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DUMITRU SANDU

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Dumitru Sandu

University of Bucharest

E-mail: dumitru.sandu@gmail.com

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ABSTRACT

Migration intentions are an approximation of future migration behaviours. How can we reach, at the level of the European Union, approximations of intra-European emigration? We could be all the closer to this target if we manage to have a better identification of the "net" country selectivity patterns, keeping under control the role of other factors that contribute to country selectivity about migration between European Union countries. This is the target we have set ourselves, using data from Special Eurobarometer 528, conducted in 2022. After running, country by country, the same multiple regression model, we grouped countries with similar models of predicting potential emigration. Of course, the specification of the regression models was dependent on the data available in that international survey. To test the validity of the working model, we used multiple analyses (cluster, regression, sensitivity). The results indicate nine clusters of European countries with similar patterns of selectivity in determining potential intra-European migration. One of the solid guarantees of the validity of the analysis we propose is the proximity of the countries that are included in the same grouping.

Are there models of selectivity, of factors that differentiate the intentions to go to work, live or study in another European state? How can they be identified? These are the questions from which we start in this analysis. The concept of "selectivity" (Luthra & Platt 2023) has the advantage of orienting research towards comparative and causal analyses. Do the intentions to emigrate to other European areas differ from one European country to another depending on age, gender, one's own or parents' education, residential environment, or previous experience of international migration (Bernanrd & Perales 2021), not only according to education (Schmidt et al. 2022)? Can clusters or groupings of countries in the European Union with similar predictors of potential migration conditioning be distinguished?

The questions require the use of comparative survey data, at the individual level, on as many European countries as possible. We identified such data in Special Eurobarometer 528, from May-June 2022. The context is complicated by the fact that the data were collected amid the COVID-19 pandemic. Beyond this additional factor of complexity, the data have the advantage of coming from research focused on intra-European labour mobility. But not only. The observation is made at the origin and not at the destination, allowing the identification of relationships between the phenomena of return, with those of non-migration and the intention to go abroad. Is, as has been said, the phenomenon of learning migration an essential one, in the sense that those who migrated will most likely migrate again?

This is the context of analysis. We will try to determine the patterns of selectivity that we are announcing starting from causal relationships conditioned by "keeping under control", as in an experiment, the different factors mentioned. Young people, for example, tend to migrate to a greater extent than adults or the elderly. Is this phenomenon also valid in the conditions in which we keep gender, residential environment, education or other similar factors under control? Regularity has been validated on an international scale, sometimes not having fully comparable regression models (Aslany 2021), sometimes with regression models (Migali@Scipioni 2019), as in the present case.

Below we deal with methodological aspects of the analysis. Subsequently, we present descriptively the essential relationship between returns and emigration intentions at the country level. In the next section, we analyze the similarity groups of the prediction relationships of potential emigration from European countries. Here we focus the analysis on the main groupings of EU countries that have similar patterns of selectivity of temporary emigration. In the next sub-chapter, we detail the idea of selectivity of emigration intentions to the EU level. Finally, we present the conclusions.

Methodologies

As we have already mentioned, the data we use come from the Special Eurobarometer 528, focused on the issue of intra-European mobility/migration. The main research hypothesis is that those who have returned from another European Union (EU) country will tend to remigrate abroad, caeteris paribus. It is a hypothesis formulated along the lines of cumulative causality (Massey 1998). The second hypothesis, in the good tradition of the theory known as the new economy of labour migration (Stark & Bloom 1985), argues that the family matters in migration projects and behaviours and through the education of the parents, the higher the education of the father or mother, the more likely the tendency to remigrate. The third hypothesis argues, following the syntheses in the field (Migali & Scipioni 2019, De Haas 2021), that emigration intentions are present, especially among young people. The fourth hypothesis states the expectation that the intention to emigrate will be more strongly structured at the level of those dissatisfied with social justice in their society. Gender, one's own education and residential environment are considered here as control variables.

