

The Impact of Corruption on Migration: Evidence from the Western Balkans

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Abstract

The fight against corruption remains one of the most fundamental problems for Western Balkans societies and governments. Hiring in the public sector is often determined by networks and clientelism. The exchange of favours and loyalty to a patron are the “normal” ways to access economic opportunities. As a result, a considerable portion of the population considers emigration as the only path to succeed. The main objective of this study is to analyse the impact of corruption on Western Balkan migrant stocks over the years from 2012 to 2020. The selected time period depends mainly on data availability and frequency. A gravity-based equation is developed to explain changes in the number of immigrants living in 31 European destinations. The proposed econometric model confirms the statistical significance of corruption variables in migrant stocks of receiving countries. Individuals tend to move from countries with high levels of corruption and poor governance toward richer and less corrupt destinations.

Keywords: corruption, migration, Western Balkans, push-pull theory, gravity model.

1. Introduction

There is no formal definition of an international migrant, but experts usually agree that an international migrant is “someone who changes his or her country of usual residence, irrespective of the reason for migration or legal status”.³ The global number of international migrants was estimated to be about 281 million in 2020, or 3.6 per cent of the world’s population. Almost two out of three migrants have moved from their country of origin for employment. The largest migration “corridors” are between developing economies and developed countries such as the United States, Saudi Arabia, the United Arab Emirates, and Germany. The European continent remained the main destination for migrants, with 87 million in 2020 or approximately 31 percent of all international migrants (IOM, 2022). Several studies have documented the positive effects of international migration on receiving countries. Migrants contribute to the labour force and can fill niches in both fast-growing and declining industry sectors (Hooper, 2019; Přívara et al., 2023). A higher number of immigrants can increase labour market flexibility and improve the ability of the economic system to absorb shocks (Røed and Schøne, 2012; Balch and Scott, 2011). Empirical evidence has shown that most immigrants pay more in social contributions and taxes than they receive in individual benefits and services

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³ See <https://refugeesmigrants.un.org/definitions>.

(Dustmann et al., 2010; Zallman et al., 2018). Skilled immigrants contribute positively to the human capital and technological progress of receiving countries (Sumption et al., 2013; Bernstein et al., 2018). An efficient and coordinated management of migration flows as well as a fair treatment of migrant workers would promote economic growth and reduce income inequality. Origin countries can also gain various benefits from migration. Usually, foreign workers send remittances in the form of cash or goods to their relatives, and contribute to the alleviation of poverty, especially in developing and least-developed countries. In addition, remittances can stimulate investments and consumption, and increase economic growth (Eggoh et al., 2019; Khan and Valatheeswaran, 2020). Returning migrants can bring home their experience and knowledge and contribute not only to the development of the economy, but also to cultural and political changes (Pérez-Armendáriz and Crow, 2010; Dudu and Rojo, 2021).

According to the neoclassical ‘push-pull theory’, the decision to migrate depends on several variables that are related to the respective origin and destination countries. Push factors are related to the origin countries and may include unemployment, poverty, poor public services as well as corruption. On the other hand, migrants are attracted by pull factors in potential destination countries, including prospects of higher income, lack of discrimination, and a better standard of living and quality of life. This study is mainly focused on the impact of corruption on Western Balkan (WB) emigration over the period 2012 to 2020. The considered destinations are 31 and consist of the European Economic Area (EEA) countries as well as Switzerland and the United Kingdom. Table 2 reports a list of receiving countries included in the sample. The selected time period depends mainly on data availability and frequency. For instance, data for Kosovo are available after 2008, when the country declared independence from Serbia. In addition, Corruption Perception Index (CPI) scores can be compared only from 2012 because of an update of the methodology.⁴ The remainder of the paper is structured as follows. Section 2 is focused on corruption and its consequences for WB countries. Section 3 is dedicated to the effect of perceived corruption in origin and destination countries on migration. Finally, conclusive remarks are reported in the last part of the paper.

Table 1. Origin countries and codes included in the dataset.

Origin country	Code
Albania	ALB
Bosnia and Herzegovina	BIH
Kosovo	XKX
Montenegro	MNE
North Macedonia	MKD
Serbia	SRB

Table 2. Destination countries included in the dataset.

Austria	Greece	Norway
Belgium	Hungary	Poland
Bulgaria	Iceland	Portugal
Croatia	Ireland	Romania
Cyprus	Italy	Slovakia

⁴ See <https://www.transparency.org/en/news/how-cpi-scores-are-calculated>.

