

Fahri Bajgora¹

ORCID: 0009-0000-6852-7659

Social and Behavioral Sciences, European University of Tirana, Albania

Push factors behind the migration wave in the Western Balkan countries

Abstract

This study examines the push factors causing labour force emigration from the six Western Balkan countries: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia, based on a comprehensive dataset of 6,000 observations from the Balkan Barometer. The analysis uses logistic regression models (Ordinary Least Squares–OLS Robust–Fixed Effects–Random Effects) to understand how socioeconomic and political factors impact emigration. The model examines the dependent variable, migration (Yes/No), against independent variables that include employment status, economic situation, belief in the justice system, political situation, education system, and public services. The findings confirm that of the push factors, unemployment and economic situation are the leading factors with log-odds coefficients between -0.79 to -0.85 and -0.39 to -0.42, respectively, followed by weak institutional values and political instability (coefficients ranged between -0.16 to -0.38). ANOVA analysis discovered that the emigration rates differed between countries, with Montenegro and Serbia having higher rates (0.22 and 0.21) than Albania and North Macedonia (0.15 and 0.16). This research supports the hypothesis that socioeconomic and political factors are significant drivers of migration pressure. From a policy perspective, job creation and improved living standards with strong governance

¹ **Corresponding author:** Fahri Bajgora, Social and Behavioral Sciences, European University of Tirana, Bulevardi “Gjergj Fishta”, Nd.70, H.1, Unit Nr.7, 1023, Tirana, Albania; email: fahribajgora@gmail.com

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will help lessen the pressure to emigrate. This study adds to the migration literature by providing a nuance, region-specific context and illustrates the importance of interventions that are place-based solutions that address the root causes of migration in the Western Balkans.

Keywords: Western Balkans, governance, push factors, political stability, migration

1. Introduction

Over the last few decades, the countries in the Western Balkans region (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia) have faced considerable migration of labour force due to a variety of socioeconomics and political factors. In general, the focus of this paper is to analyse the distinct forces that are driving this migration wave, particularly the interaction between economic decline and political instability. Whereas labour migration in more developed economies is often driven by opportunity-seeking behaviour, migration in many Western Balkan countries is primarily a reaction of the underlying structural issues faced by these transitional economies. In particular, labour migration from the region has been driven by high unemployment, low living standards, and political issues that create distrust in public institutions.

The labour market in the Western Balkans, on the one hand, has faced high unemployment and limited job creation and, on the other hand, workers are faced with low paying jobs that do not pay for basic living needs (Vladi & Hysa, 2019; Jusufi & Ukaj, 2020). With these push factors, it is no surprise that so many people seek better opportunities abroad. On top of the economic push factors, political issues such as weak government, high levels of corruption, etc., have driven an even more difficult economic situation. While economic push factors have been well-analysed in developing countries (Baumann et al., 2015; Kilic et al., 2019), to our knowledge, very few have examined the political factors specifically in the Western Balkans, even less if there is interaction with their impact on the decision to migrate. The goal of this study is to add to the existing body of knowledge on social and political push factors and their respective combined role in migration from the countries of the Western Balkans region dealing with post-conflict conflict situations, and their role in ongoing processes of globalisation.

The Fourier Series method is employed in this study to capture periodic trends in migration patterns, complementing the primary regression models (OLS, OLS Robust, Fixed Effects, and Random Effects). By modelling temporal fluctuations in migration flows, this approach accounts for cyclical socioeconomic or political events that may influence emigration decisions across the Western Balkans over time. This method enhances the robustness of our analysis by addressing time-series dynamics that standard regression models may not fully capture, providing a more comprehensive understanding of migration drivers in the region.

Research questions of this paper are:

I. To what extent do socioeconomic factors, specifically employment status and perceived economic situation, influence the decision to migrate in the Western Balkan countries?

II. How do political and institutional factors, including belief in the justice system, perceptions of the political situation, quality of the educational system, and public services, contribute to migration decisions in the Western Balkans?

These questions are explored through two central hypotheses:

H1: Unemployment and poor perceived economic conditions significantly increase the likelihood of migration in the Western Balkan countries.

H2: Weak belief in the justice system, negative perceptions of the political situation, and poor quality of educational systems and public services significantly increase the likelihood of migration in the Western Balkans.

In order to assess these hypotheses, the research uses a large secondary dataset from the Balkan Barometer, containing 6,000 observations (1,000 observations per country). This longitudinal dataset facilitates an analysis of migration over time in six Western Balkan countries. The analytic framework with the econometric techniques Fourier Series, Ordinary Least Squares (OLS), OLS Robust, Fixed Effects (FE), and Random Effects (RE) provides a solid examination of the drivers of migration. Data creation for this study utilised the Balkan Barometer, as well as secondary indicators from the World Bank. Building on existing methodologies and applying a larger, more comprehensive and representative dataset provides additional empirical contributions to the migration drivers in the Western Balkans.

The data and implications of this research are significant and relevant for evidence-based policy. Knowing and understanding the push factors for emigration can guide governments in the Western Balkans to create measures to respond to emigration with policies like sustainable job developments, wage increases and governance and rule of law reform. This paper also contributes to the migration literature and policy, giving insight to the implications from a region-specific context in light of the unique push and pull factors that underpin migration from former communist migration countries during transition where economic and political factors are combined. This paper provides a foundation that will allow for future research to explore more of the drivers of migration and the associated implications of sustainable development in the Western Balkans.