The main dependent variable of the analysis was the answer to the question `Are you going to work outside ... (reference country) in the future, even for a short period'. Responses ranged from 8% for the former East Germany to 26% for Finland, with an average of 13% for the European Union. In the questionnaire, there are no questions to identify those who would like to go only for work, study or only for accompaniment, as in other research (Sandu 2024).

Since the main target of the analysis was to identify patterns of selectivity of emigration intention, we ran the same logistic regression equation, country by country, to identify significant predictors and the meaning of influence.

Depending on the hypotheses formulated and the available data, we used predictors regarding age (15-34 years and 55+ years, with the reference category of 35-54 years), gender (1 male, 0 female), education (tertiary, secondary, and other as a reference category), father's tertiary education, mother's tertiary education, type of residential locality (1 large city, 0 small town or village) and the perception of social justice (Sen 2009) in the survey country. This last variable was constructed as a factorial score, multiplied by -100, of three variables coded from 1 (strong agreement) to 5 (strong disagreement), relating to the perception of social justice. The index obtained is all the higher the interviewee believes, to a greater extent, that most of the things that have happened to him/her in life are correct, in general, in the reference country people have what they deserve, and that in the reference country, the interviewee is not discriminated against. In total, the prediction model included 10 independent variables.

This multiple regression model was applied to each of the EU countries, except for the very small ones (Malta, Luxembourg, Republic of Cyprus), to which small samples are associated.

To identify the models of country selectivity, we used cluster analysis applied to the regression coefficients obtained in 23 EU countries. The 10 input variables in the analysis were previously normalized with the z-score, and then we applied the furthest neighbour method, and the similarity of the country profiles was estimated by Bravais-Pearson correlation coefficients. Starting from the dendrogram of similarities between country profiles (Figure 2), we determined 11 groups of countries with similar selectivity of relations for predicting emigration intention. France and Lithuania emerged as relatively unique in the EU. We have experimented with several cluster analysis methods for testing the sensitivity of the result (Treiman 2014). The results do not differ much, depending on the method of analysis. We have retained, for further study, the variant that offers the maximum validity given by the presence in the same group of similarities of close or neighbouring countries.

Actual returns and potential emigration

A first inspection of the analysis results in Figure 1 indicates a strong structuring of emigration intentions at the national level in line with the relative volume of returns from other European countries. In Sweden, for example, a country with over 20% of returnees from abroad (in the reference survey for this material), we are also dealing with a high share of those with intentions to emigrate to another state of the European Union (EU). At the opposite pole is the case of Italy, with a low share of returns and, consequently, also of those to emigrate. According to the same graph, the share of those with emigration intentions is consistent with data on the share of emigration and for the population over 15 years of age in the Czech Republic and Croatia. The return-intention model in the two countries is very close to the average one at the EU level (with 10% returns and 13% with intra-European emigration intentions).

