sources and Variables of Interest

Our analysis uses multiple reputed international surveys consisting of information on individual economic preferences. The German *Socio-Economic Panel* (SOEP, 1984-2019, v36) is our primary data source (Siedler et al., 2009). SOEP is a representative longitudinal survey of adult residents, including economic preferences at regular intervals since the early 2000s.[4] Notably,

[4] Earlier research provides evidence on the experimental validation and reliability of the SOEP measures of economic preferences, *e.g.*, risk attitude (Dohmen et al., 2012).

the survey contains detailed information on immigrants, such as the country of origin, the reason for migration to Germany, and various social assimilation variables.

We focus on four economic preferences: willingness to take risks, altruism, patience, and trust. (1) The SOEP survey question indicating the respondents' risk appetite asks: *Are you generally a person who is willing to take risks or do you try to avoid taking risks?* The responses are recorded using an 11-pointer scale ranging between 0 (*Not at all*) to 10 (*Very*). (2) Time preference (patience) is recorded based on a similarly defined question: *Would you describe yourself as an inpatient or a patient person in general?* (3) We measure altruism using the survey question originally included in the SOEP module: Goals in life (*Kluckhohn*). The survey asks respondents the following question: *How important it is for you to help others?* The responses are recorded using a four-pointer scale ranging between 1 (*Very important*) to 4 (*Unimportant*). We reverse this scale so that the higher values of this variable indicate increased altruism. (4) We measure social trust using the survey question: *What is your opinion on the following (three) statements? People can generally be trusted.* The individual responses are recorded on the four-pointer scale ranging from 1 (*Fully agree*) to 4 (*Fully disagree*).

Appendix Table 1 presents more information about these variables, particularly their definitions, measurement scales, and years available. Notably, our preference measures are not included in all SOEP waves. For instance, SOEP recorded risk appetite in 2004, 2006, and annually since 2008, while patience and trust are asked every five years.

We employ two additional international cross-section datasets to obtain economic preference information in the origin countries of migrants: the *European Social Survey* (ESS) data from 2002 to 2020 (ESS, 2020) and the *World Values Survey* (WVS) data from 1981 to 2020 (WVS, 2020). The ESS and WVS conduct representative national surveys at the individual level that explore people's values, beliefs, and behavior patterns across countries. Specifically, the ESS dataset contains most European countries, including Germany; the WVS covers almost 100 countries worldwide. Appendix Table 1 displays the survey questions used to capture economic preferences in these two datasets.

4.2 Sample Construction

We combine the three datasets to construct a sample representing the immigrants in Germany and the native population in their home countries. As SOEP is a longitudinal survey, individuals may be asked the same question multiple times. Therefore, for our analysis, we consider the first observation of each migrant in the sample since the economic preferences may evolve as immigrants spend more time in the destination country.[5] We merge the SOEP migrant sample with the natives in the ESS and WVS datasets, excluding those in Germany. If both ESS and WVS interview a country in the same year, we include only the observations from that country in the ESS so that the population in the country would not be double counted. Finally, we weight the sample using the comparable analytical weights from the three surveys in the regression analyses to further balance the samples from different sources.

Our attempt to merge the datasets suffer from three limitations. First, the surveys differ in their coding of economic preferences. For example, while SOEP records risk preferences on an 11-pointer scale, WVS and ESS collect risk measures on a six-pointer scale. Second, not all datasets cover all four economic preferences of interest: WVS only records three of the four outcomes, excluding patience. Last, the survey questions regarding some preference variables are slightly different in wording across datasets. For instance, unlike the SOEP risk appetite measure, as Appendix Table 1 shows, ESS and WVS risk measures record a respondent's willingness to look for adventures and take risks.

We make the following adjustments to address the limitations noted above. First, we convert all the preference variables on a scale of zero to one to make the preference measures comparable across surveys. For easy interpretation, we next standardize these converted variables to have a mean of zero and a standard deviation of one across the whole sample.[6] Because original differential scales may result in different measurement errors across datasets, we also define binary indicators for economic preferences, assigning a dummy value of one if the

[5] Admittedly, some immigrants might have already been in Germany for a long time when they were first asked about their economic preferences in SOEP. As a robustness check, we restrict our sample to include immigrant observations who have been in Germany for no more than five years. The results are similar.

[6] We perform the standardization on a merged sample that includes the German natives in the SOEP and the immigrants in the ESS and WVS samples. Such a merged sample may represent the world population. Therefore, the means of the standardized preference measures are not zero in Table 1, as our estimation sample excludes international migrants residing in other countries and German natives.

original measure exceeds the median of the pointer scale and zero otherwise. Second, we exclude the WVS sample from the analysis when inspecting the role of time preference in migrant selection. Hence, the analysis with patience is restricted to migration from other European countries to Germany. To address the last limitation, we compare the distribution of the preference measures (converted to be on a scale of zero to one) of German natives across SOEP, ESS, and WVS, as all three surveys interview national representative samples. We adjust these measures by age, gender, whether an individual is a college graduate, and year of survey, as preferences may vary on these dimensions.[7] Appendix Figure 1 plots the histograms of the preference measures. We find qualitative similarities in the distributions across surveys for altruism and patience. Notably, the distribution of risk appetite skews to the left in ESS and WVS more than in SOEP; that of trust is bimodal in WVS but not in the other two surveys. Presumably, these differences result from the varying original scales used to quantify preferences. The differential wording of the questions is less likely to be a culprit. It is reassuring that we find no persistent difference in the distributions between the SOEP and two other German samples.

In the primary analyses, we focus on individuals aged 25 to 65. People in this age range are more likely to make their own economic decisions, and selective mortality is less likely to be an issue. We also exclude immigrants who migrated to Germany before 25, as the migration of younger individuals is likely a choice by the parents. Moreover, we restrict the sample to countries of origin with at least ten migrant observations and 20 total observations for each preference. The sample size and the set of source countries vary slightly across the preference inspected, given that the relevant questions are asked in different years. The final estimation sample consists of 9,110 SOEP immigrant observations, 163,090 ESS observations, and 49,713 WVS observations from 43 countries.[8]

Table 1 reports the statistical summary of the economic preference measures for all individuals in the combined sample, stayers (in ESS and WVS) and migrants (in SOEP). The summary statistics suggest that migrants are more altruistic, patient, and trusting than the stayers. While the mean of the standardized risk preference is lower for migrants than stayers, the mean of the binary risk measure is higher for migrants than stayers.

[7] We regress the preference measures on these variables and obtain the residuals as the adjusted preference.
[8] Appendix Table 2 displays the list of countries included in the sample.

Figure 1 provides a descriptive overview of migrant selection by country additionally. We show country-level averages of economic preferences for migrants and stayers. We regard migrant selection as positive (negative) for countries in which migrants report higher (lower) levels of economic preferences than stayers. To further distinguish between sample countries, we divide them into three groups: Western Europe, Eastern Europe, and the rest of the world.

The figure demonstrates significant heterogeneity in preferences across countries. We find a clear pattern in the migrant selection based on altruism, patience, and trust preferences: migrants report higher levels of said economic preference than stayers in most sample countries, irrespective of the country's geographic location. Concerning risk preferences, however, we observe a considerable variation in migrant selection across countries, and the picture is somewhat mixed. Notably, European countries and North and Latin American countries broadly report positive migrant selection on risk preferences. In contrast, migrants from African and Asian countries are mostly negatively selected.

4.3 Control Variables

The SOEP, ESS, and WVS datasets contain various individual-level characteristics. In the baseline analysis, we employ a continuous variable indicating a respondent's age, a dummy variable denoting gender, a dummy for tertiary education, and birth cohort fixed effects.

We acquire source-country traits from various sources. Specifically, we obtain the data on GDP per capita from *Maddison Project Database* (Bolt et al., 2018), wars and conflicts come from the *UCDP/PRIO Armed Conflict Dataset* (Sundberg and Melander, 2013; Davis et al., 2022), and the average adult years of schooling from the *Barro-Lee Educational Attainment Data* (Barro and Lee, 2013). The first three datasets record the traits annually, and the last provides the five-year averages. Therefore, we aggregate the data on the former three variables to the same five-year level as the Barro-Lee Dataset. The aggregation also prevents us from losing source countries, given the occasional missing yearly values in the first three datasets.

Notably, we employ the individual characteristics and home-country characteristics of immigrants when they migrated to Germany, as these are the factors that affected their migration decisions. In contrast, we use the demographic information and country traits at the time of the survey for people who reside in their home countries.

Finally, we exploit the richness of the SOEP data, particularly migration-related information, in our empirical analysis. We inspect languages spoken at home, the refugee status of migrants, their self-reported reason for migration (*i.e.*, family, economic, political, or other reasons), and the number of years in Germany.

Table 2 reports the summary statistics of these variables for the combined sample, non-migrants, and migrants, respectively. The sample has an average age of 44 years; more than half (54%) are female; over 30% have a tertiary education, and approximately 7% speak German at home. Slightly over 4% of the sample are migrants. Compared to people who remain in their home countries, migrants to Germany are significantly younger (with the mean being 34 vs. 45) and more likely to speak German (0.06 vs. 0.40). Migrants are also disproportionately from countries with a lower GDP per capita and a lower average educational attainment, as well as countries at war. Among the immigrants in Germany, slightly over 20% are refugees. About a quarter of them migrated for family reasons, and another quarter for economic reasons; approximately 6% migrated for political reasons. The mean age at migration is 34; the group has been in Germany for an average of ten years, but the standard deviation is also large (eight years).