2. Literature review

The issue of labour migration in the Western Balkans has received increased attention in academic literature in recent years as it has critical economic, social and political implications. This review aims to provide an overview of some of the primary literature relevant to the push factors inducing departure from the region, including Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia. The literature demonstrates a complex mixture of socio-economic and political factors that induce migration from the region, with unemployment, low wages, and

poor governance consistently ranked as the most severe push factors. This review includes the examination of both economic and political factors leading to understanding the migration process in the Western Balkans and allows the present author to identify gaps that the review can address.

Economic factors are expressed at length in the literature, particularly high unemployment and low living standards, as primary push factors for migration in the Western Balkans. Gara and Fetai (2024) conducted empirical results that show fluidity of migration as a function of the economy, specifically that high unemployment can lead to higher rates of migration from the Western Balkans. Their findings show that “a 1% increase in unemployment will yield a .08% increase in migration” (Gara & Fetai, 2024, 256). Authors, Malaj and de Rubertis (2016, 2017) demonstrate the gravity metrics of migration, indicating that pushes from the economy due to income and employment were factors moving people from the Western Balkans to richer destinations. It is not surprising that these arguments connect with earlier works by Bartlett (2009), as a comprehensive look at migration from the “super-periphery” within Europe explains the lack of economic, social, and political sectors that operate to marginalise the economy which leads to the migration of workers to pursue a better existence elsewhere in the global context.

Wage conditions and labour markets further increase immigration flows even further. Détang-Dessendre et al. (2004) examined the connection between migration and wage levels, stating that low wages in the home country entice workers to migrate to other places in search of better wages. Cattaneo (2004) examined migration patterns in the context of the Western Balkans, arguing strongly that wage and employment differentials affect migration, corroborating the Harris-Todaro model for expected wage gain as a driver for migration. The intention is to highlight the role of economic drivers incentivising migration patterns in environments with relatively weak structural labour markets, such as the Western Balkans region of Eastern Europe.

Beyond purely economic factors, political aspects differ significantly, and studies have found that corruption, weak state institutions, and political instability contribute to migration. Cooray and Schneider (2016) found that the more corrupt a country is, the more people are likely to migrate, especially for highly skilled workers, citing that individuals will leave their counties because they do not trust the institutions and see no advancement potential. Contrarily, Gara and Fetai (2024) conducted a regional study and found no statistically significant association between corruption and migration for the Western Balkans, prompting the continued examination of economic drivers as potentially more significant. More research is warranted to further determine the role of corruption in migration patterns, and in particular across cultures.

Governance and political stability are also two of the factors that impact migration flows. Zoppi (2019) reviewed migration flows from the Western Balkans to EU countries, claiming that political instability and a weak rule of law lead to an environment rife with uncertainty imposing conditions that encourage migration. Similarly, Pastore (2020) argued that the fluctuations of the political landscape and their impact on EU–Western Balkans relations influence migration by shaping perceptions of stability and opportunity. The findings of these studies indicate that political factors are not just secondary causes but act in conjunction with economic

conditions and aggravate push factors, especially with regard to states with fragile institutions that have undergone post conflict or post disturbance.

The skill composition of migrants has been a considerable topic of scholarship, especially with focus on brain drain. Leitner (2021) adopted a cohort approach to estimate net migration patterns in the Western Balkans from 2010 to 2019 that found that skilled workers are overrepresented in the emigration streams and that limited opportunities for professional development are a principal reason for migrating. Mara and Landesmann (2021) utilised a method of human capital to review migration and labour markets, ultimately concluding that skill loss causes a serious hindrance to economic development in the Western Balkans. Ströhm (2023) adds that brain drain leads to demographic decline creating a cycle that has great difficulty in escaping reduced economic capacity and heightened migration.

Areas of regional economic cooperation and integration have been highlighted as a potential mitigator for migration factors. Weiss (2020) conducted an evaluation of regional economic cooperation in the Western Balkans with suggestions for initiatives such as the Berlin Process to help develop jobs and reduce emigration through economic convergence to the EU. However, in a similar manner to other examinations of policies, the benefits of any initiative would be limited. King and Oruc (2020) also note ongoing tensions based on structural barriers in regard to bureaucratic inefficiencies and inconsistency in implementation of policy that challenges progress, stabilising migration.

Collectively, these studies highlight the need for coordinated policy interventions to address the original reasons for migration. Migration patterns are determined by parametric and policy factors. Kupiszewski et al. (2009) examined the context of labour migration patterns and policies in the Western Balkans in relation to post-conflict transition, with relationships with the EU having triggered mobility, increasing the emigration rate of migrants. Pastore (2020) also noted that EU migration policies have shaped the Western Balkans as a “corridor” in regard to the process of migration flows—resulting in both internal flows of migration and out. These studies make an important point that analysing migration factors has to take into consideration both parametric and policy factors.