However, observing the graph also raises new research questions. Why, for example, in Finland, Slovenia and Hungary, is potential emigration consistently higher than would be expected based on returns? One can speculate on the subject, in response, but it is fundamental to bring empirical arguments to elucidate the problem. Similarly, it would be worth finding out why West and East Germany, regions of the same country, are not closer in the graphic. Both have far fewer potential departures than would be expected, but their similarities are surprising. West Germany is closer to Portugal's model and East Germany is more similar, from the perspective of that graph, to Romania. Does the communist past of the Eastern region of Germany matter more? Most of the countries located below the regression line in the graph, at greater distances from this line, are in Southern Europe or the Central-Eastern area of the continent, the latter being fully marked by the communist period of history. In other words, potential emigration seems to be consistently below the expected level based on returns from abroad, in these regions. Why?
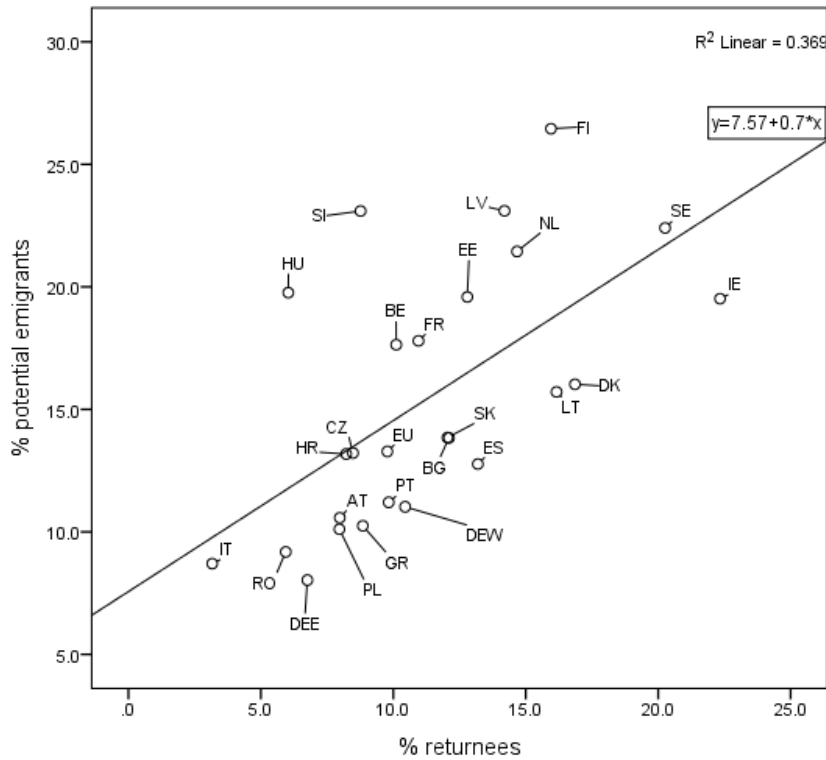
Figure 1. European Union countries by percentages of returnees and potential emigrants

Data source: Special Eurobarometer 528, May-June 2022. Own calculations. Small countries (Malta, Luxembourg, Republic of Cyprus) are not included in this analysis because of their small samples. We follow the model of separate analysis of survey data for West Germany versus East Germany, even though these are two regions of the same country, they differ considerably from each other.

The question is all the more complicated as a highly developed Nordic country such as Denmark is also below the regression line.

With these questions, we move on to the section on the multi-criteria assessment of selectivity in determining potential emigration within the European Union.

The main clusters of similarity of selectivity of the intention to emigrate to the European Union

A first overview of the similarity groupings of EU countries in terms of selectivity mechanisms is given in Figure 2, and the result of the cluster analysis is briefly described in the methodology section. Is such a tree order valid or not? To argue the affirmative answer, we will start with the example of Bulgaria and Romania. The two countries, with maximum similarity of selectivity patterns, are neighbours, very close in terms of level of development, and with many common features of development in their history. The two countries form what is called, in cluster analysis,

a "reciprocal pair" (Bailey 1994) in the sense that they are mutually similar. Portugal is in the same group, but less similar to Bulgaria and Romania. The grouping of the three countries mentioned above is characterized by minimal selectivity in the sense that, tendentially, only age and migration experience count, mainly, in determining the intention to migrate. An exception within the group is for the Romanian sample, where the perception of reduced social justice also appears as a significant predictor. cause of potential migration.

Another group made up exclusively of subsamples extracted from former communist countries is the one made up of Poland, Hungary and the Czech Republic. The selectivity here is strong and multi-dimensional. Those with a high probability of emigration have returned from abroad, with relatively little education, mostly men (except for the situation in Hungary).

