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Life (Dis)satisfaction and Decision to Migrate:

Evidence from Central and Eastern Europe

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Abstract

This paper provides the first evidence regarding the impact of life satisfaction on the individual intention to migrate. The impact of individual characteristics and country macroeconomic variables on the decision to migrate is analyzed in one framework. Differently from other studies, we allow for life satisfaction to serve as a mediator between macroeconomic variables and the intention to migrate. Using the Eurobarometer survey for 27 Central Eastern (CEE) and Western European (non-CEE) countries, we test the predictions of our theoretical model and find that people dissatisfied with life have higher intention to migrate. We have not enough evidence that the macroeconomic conditions affect the intention to migrate directly, but these factors do affect migration decision indirectly through life satisfaction. We also find that at all levels of life satisfaction, the unemployed, middle-age individuals with low or average income from urban areas at all levels of education have higher intentions to migrate from CEE countries than from non-CEE countries.

JEL-Classification: I31, J61
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1 Introduction

It is commonly agreed that migration substantially affects social and economic development of home countries as well as host ones. The factors driving the individual migration decision have been widely explored in the literature. From the economic perspective, there are two types of factors that have an impact on the individual migration decision. The first type is related to the micro level (individual based), such as job and educational opportunities, expected income, health quality and/or better provision of social benefits, relative deprivation, etc.[1] The second type is attributed to the macro level, political and economic conditions of a country, such as war and revolution, fiscal policy, quality of governance, and public goods provision, income inequality.[2]

However, in empirical applications, it may be difficult to consider all the factors that affect the decision process. As highlighted by Stark [44], an individual may still decide to migrate even in the case of negligible economic differences and earning differentials between home and host countries. Some individual characteristics are observed, such as age, occupation, intentional activities, previous experiences, and non-genetic factors, etc., while others are not, such as tastes and culture, genetics, hidden reasons and motives, for instance, a feeling of deserving a better life, feeling of fairness, etc. In this case the life satisfaction measure may be used as a proxy for unobservable factors.[3] In fact, many surveys include questions regarding life satisfaction, where individuals evaluate the overall quality of their own life providing the information that can be used.

In the literature, only a few studies have investigated the effects of life satisfaction on individual decisions and activities. Some examples of such studies are Antecol & Cobb-Clark [5], Clark [14], Freeman [23], among others, who use job satisfaction as a predictor of future job quits; Lyubomirsky et al. [38] who suggest that people satisfied with life are likely to be more successful and socially active; Frey & Stutzer [25] who argue that people satisfied with life are more likely to decide to get married; and Guven et al. [29] who examine the effect of gap in happiness between spouses on the probability to divorce.

In a seminal paper, Liu [37] emphasizes that both objective and subjective quality of life indicators are likely to influence the individual decision to migrate. The author examines only the role of objective indicators, such as living conditions, development of education, health, state and local government, etc. However, Liu [37] tests his hypothesis only at the aggregate level and finds a positive effect of better quality of life on the net migration rates between the states in the US. This finding opens the discussion about the role of subjective quality of life indicators on the migration decision at the individual level.

In this paper we model the impact of life satisfaction on the individual intention to migrate (hereafter, migration decision). Using the Eurobarometer survey for 27 Central East-

[1] See Berger & Blomquist [6], De Jong et al. [15], Dustmann [18], Gibson & McKenzie [26], Kennan & Walker [35], Stark & Bloom [46], Stark & Taylor [47], Stark & Wang [48], among others.

[2] See Alesina & Zhuravskaya [4], Borjas[12], Greenwood [28], Stark [45], Tiebout [50], among others.

[3] See Lyubomirsky et al. [39] and De Neve et al. [17].

ern (CEE) and Western European (non-CEE) countries in the period of 2008, we test the predictions of our theoretical model.[4] In our analysis we distinguish three types of leaves: internal, temporary international, and permanent international leaves (hereafter, permanent and temporary migrations).[5] Of particular interest is the impact of life satisfaction on the individual permanent and temporary migration decisions. In order to explain the permanent and temporary migration, we combine individual and country level variables that may affect the migration decision. Individual variables are socio-economic characteristics, such as age, income, education, while country level variables are unemployment, GDP per capita, inequality, and the quality of governance. Country level variables and socio-economic characteristics are allowed for affecting the individual migration decision not only directly but also through life satisfaction. That is, differently from other studies, in this paper life satisfaction serves as a mediator between countrywide economic and political conditions and the individual intention to migrate. The impact of individual characteristics and country macroeconomic variables on the decision to migrate is analyzed in one framework.[6]

We also take into account that migration decisions and life satisfaction of people from Central and Eastern Europe (CEE) may differ from the ones in other European countries in the analysis. According to World Values Survey and previous research, for instance, Blanchflower & Freeman [7], Hayo [32], Guriev & Zhuravskaya [30] and Easterlin [21], people from transition countries, including CEE, report lower levels of life satisfaction. Therefore, it may be the case that life (dis)satisfaction will have a stronger influence on decision to migrate in Central and Eastern Europe countries than in Western European countries.

The empirical findings confirm the theoretical model of paper and indicate that people dissatisfied with life have higher intention to migrate. The results hold for all types of leaves: internal, temporary international, and permanent international. We find that individual socio-economic variables affect the migration decision directly as well as indirectly through life satisfaction**,** while the macroeconomic variables affect it indirectly only. We also find the differences in migration decisions between the CEE and Western Europe. The dissatisfied with life unemployed, middle-age individuals with low or average income from urban areas at all levels of education have the highest intention to migrate

[4] Central and Eastern European countries in our sample are Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Western European countries are Austria, Belgium, Cyprus (Republic), Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Spain, Sweden, and United Kingdom.

[5] If an individual responds that he/she intends to move in the next five years within country, we consider such response as the intention to migrate internally. If an individual responds that he/she intends to move in the next five years to another country for a few weeks, few months, few years, for more than few years, but not indefinitely, we consider such response as the intention to migrate abroad temporarily. Finally, if an individual responds that he/she intends to move in the next five years to another country for the rest of his/her life, we consider such response as the intention to migrate abroad permanently.

[6] Alternatively, a two-level modeling approach can be used (see Raudenbush and Bryk [40]). Recent application of this approach on migration has been done by Chi and Voss [13]. However, due to the identification issue of the model we apply the sequential estimation.

from CEE countries. One may point out other relevant factors, for instance, remittances, social networks, etc., that may affect the intention to migrate. However, we believe that the main findings of this paper will remain the same, underlying the importance of use of life satisfaction in the decision making process.

The rest of the paper is organized as follows. The next section briefly reviews the relevant literature. Then we present our theoretical framework and econometric model, describe data, and discuss estimation results. The final section concludes.

2 Life Satisfaction and Migration Decision

The relationship between migration and life satisfaction has not yet been widely examined in economic literature. Existing studies at the individual level mostly focus on the life satisfaction of actual migrants and their generations. For instance, De Jong et al. [16] study the life satisfaction of migrants in Thailand before and after migration and argue that it is typically decreasing after moving to a different place, while Easterlin & Zimmerman [22] argue that migrants from Eastern to Western Germany are relatively less satisfied than the locals living in the Western part. Safi [41] also suggests that immigrants in Europe and their generations are less satisfied than the natives.

At the country level, Blanchflower et al. [8] and Blanchflower & Shadforth [9] analyze the migration flows from Central and Eastern Europe. The authors find that the number of migrants to the UK is higher from those CEE countries that have lower GDP per capita and average life satisfaction. This finding invites to disentangle the effects of country level variables and life satisfaction on the migration decision in CEE and non-CEE countries.

In labor economics, the use of job satisfaction in relation to labor mobility received substantial attention. Most studies in this stream of literature argue that job dissatisfaction is a strong predictor of job quit intentions as well as actual quits (see Antecol & Cobb-Clark [5], Bockerman & Ilmakunnas [10], Clark [14], Freeman [23], Shields & Ward [42], Stevens [49], among others). In this research we introduce life satisfaction as a predictor of intended migration. For this purpose it is useful to review existing literature on job satisfaction and labor mobility.

In a seminal study Freeman [23] argues that the usefulness of satisfaction data for studying labor mobility is underestimated in economic literature. The author suggests to use the individual satisfaction to evaluate indirect effects of observed variables as well as a proxy for unobserved objective factors. For instance, job satisfaction may serve as an indicator of workplace quality or mode of supervision. In the line with this suggestion, Clark [14] points out that different job satisfaction domains, for instance, satisfaction with career opportunities, relations with supervisors, use of initiative, reflect unobservable job quality characteristics that can be used to measure the probability of job quits. Using data from BHPS, the author finds that dissatisfaction with pay, working hours, work itself, job security, and the use of initiative are significant predictors of future actual job quits. Bockerman & Ilmakunnas [10] analyze Finnish data and argue that job dissatisfaction as a proxy for adverse working conditions induces quit intentions and actual job quits. The topic of job satisfaction and quits in different contexts is further explored by Antecol & Cobb-Clark [5] for military servants, Shields & Ward [42] for nurses, and by Stevens [49] for academicians. All these studies underline the role of dissatisfaction in labor mobility and provide a rationale for studying the implications of dissatisfaction and migration intention.

