

HOW MIGRATION, HUMAN CAPITAL AND THE LABOUR MARKET INTERACT IN BOSNIA AND HERZEGOVINA

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under the supervision of the Vienna Institute for International Economic Studies (wiiw).

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PREFACE

The countries of the Western Balkans are characterised by declining populations driven by low birth rates, ageing populations and ongoing migration. Emigration from the region has been constant since the 1990s, evolving from irregular, low- to medium-skilled labour migration to regular family reunification, students studying abroad and, more recently, high-skilled labour migration.

In 2020, the European Training Foundation (ETF), together with the Vienna Institute for International Economic Studies (wiiw), launched a regional study entitled 'Migration dynamics from the human capital perspective in the Western Balkans'. Its aim was to shed light on the triangular relationships between human capital formation, labour markets and migration, and to determine how the current functioning of the education system and the labour market affects migration in each country.

This report, which is one of the six country reports produced within the context of this study, was drafted by Adnan Efendic based on a common analytical framework developed by the ETF and wiiw. The study itself involved analysing existing literature and reports and developing tools to analyse flow and stock data on migrants from Bosnia and Herzegovina, based on available international statistics. A separate statistical analysis based on labour force survey (LFS) data (2010–19) was conducted using the cohort approach. This work was led by the wiiw's Sandra Leitner who provided the key findings used in this report. The author also conducted a number of interviews with experts from the Economic Institute Sarajevo and the general public.

The report benefited from extensive discussions with, guidance from and comments by the wiiw team (Michael Landesmann, Hermine Vidovic, Sandra Leitner, Isilda Mara) and the ETF team (Ummuhan Bardak, Mariavittoria Garlappi, Cristiana Burzio, Anthony Gribben, Cristina Mereuta). The final report was presented in a webinar in March 2021 to the main stakeholders in Bosnia and Herzegovina, including representatives of public institutions and civil society, and researchers.

The ETF would like to thank all the institutions and individuals who shared information and opinions during the implementation of the research and participated in the webinar. In particular, the ETF is grateful to the employees of the Agency for Statistics of Bosnia and Herzegovina who, in accordance with their internal rules, provided access to the LFS data. This report would not have been possible without their contributions.

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KEY MESSAGES

- Migration from Bosnia and Herzegovina (BiH) is diverse and dynamic, with emigration occurring for different reasons, in both permanent and temporary forms, and including return and circular migration. Recent flows have mostly involved the Western Balkan region and the European Union (EU).
- The diaspora accounts for over half of the country's current population (MSBiH, 2020), a situation triggered by different phases of migration: earlier economic migration from the former Yugoslavia, forced migration during the Bosnian War (1992–95), and more recent labour migration waves. Most emigrant stocks from BiH are found in Croatia and Serbia within the region, as well as in Germany and Austria within the EU and in Switzerland.
- Emigration has intensified over the past decade, and in particular over the past few years (2016–19). This has combined and contributed to a negative population growth rate, which has led to a decrease in the number of citizens. The recent Eurostat statistics of residence permits within the EU show the increasing popularity of new EU Member States such as Croatia and Slovenia in the current emigration flows from BiH, as well as the continuing importance of Germany. Almost half of these flows were for duration shorter than a year. Meanwhile, temporary and/or circular movements of BiH emigrants within the region are observed towards Montenegro and Serbia.
- According to the results of the cohort approach analysis (based on LFS statistics), emigration has reduced the country's population by around 400 000 persons (13%) in the period 2011–19. As emigration has been more prevalent among younger generations, this decrease has had more of an impact on the working-age population. Almost 60% of this emigration has involved medium-level vocational education and training (VET) graduates, which is in line with their majority share of the domestic labour market. The second place belongs to the low-educated individuals, while the lowest percentage (5%) is among those with a higher education degree.
- The country's labour force has decreased in recent years, a trend accompanied by increasing labour force participation and decreasing unemployment. Although these developments are mainly explained by demographic and methodological factors, emigration could also have helped to alleviate unemployment to some extent, as emigration is observed among both unemployed and employed workers. Nevertheless, aspirations to emigrate are no longer stronger among unemployed workers, which means that future emigration might not contribute significantly to a reduction in unemployment.
- There has been no clear brain drain effect from emigration over the past decade, as medium-VET-educated individuals were the largest group of emigrants among all age categories. This group is followed by individuals with low education and medium general education. The potential brain drain effect is also less likely in the future, as aspirations for emigration (2019) are not systematically stronger among the highly educated population compared to medium-educated citizens.
- Nevertheless, the education and training system of BiH is not reforming quickly enough to adapt to complex changes and the high level of mobility of its citizens. The emigration of medium-VET graduates might lead to gaps in some sectors and shortages of specific in-demand skill types within quite a short period of time. Aspirations to leave the country are high among the whole population regardless of their labour market status: both experienced and employed individuals as well as less experienced and unemployed persons want to emigrate.
- In contrast to the high levels of international emigration, the low levels of workforce mobility within the country hamper faster labour market adjustments, and many employers complain about the difficulty of finding skilled workers. The labour market policies need serious reforms that will

improve the position and perceptions of both unemployed and employed participants. Thus, reforms need to focus not only on job creation, but also on the type of contracts, remuneration, quality of jobs and the opportunities for career development. All these factors are drivers of migration, rather than simply employment/unemployment status, which is often perceived as the most important factor in reducing emigration.

- There are indications of some brain gain through the education of BiH citizens abroad, as at least 5% of emigrants go to the EU for educational purposes. The number of such emigrants is almost the equivalent of a small university in the country. In addition, special education programmes combined with Western universities within the country provide internationally recognised knowledge standards for potential migrants. Thus, both emigrants (aiming to receive education abroad) and potential emigrants (who have joined international programmes in BiH) could improve the educational performance and, in part, the stock of human capital.
- In 2020, Covid-19 changed migration in BiH: there are indications that emigration and circular migration have been reduced, while returns intensified in the first months of the pandemic. Although the pandemic might have resulted in less emigration in 2020, and consequently kept more people in the country, the loss might be more evident with regard to improvements of human capital through education, training and specialisation abroad, which are also likely to have fallen during this period. The country's economy will face a huge economic loss as many members of the diaspora were not able to make their traditional visits to their home country during the summer season.
- The challenges posed by the emigration of citizens are largely recognised by the government and it is possible to identify some direct and indirect policy initiatives (e.g. initiatives for reaching the diaspora, measures to improve employment). However, these policies seem to remain mostly fragmented and are not linked to developments in the domestic labour market and education system. Hence, a comprehensive policy framework dealing with all aspects of migration issues is needed, closely aligned with labour market and education policies.