Neighboring or close countries — such as Denmark-Sweden, the Netherlands-Ireland, Italy-Austria — are also in similar groupings of predictors for potential emigration. The two Germanys, West and East, are, naturally, in the same group of similarities, together with nearby Slovenia. Surprisingly, it is not East Germany that has the profile most similar to West Germany, but Slovenia. It can be a computing effect, but it can also be a reality that needs to be analyzed for understanding. It should be noted, for the time being, that the feeling of social justice is stronger in East Germany and that of injustice in West Germany, in determining potential emigration. Again, research on additional data is needed for elucidation. The fact is that for the countries/regions (France, West Germany, Romania, Poland) where the feeling of social justice is negatively and significantly related to dependent variables (intention to emigrate), it is found that those who intend to emigrate are much more dissatisfied with social justice in their country, compared to those who do not intend to emigrate (detailed data are not presented here so as not to complicate the reading).
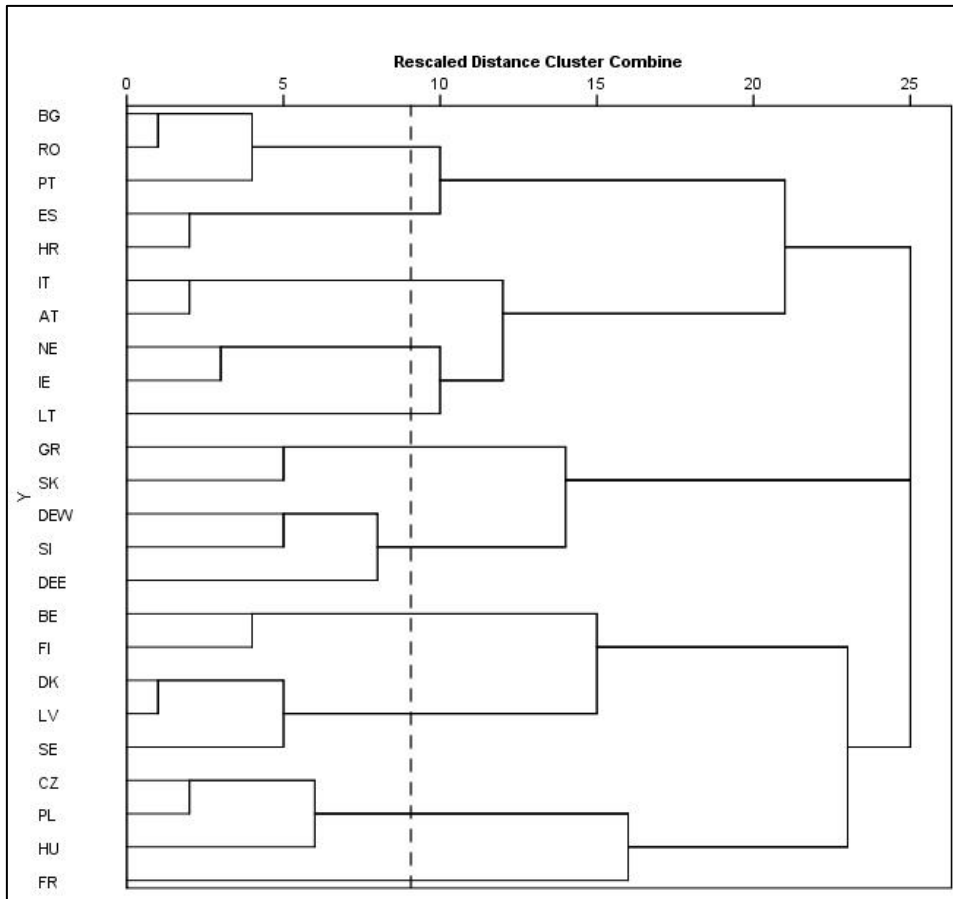
Figure 2. Similarities between the countries of the European Union in their selectivity in the intentions of migration abroad

Data source: Special Eurobarometer 528, 2022. DS own calculations. Hierarchical cluster analysis using the furthest neighbour method and Pearson correlations as measures of similarity. The input values are the ten regression coefficients of the variables that predict the intention to go live abroad, as a dummy-dependent variable. Example: Italy and Austria are the most similar countries in their significant predictors of intention to emigrate, in particular by age, migration experience and education (see Table 1). We decided where to place the vertical dotted reference line to obtain rather homogeneous and "natural" groups.

Why does France, for example, appear as a singular country in terms of selectivity of emigration intention? We don't have enough data to answer. With the data in Table 1 we can put forward the hypothesis that the fact that France is one of the few countries where potential emigration is stimulated by urban residence and the feeling of social injustice also mattered a lot in structuring this specificity.