In our paper the individual intention to migrate, not actual migration decision, is analyzed. Our approach is not unique. The psychological theories of reasoned action and planned behavior suggest that the individual intention predict the actual decision and behavior.[7] As these theories imply, better incorporation of individual (e.g., information, abilities, and emotions) and external (e.g., opportunity costs and external barriers for performing a behavior) factors into the model of hypothetical decision reduces the gap in explaining intended and actual behaviors (see Ajzen & Fishbein [2], Ajzen [1], and Hale & Householder [31]). Data on individual intentions instead of actual labor mobility are also used in some economic studies (see Antecol & Cobb-Clark [5], Kristensen & Westergerd-Nielsen [36], Shields & Ward [42], among others). In the context of migration, empirical evidence in favor of strong link between the intended and actual decision was provided by Gordon & Molho [27] and Boheim & Taylor [11]. Gordon & Molho [27] conclude that in the UK a high share of people who intend to migrate actually moves within five years. Furthermore, Boheim & Taylor [11] argue that the actual probability to move for potential migrants is three times higher than for those who do not intend to move. Therefore, the analysis of the individual intention to migrate is important for understanding the actual migration decision making process.

[7] See Ajzen and Fishbein [3] for an extensive review of psychological literature on intentions and actual behavior.

3 Methodology

3.1 Theoretical Framework

In this section we present the theoretical framework of the individual decision to migrate. An individual i maximizes a lifetime utility $U_i = \{U_{ih}$,$U_{id}\}$ over the two periods. At the beginning of first period an individual resides in a home country h and decides about his/her consumption c_{1h} in this country, while in the second period he/she intends either to move to a destination country $j = d$ and decide about his/her consumption $c_{2j} = c_{2d}$ in this country, or to stay in a home country $j = h$ and consume $c_{2j} = c_{2h}$. Individual maximization problem is as follows:

$$\begin{aligned} \max_{c_{1h},c_{2j}} U_i &= \{U_{ih}, U_{id}\} \text{ with} \\ U_{ih} &= u_{1h}(c_{1h}|\mathbf{x_{1ih}}, \mathbf{e_{1h}}) + E[u_{2h}(c_{2h}|\mathbf{x_{2ih}}, \mathbf{e_{2h}})] \quad (1) \\ U_{id} &= u_{1h}(c_{1h}|\mathbf{x_{1ih}}, \mathbf{e_{1h}}) + E[u_{2d}(c_{2d}|\mathbf{x_{2id}}, \mathbf{e_{2d}})] - m \quad (2) \end{aligned}$$

subject to a budget constraint

$$c_{1h} + c_{2j} = y_{1h} + E[y_{2j}] - q, \quad (3)$$

where u_{1h} is an individual utility function in the home country h in the first period over the flow of consumption c_{1h}, and $E[u_{2j}]$ is the expected utility function in a country j in the second period over the flow of consumption c_{2j}, where $j = d$ if an individual decides to move, and $j = h$ if an individual decides to stay. Both u_{1h} and $E[u_{2j}]$ are strictly concave. y_{1h} and $E[y_{2j}]$ stand for individual income during the first period and expected individual income during the second period in a country j, respectively. m and q represent constant mental and material costs of migration, respectively.[8] If an individual decides to stay in his/her home country during the second period, then $E[y_{2h}] = y_{2h}$, m and q are equal to zero. We assume no discounting between the first and second periods. Also, the relative price level between the home and destination countries is normalized to 1.

Each period an individual utility in a country j, $u_j(\cdot|\mathbf{x_{ij}}, \mathbf{e_j})$, is conditional on individual i characteristics in this country, $\mathbf{x_{ij}}$, such as income, employment and marital status, age, gender, etc, and on a country j characteristics $\mathbf{e_j}$. The country characteristics may include the level of GDP, unemployment, income inequality, etc.

The decision to migrate in the second period is based on a comparison of the indirect utility functions for two scenarios: either to stay in the home country, or to move to the destination country. That is, an individual i decides to migrate from the home country h

[8] In a seminal study Sjaastad [43] distinguishes monetary and non-monetary costs of migration. Monetary costs include direct costs on transportation to a destination country, difference in costs of food and accommodation between home and destination country, costs of searching for a job, etc. Non-monetary costs include opportunity costs incurred due to migration as well as psychological costs of leaving family, friends, familiar environment and adapting to the new conditions of a destination country.

to the destination country d if the lifetime utility after moving to the destination country d is higher than the one from staying in the home country h:

$$\begin{aligned}\gamma &= Pr(MigrDecision_{ih} = 1|\mathbf{x_{ih}}, \mathbf{e_h}, \mathbf{x_{id}}, \mathbf{e_d}) = \\ &= \Pr\{U_{id} - U_{ih} > 0|\mathbf{x_{ih}}, \mathbf{e_h}, \mathbf{x_{id}}, \mathbf{e_d}\} = \\ &= \Pr\{E[u_d(c_d|\mathbf{x_{id}}, \mathbf{e_d})] - m - u_h(c_h|\mathbf{x_{ih}}, \mathbf{e_h}) > 0|\mathbf{x_{ih}}, \mathbf{e_h}, \mathbf{x_{id}}, \mathbf{e_d}\} = \\ &= f\{-u_h(c_h|\mathbf{x_{ih}}, \mathbf{e_h}), E[u_d(c_d|\mathbf{x_{id}}, \mathbf{e_d})] - m, \mathbf{x_{ih}}, \mathbf{e_h}, \mathbf{x_{id}}, \mathbf{e_d}\}\end{aligned} \tag{4}$$

where γ is the probability that individual i decides to migrate from the country h to the country d. If $\gamma = 0$, an individual decides to stay in the home country, while if $\gamma = 1$, he/she intends to migrate to the destination country. It is assumed that an individual utility in his/her home country is constant and measurable each period of time. That is, $u_{1h}(c_{1h}|\mathbf{x_{1ih}}, \mathbf{e_{1h}}) = u_{2h}(c_{2h}|\mathbf{x_{2ih}}, \mathbf{e_{2h}}) = u_h(c_h|\mathbf{x_{ih}}, \mathbf{e_h})$. The utility in the destination country is revealed only after moving to this country.

Given equation 4, we test that the probability of the decision to migrate from the country h to the country d negatively depends on utility of living in the country h. In the next section we propose the econometric model to test this hypothesis. Since the expected utility in the destination country, net of mental costs of migration m, $E[u_d(c_d|\mathbf{x_{id}}, \mathbf{e_d})] - m$, is difficult to measure, without the loss of generality we assume that $E[u_d(c_d|\mathbf{x_{id}}, \mathbf{e_d})] - m$ is constant for each destination country.[9] This assumption may be relaxed in future research, but the intuition behind the suggested theoretical mechanism remains the same.

As suggested by Kahneman et al. [33], life satisfaction represents the experienced utility. That is, an individual utility is defined as a hedonic quality of an individual's life which is derived from instant and past experiences. The main advantage of this approach is that this utility is measurable.

3.2 Econometric Model

In our empirical specification we follow a two-level hierarchical model with random intercepts. This model can be estimated simultaneously, as described by Raudenbush & Bryk [40]. However, due to the identification issue of the model, we estimate levels, namely within and between, sequentially. The results of both approaches are similar with only difference in the efficiency of estimators. This type of analysis allows to relate and structure the characteristics of individuals and groups in one framework. In our paper, clusters are associated with countries, therefore, random intercepts represent the average country specific life satisfaction and propensity to migrate.

Figure 1 in appendix illustrates a two-level regression analysis with random intercepts. As can be seen from this figure, there are two levels, namely, between (country) and

[9] If $E[u_d(c_d|\mathbf{x_{id}}, \mathbf{e_d})] - m$ is not constant, then the difference $E[u_d(c_d|\mathbf{x_{id}}, \mathbf{e_d})] - m - u_h(c_h|\mathbf{x_{ih}}, \mathbf{e_h})$ has to affect the individual decision to migrate positively.

within (individual) levels. At between level in the rectangle, country political and economic variables, such as GDP per capita, unemployment, inequality and others, are included. At within level in the rectangles appear individual variables, such as individual socio-economic characteristics and the variable that represents the individual intention to migrate.