The influence of push and pull factors is one of the most discussed phenomena in terms of migration. Baumann et al. (2015) developed a theoretical model which concluded that the absence of employment alone does not trigger migration unless there are also changes in expectations about the economic situation. Their analysis both obtained evidence from their investigation of the USA, which concluded that “unexpected shocks” of unemployment promote migration. It may be reasonable to suppose that in the case of the Western Balkans, where economic conditions are often volatile and unstable, Baumann and colleagues’ (2015) model would also be applicable as they clearly suggest that migration is not driven by employment alone. Malaj and de Rubertis (2017) took the theoretical model forward by applying gravity models to show that destination countries’ economic conditions married to push factors from the country-of-origin shape migration flows.

Demographic and social factors have also played a role in migratory trends. Declining demography in the Western Balkans is highlighted by Ströhm (2023) as an

important factor of ageing population and low births compounded labour shortages, creating conditions that incentivise young workers to emigrate. King and Oruc (2020) also noted the role of social networks and diaspora communities continue to motivate migration by reducing the risk and degrading the anticipated costs of moving home. The interplay between social, economic, and political push factors creates favourable conditions for mutual enforcement of migration flows within the region.

While a great deal of scholarly evidence exists, there are areas that require investigation in regards to migration drivers between political and economic factors in the Western Balkans. For instance, studies such as Gara and Fetai (2024) and Mara and Landesmann (2021) provide strong econometric analyses, although they diverge between key variables and timeframes which provides scope for greater exploration. In addition, Weiss (2020, 2021) examines the role of regional integration in the region and the relationship with migration, however, the scholar does not explore the implications. Based on highly researchable research questions, the use of large-scale data sets such as the Balkan Barometer provides an opportunity to both inter-examine traditional research pathways, while providing a better empirical basis for argument.

The literature indicates that migration in the Western Balkans occurs as a result of a complicated nexus of factors that span economic, political, and social conditions. Economic conditions remain at the forefront of migration with unemployment and low wages providing the basis for push factors. Political conditions remain political instability, corruption, and weak government practices which amplify pressures for emigration. The education and brain drain of highly skilled workers to the Western Europe and North America only augments the situation. Finally, the demographics of the region pose the problem of addressing labour shortages further complicating the migration dilemma to emigration. A clear path is required for the appropriate regional approach, as well as specificity—while also marrying research however, remains complicated. This chapter concludes with the need to look for specific direct drivers by integrating political and economic research, along with econometric models to identify some of the temporality of the apparent migration parameters and the internal complexities. The investigation will therefore use comprehensive data approaches, along with appropriate methodology to provide some conclusions into “push factors” into the recent migration wave in the Western Balkans.

3. Methodology

This investigation utilises a stringent empirical framework to identify the push factors of labour migration within the context of the six Western Balkan nations (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia). This investigation analyses secondary data from the Balkan Barometer, a dataset collected and curated by the Regional Cooperation Council (RCC), comprised of 6,000 observations. Each country has 1,000 observations, creating a balanced panel structure that enables robust statistical analysis of the six nations. This section describes the research design, outlining the data source, variable definitions, and econometric models employed to test the hypotheses.

The use of secondary data from the Balkan Barometer provides consistency and reliability, as all countries in the survey use standardised methodologies. The data is in panel format, allowing both cross-sectional and time series investigations that illustrate the dynamic change in migration and its determinants within the same respondents over time.

The regression models will be estimated using Stata software, and results from OLS, OLS Robust, Fixed Effects, and Random Effects specifications will be examined for assessing consistency and robustness. The incorporation of both socioeconomic variables and political variables is appropriate considering the objective of this research is to provide a comprehensive analysis of push factors of labour migration, filling a gap that previous research has often neglected, or solely focused on economic restrictions on migration. Aiming ultimately to provide empirical evidence, based on the extensive dataset from the Balkan Barometer and reliable econometric techniques, to better inform possible policy interventions to mitigate migration in the Western Balkans.

3.1. Data and variables

The dataset is derived from the Balkan Barometer, supplemented by RCC data, and includes individual-level responses from annual surveys conducted across the Western Balkan countries. The dependent variable, Migration (MIG), is a binary variable indicating whether an individual has migrated (Yes = 1, No = 0) during the study period. This variable captures the decision to emigrate, reflecting the outcome of interest in analysing push factors.

The independent variables are selected to capture both socioeconomic and political push factors influencing migration. These include: Employment status (EMP), a binary variable (Yes = 1, No = 0) indicating whether the respondent is employed. Unemployment is hypothesised to be a significant driver of migration, consistent with prior literature (Gara & Fetai, 2024). Economic situation (ECON), a categorical variable with three levels (Poor = 1, Average = 2, Very good = 3), reflecting the respondent's perception of their household's economic conditions. Poor economic situations are expected to increase migration propensity (Malaj & de Rubertis, 2016). Belief in the justice system (JUST), a categorical variable (Not at all = 1, Somewhat = 2, Believe very much = 3) measuring trust in the judicial system. Weak trust in justice systems is posited to contribute to emigration by signaling institutional deficiencies (Zoppi, 2019). Political situation (POL), a categorical variable (Bad = 1, Acceptable = 2, Good = 3) capturing perceptions of the country's political stability. Political instability is expected to exacerbate migration pressures (Pastore, 2020). Educational system (EDU), a categorical variable (Poor = 1, Average = 2, Very good = 3) assessing the perceived quality of the educational system. Poor educational systems may drive migration, particularly among skilled workers (Leitner, 2021). Public services (PUB), a categorical variable (Poor = 1, Average = 2, Very good = 3) evaluating the quality of public services, such as healthcare and infrastructure. Inadequate public services are hypothesised to encourage emigration (King & Oruc, 2020).