4.4 Validity of Preference Measures

Before conducting the main analysis, we first investigate the extent to which immigrant preferences assimilate in Germany. If the economic preferences of migrants evolve after they arrive in the destination country, using their preferences documented in SOEP to proxy for the preferences at the migration may be problematic.

Therefore, we utilize the panel data of the immigrant observations in SOEP and regress the four economic preferences on the number of years in Germany one by one, controlling for individual fixed effects. Table 3 reports the results. For each preference, we start with a specification containing only individual fixed effects and a set of time-variant baseline controls, including age, age squared and cubic, a binary indicator for tertiary education attainment, and survey year fixed effects. The second specification controls for additional individual characteristics, including marital status (married or not), a dummy variable indicating whether the respondent resides in a household with children, and employment status (employed, unemployed, or not in the labor force). The third specification accounts for a potential non-linear

relationship between the years spent in Germany and the economic preference inspected by including the quadratic and cubic terms of years since migration. In most specifications, we do not observe a significant association between the economic preferences of migrants and the number of years they have been in Germany, underlining a limited role of assimilation.

It is also possible that the experience of migration impacts individual preferences so that one's post-migration preferences differ from those prior to or at migration. Unfortunately, because we do not observe a migrant's preferences before migration in the current datasets, we cannot investigate the possibility of reverse causality. Nevertheless, the existing literature finds no significant impact of migration on some preferences. For instance, examining the domestic migrants in Germany, Jaeger et al. (2010) find migration itself has little impact on risk attitudes. Using data on the internal migration of the residents of the American South and Quebec region in Canada, regions with relatively lower trust levels, the author shows that individual generalized trust is unaffected by the act of migration (Wu, 2020, 2021). Indeed, both Dinesen (2012) and Bjørnskov & Svendsen (2013) find evidence of trust as a stable trait.

Consequently, following Gibson & McKenzie (2011), we assume that economic preferences are intrinsic to one's nature and are not affected by the act of migration. Therefore, the (first) reported economic preferences by immigrants in the SOEP may reflect the preferences that determine their choices of migration.

5. Empirical Model

To assess the self-selection of migrants with respect to their economic preferences, we estimate the following equation:

$$Migrate_{ist} = \beta_0 + \beta_1 X_i + \beta_2 Z_{it} + \beta_2 O_{st} + f_s + \gamma_1 t + \gamma_2 t^2 + \gamma_3 t^3 + \varepsilon_{is}. \qquad (12)$$

Here, the outcome $Migrate_{ist}$ is a binary indicator for whether individual i migrates from country *s* to Germany in year *t*. In particular, $Migrate_{ist}$ takes a value of one if individual *i* from country *s* is in the SOEP sample as of year *t* and zero otherwise. X_i is the variable of interest – the economic preference of individual i. X_i measures an individual's willingness to take risks, altruism, time preference, or social trust. Accordingly, β_1 reflects the marginal effect of a particular preference on the propensity of migration.

Z_{it} is a vector of demographic characteristics, including age, age squared, age cubic, gender, a binary indicator for whether individual i has a tertiary education, and a set of birth cohort dummies.[9] These characteristics may be correlated with one's preferences (Falk et al., 2018) and affect the migration decision. Admittedly, an individual's educational attainment may be simultaneously determined by migration, as some people migrate to another country for educational opportunities. Nevertheless, less than 1.5% of the migrant sample attended schools in Germany, and less than 1% were enrolled in schools when surveyed. Therefore, the recorded educational attainment of immigrants in the SOEP likely represents their education at migration.[10]

Moreover, we control for several time-varying economic and political characteristics of source countries in O_{st} that may impact the emigration rate and also be correlated with the average economic preferences in society. These characteristics include the real GDP per capita, whether country s engages in a war or a conflict, and the average years of education of the adult population. To further account for the unobserved systematic differences across countries of origin, we include the origin fixed effect in the regression, f_s. It is worth noting that β_1 captures the selection of migrants relative to the general population in a source country when the origin fixed effects are controlled for. Because the mean preferences vary by country (Falk et al., 2018; L'Haridon & Vieider, 2019), β_1 does not necessarily infer how the preferences of migrants from one national origin compare to those from another, or how the preferences of immigrants compare to the natives in the receiving society. Nevertheless, controlling for the origin fixed effects is essential, or β_1 may capture the effects of some unobserved country traits correlated with economic preferences. Lastly, because the likelihood of migration may vary over time, we control for a time trend, its squares, and cubic: t, t^2, and t^3.

We estimate Equation (12) using linear probability models for ease of interpretation, weighted by the analysis weight from each survey so that the sample from a country can be nationally representative.[11] The standard errors are clustered at the country-of-origin level. Since

[9] Birth cohorts are defined by every ten birth years.

[10] The regression results are not affected when we exclude migrants who attended schools or are enrolled in school in Germany. Results are available from the authors upon request.

[11] The logistic regression model yields similar patterns, as shown in Appendix Table 3, even though several origins are dropped from the sample due to collinearity. Besides, we can only treat the weights in the surveys as population weights in logistic regressions even though they are analytic weights.

the number of source countries is relatively small in some specifications, given data availability, we also bootstrap the standard errors as a robustness check and find similar results.[12]

6. Results

6.1 Baseline Results

Table 4 reports the regression results from estimating Equation (12). The first two columns examine the effect of the willingness to take risks on the propensity of migration; the second two columns look at altruism, the third two patience, and the last two social trust. For each preference, we start with a specification without controlling for the origin fixed effects in the odd-numbered column and then add them to the regression in the even-numbered column. Without controlling for the origin fixed effects, the coefficient on the preference measure may reflect how economic preference affects the propensity to migrate to Germany in a worldwide population. When we control for origin fixed effects, the coefficients may reflect how migrants are selected within a specific country.

The theoretical model in Section 3 suggests that migrants can be positively, negatively, or neutrally selected on their risk preferences. Hence, the aggregate effect may be ambiguous. Consistent with this prediction, we do not find a significant relationship between the willingness to take risks and migration propensity.

We find a positive selection of migrants based on the other three preferences. Conditional on individual demographics and country characteristics, more altruistic, patient, and trusting individuals in a country are more likely to emigrate to Germany. These findings are also consistent with the predictions of our conceptual framework. Specifically, when the origin fixed effects are controlled for, a one standard deviation increase in the measure of altruism predicts a 0.1 percentage point increase in the likelihood of migration to Germany; a same-sized increase in patience leads to a 0.8-percentage-point migration propensity increase, and that in trust results in a 0.06-percentage-point increase. Notably, given that an average of 0.3% of the country-of-origin

[12] A drawback with bootstrapping is that we can only treat the analysis weights as population weights.

population in the estimation sample migrated to Germany, the increases in the predicted migration probabilities noted above are economically sizable and meaningful.

Moreover, previous literature finds correlations between various economic preference measures (Albanese et al., 2017; Falk et al., 2018). Specifically, the willingness to take risks and patience are positively correlated, and so are altruism and trust. Hence, the estimated coefficient on a specific preference in Table 4 may reflect the effect of another one on the migration propensity. Accordingly, we experiment with regressing the migration outcome on multiple preferences and display the results in Table 5. We continue to find that migrants are significantly and positively selected on patience, altruism, and trust in different specifications. Admittedly, the estimated effects of these preferences are generally smaller conditional on other preferences; none of the preferences appear significant when included altogether in Column 6. While the insignificance can result from the correlation between these preferences, the significant sample size decline due to data availability may be another explanation.

6.2 Robustness Checks

We conduct several sensitivity tests to ensure the abovementioned results are robust. First, to address the concern regarding preference assimilation, we restrict the sample to include only migrants who have been in Germany for no longer than five years. Second, most of the stayers were surveyed after 2000, but some immigrants migrated as early as the 1960s. Therefore, the regressions in Table 4 may pick up the temporal change in preference rather than migrant selection. Accordingly, we dismiss individuals who came to Germany before 2000 from the sample. Third, since individuals with and without children may have differential aspirations for migration, the economic preferences may impact the migration decisions of the two groups differently. Hence, we replicate the baseline regressions, adding a dummy variable that takes one if an individual had at least one child under 18 when migrating and zero otherwise. Last, because some specifications are run on a sample with a limited number of origins, we bootstrap the standard errors instead of clustering them at the origin level. We report the results of the abovementioned tests in Panels A and B of Appendix Table 4. The results are reassuring.

In addition, we conduct three robustness checks to specifically address the concern of sampling bias arising from combining different survey data–the SOEP, ESS, and WVS, as

discussed in Section 4.2. First, because the three surveys utilize different pointer scales to measure preferences, the preference variables may be subject to different measurement errors even post standardization. Hence, we generate binary measures of the four economic preferences, which may be more comparable across surveys. Second, the three surveys' different sampling schemes may introduce systematic measurement errors that vary by survey. Hence, we replicate the regressions in Table 4 without weights. Lastly, we replicate our baseline specifications using the ESS sample solely. We examine migrants in the ESS sample and compare their preferences to those in their origin countries also covered in the ESS.[13] Because the sample of immigrants in Germany is rather small, we first investigate the propensity to migrate to any European countries and then to Western Countries that may resemble Germany as a migration destination.[14] Because migrants may be self-selected to different destinations, we also estimate a specification with the destination fixed effects. The results of the two former tests are shown in Panel C of Appendix Table 4 and those from the last one in Appendix Table 5.[15] The estimates are similar to those in Table 4, in general. However, the coefficient on patience is less significant in Appendix Table 5, presumably because significantly fewer individuals are questioned about this preference.