Czech R.	Latvia	Slovenia
Denmark	Lithuania	Spain
Estonia	Luxembourg	Sweden
Finland	Malta	Switzerland
France	Netherlands	United Kingdom
Germany		

1. Corruption in the Western Balkans

Transparency International defines corruption as “the abuse of entrusted power for private gain”.⁵ The World Bank considers corruption “a major challenge to its twin goals of ending extreme poverty by 2030 and boosting shared prosperity for the poorest 40 percent of people in developing countries”.⁶ According to Transparency International, corruption includes a broad range of behaviour such as civil servants asking or receiving money or favours in exchange for services; politicians abusing public funds or granting public contracts or jobs to their relatives, friends and sponsors; and large companies bribing officials in order to get lucrative agreements.⁷ Corruption is universal, i.e., it exists in both developed and developing economies (Werner, 2018). However, there are relevant differences in corruption levels across different regions and countries.

The WB region includes six countries that are not yet part of the European Union (EU): Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Kosovo and Serbia.⁸ They are also defined as 'enlargement countries', i.e., candidates or potential candidates for membership in the EU. More specifically, Bosnia and Herzegovina and Kosovo are potential candidates which have applied for membership, whereas the remaining countries are all official candidates.⁹ EU accession is based on the individual merits of each country and depends on several key issues which need to be addressed. Fight against corruption and organised crime remains one of the most fundamental problems for WB societies and governments. In October 2021 the European Commission released a Communication on EU Enlargement Policy and noted that corruption continues to be widespread in the WBs.¹⁰ Public procurement process remains especially prone to bribery and corruption. In addition, corruption risk assessments and actions to address the problem have not been systematically conducted. Success in tackling corruption varies across countries, with progress in some sectors and delays in others. The communication calls for stronger efforts and concrete results in the fight against the problem. A Transparency International report (2020) states that the main characteristic of corruption cases in enlargement countries is the presence of networks and clientelism involving the civil service. Furthermore, the exchange of favours within networks and the allegiance to a patron are seen as the usual ways to obtain jobs and other economic opportunities. The influence of political parties and the loyalty they command are the principal components of success for such networks. A change in the governing political party would not solve the problem if the way of doing politics remains the same. Figure 1 shows the Corruption Perceptions Index (CPI) in WB countries for the period 2012-2020. Higher values of the index correspond to lower perceptions of corruption. Montenegro obtained the highest score

⁵ See <https://www.transparency.org/en/what-is-corruption>.

⁶ See <https://www.worldbank.org/en/topic/governance/brief/anti-corruption>.

⁷ See <https://www.transparency.org/en/what-is-corruption>.

⁸ The group of 'Western Balkans' countries included Croatia until 2013, when the country became a European Union member.

⁹ See https://ec.europa.eu/info/policies/eu-enlargement_en.

¹⁰ See https://ec.europa.eu/neighbourhood-enlargement/2021-communication-eu-enlargement-policy_en.

among WB countries in 2020 (CPI of 45), whereas North Macedonia and Bosnia and Herzegovina recorded the worst performances (CPIs of 35). The average CPI score in the same year for the considered European destinations was approximately 65. EU institutions should continue to support WB societies in the fight against corruption, and in promoting a culture that supports the rule of law.