1. INTRODUCTION

Bosnia and Herzegovina (BiH) is a European transition country. It is located in the Western Balkans and its population at the last official census in 2013 was 3.5 million people. Many estimates suggest that the country's population could now be less than 3 million (e.g. ASBiH, 2018).

The country is institutionally rather complex and comprises two entities (Federation of BiH (FBiH) and Republika Srpska) and one district (District Brcko of BiH). With such institutional structure, the country has 14 governments at different institutional levels: a state-level government; two entity governments (FBiH, Republika Srpska); ten cantonal governments (only in FBiH); and one district government (District Brcko), including a municipality level in both entities. Consequently, there are 9 ministries at the state level, 32 ministries at entity level (16 in FBiH and 16 in Republika Srpska), 95 ministries at cantonal level in FBiH (10 cantons); there are 80 municipalities and 16 cities in FBiH and 56 municipalities and 8 cities in Republika Srpska, each with their legislative and executive structure.

The current institutional arrangement was established by the Dayton Peace Accord in 1995, which primarily aimed to stop the Bosnian War (1992–95) but also attempted to satisfy the ethnic interests of the three constituent peoples (Bosniaks, Serbs and Croats). Various studies and reports have concluded that the arrangement is very complex, costly, inefficient and ineffective, and is burdened with a number of negative trends and decision-making bottlenecks (Kačapor-Džihić and Oruč, 2012), emphasising the need for new and sound institutional changes. Although institutional complexity is evident and there are diverse political views about the constitutional improvements required, there is a general political consensus that the future of this country is through membership of the EU. BiH has had the status of a potential candidate for EU membership since 2003 and it applied for EU membership in 2016.

Throughout its thousand-year history, BiH has been recognised as a multicultural environment, mixing Eastern and Western cultural and religious influences (Malcolm, 1996). The Bosnian War caused a structural break in the demographic and ethnic composition of the country, namely a change from ethnic diversity to ethnic homogeneity in the majority of municipalities (1991 versus 2013 census data¹). Nevertheless, even today BiH is a multicultural country with a unique ethnic structure and great variations within the country. According to the latest census data (2013), three ethnic groups dominate: 50.1% are Bosniaks, 30.8% are Serbs and 15.4% are Croats, while the remaining 3.7% belong to other ethnicities². As regards the geographic distribution, Bosniaks and Croats dominate in FBiH and Serbs in Republika Srpska, while District Brcko mixes all three ethnicities. However, all ethnic groups now live in all parts of the country, where they are either the majority or the minority, and in some places, they live in ethnically mixed surroundings.

The country's economic performance in recent years has been characterised by modest economic growth of around 3% (CBBiH, 2019), a high but decreasing unemployment rate of around 16% (SEEJGD, 2019), and quite significant external sector imbalances (trade deficit over 20% of gross domestic product (GDP)), which have fortunately been partly offset by a substantial amount of

¹ An interactive map with comparative results of the censuses of 1991 and 2013, including the ethnic structure of municipalities, is available on the Agency for Statistics of BiH website: www.statistika.ba/

² It is worth mentioning that the ethnic identities in BiH were mainly built on or largely overlap with religious identities: Muslims most often declare themselves as Bosniaks, Catholics as Croats, and followers of the Orthodox Church as Serbs.

remittances of around 10% of GDP (CBBiH, 2019). Employment by broad economic sectors (proportion of employees aged 15+) in 2019 showed the dominance of the services sector (50.3%), followed by industry (31.7%, including construction) and agriculture (18.0%). In terms of gross value added by aggregated economic sectors, services accounted for 55.5% of GDP, industry for 23.7% and agriculture for 6.1% in 2019 (ETF, 2020). BiH has its own currency (convertible mark – BAM), which is fully pegged to the euro, and an independent central bank (Central Bank of BiH) operating under strict Currency Board rules³.

BiH can be classified as an emigration country. To better understand migration in BiH, it is important to keep in mind the influences that triggered different types of migration flows after the Second World War, which are characterised by several phases of migration. The first phase includes migration after the Second World War and up to the beginning of the 1990s; these flows are recognised as economic migration and refer to the period when BiH was part of the former Yugoslavia. The second phase started with the outbreak of forced migration during the Bosnian War (1992–95). This was the most dramatic period in the country's recent history: around 100 000 lives were lost and more than half of the population was forced to emigrate or was displaced within the country⁴. These movements included about 1.2 million people who left the country, while around a million citizens were displaced (Kadusic and Suljic, 2018). Most of the war migrants chose neighbouring states as their host countries. About 40% of the country's citizens emigrated to Serbia, Montenegro, Croatia and Slovenia between 1992 and 1995, and these countries, together with Germany and Austria, hosted 75% of the forced migrants from BiH (Kadusic and Suljic, 2018)⁵.

The war-related forced movements should be distinguished from the other more traditional types of migration, in particular labour migration. When migration statistics are analysed as a total, the results could mask the complex nature of migration flows and give a misleading picture of the typical characteristics of labour migrants. For example, Oruč (2009) found that conflict-induced migration was positively self-selecting international migrants. Those who were more educated were also more likely to emigrate abroad during the conflict, while the less educated tended to move internally or stay in their homes. This has had a negative long-run socioeconomic impact on the country that needs to be explored further.

The immediate post-war migration period from 1996 to 2000 was characterised by mass return (repatriation) of refugees from abroad and significant return of internally displaced people to their homes. Around 40% of BiH refugees were repatriated (MHRRBiH, 2006). In total, it is estimated that by 2010 almost half a million people had returned from abroad and that altogether, including internally displaced people, more than a million people had returned to their pre-war homes (Colville, 2004). According to the 2013 census, 451 000 citizens had returned home from foreign countries (Kačapor-Džihic and Oruč, 2012).