6.3 Heterogeneous Effects

6.3.1 Selection Across Individual Characteristics

In this section, we explore how economic preferences determine one's propensity to emigrate according to a few individual traits, including gender, educational attainment, age, and language. We introduce an interaction term between the preference measure and a specific individual trait to Equation (12) additionally to allow the effect of the preference to differ across individuals. Table 6 reports the estimates.

Gender

[13] We do not observe migrants' education when they migrated or whether they attained any education in the host countries in the ESS. Thus, we control for a dummy variable indicating whether at least one parent of an individual has tertiary education instead of one's tertiary educational attainment.

[14] The ESS has been conducted in 33 European countries. Based on the UN classification, Western Countries contain Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom.

[15] Given the relatively small number of origins, we have also tested bootstrapping the standard errors. Again, the results are similar and available upon request.

We start by inspecting migrant selection by gender. Previous literature suggests that males and females have systematically different preferences (Borghans et al., 2009; Falk et al., 2018). For instance, Falk et al. (2018) show that women are more impatient, less risk-tolerant, and more prosocial than men. Also, females are more likely to be tied migrants than males (Keith & McWilliams, 1999). Although we model the migration choice at the household level and do not distinguish the role of gender in Section 3, males and females may be selected differently based on their economic preferences.

Columns 1-4 in Panel A Table 6 present the regression results. We do not find significant differences between the selection of male and female migrants according to altruism, patience, or trust. However, the interaction effect of the risk attitude is positive and marginally significant, implying females are more positively selected on risk appetite than males. If the willingness to take risks increases by one standard deviation, the propensity to migrate increases by 0.04 percentage points for a female but only 0.01 percentage points for a male, and the latter change is statistically insignificant. Presumably, as females are more risk-averse than males in general, the difference in the degree of risk tolerance between those who opt to migrate and those who choose to stay may be more evident for females than males. It is also possible that tied migrants perceive higher risks of migration (r_{hsd}) and in the destination country (r_d) than the primary migrants because the former group may have less information regarding the market and have less control of their post-migration economic well-being than the latter.

Educational Attainment

Next, we inspect whether the selection of migrants varies by the educational level of migrants and display the results in Columns 5-8 of Panel A. The expected post-migration earnings vary by the educational attainment of migrants. High-skilled workers may face lower risks in the destination labor market. However, they may also get penalized in earnings if their human capital accumulated at the origin is not compatible with the market demands at the destination.

We find a significantly more positive selection on altruism among highly educated individuals than among less-educated individuals. Given a one standard deviation increase in altruism, the migration propensity increases by 0.3 percentage points for individuals with tertiary education and 0.1 percentage points for individuals without it. Consistent with Proposition 4, the

migration-related income gains for highly educated individuals may be relatively smaller than for less-educated individuals, as the former may perform well in the labor market regardless of emigrating or remaining in the source country.

We also find better-educated individuals more positively selected on trust than lower-educated ones. A one standard deviation increase in trust is associated with an increase in migration propensity of 0.1 and 0.05 percentage points for people with and without tertiary education, respectively. This finding conforms to Proposition 9. Compared to their less-educated counterparts from the same origin, highly educated individuals face a lower risk in the origin labor market and may also expect a relatively minor income increase post-migration.

Age at Migration

Third, we examine selective migration based on the age at migration. Younger migrants are more likely to move for economic opportunities, while older people may move for other reasons. Specifically, we generate a binary indicator that takes unity if an individual's age is greater than or equal to 40 and zero otherwise.[16] We add this indicator and its interaction with the preference measures to the regressions. The first four columns of Panel B Table 6 show the estimation results. We find that older migrants are more positively selected on risk appetite than younger migrants. Indeed, a one standard deviation increase in the willingness to take risks is associated with a 0.4 percentage point increase in the migration propensity for people who are 40 or older. In contrast, risk preference does not exhibit a significant impact on the likelihood of migrating at a younger age. These findings may echo Proposition 2. Compared to younger migrants, older ones may expect a smaller income gain when moving to a foreign country, per period or overall, given the possible incompatibility between the human capital obtained at the origin and the destination market demand, as well as fewer years of working in the future. Older migrants may also confront a higher cost and risk of migration than the younger ones, as they may have more established social networks back at home and stronger attachments to their sending country and face more difficulties in learning a new language and integrating into the host society. The age-related risk tolerance decline may be another explanation (Schurer, 2015).

[16] We inspect the age at the migration of immigrants and the age in the survey year of non-migrants.

Moreover, we find a less positive selection on patience among older individuals than the younger ones, consistent with Proposition 7. People who migrate to another country at a young age may expect increases in earnings far in the future. Comparatively, older migrants would likely work for a shorter period in the host country.

Lastly, young immigrants are positively selected on trust, but trust does not significantly impact the migration intention of older individuals. The migration-related income gains are possibly smaller for older migrants than for younger migrants. Therefore, as suggested by Proposition 9, the selection on trust should be more positive among young people.

Language

Finally, we compare the migrant selection by language. Language barriers raise the psychic cost of international migration and increase the risk that migrants face in the host country. We account for whether an individual speaks German at home and display the regression results in the last four columns in Panel B. We do not find that altruism, patience, or trust have differential impacts on migration propensity among German-speaking and non-German-speaking individuals. However, the positive selection on risk preference is marginally significant among people who speak German at home: one standard deviation higher risk appetite predicts a two-percentage-point higher likelihood of migration. The finding seems to contradict Proposition 2. Nevertheless, most of the German-speaking population outside Germany in our sample are from Austria and Switzerland. People of German ancestry residing in other countries make up a much smaller share. Therefore, the positive interaction effect in Column 5 Panel B of Table 6 may capture the effect of a smaller income increase expected by migrants from Belgium and Austria than elsewhere or other unobserved cultural factors.

6.3.2 Different Categories of Migrants

This section examines the heterogeneous effect of economic preferences on individual migration choices by migration category. Specifically, we assess separately the propensity to migrate (1) as refugees versus non-refugees and (2) for family reasons, economic reasons, and political reasons (*i.e.*, family migrants, economic migrants, and political migrants). Because the motivations for migration of these groups vary, they may place different weights on the elements in the utility

function. As a result, the selection pattern based on economic preferences may vary across groups. Table 7 shows the regression results. Panel A focuses on the refugee status, and Panel B on the reasons for migration. The outcome variable is a binary indicator for an individual who moves to Germany as a specific type of migrant. Other types of migrants are excluded from the sample so that the comparison group contains only stayers in the source countries.[17] We also report the F-statistics for the difference in the estimated coefficient across subgroups.

Panel A Table 7 suggests that non-refugees are more positively selected based on their economic preferences than refugees. Indeed, none of the four preferences significantly predict the propensity to migrate as refugees. The differences in the coefficients on altruism and patience between the two groups are statistically significant at the 5% level. The 1951 Refugee Convention and its extension in 1967 (UNHCR, 1967) defines a refugee as "someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion." Possibly, these people are forced to flee their country, conditional on their liquidity constraints. Hence, this group may be less selective in their economic preferences than voluntary migrants. As discussed in Section 3, people with all degrees of risk tolerance would migrate under certain circumstances (*i.e.*, $r_s > r_d + (1-\iota_h)r_{hsd}$ and $C_{hsd} \leq \varphi_h^p \Delta y_{hsd}^p{}' + \rho_h \varphi_h^c \Delta\, y_{hsd}^c{}'$), and this condition may apply to refugees.

Next, we inspect the heterogeneous effects of preferences by the reason for migration. According to Panel B Table 7, political migrants are more positively selected on the willingness to take risks than family migrants and economic migrants, even if the coefficient on the preference is not statistically significant for any groups. This may be because political migrants need to bear more risks during migration than other migrants, yet the risk at the origin does not necessarily exceed the sum of the destination risk and the migration-related risk. Hence, as predicted in Proposition 2, this group would be more positively selected.

In contrast, family and economic migrants are significantly and positively selected based on altruism and patience, while political migrants are not. The selection is the most positive

[17] We restrict the sample to include source countries with at least ten migrants of the investigated type and at least 20 total observations. Because the number of origin countries is small in several specifications, we test the robustness of the results by bootstrapping the standard errors. The results are similar and available from the authors upon request.

among those migrating for economic reasons. In particular, a one standard deviation increase in altruism increases the likelihood of family migration by 0.05 percentage points and that of economic migration by 0.2 percentage points; a one standard deviation increase in patience increases the likelihood of family migration and that of economic migration by 0.3 and 0.6 percentage points, respectively. Compared to political migrants, the other two groups may value the well-being of their children and other family members more in the migration decision. The post-migration income gain is also likely more critical to the two groups. Hence, those who are more patient and place a higher weight on future earnings are more likely to migrate. However, we do not find that the effect of trust on migration propensity differs based on the reason for migration. Nonetheless, it is worth pointing out that the self-reported primary reasons for migration in SOEP do not necessarily align with migrants' refugee status. People need to apply for refugee status, and it takes time to get approval. Therefore, some migrants are not categorized as refugees even if they migrated for the same reasons as refugees, such as to escape wars or persecution for political beliefs. Moreover, the motivations for migration can vary even when individuals report the same reason. For example, family migrants may be older individuals moving to reunite with their children in another country or tied migrants when their partners seek better economic opportunities abroad. These two groups may value different factors when deciding to move.