The econometric model can be expressed as follows: equations 5a and 5b1-5b3 are attributed to within level, while equations 6a1-6a2 and 6b1-6b3 represent between level.

$$\begin{aligned}
\Pr(MigrDecision_{ih}^{K}=1) &= F(\theta_h^K+\beta_1^K LifeSat2_{ih}+\beta_2^K LifeSat3_{ih}+ \qquad (5a)\\
&+\beta_3^K LifeSat4_{ih}+\beta_4^K Econd_{ih}+\eta^{\mathbf{K}}\mathbf{x_{ih}}+\theta_{\mathbf{h}}^{\mathbf{K}}\mathbf{CD}_h+\varepsilon_{ih}^K)\\
LifeSatJ_{ih}^{*} &= \lambda_h^J+\mu^{\mathbf{J}}\mathbf{x_{ih}}+\lambda_{\mathbf{h}}^{\mathbf{J}}\mathbf{CD}_h+\epsilon_{ih}^J,\ J=2,3,4 \qquad (5b1\text{-}5b3)\\
\theta_h^K &= \gamma_0^K+\gamma_{\mathbf{1}}^{\mathbf{K}}\mathbf{Politics_c}+\gamma_{\mathbf{2}}^{\mathbf{K}}\mathbf{Economics_c}+\gamma_3^K CEE_h+u_h^K \qquad (6a1\text{-}6a2)\\
\lambda_h^J &= \pi_0^J+\pi_{\mathbf{1}}^{\mathbf{J}}\mathbf{Politics_c}+\pi_{\mathbf{2}}^{\mathbf{J}}\mathbf{Economics_c}+\pi_3^J CEE_c+\zeta_h^J \qquad (6b1\text{-}6b3)
\end{aligned}$$

where subscript i stands for individual and subscript h stands for country. The variable $MigrDecision_{ih}^{K}$ represents an individual decision to participate in the K^{th} alternative to leave, where $K=\{P,T,I\}$, i. e. permanent international (P), temporary international (T), and internal leaves (I). The intention of "no leave" is used as a reference category. $LifeSatJ_{ih}$, $J=2,3,4$, is an individual self-reported satisfaction with life in home country; $Econd_{ih}$ is a dummy variable which is equal to one if the decision to migrate is driven by economic factors, such as higher expected income, better working and housing conditions, and zero if the factors are non-economic, for instance, moving closer to family or friends, or expecting better local environment, among other reasons. $\mathbf{x}_{ih}$ include individual socio-economic characteristics, namely age, gender, marital status, children, income, level of education, employment status, and living in urban area. $\mathbf{CD}_h$ are country dummies that account for the average country specific life satisfaction and the propensity to migrate. $\mathbf{Politics}_h$ and $\mathbf{Economics}_h$ are the sets of country level political and economic variables, such as GDP per capita, unemployment rate, and Gini coefficient. Also we introduce a dummy variable, CEE_h, that is equal to one if country h is in Central and Eastern Europe and zero, otherwise. These variables correspond to $\mathbf{e_h}$ from the theoretical model. θ_h^P and λ_h^J are mean country specific intercepts, while $\varepsilon_{ih}^K, \epsilon_{ih}^J, u_{0h}^K$ and $\zeta_{0h}^{\mathbf{J}}$ are stochastic disturbances.

The responses to life satisfaction questions are categorically ordered and take values from one to four in a Likert scale**.** So to evaluate the effects of each level of life satisfaction on individual migration decision separately, we divide $LifeSat_{ih}$ into four dummy variables and use the lowest level of life satisfaction as a base category in our estimations. $LifeSatJ_{ih}^{*}$ stands for the true value of $LifeSatJ_{ih}$.

$$LifeSatJ_{ih}=1,\ \text{if}\ \begin{cases} LifeSat_{ih}=J \\ LifeSatJ_{ih}^{*}>0 \end{cases}\ \text{, and } 0\text{, otherwise, } J=1,...,4$$

The reliability of subjective data is of potential concern. However, as summarized by Frey & Stutzer [24] from economic, sociological, and psychological literature, life satisfaction data are valid, consistent and reliable measures of individual well-being. That is, people are able to evaluate own quality of life without systematic errors.

To analyze the determinants of the individual migration decision, the within level equations 5a and 5b1-5b3 are estimated by using the maximum likelihood estimation (MLE). By estimating the equation 5a through a multinomial logit model, we examine the direct impact of life satisfaction and individual socio-economic characteristics on the probability to migrate abroad permanently, temporarily, or within country against the reference category of no leave. To analyze the determinants of life satisfaction at each level, the equations 5b1-5b3 are estimated by logit.

The estimates of country dummy variables for the intention to migrate permanently and temporarily from equation 5a are taken as a dependent variables for equations 6a1-6a2. These estimates represent the country fixed effects. We assume that country level political and economic variables directly affect the decision to migrate abroad permanently and temporary, and have no direct effect on the decisions to migrate internally. Therefore, the mean country specific intercept of permanent migration decision, θ_h^P, and temporary migration decision, θ_h^T, are included into between level, while the intercept of internal migration, θ_h^I, is not. The values for dependent variables of equations 6b1-6b3 are the estimates of country dummies from equations 5b1-5b3. The dependent variables of these equations represent the average value of being satisfied in a particular country at the satisfaction levels 2, 3, and 4, respectively. The equations 6a1-6a2 and 6b1-6b3 are estimated by ordinary least squares and allow to analyze the effects of political and economic variables directly on permanent migration decision and on life satisfaction. Since equations 5a, 5b1-5b3 at within (individual level) and 6a1-6a2, 6b1-6b3 at between (macro level) levels are estimated sequentially, we bootstrap the standard errors.

4 Data

The primary data source for examining the model described above is the Eurobarometer survey in 2008. This is a cross-sectional survey based on nationally representative samples that include randomly selected respondents from 27 European countries, out of which 10 are Central and Eastern European countries.[10] There are about 1000 respondents per country. The survey contains questions on individual values and attitudes towards life, previous migration experience and the intentions to migrate in future as well as individual socio-economic characteristics. Since the survey has no question on respondent's income, we use a proxy for income, namely the judgement regarding financial situation of respondent's household. The question that we use is "*How would you judge the financial situation of your household? Very good (4), rather good (3), rather bad (2), very bad (1).*"

The question on life satisfaction that we use is "*On the whole, are you very satisfied (4), fairly satisfied (3), not very satisfied (2) or not at all satisfied (1) with the life you lead?*" The sample mean life satisfaction scores are presented in Table 1 in appendix. The highest mean life satisfaction in our sample is in Denmark, while the lowest is in Bulgaria. People from Central and Eastern Europe report lower levels of life satisfaction than people from Western European countries. These rankings are consistent with similar ones from other databases, e.g. World Values Survey.

Survey questions about intended migration used in this research are presented in Figure 2 in appendix. The following three questions are used to construct the variable of interest $MigrDecision_{ic}^{K}$, namely "*Do you intend to move in the next five years?*", "*Do you intend to move within country or to another country?*", "*How long do you expect to stay abroad?*" As mentioned above, we distinguish three types of leaves: permanent international, temporary international, and internal. If an individual responds that he/she intends to move in the next five years within country, we consider such response as the intention to migrate internally. If an individual responds that he/she intends to move in the next five years to another country for a few weeks, few months, few years, for more than few years, but not indefinitely, we consider such response as the intention to migrate abroad temporarily. Finally, if an individual responds that he/she intends to move in the next five years to another country for the rest of his/her life, we consider such response as the intention to migrate abroad permanently.

Descriptive statistics for the questions on life satisfaction and intended leaves is presented in Table 2 in appendix. The number of intended migrants for all types of leaves is about 10 percent of our sample. Thus, for some countries we may have a few intended migrants only. However, it should not change the main conclusions of our paper.

[10] The exact list of countries in our sample is Austria, Belgium, Bulgaria, Cyprus (Republic), Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and United Kingdom.

The country level data, namely the real GDP per capita, unemployment rates, Gini coefficients are coming from the Eurostat database. The correlation matrix for macroeconomic variables is presented in Table 3.

5 Results and Discussion

5.1 Individual Level Effects

In this section we present and discuss the results for the decisions to migrate permanently and temporarily.[11] To understand the migration decision at each level of life satisfaction, in our estimation life satisfaction is presented by three dummy variables where the default group is individuals that indicate the lowest level of life satisfaction.[12]

Individual level estimation results for the decision to migrate and life satisfaction are obtained by estimating equations 5a and 5b1-5b3 and presented in Tables 4 and 5 in appendix, respectively. In Table 4, the columns correspond to the particular intention to migrate, namely permanent, temporary, and internal. Given the estimation results from this table, we observe that older, married, with a child, higher income, more educated, employed and with higher levels of life satisfaction individuals have lower intention to migrate either permanently or temporarily, while the self-employed individual from the urban area who mentioned the importance of economic conditions is more likely to intend to migrate permanently or temporarily. In line with our theoretical model, we find that life satisfaction has a negative impact on the individual migration decision and is a strong predictor of this decision. This suggests that life satisfaction may contain some information, for instance, individual tastes, preferences, self-evaluation of own life quality, which is used in the decision making process, but difficult to measure. As a result, the benefit of considering life satisfaction as a determinant of individual decisions is that life satisfaction may serve as a measurable proxy for such unobservable characteristics.

In Table 5, results for within level (individual) for each level of life satisfaction are presented. Life satisfaction is higher for married, with higher income and education, employed or self-employed individuals and U-shaped in age. These results confirm the findings from the existing happiness literature.

Since our dependent variable, the intention to migrate, is nominal, it is interesting to compute the average marginal effects for explanatory variables from equation 5a.[13] These effects are presented in Table 6A. The marginal effect on the probability of the intention to migrate permanently for an individual with satisfaction level 2, “not very satisfied”, is lower by 0.75% compared to the base group individuals with the lowest level of life satisfaction, while for “fairly satisfied” and “very satisfied” individuals it is lower by 1.64% and 1.74%, respectively. In the case of temporary migration, those individuals who expressed that they are satisfied with their life are less likely to migrate, 1.70%, 2.11%, and 0.86% for “very satisfied”, “fairly satisfied”, and “not very satisfied” levels,

[11] Since we study the impact of cross-country differences on the individual migration decision, we do not discuss the decision to migrate internally.