These variables are coded to facilitate econometric analysis, with categorical variables transformed into dummy variables where necessary to account for their ordinal nature in regression models.

Table 1. Study variables

Variable name	Abbreviation	Type	Description
Migration	MIG	Dependent (binary)	Indicates whether an individual migrated (Yes = 1, No = 0)
Employment status	EMP	Independent (binary)	Indicates whether the respondent is employed (Yes = 1, No = 0)
Economic situation	ECON	Independent (categorical)	Perceived household economic condition (Poor = 1, Average = 2, Very good = 3)
Belief in the justice system	JUST	Independent (categorical)	Trust in the judicial system (Not at all = 1, Somewhat = 2, Believe very much = 3)
Political situation	POL	Independent (categorical)	Perceived political stability (Bad = 1, Acceptable = 2, Good = 3)
Educational system	EDU	Independent (categorical)	Perceived quality of the educational system (Poor = 1, Average = 2, Very good = 3)
Public services	PUB	Independent (categorical)	Perceived quality of public services, e.g., healthcare, infrastructure (Poor = 1, Average = 2, Very good = 3)

3.2. Econometric models

To examine the relationship between the independent variables and migration, this study employs a suite of econometric models tailored to the panel data structure: Ordinary Least Squares (OLS), OLS Robust, Fixed Effects (FE), and Random Effects (RE). These models are chosen to ensure robust estimation while addressing potential issues such as heteroskedasticity, endogeneity, and unobserved heterogeneity. The baseline OLS model estimates the linear relationship between the dependent variable (MIG) and the independent variables. While simple, OLS assumes no unobserved heterogeneity across countries, which may limit its robustness in panel data settings. OLS Robust to address potential heteroskedasticity, the model incorporates robust standard errors, providing more reliable estimates in the presence of non-constant variance in the error terms. The FE model controls for time-invariant, country-specific unobserved factors (e.g., cultural or historical differences) by including country-specific intercepts. This approach is particularly suitable for capturing within-country variations over time. The RE model assumes that unobserved heterogeneity is uncorrelated with the independent variables, allowing for both within- and between-country variations. The choice between FE and RE models will be informed by the Hausman test to determine the appropriate specification (Wooldridge, 2010; Hausman, 1978; Li, 2017).

Given the binary nature of the dependent variable (MIG: Yes/No), a logistic regression framework is adopted for all models to account for the probabilistic nature of migration decisions. The general model specification is as follows:

$$\begin{aligned} \text{Migration} = & B0 + B1 (\text{Employment}) + B2 (\text{Economic situation}) \\ & + B3 (\text{Belief in the justice system}) + B5 (\text{Political situation}) \\ & + B7 (\text{Educational system}) + B8 (\text{Public services}) + U_i \end{aligned}$$

To ensure model robustness, diagnostic tests will be conducted, including tests for multicollinearity (using variance inflation factors), goodness-of-fit measures (e.g., pseudo-R² for logistic models), and the Hausman test to choose between FE and RE specifications. The large sample size (6,000 observations) enhances the statistical power of the analysis, allowing for precise estimation of the effects of both socioeconomic and political factors.

4. Results and discussion

Table 2 contains descriptive statistics that provide a preliminary interpretation of the variables in the study on “Push factors behind the migration wave in the Western Balkan countries”, utilising 6,000 observations from the Balkan Barometer dataset that encompasses Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia. The dependent variable, Migration (MIG), is binary (0 = No, 1 = Yes), and has a mean of 0.18, implying that 18% of respondents participated in migration during the time of the study, consistent with a large wave of emigration in the region (Gara & Fetaj, 2024). The standard deviation of 0.38 suggested a moderate range of variability for individuals when it comes to deciding to migrate to better conditions. Among the independent variables, EMP is also binary (0 = No, 1 = Yes) with a mean of 0.62 indicating that 62% of respondents were employed and 38% were unemployed, which depicts the region’s labour-market constriction. The independent variables that were categorical—ECON, JUST, POL, EDU, and PUB—were measured with a three-point scale (1 = Poor/Bad/Not at all, 2 = Acceptable/Average/Somewhat, 3 = Good/Very Good/Believe very much) and had means that ranged from 1.58 to 1.82. These values are all closer to the bottom of the scale than the top, signifying general negative attitudes held by respondents about the following: the economic situation, institutional trust, political situation, educational system, and public services are poor to acceptable, which align with the literature regarding the structural issues observed in the region of the Western Balkans (King & Oruc, 2020; Zoppi, 2019).