³ This monetary arrangement has imposed limitations on the active use of monetary policy, but it has been successful in maintaining price stability.

⁴ The Bosnian War was characterised by bitter fighting, indiscriminate shelling of cities and towns, ethnic cleansing, the killing of civilians and systematic mass rape (Kadusic and Suljic, 2018).

⁵ According to the Norwegian Refugee Council, about 1.3 million people were forced to leave the country: 500 000 fled to neighbouring countries and around 700 000 to Western European countries (350 000 of them to Germany) (cited in Kadusic and Suljic, 2018).

The period between 2000 and 2010 was less dynamic in terms of emigration, and conditions were generally more difficult and costly for movement to Western Europe. BiH citizens needed a visa to enter the majority of EU countries prior to the visa facilitation and readmission agreement between the EU and BiH, which started in 2008. Indeed, data from the German Institute for Employment Research (IAB) brain drain dataset (IAB, 2020)⁶, suggest that there was a steady number of total emigrants (around 650 000) from BiH to 20 OECD countries over the period 2000–10.

The main focus of this report is on migration during the period 2010–20. The study uses a number of sources, including a novel estimate of emigration from BiH for 2011–19 from a cohort approach analysis, which was specifically conducted for the purpose of this investigation and was not previously published. However, this is the period when the key drivers of emigration changed from the push factors of the 1990s to pull factors (Halilovich et al., 2018), while negative perceptions of the general political and economic situation in the country became more influential determinants of aspirations to migrate than the individual influences that previously dominated (Čičić, 2019).

The high level of emigration over the past few decades has affected the social fabric of the country. The contemporary demographic picture in BiH is characterised by negative natural population change, a persistent phenomenon since 2009 (ASBiH, 2020). Dynamically observed, the natural change shows an increasing negative trend (from -0.1 persons per 1 000 population in 2009 to -3.0 in 2019). This is a direct consequence of the Bosnian War and demographic changes, combined with and complemented by a negative net migration balance in the post-war period (Čičić, 2019). All these cumulative effects have led to a decrease in the country's population. Based on the LFS data, the Agency for Statistics of BiH (ASBiH, 2018) reveals that the population could fell to 2.7 million in 2018⁷.

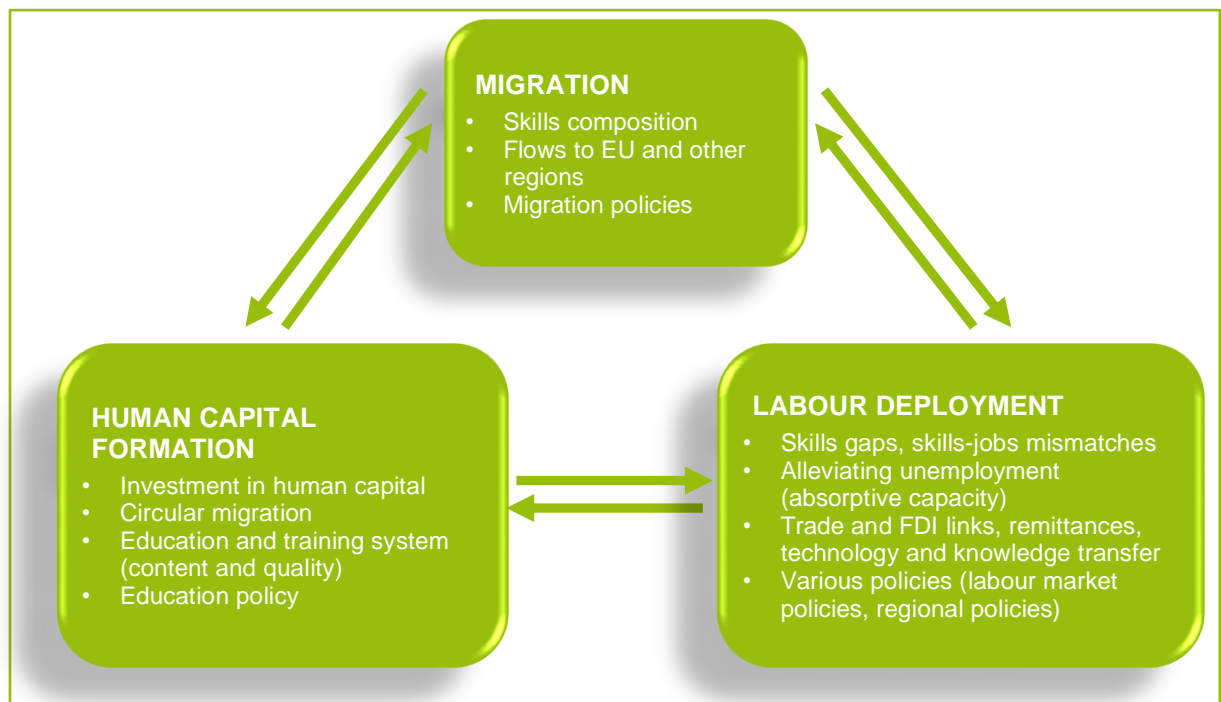
The effects of high emigration from BiH on the domestic labour market remain underexplored, although it is clear that the working-age population is shrinking, which goes in parallel with higher employment and lower unemployment rates, but also an increasing number of pensioners. In this socioeconomic environment, the undeclared economy still plays an important role, while the efficiency of public institutions remains weak and constitutes one of the reasons for the high emigration intentions that exist among the country's population. The purpose of this country study is to investigate emigration, human capital formation and labour deployment over the past decade, as these are all interlinked contemporaneous challenges for this society (Figure 1.1). Therefore, this report does not cover the temporary immigration and refugee issues that have recently been reported in the media, as these are outside the research framework of this study⁸.

⁶ More information on this dataset is available in Chapter 4.

⁷ www.bhas.gov.ba/data/Publikacije/Bilteni/2018/LAB_00_2018_Y1_0_BS.pdf

⁸ Since the beginning of 2018, almost 70 000 refugees and migrants have arrived in BiH via the Western Balkans migration route. According to the United Nations, there are currently around 8 000 refugees and migrants in the country. A humanitarian crisis has recently become a reality and, as a result, the EU is providing emergency assistance and urging the authorities to identify suitable accommodation facilities. See [Bosnia and Herzegovina | European Civil Protection and Humanitarian Aid Operations \(europa.eu\)](#).