6.3.3 Selection Across Source Country Characteristics

Source country characteristics have a profound impact on the selection of migrants. The economic and political factors of a country may determine a migrant's expected income gains and risk reduction if he/she emigrates. If the country of origin is politically unstable or in a war, the migration itself may be riskier. The cultural and social distance between the origin and the destination country also determines the migration costs and how easily immigrants assimilate into the host society. Moreover, preferences vary substantially across countries, and such variation is correlated with cultural variables and economic outcomes (Falk et al., 2018).

Therefore, this section investigates the heterogeneous effects of economic preferences on migration propensity according to a set of origin traits. We categorize the source countries based on their income levels, regions, and the status of war and conflict and estimate the effects of

preferences by categories.[18] These analyses may provide insights into the mechanism of migrant selection. However, the heterogeneous selection patterns may also be partly attributable to the different mean preferences in a country and do not reflect the differences in preferences of immigrants across national origins.

Income Level

Panel A Table 8 distinguishes the effect of preferences by the source country's income level. About a third of the immigrants in Germany are from high-income countries, 54% from middle-income countries, and 12% from low-income countries. Notably, previous literature finds that country-level preferences are correlated with economic development. In particular, trust and patience are positively related to per capita income (Algan & Cahuc, 2010; Falk et al., 2018; Sunde et al., 2021), but poorer countries appear more risk-tolerant than rich countries on average (Rieger et al., 2015; L'Haridon & Vieider, 2019); while altruistic behavior is present both in advanced and less developed economies, parents tend to behave more altruistically toward their children in developed countries (Rapoport & Vidal, 2007).

We find a significant and negative selection on risk appetite in low-income countries: a one standard deviation increase in the risk appetite is related to a 0.01-percentage-point decrease in the chance to migrate from a low-income country to Germany. This finding may verify Proposition 1: as low-income countries may have higher uncertainty in the labor market than higher-income countries, the risk at the origin may be larger than the sum of the migration-associated risk and the risk in the destination market. The adverse selection on risk-taking willingness may also partially stem from higher overall risk tolerance in low-income countries than in higher-income countries (L'Haridon & Vieider, 2019). Nevertheless, the differences across origin income levels are not statistically significant.

We also find a more positive selection on altruism in high-income countries than in lower-income countries. If the measure of altruism increases by one standard deviation, the likelihood of migration increases by 0.6 percentage points for an individual in a high-income

[18] We categorize the countries using the 2010 World Bank (WB) country classifications by income level, as 2010 is close to the median of the period investigated. In our analysis, we regard high-income countries in the WB classification as high-income, upper-middle-income countries as middle-income, and lower-middle-income and low-income countries as low-income. Since very few countries switch categories during the analysis period, we use a time-invariant classification for simplicity. Appendix Table 2 shows the income level of each source country, as well as the region.

country. This finding is congruent with Proposition 4, as individuals from high-income countries would expect a smaller income increase moving to Germany than those from lower-income source countries.

Moreover, we find a more positive selection on patience in low- and high-income countries than in middle-income countries, verifying the prediction of Proposition 6. A one standard deviation increase in patience increases the chance of migrating from a high-income or low-income country by almost one percentage point. Yet, the difference in the estimated effect of patience is only marginally significant between middle-income and low-income origin countries. Notably, individuals in high-income countries may expect the lowest income gains if moving to Germany, while those in low-income countries may face the highest (relative) migration costs among the three groups.

Lastly, we find that migrants are positively selected on trust, and the estimate is the largest for individuals in middle-income countries. If the trust measure increases by one standard deviation, the likelihood of migrating from a middle-income country to Germany grows by 0.3 percentage points. Compared to people in low-income nations, those in middle-income ones expect a smaller income increase post-migration and face a lower risk at origin. Therefore, according to Proposition 9, people in middle-income countries may be more positively selected on trust.

Though the coefficient on trust is larger for migration from high-income origins than for low-income origins, the former is not statistically significant. According to Inequation (11) and Proposition 9, the lower bound of trust to initiate emigration is possibly the highest in high-income nations. However, because the overall trust level is high in wealthy countries (Algan & Cahuc, 2010; Falk et al., 2018), those who emigrated may not appear significantly more trusting than those remaining home.

Region

Panel B inspects the heterogeneous effects of preferences across the regions of origin. We group the source countries into three regions: Western World, the Eastern Bloc in Europe (or

Eastern Europe), and countries outside Europe.[19] Close to 15% of immigrants in Germany are from Western countries, close to half are from Eastern Europe, and 36% are from non-European countries. Notably, Western countries are all categorized as high-income. The cultural and social ideologies there may also resemble those in Germany. The European countries of the Eastern Bloc are geographically close to Germany but with less similar cultures and norms. This group contains countries of all income levels. The physical and cultural distance from non-European countries to Germany is the longest among the three groups, implying the greatest costs and risks of migration. The income difference between these countries and Germany is also the largest, as this group is composed of middle- and low-income countries only.

We find a positive selection on risk preferences of migrants from Eastern Europe but an adverse selection in non-European countries. A standard deviation increase in risk preferences increases the propensity of migration by 0.5 percentage points in an Eastern European country but reduces the propensity by 0.01 percentage points in a country outside Europe. This may be because non-European countries have a less stable regime and a higher income variance than Germany. Thus, as Proposition 1 states, people who dislike risks more are more willing to emigrate. Compared to people in Western countries, those in Eastern Europe may face a higher migration cost and more risks of migration. Therefore, according to Proposition 2, the latter group is more positively selected based on the risk appetite.

Besides, migrants from Western countries and Eastern Europe appear more positively selected on altruism and patience than migrants from elsewhere. The estimated coefficients are the largest for the second group: a one standard deviation increase in the altruism measure predicts a 0.5- and a 0.6-percentage-point increase in the migration propensity from a Western country and an Eastern European country to Germany, respectively; a one standard deviation increase in patience leads to a 0.4- and a 1.5-percentage-point increase in the migration propensity from a Western country and an Eastern European country. Compared to migrants from origins outside Europe, those originating from Western World and Eastern Europe probably expect a smaller immediate income increase. At the same time, Eastern European migrants may face a higher cost and a higher risk associated with migration than Western migrants. The combination of relatively minor income gains and high migration costs and risks possibly

[19] We also tested an alternative categorization: Western Europe, Eastern Europe, and countries outside Europe. The results are very similar to those in Panel B Table 7 and available from the authors upon request.

explains the strongest positive selection on altruism and patience in Eastern European nations, according to Propositions 4 and 6.

Finally, we find a positive link between trust and the propensity to migrate from Eastern Europe and countries outside Europe. If the measure of trust increases by one standard deviation, the likelihood of migration grows by 1.3 and 0.4 percentage points in Eastern Europe and non-European countries, respectively. The finding confirms Proposition 9, as individuals in Eastern Europe may expect a smaller income increase moving to Germany than individuals in non-European countries. The labor market risk in the Eastern Bloc is probably also lower than that in countries outside Europe. The insignificant estimate on trust for Western countries may again stem from the high overall trust level in these countries, as all these countries are advanced economies.

War and Conflict

In Panel C Table 8, we investigate whether the selection of migrants from countries that experienced wars and conflicts is different from the selection elsewhere. Wars and conflicts are internationalized, intrastate, interstate, or extra-systemic armed conflicts in a country.[20] In our sample, about 17% of individuals reside in a country engaging in one or more armed conflicts; 27% of migrants emigrated when their home country was at war or conflict.

We find that the selection of migrants is quite different in countries with armed conflicts and countries at peace. Explicitly, while migrants from peaceful countries are positively selected on their risk attitudes, those from countries with conflicts are negatively selected. A one standard deviation increase in the risk-taking willingness raises the chance of migration from a peaceful country by 0.2 percentage points but reduces the propensity from a country involved in a war or a conflict by 0.02 percentage points. While the propensity decrease has a much smaller magnitude than the increase, only one in six immigrants in Germany came from a country that was involved in armed conflicts. Hence, the negative connection between risk appetite and the migration propensity from countries at war is economically meaningful.

These findings align with Proposition 1 and echo the empirical results in Table 8. The countries that experienced armed conflicts during the period of analysis are predominantly low-

[20] We look at the war and conflict status at the time of migration. For armed conflicts in which multiple countries are involved, we define one as at war/conflict if the battle occurs in its territory.

income and outside Europe. Employment uncertainty may surge when a country gets involved in an armed conflict. In extreme cases, people face significant death threats. Therefore, the primary motivation for emigrating from these countries may be to seek safety, and the potential income growth becomes less relevant. It is especially true for immigrants who arrive in Germany as refugees and asylum seekers, given the restrictions on refugees entering the labor force in Germany.[21] As a result, more risk-averse individuals may be more inspired to emigrate.

While migrants from peaceful countries are significantly and positively selected on altruism and patience, neither preference exhibits an effect on the propensity of migration from countries at war or conflict. These results are consistent with Table 7. People who flee their origin countries undergoing armed conflicts may be refugees or political migrants. Because these people are likely forced to emigrate, they may be less selective than voluntary migrants. It is also possible that as their primary reason for migration is one's own safety, income maximization or the well-being of others becomes less of a concern.

Other Factors

Additionally, we inspect the heterogeneous selection pattern according to whether German is an official language in the source country and whether the source country belongs to the Schengen area. Presumably, migrants from a German-speaking country or a Schengen country would face lower migration costs and risks. To isolate the effect of migration costs and risks from expected income increase, we examine migrant selection in the middle- and high-income origins only. Appendix Table 6 reports the estimation results. Consistent with Proposition 9, we find that migrants from German-speaking countries and Schengen countries are significantly more positively selected on trust. However, we also find a more positive selection on risk appetite in German-speaking countries. This finding aligns with the positive interaction effect estimated in Column 5 Panel B of Table 6 but contradicts Proposition 2. While differential expected income increase remains a plausible explanation, the average risk attitudes in a country may also vary with the potential costs of migration.