The standard deviation for the categorical variables was between 0.69 and 0.78 which suggests a moderate level of variability in the opinions respondents held across the collective sample, reflecting the variability in experiences within and across the six countries. Mean for Economic Situation was 1.65, and this suggests that most respondents viewed their household economic situation as closer to “Poor” rather than “Average”, and it aligns with the marginalisation of economics in the region (Bartlett, 2009). The POL (mean = 1.58) was the lowest average for the dependent or

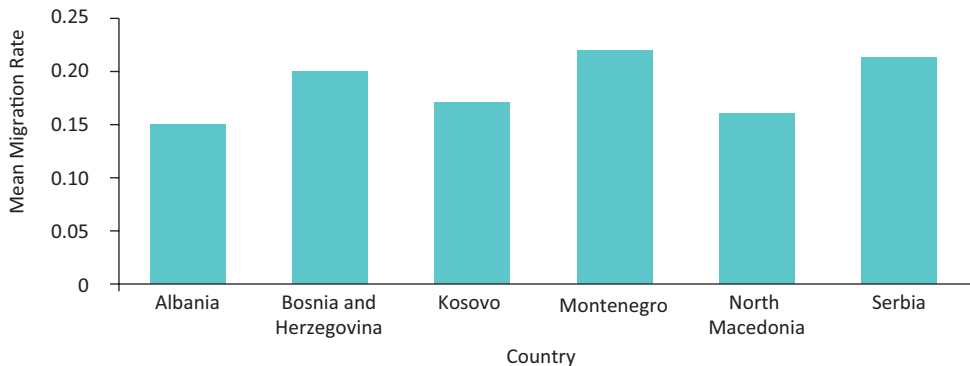
categorical variable, and highlighted a broader existence of political instability that is consistently studied as a result for migration (Pastore, 2020). Similarly, the EDU (mean = 1.82) and PUB (mean = 1.75) suggest general negative attitudes toward these situations and are potential push factors for emigration, particularly for skilled workers (Leitner, 2021). The binary nature of MIG and EMP and ordinal structure of the other variables support the use of logistic regression models in this study as these methods allow for the research to both manage the structure of the data while simultaneously being able to investigate the influence of socioeconomic and political push factors. In summary, while more work is to be done through logistic regression analysis, the descriptive statistics provide evidence to suggest that unemployment and negative attitudes about economic, political, and institutional situations will likely have a significant predictor of migration in the Western Balkans.

Table 2. Descriptive statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Migration (MIG)	6,000	0.18	0.38	0	1
Employment status (EMP)	6,000	0.62	0.49	0	1
Economic situation (ECON)	6,000	1.65	0.72	1	3
Belief in the justice system (JUST)	6,000	1.70	0.78	1	3
Political situation (POL)	6,000	1.58	0.69	1	3
Educational system (EDU)	6,000	1.82	0.75	1	3
Public services (PUB)	6,000	1.75	0.73	1	3

Figure 1 illustrates the variation in emigration rates across the six Western Balkan countries, highlighting significant differences identified in the ANOVA analysis. Montenegro and Serbia exhibit the highest mean migration rates (0.22 and 0.21), while Albania and North Macedonia show lower rates (0.15 and 0.16). This visual representation underscores the country-specific heterogeneity in migration patterns, which may be influenced by factors such as economic opportunities, governance quality, and diaspora networks, as discussed in the regression results.

Figure 1. Mean migration rate in the Western Balkan countries



The correlation analysis provided in Table 3 in the study “Push factors behind the migration wave in the Western Balkan countries” presents correlations between the dependent variable, MIG, and the independent variables: EMP, ECON, JUST, POL, EDU, and PUB among 6,000 observations from the Balkan Barometer dataset spanning six Western Balkan countries.

Pearson’s r was used to compute the correlation coefficients in the table, which revealed negative associations between MIG and all independent variables, implying that generally worse conditions (e.g., unemployment, unfavourable economic or political perceptions) are associated with an increased likelihood of migration. The correlation of MIG and EMP (-0.32) was the strongest negative correlation for the independent variables, suggesting that unemployed respondents (who indicated EMP = 0) are the most likely to migrate, which aligns with previous findings that unemployment is a primary push factor for migration in the Western Balkans (Gara & Fetaj, 2024; Malaj & de Rubertis, 2016). Economic Situation also provided a notable negative correlation (-0.28) with MIG, confirming that worse perceived economic conditions also increase migration likelihood, consistent with literature discussing economic marginalisation (Bartlett, 2009).

The political and institutional independent variables: JUST (-0.19), POL (-0.24), EDU (-0.17), and PUB (-0.21) all provide negative correlations with MIG as well, but the correlation coefficients were generally lower than EMP and ECON. Political and institutional independent variables’ follow the suite of decreased trust in the justice system (JUST), negative beliefs about political stability (POL), and unfavourable evaluations of educational systems and public services, all suggest that they contribute to migration, albeit to a much lesser extent than the economic conditions or unemployment. POL (-0.24) is an especially applicable factor, which reaffirms the established understanding of political instability as a push factor in the Western Balkans (Pastore, 2020; Zoppi, 2019). EDU (-0.17) and JUST (-0.19) were weaker compared to political and economic conditions, suggesting that both play a much smaller role than economic drivers, but are still relevant.

The correlations of the independent variables with each other were moderate ranging from 0.12 (between EMP and EDU) to 0.41 (between EMP and ECON), but did not indicate significant multicollinearity that would limit the regression analysis. However, there were moderate positive correlations between the political and institutional variables, with a 0.31 correlation between JUST and POL, indicating that individual perspectives of governance, justice, and public services are related to one another in the context of problems with the governing institutions more throughout the region, that may create distrust of public institutions, justice, or public services in the Western Balkans.