FIGURE 1.1 THE TRIANGULAR RELATIONSHIP BETWEEN HUMAN CAPITAL, THE LABOUR MARKET AND MIGRATION



Source: wiw.

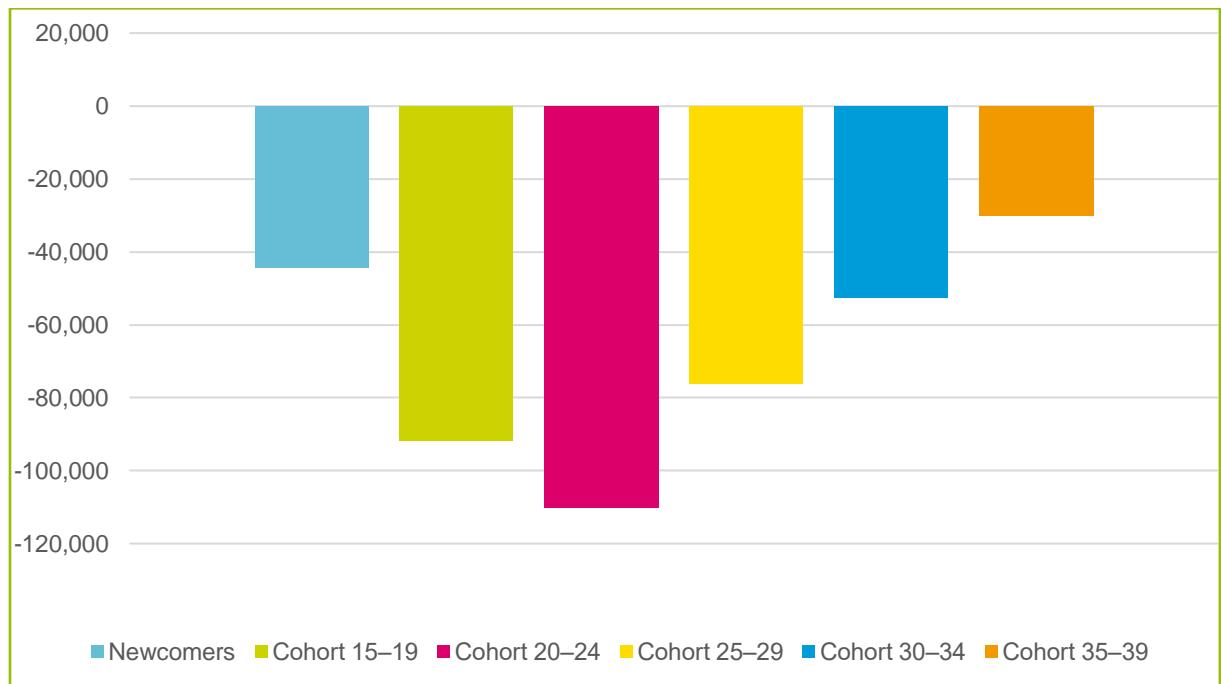
The report is organised as follows: **Chapter 2** discusses the basic facts on migration trends and policies, and **Chapter 3** explores the labour market in BiH and its potential link to migration. **Chapter 4** investigates human capital and its relationship to migration, while **Chapter 5** provides an initial estimate of the effect of the Covid-19 pandemic on migration, the labour market and human capital development in the country. Finally, **Chapter 6** briefly presents the main conclusions of the study and the policy implications that follow from this report.

2. BASIC FACTS ON MIGRATION TRENDS AND POLICIES

The statistics collected by institutions in BiH are of limited use for the deeper analysis of migration, as relevant ministries report annual data on those emigrants who have lost their residence status⁹. For example, 4 044 emigrants from BiH lost their residence status in 2019, with similar numbers in previous years (MSBiH, 2019; 2020). As many destination countries allow dual citizenship for BiH citizens, migration statistics are a challenge and these numbers are definitely an underestimate. Thus, other available international sources (United Nations, Eurostat, IAB, LFS) are used for the purposes of this study, while the cohort analysis (Leitner, 2021) estimates the country's net emigration balance covering the past decade.

Leitner's (2021) cohort analysis over the period 2011–19 – based on LFS survey data and net migration by cohorts, as explained in Annex 1 – estimates a negative migration balance of over 400 000 persons in BiH (for the age groups that were between 15 and 39 years old in 2011), or around 13% of the current population (Figure 2.1)¹⁰. These numbers are very consistent with some estimates of the population changes for the same period that were presented earlier (ASBiH, 2018).

FIGURE 2.1 NET MIGRATION BY COHORT – CUMULATIVE, 2011–19



Note: The age brackets refer to the age at the beginning of the period of analysis. 'Newcomers' refers to the new group of young persons aged 15 who enter the survey population.

Source: Leitner (2021) based on LFS data provided by the Agency for Statistics of BiH.

⁹ MSBiH (2020, p. 64): 'As for the number of persons emigrating from BiH on an annual basis, the only data that can be used as emigration statistics by years are the data on the number of persons who have been deregistered from the Register of Permanent and Temporary Residence of Bosnia and Herzegovina to immigrate to other countries, kept by the Agency for Identification Documents, Records and Data Exchange of Bosnia and Herzegovina.'

¹⁰ For more information, see Leitner (2021).

All age groups experienced significant net emigration in the period 2011–19, with the biggest number among those aged 20–24 (Figure 2.1). The second and third places are also the young cohorts (15–19 and 25–29 years, respectively) implying that BiH has been losing its young and productive generations over the past decade. These emigration outcomes can be linked to the emigration aspirations reported in the United Nations Development Programme (UNDP) BiH (2002–10) surveys¹¹ prior to this period. These surveys suggested much higher emigration intentions among younger respondents (18–35 versus 36 years or older)¹² at that time, which appears to have been a good predictor of what would happen in subsequent years.