[21] Before March 2020, asylum seekers were barred from access to employment if they were under an obligation to stay in an initial reception center. Outside these centers, they could be permitted to take up employment after having stayed in the federal territory for three months.

7. Conclusion and Discussion

This paper investigates how individual economic preferences affect the propensity of international migration. Specifically, we inspect four preferences: the willingness to take risks, altruism, time preference, and social trust. It is essential to understand selective migration based on economic preferences, as preferences play a critical role in the post-migration choices of human capital investment, employment, fertility, etc. Our paper is one of the first to analyze the systematic selection of migrants according to their economic preferences in a large number of source countries.

As a first step, we develop a simple conceptual model to illustrate the roles of different preferences in migration decisions. The model suggests that migrants can be positively and negatively (or neutrally) selected based on their risk appetite but are positively selected on altruism, patience, and trust. Moreover, the degree of selection relies on the expected post-migration income increase, the costs and risks associated with migration, and the risk at the origin. Next, we conduct our empirical analysis on a combined sample from multiple data sources, including the German Socio-Economic Panel (SOEP), the European Social Survey (ESS), and the World Values Survey (WVS). We use the migrant sample from the SOEP and match them to non-migrants from their respective source countries in the ESS and WVS datasets. Accordingly, we estimate how an economic preference affects one's likelihood of moving from a specific country to Germany, conditional on the demographic characteristics and country-of-origin factors that may influence migration intention. Our empirical results confirm the predictions of the conceptual model. In particular, we find an adverse selection of migrants on the willingness to take risks in low-income countries and countries engaging in armed conflicts, where the risk in the market is potentially high. However, we find a positive selection on risk preferences among migrants from countries with potentially lower market risk. As most existing empirical studies point out that migrants are more risk-tolerant than their non-migrant counterparts, our findings suggest that the selection on risk appetite is origin-destination specific and may vary with the motivation for migration. Moreover, we find evidence of a positive selection on altruism, patience, and trust; the degree of selection is heterogeneous according to individual and origin-country characteristics for all the preferences.

These findings suggest that the selection of migrants based on economic preferences differs across origins, above and beyond the selection on socioeconomic factors. The differential preferences may, in part, explain the socioeconomic disparities of migrants across national origins in a host society. Moreover, first-generation immigrants may transmit such preferences to their offspring (Bisin & Verdier, 2000; Dohmen et al., 2012), reinforcing the intergenerational persistence of inequality in economic performance in the host country between immigrant groups.

Nevertheless, considering the above results, several caveats are in order. First, we cannot entirely rule out the possibility of reverse causality using the current datasets. While the existing literature finds little evidence that migration impacts generalized trust or risk attitudes (Jaeger et al., 2010; Wu, 2020, 2021), it does not necessarily apply to the international migrants in our sample or the two other preferences. To the best of our knowledge, no other studies formally test the possibility of reverse causality concerning an individual's time preference and altruism.

Second, we do not observe migrants who were once in Germany but returned to their origin countries prior to the SOEP survey. Dismissing the return migrants leads to an underestimation of the propensity of emigration. Return migrants may also be selected based on their economic preferences and socioeconomic status in the destination country. Nevertheless, as approximately 80% of the migrant sample in the SOEP state their intention to reside in Germany permanently, the share of return migrants may be relatively small. We also confirm the robustness of our main results by focusing on immigrants in Germany for no longer than five years, which may to some extent address the concern of return migration.

Third, our analysis fails to account for the possibility that the preferences of non-migrants in a source country can be endogenous to the outflows and inflows of migrants (Beine et al., 2013; Gautam, 2021). The changes in stayers' preferences may be noticeable where the emigration rate is high but neglectable where the rate is low. The simultaneous trends in nationwide preferences and the flows of migration may bias our current estimates and complicate the interpretations. Fourth, we consider the effect of intergenerational altruism on migration propensity in the theoretical framework. However, the survey questions that we use to derive the preference measure ask about generalized altruism. While the two may be highly correlated, they can be different. Admittedly, there is little evidence in the literature that generalized altruism other than intergenerational altruism determines one's likelihood of migrating. It remains possible that people choose to emigrate or remain in the origin country to benefit others besides their children.

On the contrary, the survey questions used to measure trust concern social trust or generalized trust, while institutional trust can also be pivotal to migration intentions (Lam, 2002; Dustmann & Okatenko, 2014). Social trust is likely correlated with institutional trust, but we do not explicitly account for institutional trust in our analysis.

Finally, we only inspect the relationship between economic preferences and migration propensity. Preferences can affect many other aspects of the migration decision. For example, the patience of migrants does not only impact an individual's emigration from the origin country but is also critical to the time horizon of migration (temporary versus permanent migration). Depending on how patient migrants are, they may decide to stay in the host country permanently or re-migrate. However, the current datasets do not allow us to inspect all aspects of migration.[22]

[22] Migrants in SOEP report their intended duration of stay in Germany. Hence, we have investigated whether economic preferences predict the propensity of permanent migration versus temporary migration differently. About 80% of the immigrants claim they plan to be in Germany permanently. We do not find significant differences between the two types of migration, possibly due to a lack of variation. The results are available from the authors upon request.

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FIGURES AND TABLES

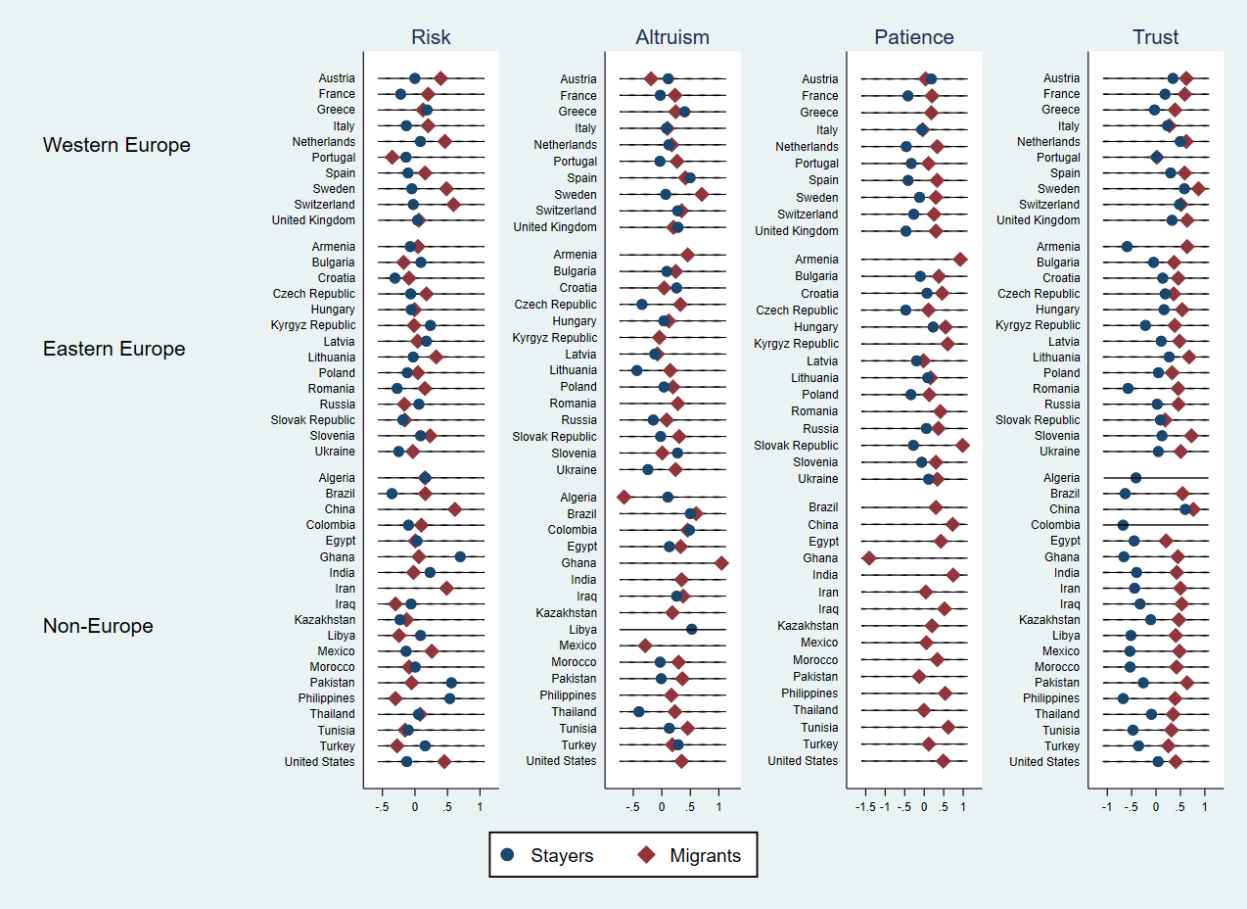


Figure 1: Average Standardized Preference of Migrants and Stayers by Country

Table 1: Summary Statistics of Economic Preferences

	All		Stayers		Migrants	
	Variable	Obs.	Variable	Obs.	Variable	Obs.
	(1)	(2)	(3)	(4)	(5)	(6)
Willingness to Take Risks (Risk)						
Standardized Score	-.0306	192,244	-.0298	184,002	-.0478	8,242
	(.916)		(.916)		(.905)	
Binary Indicator	.395	192,244	.390	184,002	.501	8,242
	(.489)		(.488)		(.500)	
Important to Help Others (Altruism)						
Standardized Score	.0763	171,434	.0747	168,999	.187	2,435
	(.912)		(.913)		(.864)	
Binary Indicator	.886	171,434	.885	168,999	.946	2,435
	(.318)		(.319)		(.226)	
Patience/Plan for Future (Patience)						
Standardized Score	-.158	36,635	-.180	34,841	.270	1,794
	(1.077)		(1.079)		(.933)	
Binary Indicator	.707	36,635	.702	34,841	.809	1,794
	(.455)		(.458)		(.393)	
Trust for Other People (Trust)						
Standardized Score	.0981	214,318	.0931	211,207	.435	3,111
	(.652)		(.653)		(.540)	
Binary Indicator	.340	214,318	.335	211,207	.670	3,111
	(.474)		(.472)		(.470)	

Note: The odd-numbered columns report the sample mean for each variable with the standard deviation in the parentheses. The standardization is performed with German natives included. The sample, however, does not include them.