The above analysis convincingly, we hope, supports the idea of a composite selectivity of the factors determining the intention to emigrate, specified by clusters or groupings of countries. Can we still speak, under these conditions, of a European model of selectivity? We try to answer this question in the following section.

Table 1 Predictors of intentions to emigrate

country, and cluster of countries	Predictors of intentions to work/live abroad									
	man*	tertiarry education*	secondary education*	city resident*	returnee*	mother of tertiarry education*	farher of tertiarry education*	age under 35 years old*	age over 54 years old*	social justice in her/his own society
FR	0.402	-0.256	-0.78	0.266	1.63	-0.002	0.238	1.397	-3.075	-0.004
FI	0.357	-0.296	-0.509	0.406	1.914	0.018	-0.151	0.698	-2.875	0.001
BE	0.299	-0.104	-0.89	-0.008	1.545	0.729	-0.094	0.634	-2.256	0.001
DK	0.622	-0.411	-0.203	0.536	1.164	0.146	0.449	1.266	-1.695	0.003
SE	0.38	0.127	-0.345	0.179	1.019	0.061	0.369	1.252	-1.782	0.002
LV	0.458	-0.373	0.258	0.702	0.638	0.191	0.45	0.644	-2.567	0.000
CZ	0.545	-0.896	-0.894	0.122	1.875	0.566	0.472	1.051	-3.402	0.000
HU	0.438	-1.029	-1.145	-0.14	1.698	1.489	0.101	1.492	-2.258	0.000
PL	0.884	-0.522	-0.677	-0.41	1.717	1.04	-0.052	1.143	-2.799	-0.002
NE	0.389	-0.132	-1.398	0.128	1.233	0.155	0.83	1.26	-1.206	-0.001
IE	0.515	-0.56	-0.644	0.298	0.847	0.042	1.33	1.74	-1.365	-0.003
IT	0.012	-0.914	-1.564	0.049	1.76	-1.249	1.443	2.269	-1.588	0.002
AT	0.249	-0.381	-0.893	0.306	2.034	-0.035	0.665	1.427	-1.607	-0.001
DEW	0.355	-0.822	-1.504	0.343	1.533	0.355	0.731	0.909	-2.354	-0.001
DEE	-0.114	-1.134	-1.614	1.021	0.947	0.217	0.587	1.035	-1.773	0.006
SI	0.485	-0.185	-1.044	0.371	0.931	0.41	1.188	0.683	-2.683	0.001
ES	0.168	-0.304	-0.359	0.174	1.495	0.445	0.5	1.283	-1.386	0.000
HR	0.096	-0.043	-0.225	0.107	1.215	0.116	0.567	0.636	-1.944	-0.001
GR	0.418	-0.3	-1.834	-0.058	1.013	0.059	0.295	1.698	-2.464	-0.001
SK	0.817	-2.237	-1.687	-0.186	0.767	-0.36	0.483	1.755	-2.465	0.001
PT	-0.022	0.286	-0.068	0.25	1.285	1.159	-1.214	1.589	-1.999	0.001
BG	0.074	-0.094	-0.11	0.128	2.032	0.957	-0.52	1.413	-2.146	-0.003
RO	0.076	-0.25	-0.31	-0.456	1.341	-0.035	-0.626	1.536	-2.741	-0.005
LT	0.402	-1.3	-1.147	0.317	1.667	0.381	0.178	1.475	-1.723	-0.003

Data source: Eurobarometer 528, May-June 2022. Logistic regressions (command logit) for each of the 24 EU countries (not including sub-samples for small countries LUXEMBOURG, Malta, Republic of Cyprus). Shadow for coefficients that are significant for p<0.05. Example: The probability of declaring the intention to emigrate is, cateris paribus, higher, in Finland, for young returnees.
DEW – West Germany. DEE – East Germany.