2.1 Emigration to the EU and the Western Balkans

A good indication of migration flows for 2010–19 can be further determined by analysing the Eurostat data on residence permits issued to BiH citizens in the EU, the most attractive region for current emigrants (Čičić, 2019). There is a clear increasing trend over time, with an increase from 11 000 to 56 000 permits issued annually over the past decade (Table 2.1). These permits were primarily issued in Austria, Croatia, Germany and Slovenia, which together accounted for over 90% of all permits. If we distinguish between the old Member States of the EU (before 2004) and new Member States of the EU (from 2004 or later), old EU Member States predominated a decade ago by issuing more permits, but after Croatia joined the EU, this has been changing so that new EU Member States (i.e. Croatia and Slovenia) are now more significant.

TABLE 2.1 MAIN DESTINATION COUNTRIES IN THE EU (TOTAL NUMBER OF FIRST PERMITS, THOUSANDS), 2010–19

Countries	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EU 28 total	11 013	11 718	14 856	16 440	18 688	19 934	26 395	36 365	53 762	56 039
Germany	1 279	1 462	3 450	4 036	5 347	5 257	9 461	12 461	16 523	15 198
Croatia				1 284	1 002	866	2 382	5 526	12 996	18 307
Italy	3 226	1 908	1 920	1 689	1 402	1 556	1 040	952	976	721
Austria	1 703	2 459	3 077	3 603	4 057	4 520	4 060	3 350	3 504	3 165
Slovenia	2 328	3 446	3 581	3 064	4 369	4 861	6 330	10 414	15 714	14 878
Sweden	674	719	869	780	762	768	809	1 085	1 094	1 019
Other 22 EU	1 803	1 724	1 959	1 984	1 749	2 106	2 313	2 577	2 955	2 751
OMS total	8 463	8 055	10 691	11 592	12 843	13 340	16 677	19 349	23 362	21 316
NMS total	2 550	3 663	4 165	4 848	5 845	6 594	9 718	17 016	30 400	34 723

Note: OMS – old EU Member States; NMS – new EU Member States

Source: Eurostat, 2020.

¹¹ As we will refer to these surveys at different places in the study, it is worth mentioning that the series of quarterly surveys was conducted by a professional survey agency to support the UNDP BiH project ‘Early Warning System’ over the period 2002–10 (UNDP BiH, 2002–10). Thirty waves of data were collected, leading to over 54 000 observations overall (1 800 observations per survey, on average). The sample is representative of entities in BiH, regions, municipalities, ethnic groups, genders and urban/rural areas. A unique feature of this dataset is that it was designed to capture the socioeconomic determinants of respondents, including their intentions to leave the country, or, more precisely, adult members of the population who expressed a willingness to migrate abroad.

¹² 68% of younger respondents (age 18–35) reported intentions to migrate permanently, compared with 33% for older respondents (36 years and older). The outcomes of this survey were published by Efendic (2016).

Around 60% of permits were issued for the purpose of work. Some 5% of permits were issued to support the education of citizens, while around 30% were issued for family reasons, the remaining proportion being for other purposes¹³ (Eurostat, 2020). These data suggest that the structure of the country's emigration is heterogeneous. In terms of the length of stay, over 50% were permits for longer than one year. A third were for permits of 6–11 months, and the remainder for permits of 3–5 months (Ibid.). Such a distribution suggests that the 50% of short-term permits (less than a year) might possibly capture temporary, seasonal and circular migrants. Thus, emigration from BiH is not necessarily permanent, but could be short term, characterised by a dynamic that could bring some positive benefits to the country. Finally, if we look at the changes between 2010 and 2019, the number of permits issued for family, education and other purposes increased threefold. The increase in the number of permits issued for remunerated activities increased tenfold over this period, which indicates a much higher relative increase in this category than for family, education and other purposes. Such changes in the purposes of permits do indicate a greater increase in the number of labour migrants with remuneration motives.

In total, over 250 000 first permits were issued in the EU to citizens from BiH over the period 2010–19. However, migration flows could be higher, as they include flows not only to the EU, but also the Western Balkan region and the rest of the world. Moreover, these permits do not necessarily explain the final purpose of migrations, as most migrants move in response to economic incentives, even if the data on the type of entry visa imply otherwise (World Bank, 2019b). A study from the beginning of this period by de Zwager and Gressmann (2010)¹⁴ on emigrants from BiH came to a similar conclusion. The authors found that migration from BiH consists largely of those from the most economically active part of the population and that many migrants regularised their status in the destination countries, including obtaining residence and work permits. The broad sectors of employment of these migrants in the destination countries were construction, tourism/services and manufacturing, but with a significant number working in managerial positions. A large number of these migrants had a job secured in the destination country prior to migration, mainly as a result of strong migrant networks.

Geographically speaking, the largest numbers of emigrant stocks from all phases of migration are registered in two neighbouring countries, Croatia and Serbia (around 370 000 and 340 000, respectively); Germany, Austria and the USA follow (with some 290 000, 180 000 and 140 000, respectively) (MSBiH, 2020). While these intra-regional migrations dominated in the past and are linked to the Bosnian War, when many refugees settled in Croatia and Serbia, EU countries have now become the primary choice for the majority of labour migrants from BiH (Mara et al., 2019). As the migration policies of destination countries that are most attractive for BiH migrants – such as Germany and Austria – have changed, making immigration easier and integration into their societies and labour markets more flexible (Čičić, 2019), it is expected that more of the medium-educated population will migrate in the coming years as a result of these pull factors.

¹³ With regard to the education of the country's citizens abroad, this might be underestimated in the figure for 'educational reasons', as those who emigrate for 'family reasons', for example, might also attend education/training programmes while abroad. This possibility cannot be excluded.

¹⁴ The authors used a large-scale survey of 1 216 long-term migrants from BiH. This was carried out from December 2009 to January 2010. This period was selected in order to capture a representative sampling among the high number of long-term migrants returning to BiH over the traditional holiday season.

2.2 Institutional context of migration

The Ministry of Security of BiH (MSBiH, 2014) reported that over 65 000 BiH citizens renounced their citizenship between 1998 and 2014, while the figure for the past five years is around 20 000 (MSBiH, 2014–19¹⁵). Although some Western European countries, including Germany and Austria, do not allow dual citizenship, it seems that this affects neither emigration intentions nor the popularity of these countries, which remain the destinations to which most BiH migrants aspire to emigrate. Indeed, over 50% of respondents with emigration intentions in BiH in the 2019 Academy of Sciences and Arts of Bosnia and Herzegovina (ANUBiH, 2019) survey¹⁶ chose these countries as their desired destinations for emigration.