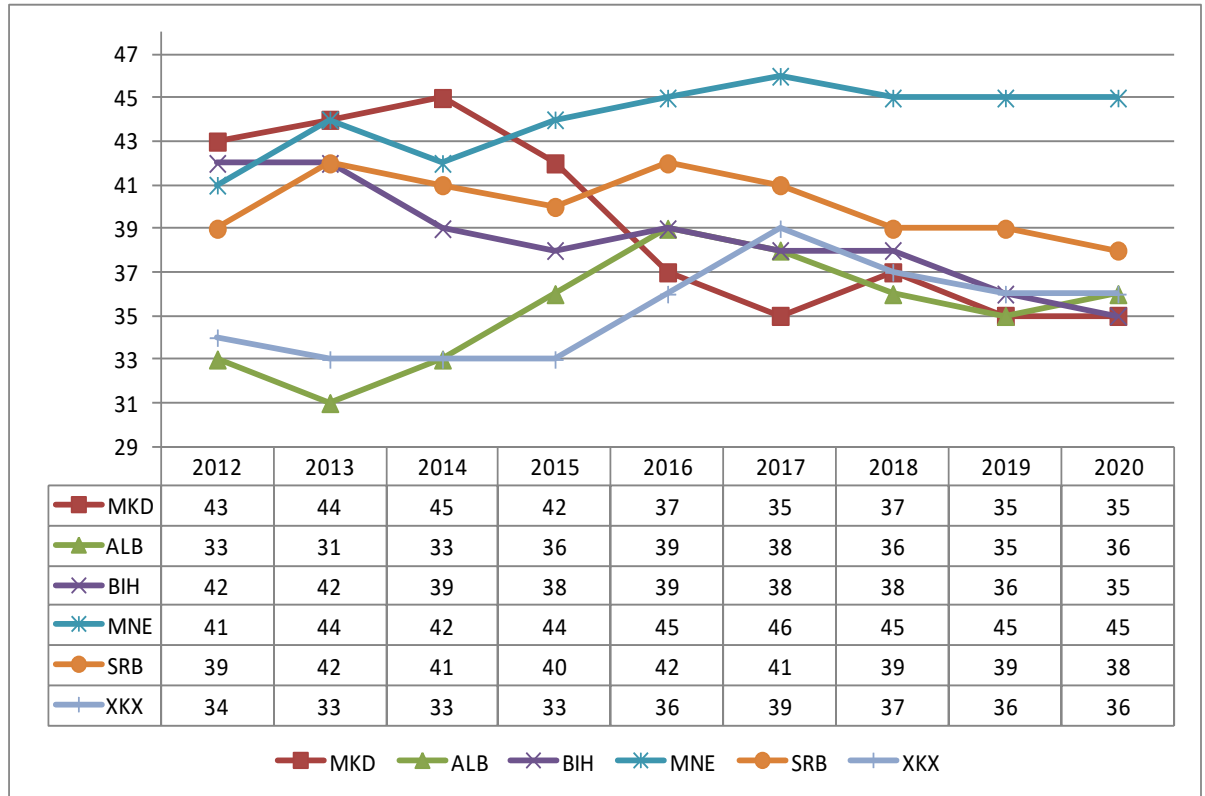


Figure 1. Corruption Perceptions Index (CPI) in Western Balkan countries (Source: Authors' representation using data from Transparency International).

The problem of corruption and its respective consequences in WB countries has been discussed by several scholars. Qerimi and Sergi (2012) investigate the correlation between economic freedom and corruption in some WB countries. The authors argue that corruption has been one of the most enduring and serious problems faced by Balkan societies and governments. Empirical results show that countries with the highest levels of economic freedom made the most remarkable progress in dismantling corrupt behaviour. Findings are in line with the study of Feruni et al. (2020), who test the impact of corruption, economic freedom, and urbanization on economic development for some WB and EU countries over the period 2009–2018. The empirical analysis indicates that corruption has a negative impact on economic development, whereas the effect of urbanization and economic freedom is positive for both WB and EU countries. The authors conclude that authorities should take preventive and repressive actions to reduce corruption.

Zeneli (2016) investigates the impact of corruption on foreign direct investments and other variables in the WBs during the years 1992–2012. The author argues that corruption is a major issue in the region, and it is challenging both domestic and foreign firms in doing business. The research suggests a negative impact of corruption on income per capita and foreign direct investments. According to the author, engaging in international marketing is the best way for the WBs to reduce corruption levels as well as to increase economic competitiveness. Findings are similar to the study conducted by Minović et al. (2021), who focus on the relationship between foreign direct investments and institutional quality measures in the WBs over the period 2002–2017. Statistical results show that

control of corruption, rule of law and political stability encourage foreign direct investments in the region. The authors argue that the perception of corruption severely disrupts the free market system; potential investors often have to deal with non-transparent procedures and lack of information resulting from non-transparency. According to Minović et al.(2021), WB authorities should improve conditions to strengthen the rule of law, reduce corruption, and work for political stability in order to attract foreign direct investments.

Grødeland (2013) affirms that hiring in the WBs is determined by networks and willingness to pay, and the citizens are rather pessimistic about the prospects for reducing corruption in the region. The author argues that political will to tackle corruption is absent, and there is a need for sentencing corrupt officials. Furthermore, people should change their perceptions of what constitutes corruption, and their attitudes towards bribery, nepotism, and state institutions. Budak and Rajh (2014) analyze business people's experiences of corruption, using a survey data from more than 1800 business managers and owners in the WBs. The results indicate that respondents who had corruption experiences tend to justify it as 'greasing the wheels'. The research also suggests that corruption is viewed as an obstacle, and strong individual effort is needed to fight the problem. The authors argue that "the self-interest of elites in power could prevent every other policy initiative, including the implementation of anti-corruption policies".