[12] One may be interested in using life satisfaction as a continuous variable or as a dummy variable. Nevertheless, our findings are robust to any treatment of life satisfaction. The results are available upon request.

[13] In our explanations we multiply calculated marginal effects by 100.

respectively. The sign of life satisfaction in equation 5a is negative, as expected from our theoretical model. However, since the countries in our sample have different levels of economic development, there may be important cross-country factors that may affect the individual decision to migrate. This issue is explored in the next section.

5.2 Country Level Effects

Migration literature has emphasized the influence of economic and political conditions on the individual migration decision.[14] In this paper we also examine the relationship between the intention to migrate permanently and temporarily and various country characteristics. Differently from other studies, we also take into account the impact of these macroeconomic variables on the life satisfaction of individuals. In our case life satisfaction serves as a mediator between the macroeconomic variables and the intention to migrate. Due to high correlations between macroeconomic variables, we select only the logarithm of real GDP per capita, unemployment rate and Gini as explanatory variables for equations 6a1-6a2 and 6b1-6b3 (see Table 3).

In Table 7, the columns labeled as "INTERCEPT PERMANENT" and "INTERCEPT TEMPORARY" correspond to equations 6a1-6a2 for permanent and temporary migrations. As can be seen from this table, none of the macroeconomic variables is statistically significant.[15] Thus, we do not have enough evidence that the logarithm of real GDP per capita, unemployment rate, and Gini affect the intention for permanent migration directly.[16] However, we find that these macroeconomic variables affect life satisfaction at the country level. In particular, the fraction of individuals being "not very satisfied" (satisfaction level 2) decreases if GDP per capita increases, and increases if unemployment rate and the inequality among individuals rise, while the fraction of "very satisfied" individuals in a country increases with higher GDP per capita, lower unemployment, and lower inequality among individuals.

As mentioned above, some of macroeconomic variables are highly correlated. In our case government effectiveness, control of corruption and GDP per capita have similar effect on life satisfaction and can be used interchangeably. This is especially relevant for explaining the differences in migration intentions between CEE and non-CEE countries since governance conditions in these two regions are substantially different. For instance, according to the Worldwide Governance Indicators (Kaufmann et al.[34]), the gap between government effectiveness and control of corruption in these two regions is sharp (0.68 vs. 1.40 for government effectiveness and 0.37 vs. 1.51 for control of corruption). According to Kaufmann et al.[34], the government effectiveness indicator measures per-

[14] See Alesina & Zhuravskaya [4], Borjas [12], Dustmann et al. [19] and [20], Greenwood [28], Stark [45], Tiebout [50], among others

[15] We also estimated the equation 5a without life satisfaction variable, but we do not find the evidence that macroeconomic variables affect the intention to migrate either.

[16] We have also estimated equations 6a1-6a2 with government effectiveness and other economic variables from Table 3. The results are robust to the choice of explanatory variables and available upon request.

ceptions of the quality of public services provision and policies implementation, while the control of corruption measures perceptions of the use of public power for private interests and the extent of state capture. All the relationships between country level life satisfaction, macroeconomic and governance variables have an expected sign and underline the importance of improvement of economic and political conditions for individual satisfaction with life. As a result of improvements in economic development, control of corruption and governance, the individuals intend to migrate less.

In this study we do not find enough evidence that macroeconomic and political conditions affect directly the intention to migrate. But we find that these conditions may affect the intention to migrate through life satisfaction. These empirical findings underline the importance of individual life satisfaction not only as a strong predictor of the individual migration decision, but also as a mediator between economic and political conditions and this decision.

5.3 Migration Decisions in CEE and Non-CEE Countries

In this section we discuss the differences in intentions to migrate permanently and temporarily for the Central European (CEE) countries and the Western European (non-CEE) countries. Differently from the existing literature, we look not only at the impact of individual characteristics on the individual intention to migrate but also consider them at different levels of life satisfaction. To highlight that life satisfaction and expected income have separate effects on individual migration decision, we consider those people who had experience of long-term migration in the past and still intend to migrate, hereafter movers.[17] The average life satisfaction of these individuals in CEE countries is 2.39, while in non-CEE countries is 2.88. Individuals who did not migrate in the past and do not intend to migrate in the future, hereafter stayers, are used as a reference category. The average life satisfaction of stayers in CEE and non-CEE countries is 2.63 and 3.04, respectively.

Comparing the average life satisfaction scores for movers and stayers, we find that movers have lower life satisfaction scores than stayers from the same region. By considering the responses of these individuals regarding the judgement of current financial situation of their household, we find that the average score for financial situation for movers and stayers are very similar in CEE countries (2.42 vs 2.45). Therefore, we may conclude that movers in CEE countries met their income expectations by migrating, but they are still not satisfied with the quality of own life, and, as a result, life dissatisfaction may drive them to migration again. However, this effect is not unequivocal in non-CEE countries. Even though the life satisfaction of movers from non-CEE is lower than the life satisfaction of stayers in this region (2.88 vs. 3.04), their judgement of own financial situation is slightly different (2.68 for movers and 2.75 for stayers). Therefore, it might be the case that movers in non-CEE countries did not meet their income expectations as well as not

[17] We are grateful to David Blanchflower for this point.

satisfied with the quality of own life. As a result, it is less clear whether the income or life satisfaction effect dominates in the intention to migrate for individuals from the non-CEE region.

Comparing the average marginal effects for CEE and non-CEE countries in Table 6B, we observe that with an increase in life satisfaction the probability to migrate permanently and temporarily is decreasing more for individuals from non-CEE than from CEE. For instance, the probability of intention to migrate permanently of "very satisfied" individuals is lower in comparison with the "not at all satisfied" by 2.06% and 1.20% (1.55% and 1.96% in the case of temporary migration) in non-CEE and CEE countries, respectively. In other words, if the life satisfaction of individuals increases by the same amount in both regions, the individuals from the CEE intend to migrate more. This result is not surprising given the widely documented differences in social and economic conditions in East European compared to Western countries. Thus, policies designed to regulate migration flows from the CEE countries should be interdependent with improving well-being in the region.

Also, in Table 6B we compute the average marginal effects for intention to migrate for each level of income, employment status, education, age, and regional location of CEE and non-CEE individuals. As can be seen from this table, if life satisfaction increases, the non-CEE individuals are intended to migrate less than the CEE individuals for each level of income. For instance, the probability to migrate permanently for "fairly satisfied" individuals with income level 4 is lower by 0.97% and 0.62% (0.74% and 1.02% in the case of temporary migration) in non-CEE and CEE countries, respectively. The intuition behind this result is in different income and employment prospects for people from CEE and non-CEE countries. According to data from the Eurostat, the average net nominal monthly earnings in non-CEE countries are about 1600 EUR, while in CEE countries are just 460 EUR. At the same time, the average long-term unemployment rate is about 2% of active population in non-CEE and 3% in CEE countries. Thus, poor individuals dissatisfied with life from non-CEE countries are likely to look for a job in their home country, while in CEE countries individuals with similar characteristics are likely to search longer for a higher paid job in their home country and, thus, more likely to intend migrating for a job abroad.

By disentangling the non-CEE from CEE individuals further, we find that as compared to "not at all satisfied", the "fairly satisfied" and "very satisfied" self-employed individuals from non-CEE countries have lower intention to migrate permanently than the ones from CEE, by 3.57% and 3.81%, 2.16%, and 2.30% (2.36% and 1.82%, 2.82% and 2.32% in the case of temporary migration), respectively. This difference is likely to be due to lower quality of institutions in the CEE region. According to the Worldwide Governance Indicators (Kaufmann et al.[34]), CEE countries underperform non-CEE countries in regulatory quality and rule of law which measure the perceptions of regulations that permit and promote private sector development, guarantee property rights, quality of police, and courts (0.99 vs. 1.42 and 0.63 vs. 1.46, respectively). The average life satisfaction of

self-employed individuals in CEE countries is 2.78, while in non-CEE countries is 3.05. Therefore, the life satisfaction of self-employed individuals may present the information about the quality of business environment in the country where they work.

The similar pattern is observed for the "fairly satisfied" and "very satisfied" employed individuals, the probability to migrate permanently is lower by 1.88% and 2.00% for the non-CEE individuals and 1.09% and 1.16% for the CEE ones (1.98% and 1.57%, and 2.35% and 1.96% in the case of temporary migration). For the "fairly satisfied" and "very satisfied" unemployed individuals we find that the intention to migrate is lower in non-CEE countries than in CEE, by 1.82% and 1.93%, and 1.06% and 1.13% (1.93% and 1.52%, and 2.31% and 1.93% in the case of temporary migration), respectively. These results suggest that the individuals have lower intention to migrate from regions where the unemployment benefits are higher which is consistent with previous literature (see Borjas [12]). According to data from the Eurostat, the average monthly unemployment benefits in non-CEE countries are about 370 EUR, while in CEE countries are about 70 EUR only. Thus, higher intentions of the unemployed to migrate from CEE may reflect their dissatisfaction with social security system and higher expectations regarding finding a job abroad. This point also finds support in the migration intention of individuals with different levels of education. We find that as compared to the "not at all satisfied" from the same region, the "fairly satisfied" non-educated individuals in CEE countries have lower intention to migrate by 1.36% , while in non-CEE countries this difference is 2.38%. Highly educated individuals at all levels of life satisfaction have lower intentions to migrate than the non-educated, although they are still likely to migrate more from the CEE countries.