Nevertheless, the MSBiH (2020) reports that the largest number of emigrants from BiH who have acquired citizenship of the host country still hold BiH citizenship. While the biggest number of renounced citizenships in 2019 were for Germany (1 917) and Austria (1 232), a large majority of emigrants in these countries still hold BiH citizenship, despite meeting the necessary requirements for renouncing their citizenship (MSBiH, 2020). Finally, BiH has an agreement on dual citizenship with two neighbouring countries, Croatia and Serbia, which might be a factor that stimulates migration, both within the region but also towards the EU. This is because Bosnian Croats (not excluding the fact that those of other ethnicities might also use this opportunity) have often obtained Croatian citizenship and can benefit from the advantages of Croatia's membership of the EU. Similarly, dual citizenship makes intra-regional migration easier for those who have Serbian citizenship.

The visa facilitation and readmission agreement between the EU and BiH that started to be implemented in January 2008 has made travelling to the EU easier and has improved various types of mobility, in particular those linked to the diaspora, which, as already mentioned, amounts to over 50% of the current population. Improved road infrastructure and new air travel options (e.g. charter flights from a few airports in BiH) to a number of places in Western Europe with significant diaspora communities have further increased general travel over time, including family visits, but also direct access to and first-hand information about job markets, housing issues and different types of professional opportunities abroad. We believe that all these opportunities have made emigration from BiH more predictable, more tangible and easier, and have to some extent increased emigration in the second decade of the 2000s, as emigration from the country relies heavily on migration networks abroad (de Zwager and Gressmann, 2010; Halilovich et al., 2018).

2.3 Diversity of migration – return, temporary and circular

There are no organised data available on return, circular and temporary migration from and to BiH. However, some useful indicators can be obtained from various sources, and these suggest that these types of migration should not be ignored. According to the MSBiH (2020) report, the number of voluntary returns to BiH is rather small, accounting for 1 690 persons over the period 2010–19. Analysis of the data by countries from which BiH nationals voluntarily returned with assistance from

¹⁵ These data are available specifically for each year in the BiH Migration Profile reports published by the MSBiH.

¹⁶ As we will use this survey in a number of places in the report, it is worth mentioning that it was part of a project on emigration from BiH implemented by the Academy of Science and Arts of BiH in 2019. It led to the publication of a *Study on emigration: Bosnia and Herzegovina* (Čičić, 2019). The survey was administered by a professional research agency. It used a representative sample and combined face-to-face interviews (one third) and computer-assisted personal interviews (two thirds) on a sample of 2 028 respondents. Participants were in the 18+ age group.

the International Organisation for Migration showed that the largest number of returnees in this period were from Germany (42%), the Netherlands (18%) and Switzerland (13%). The majority of these were younger individuals, as 87% were under the age of 35, and there were slightly more men than women.

However, other reports indicate that the number of people who have returned to BiH could be higher. For example, the number of BiH citizens who left Germany in 2016–18 (39 330) represents over 50% of the estimated number of those who moved to Germany (75 144). Many local and regional media and internet portals¹⁷ have reported these data, based on statistics from the German Federal Office for Migration and Refugees¹⁸ (Čičić, 2019). This indicates that migration in BiH seems to be more dynamic and diverse than the actual statistical data can capture, and it includes circular migration as well as return migration, a similar trend to that identified in South East Europe as a whole (Zbinden et al., 2016).

If we consider temporary and circular migration geographically, there is evidence that more of this migration has been occurring with neighbouring countries. Language is not a barrier for less educated workers, while the common history and even networks dating from the former Yugoslav period can still facilitate this temporary migration. Indeed, figures on work permits issued by authorities of neighbouring countries to workers from BiH show that there is a significant amount of migration to the countries of the former Yugoslavia. The most popular destinations for these workers are Slovenia and Croatia (Table 2.1), but there are also indications that there are large numbers of workers in Serbia and Montenegro.

However, the figures for migration to Croatia and Montenegro are likely to be underestimated, particularly in terms of circular migration, as a large number of temporary workers in the construction and tourism sectors work in these two countries over the summer season and then return to BiH (Kačapor-Džihić and Oruč, 2012). For example, Una-Sana Canton is geographically close to Croatia and Slovenia, so it traditionally records high emigration rates of the workforce to these two countries. There is also evidence of significant emigration from the Foca region to the Vojvodina province in Serbia. Owing to its proximity to Serbia and Montenegro, Foca also experiences significant seasonal temporary migration, mainly of construction and tourism workers to Montenegro, and for fruit picking jobs in Serbia. Very often these migrants are not recorded in the work permit figures, as both countries have a large informal sector and many workers from BiH are employed without a contract¹⁹.

An indication of potential temporary and circular migration in the future can be found in survey data from ANUBiH (2019), in which around 24% of respondents expressed a desire for temporary migration from BiH. These percentages are very similar for both males and females (24% versus 23%), but differ according to age categories, with younger respondents (age 18–29) more willing to migrate (35%), on average, than those in older age groups²⁰. With regard to level of education, there is slightly higher intention for temporary emigration among highly educated (25%) than among medium- and low-educated respondents (23%).

¹⁷ For example, www.nezavisne.com/novosti/drustvo/Za-dvije-godine-u-Njemacku-otislo-50000-gradjana-BiH-vratilo-se-28000/519284; www.vecernji.hr/vijesti/u-njemacku-iz-hrvatske-u-dvije-godine-iselilo-vise-od-110-000-ljudi-1296361; www.biznisinfo.ba/evo-koliko-je-ljudi-iz-bih-otislo-u-njemacku-za-dvije-godine/?fbclid=IwAR3cfwFtJ6l33Qm8x8qvIA9_JeAVgktyJRM_v1BplfufzsS6PInfxpKoTg

¹⁸ www.bamf.de

¹⁹ For example, estimates by the Croatian trade unions show that in the past 10 years some 30 000 BiH citizens have worked illegally in Croatia during the tourist season: <http://ba.n1info.com/Vijesti/a354894/Desetine-hiljada-radnika-iz-BiH-na-crno-u-Hrvatskoj.html>

²⁰ The percentages for the older age groups are as follows: age 30–39, 24%; age 40–54, 23%; age 55–65, 13% (Čičić, 2019, p. 51).