Table 2: Summary Statistics

	All		Stayers		Migrants	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Variable	(1)	(2)	(3)	(4)	(5)	(6)
Demographic Characteristic						
Age	44.35	11.70	44.79	11.64	34.01	7.657
Female	.541	.498	.542	.498	.517	.500
Tertiary Education (=1)	.320	.466	.320	.467	.305	.461
German-Speaking (=1)	.0673	.251	.0598	.237	.402	.490
Migration-Related Characteristic						
Migrant (=1)	.0411	.198			1	0
Refugee (=1)	.00870	.0929			.212	.409
Migrant for Family Reason (=1)	.0105	.102			.257	.437
Migrant for Economic Reason (=1)	.00999	.0995			.243	.429
Migrant for Political Reason (=1)	.00233	.0483			.0569	.232
Years in Germany					10.47	8.181
Country Characteristic						
GDP per Capita (10^5 USD of 2011)	.256	.122	.260	.121	.149	.0847
Conflict (=1)	.0975	.297	.0984	.298	.0761	.265
War (=1)	.0727	.260	.0675	.251	.194	.395
Average Years of Education	10.83	2.036	10.89	1.987	9.371	2.537
Observations	221,913		212,803		9,110	
No. of Origins	43		43		43	

Note: The reported age here for migrants is their age at migration.

Table 3: Immigrant Assimilation in Economic Preferences (SOEP)

Outcome	Risk			Altruism			Patience			Trust		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Years in Germany	-0.124	-0.115	-0.062	0.322	0.337	0.288	-1.077**	-1.041**	-0.737	-0.019	0.003	0.313
	(0.112)	(0.112)	(0.125)	(0.208)	(0.212)	(0.225)	(0.434)	(0.407)	(0.526)	(0.359)	(0.361)	(0.377)
Years in Germany^2			0.002			-0.001			0.004			0.006**
			(0.001)			(0.002)			(0.005)			(0.003)
Years in Germany^3			-0.000			0.000			-0.000			-0.000*
			(0.000)			(0.000)			(0.000)			(0.000)
Individual Fix Effects	√	√	√	√	√	√	√	√	√	√	√	√
Additional Controls		√			√			√			√	
F: Joint Significance			1.32			2.05			2.83**			1.48
Observations	18,215	18,215	18,215	4,453	4,453	4,453	2,320	2,320	2,320	3,695	3,695	3,695
R-squared	0.001	0.003	0.001	0.003	0.004	0.005	0.031	0.049	0.039	0.011	0.012	0.016
No. of Individuals	5,373	5,373	5,373	3,025	3,025	3,025	1,962	1,962	1,962	2,905	2,905	2,905
No. of Origins	43	43	43	43	43	43	42	42	42	43	43	43

Note: *** p<0.01, ** p<0.05, * p<0.1. All regressions control for age, with its quadratic and cubic terms, a tertiary education indicator, survey year fixed effects, and individual fixed effects. Columns 2, 5, 8, and 11 include additional controls, including marital status, whether having children, and employment status. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by SOEP analysis weights.

Table 4: Economic Preferences and Propensity of Migration

Outcome: Migrant	Risk		Altruism		Patience		Trust	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Preference	.00007	.00015	.00121*	.00150**	.00869**	.00875**	-.00004	.00064**
	(.00015)	(.00014)	(.00062)	(.00063)	(.00311)	(.00312)	(.00034)	(.00031)
Age/10^2	.593***	.471***	.524	.521	-2.279	-1.648	.135	.117
	(.193)	(.168)	(.339)	(.356)	(2.278)	(2.293)	(.115)	(.100)
$Age^2/10^4$	-1.895***	-1.555***	-1.976**	-1.973**	3.264	2.098	-.521*	-.470*
	(.569)	(.495)	(.770)	(.828)	(4.666)	(4.729)	(.301)	(.262)
$Age^3/10^6$	1.732***	1.447***	1.944***	1.946***	-1.606	-.871	.513**	.473**
	(.505)	(.442)	(.580)	(.632)	(3.041)	(3.099)	(.251)	(.220)
Female	-.00004	-.00023	-.00071	-.00046	-.00019	.00043	.00004	.00003
	(.00020)	(.00022)	(.00070)	(.00060)	(.00449)	(.00414)	(.00021)	(.00011)
Tertiary Education	.00128	.00029	.00078	.00059	-.0129	-.00212	-.00009	-.00000
	(.00079)	(.00078)	(.00170)	(.00208)	(.00951)	(.00827)	(.00057)	(.00049)
GPD Per Capita/10^5	-.0390	-.758	-.163***	-.409	-.169	-3.047**	.0105	-.254
	(.0367)	(.656)	(.0469)	(.527)	(.0985)	(1.306)	(.0190)	(.355)
War and Conflict	-.00201	-.00419	-.0110**	-.0184	.156	-.0613	-.00322	-.0120
	(.00472)	(.0514)	(.00503)	(.047)	(.145)	(.200)	(.00204)	(.0108)
Avg Education/10^2	.0286	3.905**	.00597	2.192	-1.717	-1.500	-.119	-.798
	(.132)	(1.644)	(.139)	(1.631)	(1.525)	(2.319)	(.0917)	(1.314)
Origin Fixed Effects		√		√		√		√
Observations	186,122	186,122	150,538	150,538	36,094	36,094	190,161	190,161
R-squared	.377	.428	.365	.378	.525	.577	.371	.403
No. of Origins	41	41	26	26	22	22	38	38

Note: *** p<0.01, ** p<0.05, * p<0.1. All regressions control for birth cohort fixed effects, a time trend, its squares and cubic. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.

Table 5: Multiple Preference Measures

Outcome: Migrant	(1)	(2)	(3)	(4)	(5)	(6)
Risk	.00049		-.00000		.00005	.00039
	(.00074)		(.00002)		(.00004)	(.00029)
Altruism		.00015*			.00002	.00015
		(.00009)			(.00003)	(.00018)
Patience	.00198**			.00726**		.00033
	(.00073)			(.00314)		(.00024)
Trust		.00024	.00009*	.0284***	.00007*	.00039
		(.00014)	(.00005)	(.00711)	(.00004)	(.00023)
Observations	34,174	148,234	161,690	31,648	147,142	30,023
R-squared	.341	.349	.077	.440	0.017	.585
No. of Origins	22	26	36	19	26	18
F: Joint significance of Preferences	4.360**	1.626	1.606	9.170***	1.425	1.152

Note: *** p<0.01, ** p<0.05, * p<0.1. All regressions control for age, age squared, age cube, gender, whether parents have tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.

Table 6: Heterogeneous Effects by Individual Characteristics

Outcome: Migrant	Risk	Altruism	Patience	Trust	Risk	Altruism	Patience	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A	1(Female)				1(Tertiary Education)			
Preference	-.00001	.00155**	.00710***	.00068**	.00007	.00117**	.0103**	.00050*
	(.00011)	(.00065)	(.00246)	(.00033)	(.00011)	(.00049)	(.00394)	(.00026)
Preference × Individual Char.	.00033**	-.00010	.00318	-.00007	.00042	.00194**	-.00404	.00059**
	(.00015)	(.00034)	(.00453)	(.00014)	(.00036)	(.00078)	(.00443)	(.00029)
Individual Char.	-.00026	-.00045	.00102	.00002	.00023	.00019	-.00258	-.00003
	(.00022)	(.00059)	(.00465)	(.00011)	(.00081)	(.00209)	(.00857)	(.00051)
Observations	186,122	150,538	36,094	190,161	186,080	150,525	36,094	190,161
R-squared	.428	.378	.577	.403	.428	.378	.577	.403
No. of Origins	41	26	22	38	41	26	22	38
F(Indicated Group's Preference = 0)	2.938*	5.041**	4.559**	4.084**	1.660	8.458***	3.513*	5.644**
Panel B	1 (Age ≥ 40)				1(German-Speaking)			
Preference	-.00019	.00206**	.0148**	.00121**	-.00006	.00050*	.00215***	.00015
	(.00014)	(.00095)	(.00526)	(.00048)	(.00005)	(.00027)	(.00051)	(.00011)
Preference × Individual Char.	.00063**	-.00106	-.00943*	-.00096***	.0224*	.0320	.00660	.0361
	(.00029)	(.00067)	(.00529)	(.00033)	(.0122)	(.0211)	(.0229)	(.0426)
Individual Char.	.00177***	.00133	.00392	-.00003	.524***	.382***	.117**	.266***
	(.00048)	(.00089)	(.0132)	(.00035)	(.0878)	(.113)	(.0418)	(.0667)
Observations	186,122	150,538	36,094	190,161	84,682	65,927	12,211	97,227
R-squared	.429	.378	.577	.403	.790	.660	.892	.671
No. of Origins	41	26	22	38	35	23	16	32
F(Indicated Group's Preference = 0)	3.347*	5.251**	3.094*	1.957	3.355*	2.381	.145	.724

Note: *** p<0.01, ** p<0.05, * p<0.1. Panel A Columns 1-4 inspect the effects of preferences by gender, and Columns 5-8 by educational attainment; Panel B Columns 1-4 examine the effects by age, and Columns 5-8 by language spoken at home. All regressions control for age, age squared, age cube, gender, whether an individual has tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.