Differences in the quality of social security system may also be reflected in migration intentions of individuals of different age. In Table 6B, we also split the results for the individuals of five age groups, 20, 30, 40, 50, and 60 years old. We find that migration intentions decrease with age for all levels of life satisfaction. As can be seen from the table, in CEE countries, where old-age pension benefits are sufficiently lower, 60 years old "fairly satisfied" individuals intend to migrate by 0.61% less, while in non-CEE countries the "fairly satisfied" individuals of the same age group are intended to migrate by 1.34% less. Differences in migration intentions of "fairly satisfied" middle-age individuals from non-CEE and CEE countries are even higher.

Finally, we compare the average marginal effects of being "not at all satisfied" individual with "fairly satisfied" one from urban and rural area in Table 6B. We observe that the probability of intention to migrate permanently decreases by 1.27% and 0.89% in CEE countries, and 2.16% and 1.55% in non-CEE countries, respectively. Thus, dissatisfied individuals are likely to migrate more from urban areas in CEE, where they have higher opportunity and better access to information for migrating abroad.

As our results suggest, at all levels of life satisfaction, different groups of individuals from CEE countries have higher intentions to migrate than from non-CEE. The dissatisfaction with the quality of life of different groups may not only increase the individual intention to migrate, but may also reflect additional information regarding the quality of institutions and business environment, employment situation, development of social security system in a region.

6 Conclusion

This paper provides the first evidence regarding the impact of life satisfaction on the individual intention to migrate. We develop the theoretical and empirical model for analyzing the individual intention to migrate. The effects of both individual and country level factors on intention to migrate are evaluated in one framework. The empirical finding of this paper suggest that people dissatisfied with life have higher intention to migrate. In our paper, we do not find enough evidence that country level economic and political conditions affect migration decision directly, but these factors do affect indirectly through life satisfaction. These empirical findings underline the importance of individual life satisfaction not only as a strong predictor of the individual migration decision, but also as a mediator between economic and political conditions and this decision.

Additionally, we analyze the differences in intentions to migrate permanently and temporarily for the Central European (CEE) countries and the Western European (non-CEE) countries. The impact of individual characteristics, such as income and education levels, employment status, the type of residence area, and age, on intention to migrate in CEE and non-CEE countries is examined at different levels of life satisfaction. We find that at all levels of life satisfaction, individuals with similar characteristics have higher intentions to migrate from CEE countries than from non-CEE countries. The low level of life satisfaction of individuals from CEE countries may be associated with the lower quality of institutions and business environment, and development of social security system in this region. The improvements of these conditions will result in an increase in individual life satisfaction and, thus, lower migration intentions of the individuals. Our findings can be generalized for the migration decisions in transition countries. It may also be interesting to implement our model for a more detailed study of internal migration.

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Appendix

A1 Figures

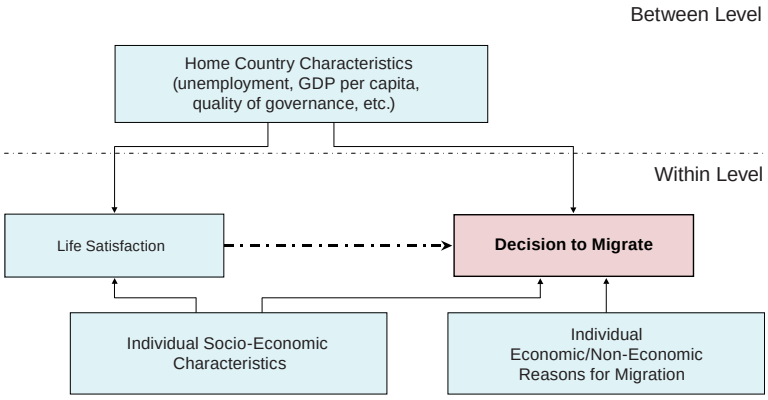

Figure 1: **Two-level Modeling of Decision to Migrate**

Source: constructed by the authors. *Notes:* Variables are included into boxes. Arrows originating from variables are hypothesized causal effects. Arrows originating from country economic and political variables correspond to equations 5a and 5b1–5b3 and indicate hypothesized direct effects on migration decision and life satisfaction, respectively.

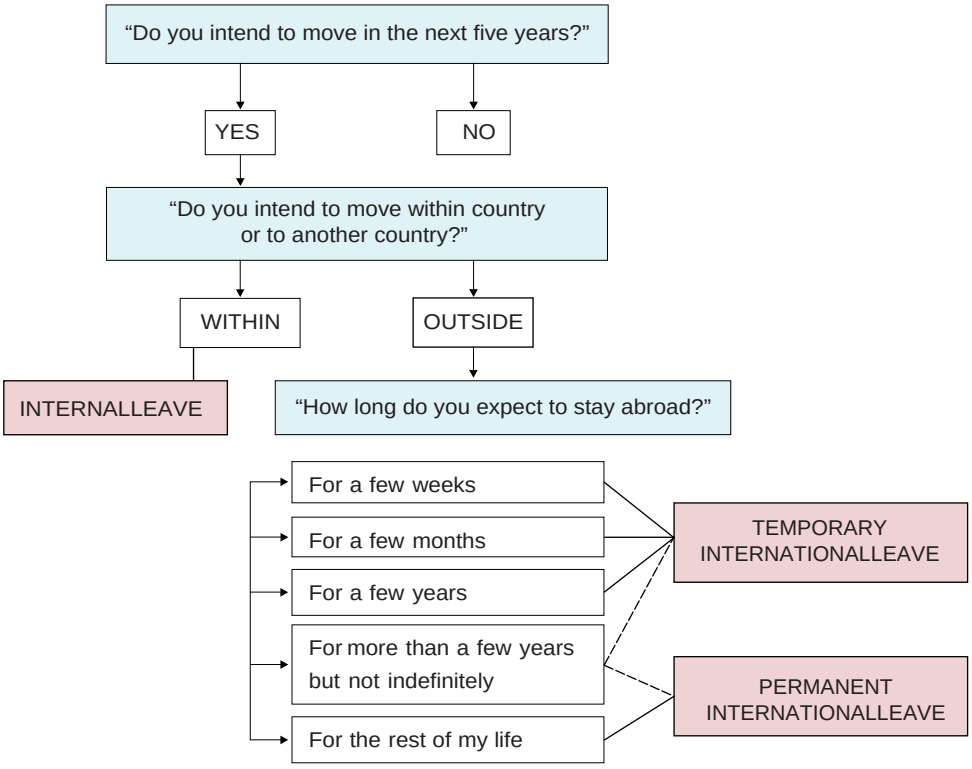

Figure 2: **Survey Questions about Intended Leaves**

Source: the Eurobarometer survey. *Note:* in our paper the response "for more than a few years but not indefinitely" is considered as the intention to migrate temporarily. However, since after a few years a residence permit could be received in most countries, this response may also be attributed to permanent international leave. The estimation results are robust to such a modification.

A2 Tables

Table 1: **Sample Mean Life Satisfaction Scores**

Country	Mean Life Satisfaction	Std. Dev.
Denmark	3.616	0.580
Netherlands	3.495	0.564
Sweden	3.457	0.556
Luxembourg	3.304	0.695
Finland	3.275	0.570
United Kingdom	3.193	0.692
Ireland	3.173	0.682
Belgium	3.125	0.690
Cyprus (Republic)	3.120	0.740
Slovenia	3.046	0.710
Malta	3.030	0.762
Spain	2.966	0.624
Austria	2.965	0.639
Germany	2.955	0.715
Czech Republic	2.907	0.574
France	2.890	0.730
Poland	2.804	0.668
Estonia	2.796	0.621
Slovakia	2.728	0.721
Lithuania	2.627	0.782
Italy	2.613	0.699
Latvia	2.611	0.730
Greece	2.480	0.751
Romania	2.391	0.745
Portugal	2.361	0.744
Hungary	2.301	0.808
Bulgaria	2.170	0.793

Source: constructed by the authors using the Eurobarometer survey. *Notes:* countries are ranked according to mean life satisfaction score. The countries of Central and Eastern Europe are shaded.