2.4 Migration intentions, government response and policies

The country's government sector has recognised the challenges posed by emigration²¹ and the persistently high intentions to emigrate among the population. However, a comprehensive policy framework directly targeting these challenges is missing; instead, some piecemeal and fragmented policies on migration and indirect policies can be identified. Most current policy measures tackle employment challenges, in particular among the young generation, and sometimes support for education or housing issues. These policy measures exist at different institutional levels. For example, at the state level the Labour and Employment Agency of BiH cooperates with agencies, institutions and international organisations responsible for employment-related issues, and initiates international employment-related agreements that improve conditions for (temporary) migration of the labour force by providing valuable information and institutional support.

At the entity level, there are also policies and projects designed to improve labour market prospects by stimulating new employment (e.g. Find your employer, Training for work, Programme of co-financing self-employment – Start Up 2020 – in FBiH; Training, retraining and additional qualifications, Financing employment of young people without work experience and with high and medium VET education, Supporting employment and self-employment – in Republika Srpska²²), in particular for young people and those in vulnerable categories, who are also more likely to emigrate. Some policies exist at the cantonal level, such as in the Canton of Sarajevo, where young couples could apply for a subsidy based on a public call²³ (EUR 5 000 in 2019 and EUR 3 500 in 2020) to support the purchase of their first apartment or house. Even municipalities have often devoted funds from their budget to support the employment prospects of their young labour force, those in vulnerable groups, students and unemployed people in general. There have been no visible policies in recent times relating to foreign trade and foreign direct investment (FDI) that aim to impact migration from BiH.

Institutional attention is given to the country's diaspora through the Ministry of Human Rights and Refugees of BiH, which has a Diaspora Department²⁴. This institution has been active in encouraging the diaspora of BiH to support local development, which remains an important government policy and which could improve the socioeconomic environment in the country. The ministry has initiated a

²¹ For example, the Ministry of Human Rights and Refugees of BiH Diaspora Department, has initiated a number of projects focused on migration (<https://dijaspora.mhrr.gov.ba/category/uspjesne-price/>); the government of FBiH has supported a recent study on emigration from BiH, which was implemented by the Academy of Sciences and Arts of BiH in 2019 (<https://publications.anubih.ba>); and the Ministry of Education, Science and Youth of the Canton of Sarajevo has supported several research projects on migration (<https://mon.ks.gov.ba>).

²² These are programmes run by the Federal Employment Agency of FBiH (www.fzzz.ba/) and Republika Srpska (www.zzzrs.net/index.php/), and they are quite similar in their structure and intentions. For example, the 'Find your employer' programme in 2020 is targeted at unemployed persons, with a special emphasis on the most vulnerable groups in FBiH – young people, women, and those who are long-term unemployed or unemployed and aged over 40, etc. If selected, participants have six months to find an employer who will employ them and receive a subsidy in the form of contribution to the monthly salary up to BAM 500 (EUR 250) for a six-month period. The programme has secured financing for 13 000 participants. Similarly, 'Financing employment of young people without work experience and with high and medium VET education' is a programme run by Republika Srpska with finances secured for over 600 participants, the majority of whom should receive a salary contribution amounting to around BAM 550 per month (EUR 275).

²³ <https://mpz.ks.gov.ba/aktuelno/konkursijavni-pozivi/javni-poziv-za-subvencioniranje-rjesavanja-stambenog-pitanja-mladih-2>

²⁴ The number of institutions that could be mentioned here as being responsible for different migration and diaspora issues is much longer, including the Ministry of Foreign Affairs, Ministry of Security, Ministry of Civil Affairs, Ministry of Justice and the Directorate for European Integration. There are also numerous diaspora organisations and associations. An overview of these key institutions is available in Efendic et al. (2014).

number of projects – such as the Interactive Portal for the Diaspora of BiH²⁵ and the Diaspora for Development (D4D) project²⁶ – that aim to encourage members of the country's diaspora to return, invest and transfer their knowledge and skills back to BiH. Still, the main challenge in the current institutional environment is how to coordinate and develop efficient migration policies.

The government policies that should be tackling migration challenges have produced limited results, mainly owing to modest financing and, as a result, not being effective enough to structurally change either migration or intentions to migrate abroad. Trust in state institutions and the credibility of their policies are rather low, particularly among migrants (Williams and Efendic, 2019), and state authorities will need to do much more to give positive signals to the labour market and to individuals intending to leave the country, even when participating in the labour market as job holders.

Emigration intentions have remained high over the past two decades, as confirmed by two surveys undertaken during this period. UNDP Early Warning System annual surveys cover the period 2002–10 (UNDPBiH, 2002–10), while ANUBiH (2019) reveals the latest data from 2019. Both sources indicate that a relatively high percentage of the population have emigration intentions, including an average of 45% who aspire to emigrate permanently over the period 2002–10 (UNDPBiH, 2002–10) and 34% in 2019 (ANUBiH, 2019). There has been a decrease in emigration intentions, but this might reflect the effect of emigration that has taken place over the observed period (indeed, this is in line with Leitner (2021) projection, presented in this report). However, not all the 34% of the population from the 2019 survey will eventually leave the country permanently, as the same survey suggests that around 40% of these potential emigrants are actively working on their plan. Thus, we can conclude that around 15% of citizens have emigration intentions and a plan of how to do it, which is indicative of the current emigration potential. These data do not differ structurally between the two entities in BiH, suggesting very similar outcomes at the entity level.

2.5 Migration and the diaspora

The country's diaspora in Europe is a large community (Valenta and Ramet, 2011). Its members seem to be often better educated than the domestic populations, and well integrated into their host societies. In contrast, according to Domazet et al. (2020), the migrants from BiH in the former Yugoslav countries (Slovenia, Croatia and Serbia) feel less integrated into these societies than those in other European or third countries (Australia, Canada and the USA). Although the cultural and language differences between BiH and these countries are not significant²⁷, this does not seem to be an advantage in terms of better integration into these societies.