Table 7: Selection for Different Types of Migrants

Panel A: Refugee Status: Refugee (R) or Non-Refugee (N)								
	Risk		Altruism		Patience		Trust	
Outcome	Refugee	Non-refugee	Refugee	Non-refugee	Refugee	Non-refugee	Refugee	Non-refugee
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Preference	.00002	.00017	.00007	.00152**	-.00050	.00877**	.00028	.00058*
	(.00003)	(.00015)	(.00007)	(.00066)	(.00033)	(.00313)	(.00019)	(.00031)
Observations	58,952	182,634	27,776	149,517	4,661	36,040	45,936	180,034
R-squared	.686	.425	.635	.366	.938	.567	.664	.402
No. of Origins	27	39	10	25	9	22	18	32
F(R = N)		1.306		5.711**		9.892***		1.073

Panel B: Reason for Migration: Family (F), Economic (E), or Political (P)												
	Risk			Altruism			Patience			Trust		
Outcome	Family	Economic	Political	Family	Economic	Political	Family	Economic	Political	Family	Economic	Political
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Preference	.00005	.00005	.00026	.00045**	.00206***	.00013	.00309**	.00626**	.00082	.00023*	.00042	.00030
	(.00007)	(.00007)	(.00022)	(.00019)	(.00062)	(.00051)	(.00137)	(.00284)	(.00108)	(.00012)	(.00031)	(.00038)
Observations	162,558	151,950	31,054	129,535	95,562	26,875	25,072	22,686	4,684	148,502	123,608	37,270
R-squared	.253	.198	.654	.354	.338	.669	.578	.471	.921	.238	.203	.650
No. of Origins	39	27	12	27	16	10	20	17	11	29	20	11
F(F = E)			.000			14.090***			2.086			.701
F(F = P)			3.713*			1.373			2.919*			.121
F(E = P)			3.591*			1.431***			4.298**			.134

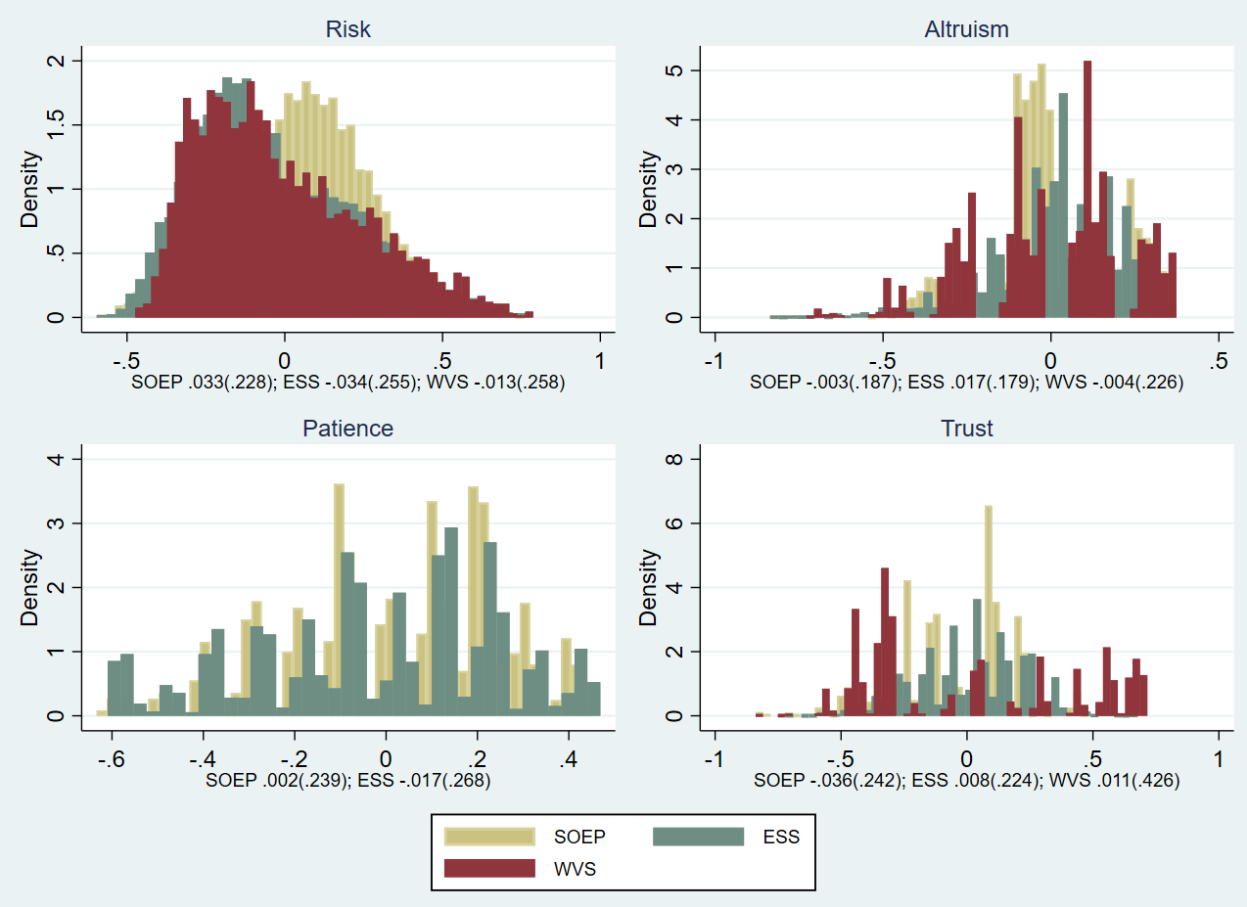
Note: *** p<0.01, ** p<0.05, * p<0.1. The outcome variable is a binary indicator for a specific type of migrant. Other types of migrants are excluded from the samples. All regressions control for age, age squared, age cube, gender, whether an individual has tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.

Table 8: Heterogeneous Effects by Origin Income Level and Region

Outcome: Migrant	Risk	Altruism	Patience	Trust
	(1)	(2)	(3)	(4)
Panel A: Income Level				
Preference × High-income (H)	.00170	.00551***	.00993**	.00099
	(.00130)	(.00197)	(.00402)	(.00092)
Preference × Middle-income (M)	.00034	.00118	.00428	.00290**
	(.00033)	(.00091)	(.00384)	(.00130)
Preference × Low-income (L)	-.00012**	.00055	.0103***	.00028*
	(.00005)	(.00036)	(.00093)	(.00016)
Observations	186,122	150,538	36,094	190,161
R-squared	.429	.378	.577	.403
No. of Origins	41	26	22	38
F(H = M)	.988	4.384**	.952	1.462
F(H = L)	1.938	6.261**	.00846	.577
F(M = L)	1.956	.458	2.983*	4.219**
Panel B: Region				
Preference × Western Country (W)	.00048	.00467**	.00414*	.00041
	(.00072)	(.00182)	(.00232)	(.00037)
Preference × Eastern Bloc in Europe (E)	.00487***	.00607***	.0148**	.0125**
	(.00162)	(.00171)	(.00684)	(.00486)
Preference × Other Countries (O)	-.00009*	.00023	-.0113	.00035*
	(.00005)	(.00016)	(.0163)	(.00019)
Observations	186,122	150,538	36,094	190,161
R-squared	.429	.379	.577	.404
No. of Origins	41	26	22	38
F(W = E)	5.587**	.299	2.028	6.181**
F(W = O)	.633	5.830**	.872	.0261
F(E = O)	9.386***	11.44***	3.048*	6.296**
Panel C: War and Conflict				
Preference	.00152**	.00349**	.00893**	.00105
	(.00074)	(.00129)	(.00319)	(.00090)
Preference × 1(War and Conflict)	-.00169**	-.00342**	-.0327	-.00079
	(.00074)	(.00132)	(.0274)	(.00092)
1(War and Conflict)	-.116	-.0764	.414***	-.0477
	(.104)	(.200)	(.128)	(.0316)
Observations	186,122	150,538	36,094	190,161
R-squared	.430	.379	.582	.408
No. of Origins	41	26	22	38
F(Preference in Countries at War/Conflict = 0)	3.364*	.0987	.740	3.794*

Note: *** p<0.01, ** p<0.05, * p<0.1. All regressions control for age, age squared, age cube, gender, whether an individual has tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.

APPENDIX



Note: The mean of each sample is reported below the figure with the standard deviation in the parentheses.