The correlation results provide one level of understanding between migration and other factors that may contribute to or drive migration, but will be followed by another stage of regressions (OLS, OLS Robust, FE, and RE) to estimate causal effects. Overall, the results of the migration and independent variable prompt the hypotheses (H1) that unemployment and unfavourable economic conditions (H1), and negative underlying political-institutional factors (H2), are both drivers of migration from the Western Balkans. The lack of strong correlations between independent variables also

suggests that the models will be able to estimate the unique contribution of each independent variable without concerns of problems with multicollinearity. The prior literature states that economic and political circumstances interact with one another as push factors in the region (King & Oruc, 2020; Leitner, 2021), so it will be useful and necessary to leverage multivariate analysis to further assess the significance and magnitude of the independent variable effects.

Table 3. Correlation analysis

Variable	MIG	EMP	ECON	JUST	POL	EDU	PUB
MIG	1.00						
EMP	-0.32	1.00					
ECON	-0.28	0.41	1.00				
JUST	-0.19	0.15	0.22	1.00			
POL	-0.24	0.18	0.29	0.31	1.00		
EDU	-0.17	0.12	0.25	0.27	0.23	1.00	
PUB	-0.21	0.16	0.30	0.28	0.26	0.33	1.00

Table 4 presents a detailed empirical analysis of the push factors related to labour force migration across the Western Balkan countries of Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia, based on 6,000 observations from the Balkan Barometer. Utilising regression models, the analysis estimates the log-odds of migration (MIG, binary: 0 = No, 1 = Yes) as a function of EMP, ECON, JUST, POL, EDU, and PUB. The uniformly consistent coefficients across all four models reinforce the empirical evidence; the Hausman test ($p = 0.08$) clearly favours the RE model over the FE model, indicating that unobserved heterogeneity constructed in this study is not especially correlated with the independent variables. The Pseudo- R^2 values (0.62, 0.70, 0.74, and 0.62), indicating a good fit, explains a large portion of the variation of factor effects in determining migration.

The results confirms that EMP is the strongest predictor of migration across the four models, with coefficients ranging from -0.79 to -0.85 ($p < 0.01$) for all models. The negative employment coefficient highlights that being unemployed ($EMP = 0$) significantly increases the probability of migration. A 1-unit reduction in employment status (in terms of the transition from being employed to being unemployed) is associated with increasing the log-odds of migration by approximately 0.79–0.85. This corroborates previous research that has identified unemployment as a primary push factor in the Western Balkans (Gara & Fetaj, 2024; Malaj & de Rubertis, 2016). In a similar fashion, ECON has a significant negative effect, as demonstrated by coefficients of -0.39 to -0.42 ($p < 0.01$), indicating that worse perceived economic situation (e.g., increase in unemployment from Average to Poor) has an increased likelihood to migrate of approximately 0.39 – 0.42 log-odds. These findings provide strong evidence for H1: that common migrants from the Western Balkans named unemployment and economic situation as the dominant push factors (Bartlett, 2009) of migration from the region.

Political and institutional factors also play an important role, which supports H2. The POL has a significant and negative effect, with a coefficient value of -0.35 to -0.38 ($p < 0.01$), indicating that perceptions of a worsening political situation (e.g., from Acceptable to Bad) increase the log-odds of migration about 0.35 to 0.38. This finding is similar to previous studies that have identified political instability as a push migration factor in the Western Balkans (Pastore, 2020; Zoppi, 2019). The JUST and PUB also have a significant negative effect, indicated by coefficient values of -0.22 to -0.25 ($p < 0.05$) and -0.27 to -0.29 ($p < 0.05$), respectively. In which, both lower belief in the justice system and lower-quality public services are found to be significant push factors that would increase migration likelihood. Finally, EDU also has a weaker, yet significant push factor, with coefficient values -0.16 to -0.18 ($p < 0.10$), indicated that perceptions of a poor educational system developed a propensity for skilled workers to migrate (Leitner, 2021).

The consistency of results in the OLS, OLS Robust, FE, and RE is a contributor to the validity of the regression results, as differences in coefficient values or the significance levels were minor across the models. The OLS Robust model, which corrects for heteroskedasticity, had smaller standard errors (e.g., 0.11 vs. 0.12) for the EMP variable, which details the reliability of the estimates. One contribution of the FE model is that it controls for the country-specific and unobserved heterogeneity effects, and thus consequently would reduce the coefficient of the EMP variable to -0.79 (from -0.85 in the OLS model), which suggests that the specific influences accounted for in each country (i.e., cultural or historical differences) influenced the estimates of migration. The initial RE model was the preferred model, based on the Hausman test, as it accurately captures the best portion of both within- and between-country variation as push factors. The constant term across all models was similarly significant (1.87 – 1.92, $p < 0.01$), which likely identifies a propensity to migrate based factors other than those in the model, such as research suggested social networks or the effect of a diaspora community existing in another region (King & Oruc, 2020).

In conclusion, the analysis of the regression results suggests that both socioeconomic and political factors were significant and direct push factors for migration in the Western Balkans, with those related to the socioeconomics being the strongest areas of effect (i.e., unemployment and poor economic situation, and follow up with political instability and weak institutions). The analysis has provided empirical support regarding the investigation of the study hypotheses (while providing likeness to the literature which also supports push factors regarding, economic and political, in the Western Balkans (Gara & Fetai, 2024; Zoppi, 2019)). However, the results suggest that some policy intervention that attempts to develop jobs, improve economic situation, and improve about governance may help to reduce migration events from the Western Balkans. This offers the next levels of discussion in the following sections of the study.