2. The effect of corruption on migration

High levels of corruption lead people to lose confidence in leaders and public institutions (D'Agostino et al., 2016; Enste and Heldman, 2018). As a result, a considerable portion of the population considers emigration as the only route to life improvement. The impact of corruption or other closely related variables on international migration has been analyzed in a limited number of studies. Dimant et al. (2013) study the impact of corruption on migration for a panel sample of 111 countries over the period 1985-2000. Empirical results show that corruption has a positive and statistically significant effect on both average and skilled migration. The marginal effect of corruption on skilled migration is about four times higher than the respective effect on average migration. The authors conclude that the control of corruption is fundamental for the prevention of "brain drain". According to Poprawe (2015), countries with a high corruption level stimulate emigration and discourage immigration because they provide unfavourable economic conditions and a lower quality of life. The author estimates a gravity equation on a cross-sectional sample of 230 countries. Empirical results indicate that corruption is mainly a push factor of migration, i.e., high levels of corruption force people to migrate to countries with lower levels of corruption. Findings are in line with Auer et al. (2020), who test the relation between corruption and emigration intentions on a global survey data of about 280,000 respondents in 67 countries from 2010 to 2014. Empirical results show a causal relationship between the two variables. The authors conclude that the prevalence of corruption in a specific country encourages emigration intentions, which are associated with increased migration flows.

Bertocchi and Strozzi (2008) focus on the impact of institutional factors in international migration flows, using a dataset from 19th century. Empirical results show that people who left Continental Europe for the New World were motivated by both material needs, and the necessity for better institutions. The authors conclude that international migration during the considered period was influenced not only by economic and demographic variables, but also by institutional quality. Malaj and de Rubertis (2017) also analyze the influence of standard of living, unemployment, corruption and other variables on migration. The respective sample includes migration flows from WB countries to some of the most frequent destinations during the period 2009-2014. Diagnostic tests indicate a good fit of the proposed econometric model to data. Migrants are attracted by the possibility of employment, the expectation of a better standard of living, and lower levels

of corruption. Matallah (2020) analyzes the impact of public service delivery, inequality, and good governance on North African migration to developed countries over the period 1996–2015. Empirical results indicate that lower inequality, higher government effectiveness, and more access to basic services would discourage emigration. In addition, control of corruption and political stability contribute to the reduction of emigration flows.

Ariu and Squicciarini (2013) focus on the role of corruption in the migration choices of highly skilled workers, using a sample of 123 countries between 1990 and 2000. The authors argue that, for the same GDP per capita levels, corrupt countries are more likely to experience net outflows of migrants. Empirical results show that corruption stimulates the emigration of highly skilled natives to other less corrupt countries, as well as discourages the immigration of talented foreign workers. According to Ariu and Squicciarini (2013), corruption has even more serious implications in the long run, as it might have enduring effects on economic growth and human capital. Findings are similar with the study of Cooray and Schneider (2014) who investigate the relationship between corruption and educational attainment of migrants. The authors estimate different econometric models using a relatively small panel dataset over the period 1995–2010. They evidence the positive relation between corruption level and the emigration rate of those with high levels of education. Furthermore, the emigration rate of those with low and middle levels of education follows an inverted U-shaped pattern. Cooray and Schneider (2014) conclude that the control of corruption and the application of merit-based employment policies would lead to a lower emigration rate of well-educated persons. Arif (2022) also focuses on migrants' education and the relative sensitivity of corruption. The author considers bilateral migration from 122 countries from 1990 to 2000 and estimates a modified gravity model for global migration decisions. Findings show that migrants with a higher level of education are more sensitive to corruption in the destination countries.

The impact of corruption on migration can be estimated through the well-known gravity model, which was originally proposed by Tinbergen (1962) to explain bilateral trade. Since then, the model has been applied to different types of international flows. Gravity is often considered as one of the most successful empirical models in economics (Anderson, 2011; Greaney and Kiyota, 2020). Several authors have formulated and estimated gravity equations for explaining international migration (e.g., Ramos and Suriñach, 2017; Karemera et al., 2000; Backhaus et al., 2015; Beine et al., 2016; Lewer and Van den Berg, 2008). According to Newton's law of universal gravitation, the gravitational force between two objects varies directly as the product of their masses and inversely as the square of the respective distance:

$$F = G \frac{m_1 m_2}{r^2}$$

where F is the gravitational force between the objects, G is the gravitational constant, m_1 and m_2 are the masses of the objects, and r is the distance between the respective centres. Similarly, migration can be specified as a positive function of the attractive masses of two countries and a negative function of the distance between them. Masses are usually estimated by countries' populations or by a measure of the size of the economy, such as the gross domestic product. These considerations suggest the following expression:

$$M_{ij} = C \frac{S_i^\alpha S_j^\beta}{DIST_{ij}^\gamma}$$

where M_{ij} is the bilateral migration from country i to country j , S_i is the size of country i and S_j is the size of country j , $DIST_{ij}$ is the distance between the countries, whereas C , α , β , and γ represent the model coefficients. A logarithmic transformation of the above

expression and the inclusion of an error term ε_{ij} lead to an equation that is easier to manipulate:

$$\ln(M_{ij}) = C + \alpha \ln(S_i) + \beta \ln(S_j) - \gamma \ln(DIST_{ij}) + \varepsilon_{ij}$$

The regression equation of this paper includes bilateral distance, CPIs of the WBs and of the considered European destinations, total populations, and the difference between GDPs per capita of host and home countries. The considered dependent variable is the number of immigrants from every WB country living in each of the 31 European destinations in a specific year. Different researchers use international migrant stocks instead of flows when estimating gravity models (Ramos, 2016). Data on bilateral migration flows are subject to limitations and often contain missing values. Usually, migrant stocks are sourced from statistical offices of destination countries and are related to individuals who have a permanent residence status. As a result, they are more reliable than data on annual immigration flows. Furthermore, empirical results based on stocks can be interpreted as a representation of long-term equilibrium (Grogger and Hanson, 2011).

Table 3 shows relevant descriptive statistics of the considered variables in their original form. The Statistical Office of the EU (Eurostat) and the United Nations (UN) were the primary sources of international migrant stocks. A considerable number of missing observations were obtained from the national statistics offices of each destination country. Total populations and GDPs per capita were collected from the World Bank, whereas bilateral distances were sourced from the CEPII GeoDist database (Mayer and Zignago, 2011).

Table 3. Descriptive statistics (“LCL Mean” and “UCL Mean” are the limits of the confidence interval for the mean).

Variable	MIG	CPI_o	CPI_d	POP_o	POP_d	DIST	GDPCAP_diff
Minimum	1	31	36	620,601	320,716	168.10	495.5
Maximum	480,851	46	92	7,199,077	83,240,525	3,686.86	119,611.52
1st Quartile	102	36	54	1,807,106	2,987,773	721	12,489.45
3rd Quartile	5016.5	42	80	3,429,362	16,865,008	1,775	45,052.1
Mean	17,819.56	38.83	66.43	3,072,987.64	16,947,228.26	1,336.75	32,828.58
Median	797	39	65	2,854,191	8,373,338	1,344.6	24,643.86
LCL Mean	14,914.93	38.64	65.68	2,971,254.23	15,831,126.99	1,301.03	31,557.07
UCL Mean	20,724.2	39.02	67.17	3,174,721.05	18,063,329.54	1,372.47	34,100.08
Stdev	58,600.84	3.83	15.04	2,052,463.2	22,517,251.86	720.66	25,652.52
Skewness	5.53	0.1	-0.06	0.98	1.70	0.85	1.16
Kurtosis	34.69	-0.94	-1.34	-0.11	1.5	1.02	1.01

Source: Authors' calculations based on the selected dataset.

Figure 2 shows the relation between CPIs in origin and destination countries and the corresponding migrant stocks. The significant difference in perceived corruption between the WBs and the considered European destinations is probably a main factor of migration. The proposed econometric model includes other parameters that can impact the dependent variable such as bilateral distance, the respective total populations, and the difference between GDPs per capita.