Table 2: **Number of Intended Leaves by Life Satisfaction**

		Life Satisfaction						
		1 (not at all satisfied)	2 (not very satisfied)	3 (fairly satisfied)	4 (very satisfied)	Total number of respondents	Percent	Cumul.
Intended Leave	0 (permanent international)	19	55	97	42	213	0.86	0.86
	1 (temporary international)	41	145	354	199	739	2.99	3.85
	2 (internal)	65	194	878	420	1,557	6.30	10.15
	3 (no leave)	1,239	4,412	12,130	4,425	22,206	89.85	100.00
	Total number of respondents	1,364	4,806	13,459	5,086	24,715		
	Percent	5.59	19.59	54.47	20.35			
	Cumul.	5.59	25.18	79.65	100.00			

Source: constructed by the authors using the Eurobarometer survey.

Table 3: **Correlation Matrix for Macroeconomic Variables**

	CEE	Log(Real GDP per Capita)	Unemployment Rate	Inflation Rate	Government Effectiveness	Regulatory Quality	Control of Corruption	Gini Coefficient
CEE	1.0000							
Log(Real GDP per Capita)	-0.8487	1.0000						
Unemployment Rate	0.0491	-0.2013	1.0000					
Inflation Rate	0.7088	-0.6932	0.0006	1.0000				
Government Effectiveness	-0.6348	0.8363	-0.3500	-0.5422	1.0000			
Regulatory Quality	-0.5798	0.7657	-0.3242	-0.4183	0.8889	1.0000		
Control of Corruption	-0.6989	0.8641	-0.3230	-0.5906	0.9489	0.8860	1.0000	
Gini Coefficient	0.1501	-0.4152	0.2509	0.5019	-0.5754	-0.4234	-0.4834	1.0000

Source: constructed by the authors using the Eurostat and WGI data from Kaufman et al. [34].

Table 4: **Within Level Results for Decision to Migrate**

Multinomial Logit Estimation	PERMANENT		TEMPORARY		INTERNAL	
Constant	-0.870	(0.648)	-0.331	(0.450)	0.621 **	(0.300)
Life Satisfaction =2	-0.500 *	(0.283)	-0.334 *	(0.195)	-0.412 ***	(0.159)
Life Satisfaction =3	-1.380 ***	(0.295)	-0.811 ***	(0.197)	-0.433 ***	(0.153)
Life Satisfaction =4	-1.548 ***	(0.346)	-0.674 ***	(0.220)	-0.575 ***	(0.168)
Married	-0.428 **	(0.169)	-0.501 ***	(0.110)	-0.446 ***	(0.067)
Male	0.210	(0.144)	0.228 ***	(0.081)	0.043	(0.057)
Age	-0.042 ***	(0.006)	-0.072 ***	(0.004)	-0.052 ***	(0.003)
Child	-0.263	(0.166)	-0.234	(0.092)	-0.148 **	(0.066)
Income	0,101	(0.113)	0.005	(0.067)	-0.018	(0.047)
Urban	0.470 ***	(0.163)	0.582 ***	(0.095)	0.252 ***	(0.062)
Education 15-19 Years	-0.655	(0.405)	-0.450	(0.293)	-0.403 **	(0.185)
Education 20 or More Years	-0.676	(0.421)	0.094	(0.295)	-0.219	(0.188)
Student	-0.648	(0.476)	0.295	(0.316)	-0.510 **	(0.209)
Econd	0.684 ***	(0.158)	0.426 ***	(0.089)	0.391 ***	(0.061)
Employed	-0.099	(0.189)	-0.038	(0.124)	-0.158 **	(0.077)
Self-employed	0.813 ***	(0.255)	0.379 **	(0.188)	-0.037	(0.127)
Country Dummies	Yes		Yes		Yes	
Number of Observations	24715		24715		24715	

Source: authors' calculations. *Notes:* standard errors are in parentheses. ***, **, * stand for 1, 5, and 10 percent significance levels, respectively. Life satisfaction =1 ("not at all satisfied") is used as base category of life satisfaction; no full time education is a base category for education level; the unemployed is a base category for employment status. Econd is a dummy equal to one if the intention to migrate abroad is driven by economic factors. For the individuals who intend to migrate internally Econd stands for the factors in case of hypothetical migration abroad.

Table 5: **Within Level Results for Life Satisfaction**

Logit Estimation	LIFE SATISFACTION=2		LIFE SATISFACTION=3		LIFE SATISFACTION=4	
Constant	-0.372	(0.253)	-0.980 ***	(0.028)	-3.479 ***	(0.276)
Married	-0.200 ***	(0.040)	-0.003	(0.028)	0.438 ***	(0.044)
Male	-0.018	(0.041)	-0.000	(0.027)	-0.079 *	(0.040)
Age	0.041 ***	(0.007)	-0.009 *	(0.005)	-0.051 ***	(0.007)
Age squared	-0.0004 ***	(0.000)	0.0001	(0.000)	0.0004 ***	(0.000)
Child	-0.071	(0.046)	-0.050	(0.040)	0.055	(0.043)
Income	-0.970 ***	(0.025)	0.458 ***	(0.020)	1.232 ***	(0.040)
Urban	0.041	(0.037)	0.076 ***	(0.029)	-0.089 **	(0.042)
Education 15-19 Years	0.110	(0.118)	0.147	(0.094)	-0.147	(0.141)
Education 20 or More Years	-0.120	(0.128)	0.114	(0.101)	0.140	(0.142)
Student	-0.372 **	(0.157)	0.152	(0.121)	0.370 **	(0.186)
Employed	-0.044	(0.048)	0.193 ***	(0.032)	-0.108 **	(0.051)
Self-employed	-0.081	(0.085)	0.154 **	(0.065)	0.040	(0.075)
Country Dummies	Yes		Yes		Yes	
Number of Observations	24715		24715		24715	

Source: authors' calculations. *Notes:* standard errors are in parentheses. ***, **, * stand for 1, 5, and 10 percent significance levels, respectively. No full time education is used as a base category for education level, the unemployed are used as a base category for employment status.

Table 6 A: **Average Marginal Effects for Decision to Migrate**

Average Marginal Effects	The Effect on Probability to Migrate PERMANENTLY		The Effect on Probability to Migrate TEMPORARILY		The Effect on Probability to Migrate INTERNALLY		The Effect on Probability of NO LEAVE	
Life Satisfaction =2	-0.0075	(0.006)	-0.0086	(0.007)	-0.0214 **	(0.010)	0.0374 ***	(0.012)
Life Satisfaction =3	-0.0164 ***	(0.006)	-0.0211 ***	(0.007)	-0.0191 *	(0.010)	0.0565 ***	(0.012)
Life Satisfaction =4	-0.0174 ***	(0.006)	-0.0170 **	(0.008)	-0.0268 **	(0.011)	0.0612 ***	(0.013)
Married	-0.0028 **	(0.001)	-0.0108 ***	(0.003)	-0.0212 ***	(0.003)	0.0348 ***	(0.004)
Male	0.0016	(0.001)	0.0057 ***	(0.002)	0.0011	(0.003)	-0.0084 **	(0.004)
Age	-0.0003 ***	(0.000)	-0.0016 ***	(0.000)	-0.0024 ***	(0.000)	0.0043 ***	(0.000)
Child	-0.0018	(0.001)	-0.0053 **	(0.002)	-0.0065 *	(0.003)	0.0137 ***	(0.004)
Income	0.0008	(0.001)	-0.0000	(0.002)	0.0008	(0.002)	-0.0016	(0.003)
Urban	0.0032 ***	(0.001)	0.0129 ***	(0.002)	0.0104 ***	(0.003)	-0.0265 ***	(0.004)
Education 15-19 Years	-0.0053	(0.004)	-0.0097	(0.007)	-0.0191 *	(0.010)	0.0341 ***	(0.012)
Education 20 or More Years	-0.0050	(0.003)	0.0038	(0.008)	-0.0110	(0.009)	0.0122	(0.012)
Student	-0.0042	(0.003)	0.0108	(0.009)	-0.0243 ***	(0.008)	0.0178	(0.012)
Econd	0.0050 ***	(0.001)	0.0090 ***	(0.002)	0.0183 ***	(0.003)	-0.0323 ***	(0.004)
Employed	-0.0006	(0.002)	-0.0003	(0.003)	-0.0081 **	(0.004)	0.0090 *	(0.005)
Self-employed	0.0091 **	(0.004)	0.0107 *	(0.006)	-0.0048	(0.006)	-0.0150 *	(0.009)
Country Dummies	Yes		Yes		Yes		Yes	
Number of Observations	24521		24521		24521		24521	

Source: authors' calculations. *Notes:* standard errors calculated by Delta method are in parentheses. ***, **, * stand for 1, 5, and 10 percent significance levels, respectively. Econd is a dummy equal to one if the intention to migrate abroad is driven by economic factors. For the individuals who intend to migrate internally or do not intend to leave Econd stands for the factors in case of hypothetical migration abroad.