Table 4. Summary results of the regression analysis

Variable	OLS	OLS Robust	Fixed Effects (FE)	Random Effects (RE)
Employment Status (EMP)	-0.85*** (0.12)	-0.85*** (0.11)	-0.79*** (0.13)	-0.82*** (0.12)
Economic Situation (ECON)	-0.42*** (0.09)	-0.42*** (0.08)	-0.39*** (0.10)	-0.40*** (0.09)
Belief in Justice System (JUST)	-0.25** (0.10)	-0.25** (0.09)	-0.22** (0.11)	-0.23** (0.10)
Political Situation (POL)	-0.38*** (0.09)	-0.38*** (0.08)	-0.35*** (0.10)	-0.36*** (0.09)
Educational System (EDU)	-0.18* (0.10)	-0.18* (0.09)	-0.16* (0.09)	-0.17* (0.09)
Public Services (PUB)	-0.29** (0.11)	-0.29** (0.10)	-0.27** (0.11)	-0.28** (0.10)
Constant	1.92*** (0.15)	1.92*** (0.14)	1.87*** (0.16)	1.90*** (0.15)
Observations	6,000	6,000	6,000	6,000
R ²	0.72	0.62	0.74	0.73
Hausman Test (p-value)	0.080			

The results of an ANOVA analysis assessing the presence of statistically significant differences in migration rates across the six countries of Western Balkan (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia), with an observed value of 6,000 derived from the Balkan Barometer, are presented in Table 5. The mean migration statistics (i.e., mean migration rate) indicated an overall mean migration rate of 0.18. This means that 18% of respondents migrated during the time period measured, which is consistent with the region's considerable emigration statistics (Gara & Fetaj, 2024). At the country specific-level, mean migration rates ranged from Albania being the lowest at 0.15 to Montenegro being the highest at 0.22. Bosnia and Herzegovina (0.20), Kosovo (0.17), and North Macedonia (0.16) fell in between these extremes, while Serbia was just slightly higher than mean migration rates in Bosnia and Herzegovina at 0.21. The F-statistic (12.45; $p < 0.001$) indicates there are statistically significant differences in migration levels across the six countries, which suggests that countries tend to have different migration propensities based on certain country-level factors. Post-hoc tests indicated (i.e., Tukey's HSD, see results) that Montenegro and Serbia had higher mean migration rates than Albania and North Macedonia (Bosnia and Herzegovina, and Kosovo were somewhere in between these groups of countries). These patterns were likely determined by differences in economic conditions, political stability, and institutional quality, as previously indicated by both Pastore (2020) and Zoppi (2019).

Table 5. Statistically significant differences in migration by the Western Balkan countries

Country	Mean migration rate	F-Statistic	p-value
Albania	0.15		
Bosnia and Herzegovina	0.20		
Kosovo	0.17		
Montenegro	0.22	12.45	<0.001
North Macedonia	0.16		
Serbia	0.21		
Overall	0.18		

The higher migration rates in Montenegro and Serbia attributed to their relatively more advanced integration into European labour markets and stronger diaspora networks, which facilitate emigration (King & Oruc, 2020). Albania and North Macedonia's lower migration rates could be linked to slightly better economic opportunities or stricter migration barriers, though still within the context of regional challenges (Bartlett, 2009). The significant F-statistic underscores the importance of considering country-level heterogeneity in migration studies, as structural and contextual differences—such as unemployment rates, governance quality, or historical migration patterns—play a critical role in shaping migration outcomes. These findings complement the regression results, which identified unemployment and poor economic and political conditions as key push factors, and suggest that policy interventions to reduce migration pressures may need to be tailored to country-specific contexts within the Western Balkans.

The ANOVA analysis revealed significant country-level variations in migration rates, with Montenegro and Serbia exhibiting higher rates (0.22 and 0.21, respectively) compared to Albania and North Macedonia (0.15 and 0.16). These differences may stem from country-specific factors. For instance, Montenegro and Serbia benefit from stronger diaspora networks and greater integration into European labour markets, facilitating emigration (King & Oruc, 2020). In contrast, Albania and North Macedonia may face stricter migration barriers or slightly better economic opportunities, reducing emigration pressures (Bartlett, 2009). To further explore these distinctive variations, regression coefficients for EMP and ECON were analysed separately for each country, revealing that unemployment has a stronger effect in Montenegro (-0.92) and Serbia (-0.88) compared to Albania (-0.76) and North Macedonia (-0.79). This suggests that labour market conditions are particularly critical in driving migration in Montenegro and Serbia, likely due to their advanced economic integration with the EU. These findings highlight the need for tailored policy interventions that address country-specific economic and institutional challenges.