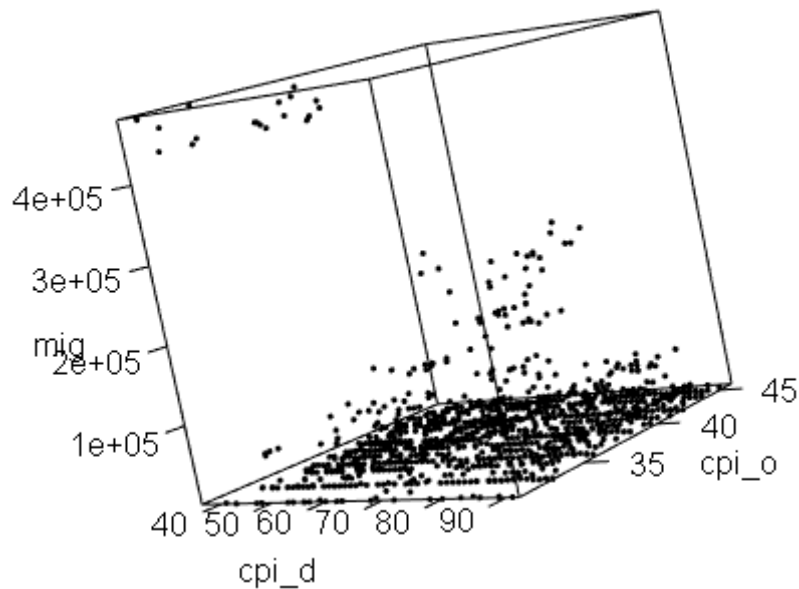


Figure 2. Three-dimensional plot of CPI in origin (cpi_o) and destination (cpi_d) countries and the respective migrant stocks (mig) (Source: Authors' representation based on the selected dataset).

Empirical tests showed that Pooled OLS is an appropriate technique for the considered econometric model. Table 4 displays the output of the estimated equation, where all variables are expressed in a natural logarithm. It can be observed that the basic variables of the gravity model, i.e., bilateral distance and total populations, are statistically significant and follow the theoretical expectations. CPI parameters are also statistically significant at all conventional levels. CPIs of WB countries are negatively related to the dependent variable, whereas higher CPIs at the considered European destinations are associated with larger migrant stocks. More specifically, if the CPI score in a WB country increases by 1 percent (less perceived corruption) then migrant stocks fall by about 0.82 percent. On the other hand, if CPI in a European destination increases by 1 percent, migrant stocks rise by about 1,03 percent. Furthermore, the difference between GDPs per capita in origin and destination countries has a relatively strong impact on the dependent variable.

Table 4. Output of the estimated model using 'plm' package in R. Estimation method: pooled OLS (model = "pooling").

Pooling Model

Call:

```
plm(formula = mig ~ cpi_o + cpi_d + pop_o + pop_d + dist+gdpcap_diff, data = y,
model = "pooling", index = c("code", "year"))
```

Balanced Panel: n = 186, T = 9, N = 1674

Residuals:

Min.	1st Qu.	Median	3rd Qu.	Max.
-8.20570	-1.47243	0.18873	1.48495	7.81762

Coefficients:

	Estimate	Std. Error	t-value	Pr(> t)
(Intercept)	-25.385898	2.418203	-10.4978	< 2.2e-16 ***
cpi_o	-0.820400	0.032219	-25.4634	< 2.2e-16 ***
cpi_d	1.034522	0.064154	16.1256	< 2.2e-16 ***
pop_o	1.102205	0.075814	14.5382	< 2.2e-16 ***
pop_d	0.796575	0.038092	20.9118	< 2.2e-16 ***
dist	-2.949949	0.122880	-24.0068	< 2.2e-16 ***
gdpcap_diff	2.247801	0.090076	24.9544	< 2.2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Total Sum of Squares: 13969

Residual Sum of Squares: 6899.8

R-Squared: 0.50608

Adj. R-Squared: 0.50449

F-statistic: 319.27 on 6 and 1667 DF, p-value: < 2.22e-16

Source: Authors' calculations based on the selected dataset.

Concluding remarks

The main objective of this paper was to analyse the effect of corruption on WB migrant stocks in developed European countries. Notwithstanding progress in the last decade, corruption remains endemic in the WBs. Despite the geographical proximity, there are still major differences in CPI levels between EU and WB countries. Corruption is still a serious obstacle to the European integration of the region. Bad governance and corruption have a negative impact on economic growth, investments, government expenditures, foreign trade and inequality. A considerable portion of the population loses confidence in political leaders and governments, and considers emigration as the only path to succeed. WBs' immigrants are often talented and qualified young people, discouraged by the political system and the lack of opportunities in their places of origin.

The present study holds significance considering the small number of authors that investigate the impact of corruption or other closely related variables on WB emigration flows. The estimated econometric model confirmed the statistical significance of perceived corruption in migrant stocks of receiving countries. People tend to move from countries with higher levels of corruption and poor governance to destinations with lower

levels of corruption. Empirical results also showed the statistically significant effects of bilateral distance, total population and the difference between GDPs per capita in receiving and origin countries on migration. In future studies, other estimation methods can be applied and compared. The dataset can be extended with additional variables as well as with other European and non-European countries.

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