Table 6 B: **Average Marginal Effects for CEE and Non-CEE Countries**

	The Effect on Probability to Migrate PERMANENTLY				The Effect on Probability to Migrate TEMPORARILY				The Effect on Probability to Migrate INTERNALLY				The Effect on Probability of NO LEAVE			
	CEE		non-CEE		CEE		non-CEE		CEE		non-CEE		CEE		non-CEE	
Average Marginal Effects by Satisfaction Level																
Life Satisfaction =2	-0.0055	(0.004)	-0.0088	(0.007)	-0.0103	(0.008)	-0.0075	(0.007)	-0.0127 **	(0.006)	-0.0266 **	(0.013)	0.0285 ***	(0.010)	0.0429 ***	(0.014)
Life Satisfaction =3	-0.0113 ***	(0.004)	-0.0194 ***	(0.007)	-0.0235 ***	(0.008)	-0.0196 ***	(0.007)	-0.0118 *	(0.006)	-0.0235 *	(0.013)	0.0465 ***	(0.010)	0.0626 ***	(0.014)
Life Satisfaction =4	-0.0120 ***	(0.004)	-0.0206 ***	(0.008)	-0.0196 **	(0.008)	-0.0155 **	(0.008)	-0.0160 **	(0.006)	-0.0332 **	(0.014)	0.0477 ***	(0.010)	0.0694 ***	(0.015)
Average Marginal Effects by Satisfaction and Income Levels																
Life Satisfaction =2																
at income level =1	-0.0047	(0.003)	-0.0075	(0.006)	-0.0104	(0.007)	-0.0077	(0.007)	-0.0125 **	(0.006)	-0.0264 **	(0.013)	0.0276 ***	(0.009)	0.0416 ***	(0.013)
at income level =2	-0.0052	(0.004)	-0.0082	(0.006)	-0.0104	(0.008)	-0.0076	(0.007)	-0.0126 **	(0.006)	-0.0265 **	(0.013)	0.0281 ***	(0.010)	0.0423 ***	(0.013)
at income level =3	-0.0057	(0.004)	-0.0089	(0.007)	-0.0103	(0.008)	-0.0075	(0.007)	-0.0127 **	(0.006)	-0.0266 **	(0.013)	0.0287 ***	(0.010)	0.0430 ***	(0.014)
at income level =4	-0.0062	(0.005)	-0.0097	(0.008)	-0.0102	(0.008)	-0.0074	(0.007)	-0.0129 **	(0.006)	-0.0267 **	(0.013)	0.0293 ***	(0.010)	0.0438 ***	(0.014)
Life Satisfaction =3																
at income level =1	-0.0097 **	(0.005)	-0.0166 ***	(0.006)	-0.0237 ***	(0.007)	-0.0200 ***	(0.007)	-0.0117 **	(0.006)	-0.0236 *	(0.012)	0.0450 ***	(0.009)	0.0601 ***	(0.013)
at income level =2	-0.0107 **	(0.004)	-0.0181 ***	(0.006)	-0.0236 ***	(0.008)	-0.0198 ***	(0.007)	-0.0117 **	(0.006)	-0.0235 *	(0.012)	0.0460 ***	(0.009)	0.0614 ***	(0.013)
at income level =3	-0.0117 ***	(0.004)	-0.0198 ***	(0.008)	-0.0234 ***	(0.008)	-0.0196 ***	(0.007)	-0.0118 *	(0.006)	-0.0235 *	(0.013)	0.0470 ***	(0.010)	0.0628 ***	(0.014)
at income level =4	-0.0129 ***	(0.004)	-0.0216 **	(0.009)	-0.0233 ***	(0.008)	-0.0194 **	(0.008)	-0.0119 *	(0.006)	-0.0234 *	(0.013)	0.0481 ***	(0.011)	0.0644 ***	(0.015)
Life Satisfaction =4																
at income level =1	-0.0103 **	(0.003)	-0.0176 ***	(0.006)	-0.0198 **	(0.008)	-0.0158 **	(0.008)	-0.0158 **	(0.006)	-0.0331 ***	(0.013)	0.0460 ***	(0.010)	0.0666 ***	(0.014)
at income level =2	-0.0114 ***	(0.004)	-0.0192 ***	(0.007)	-0.0197 **	(0.008)	-0.0157 **	(0.008)	-0.0160 **	(0.006)	-0.0332 **	(0.013)	0.0470 ***	(0.010)	0.0681 ***	(0.014)
at income level =3	-0.0125 ***	(0.005)	-0.0210 ***	(0.008)	-0.0196 **	(0.008)	-0.0155 *	(0.008)	-0.0161 **	(0.006)	-0.0332 **	(0.014)	0.0482 ***	(0.011)	0.0697 ***	(0.015)
at income level =4	-0.0137 ***	(0.006)	-0.0229 **	(0.010)	-0.0194 **	(0.009)	-0.0153 *	(0.008)	-0.0163 **	(0.007)	-0.0332 **	(0.014)	0.0494 ***	(0.011)	0.0714 ***	(0.016)
Average Marginal Effects by Satisfaction Level and Employment Status																
Life Satisfaction =2																
unemployed	-0.0051	(0.004)	-0.0082	(0.007)	-0.0102	(0.008)	-0.0074	(0.007)	-0.0128 **	(0.007)	-0.0268 **	(0.013)	0.0281 ***	(0.010)	0.0424 ***	(0.014)
self-employed	-0.0103	(0.008)	-0.0158	(0.013)	-0.0122	(0.010)	-0.0089	(0.009)	-0.0111 *	(0.006)	-0.0230 *	(0.012)	0.0335 ***	(0.012)	0.0478 ***	(0.016)
employed	-0.0053	(0.004)	-0.0085	(0.007)	-0.0104	(0.008)	-0.0077	(0.007)	-0.0119 **	(0.006)	-0.0254 **	(0.012)	0.0276 ***	(0.010)	0.0416 ***	(0.013)
Life Satisfaction =3																
unemployed	-0.0106 ***	(0.004)	-0.0182 ***	(0.007)	-0.0231 ***	(0.008)	-0.0193 ***	(0.007)	-0.0119 **	(0.006)	-0.0238 *	(0.013)	0.0456 ***	(0.009)	0.0613 ***	(0.014)
self-employed	-0.0216 **	(0.009)	-0.0357 **	(0.015)	-0.0282 ***	(0.010)	-0.0236 **	(0.010)	-0.0097 *	(0.006)	-0.0181	(0.012)	0.0595 ***	(0.013)	0.0775 ***	(0.016)
employed	-0.0109 ***	(0.004)	-0.0188 ***	(0.007)	-0.0235 ***	(0.008)	-0.0198 ***	(0.007)	-0.0111 **	(0.006)	-0.0225 ***	(0.012)	0.0455 ***	(0.010)	0.0612 ***	(0.013)
Life Satisfaction =4																
unemployed	-0.0113 ***	(0.004)	-0.0193 ***	(0.007)	-0.0193 **	(0.008)	-0.0152 **	-0.008	-0.0162 **	(0.006)	-0.0336 **	(0.014)	0.0468 ***	(0.010)	0.0681 ***	(0.015)
self-employed	-0.0230 **	(0.010)	-0.0381 **	(0.015)	-0.0232 **	(0.011)	-0.0182 *	(0.010)	-0.0137 **	(0.006)	-0.0274 **	(0.013)	0.0599 ***	(0.013)	0.0837 ***	(0.017)
employed	-0.0116 ***	(0.004)	-0.0200 ***	(0.008)	-0.0196 **	(0.008)	-0.0157 **	(0.008)	-0.0151 **	(0.006)	-0.0318 **	(0.012)	0.0463 ***	(0.010)	0.0675 ***	(0.014)
Number of Observations	9164		15357		9164		15357		9164		15357		9286		15429	

Source: authors' calculations. *Notes:* standard errors calculated by Delta method are in parentheses. ***, **, * stand for 1, 5, and 10 percent significance levels, respectively.