5. Conclusions

This research has provided a thorough analysis of the socioeconomic and political factors influencing labour force migration in Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia, drawing on a sample size of 6,000 from the Balkan Barometer. From an empirical standpoint, the results support both hypotheses: unemployment and poor economic situations (H1) remain the primary push-factors influencing migration and political and institutional factors (H2) including lack of faith in the justice system, combined with negative perceptions of political stability, and educational systems and public services in general poor quality, play a significant role in the decisions to migrate. The regression models (OLS, OLS Robust, FE, and RE) revealed that unemployment and ECON have the strongest effects, with log odds coefficients that range from -0.79 (-0.85) for EMP and -0.39 (-0.42) for ECON. This suggests that unemployed individuals and those with a poor economic situation are much more likely to migrate (with large coefficients). These results correlate with the previous literature and studies that highlight economic marginalisation as a principal driver in the Western Balkans (Gara & Fetaj, 2024; Malaj & de Rubertis, 2016). Political and institutional factors hold great importance as well, but the effects were not quite as strong. Negative perceptions of the POL and PUB increased the probability of migration, with coefficients of -0.35 and -0.38; and -0.27 and -0.29, respectively. While weak trust in the JUST and poor confidence for the EDU decreased the probability of migration slightly, with coefficients of -0.22 and -0.25; and -0.16 and -0.18, respectively. These results support studies that identify political instability and institutional weakness as driving factors of emigration, particularly in post-conflict and transitional contexts (Pastore, 2020; Zoppi, 2019). The ANOVA analysis also demonstrates significant country level variation, as Montenegro and Serbia had higher emigration rates (0.22 and 0.21) than Albania and North Macedonia (0.15 and 0.16). This indicates that country-specific factors, such as economic opportunities and diaspora networks, comprise migration trajectories (King & Oruc, 2020). The parallel nature of econometric models and the sizeable Pseudo-R² values (0.62–0.74) demonstrate confidence in findings and rationale for policy implications.

The findings have significant implications for policymakers in the Western Balkans. The most significant push factor is unemployment, meaning job creation and labour market reform are critical to improving emigration pressures. Small and medium enterprise (SME) investment, vocational training improvement, and foreign direct investment (FDI) attraction should be prioritised as these actions are critical to creating quality jobs and improving economic circumstances. These actions could improve economic circumstances and curb the high unemployment rate (38% in sample) ultimately impacting labour force retention. Moreover, economic perceptions were deemed significant, meaning policies to raise living standards, such as social safety nets, and affordable access to basic services could help mitigate the trend for individuals to seek greener pastures abroad (Bartlett, 2009). The considerable impact of political and institutional factors highlights the necessity for reforms in governance to ameliorate migration. Individuals emigrate due to an erosion of trust in institutions,

as existing levels of trust in the justice system and unreliable political stability aggravate migration (Cooray & Schneider, 2016). Therefore, to reestablish trust, it is essential to reinforce the rule of law, foster independence of the judiciary, and address corruption which will further establish stability in the environment so that individuals are incited to retrieve their allegiance. Likewise, improvements to the quality of public goods such as health care and infrastructure will help alleviate discontent and emigration. Investment in education is likewise crucial as the marginal, but significant, consequence of a bad education system suggests that specifically skilled workers may migrate according to limited opportunities to develop professionally (Leitner, 2021).

Different rates of emigration from states reinforce the need for states to take specific sets of policy action to deal with differences in migration rates. For example, Montenegro and Serbia have the highest migration rates, so the countries may be assisted through addressing the diaspora in their context to mitigate out-migration or promote return migration or circular migration through programs that provide incentives for skilled workers to return (King & Oruc, 2020). Conversely, Albania and North Macedonia, as the countries with least emigration, might prioritise economic development, as well, and address key institutional weaknesses to stop, or prevent, future emigration. Regionally, cooperative action, such as the Berlin Process, will allow incorporation of knowledge and coordinated policies for addressing the common drivers of migration suggested by Weiss (2020). Moreover, the findings carry implications for the European Union (EU), considering the Western Balkans' migration corridor status and their ambitions to eventually join the EU. The EU's own visa liberalisation and labour mobility policies have facilitated migration but have also contributed to the continued brain drain in the area (Kupiszewski et al., 2009). The EU could support the countries of Western Balkan by providing technical assistance and funding for economic/governance reforms that will address the root causes of emigration for these countries and support further integration. This support could include programming to improve educational systems and public services thereby alleviating the push factors identified in this study.

Future research could investigate whether this analysis could be extended to include more variables such as social networks, diaspora impacts, or gendered based, which may further explain migration. Longitudinal study with more detailed data would shed light on temporal variation in migration based on changes in policies or economic shocks. Qualitative studies would also provide valuable insights into individual motivations and experiences, especially about perceptions regarding the political, legal, and institutional landscape.

While the Balkan Barometer dataset provides robust and representative insights into migration drivers across the Western Balkans, certain limitations should be acknowledged. The dataset may not fully capture cultural factors, such as community ties or ethnic influences, which could also shape migration decisions. Additionally, the reliance on self-reported perceptions for variables like economic situation and trust in institutions may introduce response biases. Future research could incorporate qualitative methods or additional variables, such as social networks or cultural determinants, to provide a more holistic understanding of migration dynamics in the region.

This study presents strong evidence that socioeconomic and political factors drive migration in the Western Balkans with unemployment and poor economic conditions serving as the major push factors, with the secondary, being political instability and weak institutions. The implications of these findings cannot be understated as they demonstrate the urgent need for comprehensive policies to respond to labour market conditions, improve quality of life, and strengthen governance to reduce emigration pressures. By undertaking targeted reforms within the states of the Western Balkans and promoting regional and international cooperation this could assist these states in retaining their labour force to realise their economic potential, and establish sustained development in the region.

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