The European model of selectivity of potential emigration

The answer to the previous question is a positive one. We ran in STATA the same regression model as the one used in Table 1, at the level of the entire European Union, without small countries (Luxembourg, the Republic of Cyprus, and Malta), but controlling for the country effect and, of course, with weighted data (with the variable w92 built by those who produced the survey data). We no longer need to present the results in a new table because they can be easily described. Nine of the ten predictors used in Table 1 also appear in the new regression analysis as statistically significant and with coefficients consistent as a sign, with the major results in Table 1. The only predictor that no longer appears to be significant, in this analysis of all EU countries, is the one regarding the perception of social justice in the reference country. For the rest, it can be argued

that the European model of selectivity is essentially in line with the research hypotheses mentioned in the methodological section: potential emigration is more likely to manifest itself in young men who have returned from abroad, with less education, coming from families with higher education and living mainly in large cities. The perception of social justice in the country of residence does not matter significantly in the European prediction model, run on samples from EU countries (except for the small ones, already mentioned).

There is, therefore, both a European model of selectivity of potential intra-European migration and specific models by groups of neighbouring or close European countries.

Given that the experience of migration abroad is one of the basic predictors both in the European model and in those specific to certain groups of countries, it is probably advisable to elaborate on the significance associated with the return. Who are, tendentially speaking, those who return to their country of origin? The analysis in the annexe provides an answer to that question.

Those who return from abroad are mostly men of mature age (35-54 years old), with secondary or tertiary education, coming from families where the father's education was tertiary. We have also included in the respective prediction model in the annexe the country of residence. I found that

Conclusions

The analyses carried out with the help of data from Standard Eurobarometer 528, from 2022, confirm, to a very large extent, the expectations involved in formulating the four working hypotheses, derived from the literature. In line with the theory of cumulative causality, we find out that those who have returned home from another European country are likely to re-emigrate. Migration is learned from previous experiences, at the individual and, most likely, also at the community level. Secondly, the family matters above all through the education of the parents in the sense that if they had tertiary or secondary education, the probability of potential emigration for their children will be higher. We do not know exactly what are the mechanisms that lead to this result. A higher level of parental education will likely facilitate a higher level of aspirations in children, in their potential migration. The higher education of at least one of the parents can facilitate to a greater extent the design of life strategies (Sandu 2000) that lead to the exploration of the world through migration, especially among young people.

These regularities can be found in one form or another both in the selectivity at the country level or cluster of EU countries and at the continental level, by the EU. Facilitating potential emigration through negative perceptions of social justice seems to be an emigration mechanism especially at the country level, and not at the continental level, by the European Union.

The secondary results of the analysis provide details about the determinants of return flows. Most of the countries that attract return flows are in the Northern part of the European Union. Most of the countries with very low return flows are former communist countries (Bulgaria, Hungary, Romania).

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Annexe. Predictors of being "returned or non-immigrant" as a dependent variable

Returnee* as dependent variable	Coefficient	P>|z|
tertiarry education*	1.032	0.000
secondary education*	0.238	0.027
mother of tertiarry educ.*	0.135	0.299
farther of tertiarry educ.*	0.255	0.039
man*	0.424	0.000
age under 35 y.o.	-0.438	0.000
age 55-98 y.o	-0.113	0.144
city residence*	0.121	0.089
IE	0.905	0.000
SE	0.480	0.001
LT	0.418	0.006
ES	0.330	0.024
SK	0.278	0.076
FI	0.250	0.078
DK	0.184	0.202
NL	0.153	0.292
PT	0.152	0.337
BG	0.143	0.343
LV	0.129	0.410
DEW	-0.012	0.939
HR	-0.135	0.449
AT	-0.205	0.226
GR	-0.214	0.211
SI	-0.248	0.133
PL	-0.251	0.150
BE	-0.273	0.097
CZ	-0.305	0.059
HU	-0.446	0.011
RO	-0.510	0.002
DEE	-0.535	0.014
IT	-1.152	0.000
_cons	-2.834	0.000
Pseudo R2	0.075	
N	23858	

Data source: Special Eurobarometer 528, 2022. DS own calculations. Logistic regression with *the logit* command. Shadow on significant coefficients for p<0.05. * fictitious variable. Reference category for country of residence – France. LU, MT and CY, not included in the analysis due to small samples. DEW – West Germany. Example: Living in Ireland significantly increases the probability of being returned from abroad, for p=0.000.