Table 6 B (cont.): **Average Marginal Effects for CEE and Non-CEE Countries**

	The Effect on Probability to Migrate PERMANENTLY		The Effect on Probability to Migrate TEMPORARILY		The Effect on Probability to Migrate INTERNALLY		The Effect on Probability of NO LEAVE	
	CEE	non-CEE	CEE	non-CEE	CEE	non-CEE	CEE	non-CEE
				Average Marginal Effects by Satisfaction Level and Education				
Life Satisfaction =2								
No Full Time Education	-0.0065 (0.005)	-0.0106 (0.009)	-0.0099 (0.008)	-0.0068 (0.007)	-0.0133 ** (0.006)	-0.0275 ** (0.014)	0.0297 *** (0.010)	0.0450 *** (0.014)
Education 15-19 Years	-0.0046 (0.003)	-0.0075 (0.006)	-0.0093 (0.007)	-0.0070 (0.006)	-0.0115 ** (0.007)	-0.0247 ** (0.012)	0.0254 *** (0.009)	0.0392 *** (0.013)
Education 20 or More	-0.0035 (0.003)	-0.0061 (0.005)	-0.0114 (0.008)	-0.0086 (0.008)	-0.0111 ** (0.006)	-0.0247 ** (0.012)	0.0261 *** (0.010)	0.0394 *** (0.013)
Life Satisfaction =3								
No Full Time Education	-0.0136 ** (0.005)	-0.0238 ** (0.009)	-0.0226 *** (0.008)	-0.0183 ** (0.007)	-0.0123 * (0.006)	-0.0240 * (0.013)	0.0485 *** (0.010)	0.0660 *** (0.015)
Education 15-19 Years	-0.0093 ** (0.004)	-0.0163 ** (0.006)	-0.0205 *** (0.007)	-0.0174 ** (0.007)	-0.0110 ** (0.005)	-0.0227 * (0.012)	0.0408 *** (0.009)	0.0564 *** (0.013)
Education 20 or More	-0.0072 ** (0.003)	-0.0133 ** (0.006)	-0.0257 *** (0.009)	-0.0219 ** (0.009)	-0.0104 * (0.005)	-0.0222 * (0.012)	0.0432 *** (0.010)	0.0574 *** (0.013)
Life Satisfaction =4								
No Full Time Education	-0.0144 *** (0.005)	-0.0253 ** (0.010)	-0.0188 ** (0.008)	-0.0143 * (0.008)	-0.0167 ** (0.007)	-0.0341 ** (0.014)	0.0500 *** (0.011)	0.0737 *** (0.016)
Education 15-19 Years	-0.0099 *** (0.004)	-0.0173 *** (0.007)	-0.0173 ** (0.007)	-0.0141 ** (0.007)	-0.0147 *** (0.006)	-0.0312 ** (0.012)	0.0419 *** (0.009)	0.0626 *** (0.014)
Education 20 or More	-0.0076 ** (0.003)	-0.0141 ** (0.006)	-0.0216 ** (0.009)	-0.0175 ** (0.009)	-0.0141 ** (0.006)	-0.0312 ** (0.013)	0.0434 *** (0.011)	0.0628 *** (0.014)
				Average Marginal Effects by Satisfaction Level and Age Group				
Life Satisfaction =2								
age=20	-0.0099 (0.008)	-0.0141 (0.013)	-0.0258 (0.020)	-0.0171 (0.019)	-0.0291 ** (0.014)	-0.0486 * (0.026)	0.0648 *** (0.022)	0.0708 *** (0.025)
age=30	-0.0082 (0.006)	-0.0131 (0.011)	-0.0171 (0.012)	-0.0133 (0.013)	-0.0217 ** (0.010)	-0.0435 ** (0.021)	0.0470 *** (0.016)	0.0699 *** (0.022)
age=40	-0.0063 (0.004)	-0.0111 (0.009)	-0.0102 (0.007)	-0.0092 (0.008)	-0.0149 ** (0.007)	-0.0354 ** (0.016)	0.0314 *** (0.011)	0.0558 *** (0.018)
age=50	-0.0045 (0.003)	-0.0089 (0.006)	-0.0056 (0.004)	-0.0058 (0.005)	-0.0097 ** (0.004)	-0.0264 ** (0.012)	0.0199 *** (0.007)	0.0411 *** (0.014)
age=60	-0.0032 (0.002)	-0.0066 (0.005)	-0.0030 (0.002)	-0.0034 (0.002)	-0.0612 ** (0.003)	-0.0184 ** (0.008)	0.0122 *** (0.004)	0.0284 *** (0.010)
Life Satisfaction =3								
age=20	-0.0214 ** (0.007)	-0.0348 ** (0.014)	-0.0598 *** (0.020)	-0.0504 ** (0.020)	-0.0261 * (0.014)	-0.0363 (0.026)	0.1073 *** (0.022)	0.1214 *** (0.025)
age=30	-0.0169 *** (0.005)	-0.0300 ** (0.012)	-0.0373 *** (0.012)	-0.0346 *** (0.013)	-0.0209 ** (0.010)	-0.0379 * (0.021)	0.0751 *** (0.016)	0.1025 *** (0.022)
age=40	-0.0126 *** (0.004)	-0.0242 *** (0.009)	-0.0213 *** (0.007)	-0.0219 *** (0.008)	-0.0149 ** (0.007)	-0.0334 ** (0.016)	0.0488 *** (0.011)	0.0795 *** (0.018)
age=50	-0.0089 *** (0.003)	-0.0184 *** (0.007)	-0.0114 *** (0.004)	-0.0129 *** (0.005)	-0.0099 ** (0.004)	-0.0261 ** (0.012)	0.0302 *** (0.007)	0.0573 *** (0.014)
age=60	-0.0061 *** (0.002)	-0.0134 *** (0.005)	-0.0059 *** (0.002)	-0.0071 *** (0.003)	-0.0063 ** (0.003)	-0.0186 ** (0.008)	0.0183 *** (0.004)	0.0391 *** (0.010)
Life Satisfaction =4								
age=20	-0.0228 ** (0.009)	-0.0371 ** (0.015)	-0.0497 ** (0.021)	-0.0382 * (0.021)	-0.0367 ** (0.015)	-0.0584 ** (0.027)	0.1092 *** (0.024)	0.1337 *** (0.027)
age=30	-0.0180 *** (0.007)	-0.0318 *** (0.012)	-0.0373 ** (0.013)	-0.0275 ** (0.014)	-0.0278 *** (0.011)	-0.0545 ** (0.022)	0.0774 *** (0.017)	0.1139 *** (0.024)
age=40	-0.0133 *** (0.005)	-0.0256 *** (0.009)	-0.0213 ** (0.007)	-0.0180 ** (0.009)	-0.0193 *** (0.007)	-0.0453 *** (0.017)	0.0509 *** (0.011)	0.0889 *** (0.019)
age=50	-0.0094 *** (0.003)	-0.0194 *** (0.007)	-0.0114 ** (0.004)	-0.0109 ** (0.005)	-0.0126 *** (0.004)	-0.0341 *** (0.013)	0.0319 *** (0.007)	0.0644 *** (0.015)
age=60	-0.0064 *** (0.002)	-0.0141 *** (0.005)	-0.0059 ** (0.002)	-0.0061 ** (0.003)	-0.0079 *** (0.003)	-0.0238 *** (0.009)	0.0195 *** (0.004)	0.0441 *** (0.010)
				Average Marginal Effects by Satisfaction Level and Type of Community				
Life Satisfaction =2								
Rural	-0.0044 (0.003)	-0.0071 (0.006)	-0.0081 (0.006)	-0.0060 (0.006)	-0.0117 ** (0.006)	-0.0254 ** (0.012)	0.0242 *** (0.008)	0.0385 *** (0.013)
Urban	-0.0061 (0.005)	-0.0097 (0.008)	-0.0114 (0.009)	-0.0083 (0.008)	-0.0133 ** (0.006)	-0.0274 ** (0.013)	0.0308 *** (0.011)	0.0454 *** (0.014)
Life Satisfaction =3								
Rural	-0.0089 ** (0.003)	-0.0155 ** (0.006)	-0.0179 *** (0.006)	-0.0151 *** (0.006)	-0.0113 ** (0.005)	-0.0235 ** (0.012)	0.0381 *** (0.008)	0.0541 *** (0.013)
Urban	-0.0127 *** (0.005)	-0.0216 *** (0.008)	-0.0262 *** (0.009)	-0.0219 *** (0.008)	-0.0121 * (0.006)	-0.0237 * (0.013)	0.0511 *** (0.010)	0.0673 *** (0.014)
Life Satisfaction =4								
Rural	-0.0094 *** (0.004)	-0.0164 *** (0.006)	-0.0151 ** (0.006)	-0.0121 ** (0.006)	-0.0150 *** (0.006)	-0.0323 ** (0.013)	0.0395 *** (0.009)	0.0608 *** (0.014)
Urban	-0.0135 *** (0.005)	-0.0230 *** (0.008)	-0.0218 ** (0.009)	-0.0172 * (0.009)	-0.0167 ** (0.007)	-0.0340 ** (0.014)	0.0521 *** (0.011)	0.0742 *** (0.016)
Number of Observations	9286	15429	9286	15429	9286	15429	9286	15429

Source: authors' calculations. *Notes:* standard errors calculated by Delta method are in parentheses. ***, **, * stand for 1, 5, and 10 percent significance levels, respectively.

Table 7: **Between Level Results for Life Satisfaction and Decision to Migrate**

OLS estimation	INTERCEPT PERMANENT		INTERCEPT TEMPORARY		INTERCEPT LIFE SATISFACTION=2		INTERCEPT LIFE SATISFACTION=3		INTERCEPT LIFE SATISFACTION=4	
Constant	-7.385	(15.25)	-2.416	(2.204)	3.444 **	(1.338)	0.017	(1.914)	-5.308 ***	(1.938)
Ln(Real GDP per capita)	1.294	(1.328)	0.199	(0.167)	-0.565 ***	(0.109)	-0.028	(0.139)	0.751 ***	(0.135)
Unemployment	-0.708	(0.738)	-0.037	(0.093)	0.066	(0.059)	0.101 *	(0.056)	-0.112 *	(0.068)
Gini	-0.102	(0.214)	0.195	(0.029)	0.061 ***	(0.020)	-0.016	(0.027)	-0.057 **	(0.027)
Adj. R-squared	0.135		-0.06		0.64		0.06		0.68	
Number of Observations	27		27		27		27		27	

Source: authors' calculations. *Notes:* dependent variable is mean country-specific intercept of decision to migrate permanently (life satisfaction) from within level. Bootstrapped standard errors are in parentheses. ***, **, * stand for 1, 5, and 10 percent significance levels, respectively.