Appendix Figure 1: Distribution of Preference Measures among Germans by Survey

Appendix Table 1: Definitions of Preference Variables

Preference	Survey Question	Scale	Years Available
Socio-economic Panel (SOEP, v36)			
Risk	Are you generally a person who is willing to take risks or do you try to avoid taking risks?	0 (Not at all) to 10 (Very)	2004, 2006, 2008-2019
Altruism (rev.)	Various things can be important for various people. How important it is for you to help others?	1 (Very important) to 4 (Unimportant)	[1990,1992, 1995], 2004, 2008, 2010, 2012, 2016
Patience	Would you describe yourself as an inpatient or a patient person in general?	0 (very impatient) to 10 (very patient)	2008, 2013, 2018
Trust (rev.)	What is your opinion on the following three statements: People can generally be trusted.	1 (Fully agree) to 4 (Fully disagree)	2003, 2008, 2013, 2018
European Social Survey (ESS): 2002-2020			
Risk (rev.)	Important to seek adventures and have an exciting life	1 (Very much like me) to 6 (Not like me at all)	All years
Altruism (rev.)	Important to help people and care for others well-being	1 (Very much like me) to 6 (Not like me at all)	All years
Patience (rev.)	Plan for future or take each day as it comes	0 (I plan for my future as much as possible) to 10 (I just take each day as it comes)	2006, 2007, 2018-2020
Trust	Most people can be trusted, or you can't be too careful	0 (You can't be too careful) to 10 (Most people can be trusted)	All years
World Values Survey (WVS): 1981-2020			
Risk	Important to seek adventures and have an exciting life	1 (Not like me at all) to 6 (Very much like me)	2005-2014, 2016
Altruism	It is important to this person to help the people nearby	1 (Not like me at all) to 6 (Very much like me)	2005-2014, 2016
Trust (rev.)	Most people can be trusted	1 (Most people can be trusted) to 2 (Need to be very careful)	All years

Appendix Table 2: Countries in Sample

Country	Observations Total	Observations Mig.	Income Level	Country	Observations Total	Observations Mig.	Income Level
Western World				Russia	12,093	1,402	M
Austria	8,150	112	H	Slovak Republic	6,499	48	H
France	10,200	101	H	Slovenia	7,124	18	H
Greece	6,716	273	H	Ukraine	7,769	306	L
Italy	4,593	354	H	*Outside Europe*			
Netherlands	10,575	93	H	Algeria	814	18	L
Portugal	9,458	65	H	Brazil	2,387	55	M
Spain	10,122	173	H	China	2,457	12	L
Sweden	8,899	16	H	Colombia	1,119	12	M
Switzerland	7,889	42	H	Egypt	2,218	53	L
United Kingdom	11,237	65	H	Ghana	893	36	L
United States	3,190	54	H	India	3,381	72	L
Eastern Bloc				Iran	1,234	92	L
Armenia	776	60	M	Iraq	2,971	1,145	M
Bulgaria	6,989	284	M	Kazakhstan	2,777	732	M
Croatia	2,919	127	H	Libya	1,616	32	M
Czech Republic	11,549	80	H	Mexico	2,704	26	M
Hungary	9,809	180	H	Morocco	1,087	112	L
Kyrgyz Republic	2,072	66	L	Pakistan	2,689	166	L
Latvia	1,612	22	H	Philippines	1,894	40	L
Lithuania	5,881	46	H	Thailand	2,438	59	L
Poland	11,991	1,295	H	Tunisia	1,800	50	L
Romania	2,551	657	M	Turkey	6,771	647	M

Appendix Table 3: Logit Regression Results

Outcome: Migrant	Risk	Altruism	Patience	Trust
	(1)	(2)	(3)	(4)
Preference	-.0422	.388***	.248	.935***
	(.0633)	(.0907)	(.155)	(.0818)
Observations	186,122	148,293	35,913	190,161
Pseudo R-squared	.675	.632	.963	.754
Log-Likelihood	-15,002	-8,938	-356.1	-10,303
No. of Origins	41	26	20	38
Average Marginal Effect	-.00048	.00252	.000573	.00598

Note: *** p<0.01, ** p<0.05, * p<0.1. Columns 1, 2, and 4 control for age, age squared, age cube, gender, whether an individual has tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Column 3 has the same set of controls except for origin fixed effects due to convergence. Regressions are estimated using the logit regression model. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.

Appendix Table 4: Robustness Checks

Outcome: Migrant	Risk	Altruism	Patience	Trust	Risk	Altruism	Patience	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A	Short Duration Since Migration				Recent Arrivals			
Preference	.00002	.00030**	.00423**	.00028*	.00002	.00081**	.00424*	.00031**
	(.00005)	(.00012)	(.00139)	(.00015)	(.00007)	(.00029)	(.00214)	(.00015)
Observations	174,340	141,398	13,909	104,995	184,516	149,804	35,595	187,154
R-squared	.013	.012	.482	.066	.045	.037	.451	.027
Origins	38	25	9	23	41	26	22	37
Panel B	Presence of Children				Bootstrapped S.E.			
Preference	.0001	.00157**	.00684**	.00065**	.00015	.00150**	.00875**	.00064**
	(.00011)	(.00066)	(.00266)	(.00031)	(.00014)	(.00067)	(.00370)	(.00032)
1(Child Present)/10^2	-.582***	-.807***	-58.1***	-.170**				
	(.00170)	(.00249)	(.0688)	(.00063)				
Observations	185,946	150,521	36,094	189,634	186,122	150,538	36,094	190,161
R-squared	.43	.38	.683	.403	.428	.378	.577	.403
Origins	22	22	22	22				
Panel C	Binary Preference Measure				Unweighted Sample			
Preference	.00136*	.00366**	.0105**	.00223**	-.00081	.00398***	.00655**	.0196***
	(.00076)	(.00149)	(.00440)	(.00103)	(.00128)	(.00105)	(.00234)	(.00517)
Observations	186,122	150,538	36,094	190,161	186,240	150,545	36,111	190,216
R-squared	.429	0.378	.576	0.403	.313	.226	.437	.280
Origins	41	26	22	38	41	26	22	38

Note: *** p<0.01, ** p<0.05, * p<0.1. In Panel A, Columns 1-4 exclude migrants who have been in Germany for more than five years; Columns 5-8 exclude those who migrated before 2000. In Panel B, Columns 1-4 add a control for having children present (when migrating); Columns 5-8 bootstrap the standard errors. In Panel C, Columns 1-4 use binary preference measures instead of continuous measures; Columns 5-8 estimate an unweighted sample. All regressions control for age, age squared, age cube, gender, whether an individual has tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analytical weights from the SOEP, ESS, and WVS.

Appendix Table 5: European Social Survey Sample

Outcome: Migrant to	Any European Country		Western European Country	
	(1)	(2)	(3)	(4)
Panel A: Risk				
Preference	-.00049	-.00005	-.00043	.00011
	(.00038)	(.00015)	(.00038)	(.00015)
Destination Fixed Effects		√		√
Observations	237,005	237,005	236,542	236,542
R-squared	.244	.696	.217	.725
No. of Origins	31	31	31	31
Panel B: Altruism				
Preference	.00276***	.00062***	.00241***	.00036***
	(.00057)	(.00015)	(.00047)	(.00011)
Destination Fixed Effects		√		√
Observations	237,373	237,373	236,915	236,915
R-squared	.245	.696	.219	.724
No. of Origins	31	31	31	31
Panel C: Patience				
Preference	-.00091	-.00098	.00009	.00032*
	(.00134)	(.00076)	(.00069)	(.00016)
Destination Fixed Effects		√		√
Observations	50,564	50,564	47,906	47,906
R-squared	.024	.380	.017	.706
No. of Origins	22	22	21	21
Panel D: Trust				
Preference	.00286***	.00059***	.00278***	.00052***
	(.00068)	(.00015)	(.00067)	(.00015)
Destination Fixed Effects		√		√
Observations	243,823	243,823	243,337	243,337
R-squared	.244	.695	.218	.723
No. of Origins	31	31	31	31

Note: *** p<0.01, ** p<0.05, * p<0.1. The outcome variable is a binary indicator for a specific type of migrant. Other types of migrants are excluded from the samples. All regressions control for age, age squared, age cube, gender, whether parents have tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by the analysis weights in ESS.

Appendix Table 6: Heterogeneous Effects by Origin Language and Schengen Status

Outcome: Migrant	Risk	Altruism	Patience	Trust
	(1)	(2)	(3)	(4)
Panel A: German as an Official Language				
Preference	.00045	.00286**	.00910**	.00181
	(.00032)	(.00116)	(.00338)	(.00110)
Preference × 1(German-Speaking)	.0157***	.00146	-.0134	.0252***
	(.00171)	(.00467)	(.0172)	(.00895)
Observations	168,990	140,242	34,956	162,291
R-squared	.437	.386	.585	.424
No. of Origins	30	20	21	26
F(Preference in German -Speaking Countries = 0)	101.7***	.927	.0640	9.242***
Panel B: Schengen Area				
Preference	.00023	.00202*	.00703*	.00159
	(.00027)	(.00114)	(.00387)	(.00094)
Preference × 1(Schengen)	.00297	.00306	-.00020	.00631***
	(.00195)	(.00183)	(.00532)	(.00182)
1(Schengen)	.153***	.111***	.465***	.0951**
	(.0382)	(.0366)	(.153)	(.0398)
Observations	168,990	140,242	34,956	162,291
R-squared	.458	.401	.652	.436
No. of Origins	30	20	21	26
F(Preference in Schengen Countries = 0)	2.647	9.041***	4.864**	16.98***

Note: *** p<0.01, ** p<0.05, * p<0.1. All regressions control for age, age squared, age cube, gender, whether an individual has tertiary education, birth cohort fixed effects, origin country's GDP per capita, war status, and average educational attainment, a time trend, its squares and cubic, and origin fixed effects. Robustness standard errors are reported in parentheses and clustered at the origin country level. Regressions are weighted by comparable analysis weights from the SOEP, ESS, and WVS.