Emigrants from BiH seem to have well-developed human, financial and social capital, which should be attractive in terms of the potential benefits to the country. Empirical evidence suggests that the capacities of the diaspora in Europe are an underutilised resource of economic and social development (Williams, 2019). For example, the IASCI/IOM (2010) report that although 32% of emigrants plan to invest in BiH, this potential remains mainly unused (only 6% of respondents had invested before taking part in the survey). The total remittances sent home by members of the

²⁵ <https://dijaspora.mhrr.gov.ba/>

²⁶ www.gfmd.org/pfp/ppd/5526

²⁷ This applies particularly when Bosnian Serbs emigrate to Serbia or Bosnian Croats to Croatia, as not only is language not an issue, but also religion, traditions and customs often overlap. Even in the case when other ethnicities emigrate to these neighbouring countries, the language is not an obstacle, while ethnic and religious differences are things that are familiar to these neighbouring societies.

diaspora make an important contribution to the domestic economy. Around 40% of these remittances come from Germany and Austria (MSBiH, 2020). In their emigration study, Domazet et al. (2020) report that around 60% of money transfers sent home are done to support close family. The economic contributions (spending) of the country's diaspora over the holiday (summer) season is hard to estimate but should not be ignored in these calculations as they support short-run increases in GDP each year.

Members of the diaspora feel a strong emotional attachment to their home country and a desire to assist its future development (e.g. Valenta and Ramet, 2011; Halilovich, 2013; Ibricevic, 2019; Halilovich et al, 2018; Čičić, 2019; Domazet et al., 2020). Thanks to the wide availability of information and communications technology, members of this diaspora are in frequent contact with family and friends (Efendic et al., 2014), who also rely on the diaspora networks to find out about job prospects and housing and to obtain other relevant information from abroad (Waxman and Colic-Peisker, 2005). Dimova and Wolff (2015) and Čičić (2019) report that families who receive remittances are more likely to want to leave the country, suggesting that remittances work as a pull factor, but also as a potential source of financing for emigration. This is the ambivalence of remittances: on the one hand, they are welcome because they increase domestic consumption, though not really investment (Domazet et al., 2020); on the other hand, they might be used as a financial instrument to facilitate further emigration from the country.

3. LABOUR DEPLOYMENT AND MIGRATION

Labour market institutions responsible for the implementation of labour market and employment policies in BiH are rather decentralised and fragmented. Various relevant institutions can be identified at all administrative levels, including the Labour and Employment Agency of BiH at the state level, Employment Agencies in FBiH and Republika Srpska, employment services at the cantonal level in FBiH, and employment bureaus at municipal level. The labour market remains a weak spot of the country's economy, although in relative terms it has improved overall during recent years (Table 3.1).

TABLE 3.1 KEY LABOUR MARKET INDICATORS IN BIH, 2010–19

Labour market indicators	2010	2015	2019
Working-age population aged 15+ (million)	2.6	2.6	2.3
Labour force (million)	1.2	1.1	1.0
Activity rate, % of population aged 15+	44.6	44.1	42.1
Employment rate, % of population aged 15+	32.5	31.9	35.5
Unemployment rate, % of labour force	27.2	27.7	15.7
Long-term unemployment rate, % of labour force	22.3	22.6	11.9
Number of retired persons (thousand)	607*	670	736

* Number of retired persons in January 2012. The data are obtained by summarising FBiH and Republika Srpska agency reports.

Source: SEEJGD (2020).

As shown in Table 3.1, there has been a significant decline in the working-age population and labour force over the 2015–19 period, with the size of the working-age population dropping by around 12%. The decrease over the first five years of this decade (2010–15) was 2%, suggesting that the speed of decline in the working-age population is increasing over time. Consequently, there is a strong indication that contemporary emigration from BiH has contributed to this decline (Leitner, 2021).

The main characteristics of the labour market are a very low activity rate, which is about half of the EU average, and high unemployment rates, especially for young people. According to the ETF KIESE database (2020), the labour force participation rate (aged 15+) was only 42.1% of the working-age population in 2019 (51.7% males, 32.9% females), a slight decrease over the past decade. Similarly, the employment rate (aged 15+) is also very low (35.5% in total in 2019). The employment rates are lower among some groups of the population, such as women (26.7%) and low-skilled workers (15.7%), than among high-skilled workers (59.3%).

The country has a relatively high share of self-employment (24.6% in 2019) and vulnerable employment (19.1%)²⁸. Youth activity and employment rates were also quite low in 2019 (35.4% and 23.4%, respectively). The overall unemployment rate has decreased over the past decade, from 27.2% in 2010 to 15.7% in 2019. However, the youth unemployment rate has remained relatively high,

²⁸ Vulnerable employment is own-account workers and contributing family workers as a proportion of the total employed, in line with the International Conference of Labour Statisticians resolution (ETF, 2020).

at 33.8% in 2019, although it was down from 57.5% in 2010. The youth female unemployment rate is normally higher (37.9%) than male unemployment (ETF, 2020).

Educational attainment (broad levels) of the labour force (aged 15+) shows that 15.8% of the active population were low skilled in 2019 (20.5% in 2010), 68.9% were medium skilled (66.2% in 2010), and 15.3% were highly skilled (13.3% in 2010). However, the share of young people not in employment, education or training (NEETs) is quite high, at 21% of those aged 15–24 in 2019, although it had decreased from 28% in 2010.

3.1 Labour market status and migration

It is not entirely clear how much emigration has alleviated unemployment in the country, but it is likely to have reduced it to some degree, albeit not to a large extent. This caution is necessary as employed labour force participants are also emigrating, which might open up new positions for unemployed individuals, while this change also affects the size of the labour force and the unemployment rate.

Although labour market status and level of income were found to be relevant factors for emigration potential in 2010 (UNDPBiH, 2002–10), they were no longer the most relevant in 2019 (ANUBiH, 2019). Put simply, in 2019 there was no difference in the influence of unemployed and employed status on emigration intentions in an emigration aspiration model (Čičić, 2019), suggesting that emigration potential exists among both these labour market statuses. We cannot ignore indirect evidence that utilisation of the labour force can be an important determinant of *current* emigration (Table 3.1), but it is indicative that employment status is not at the top of the list of emigration aspiration determinants. Many examples exist on the ground to demonstrate that employed people, even those from public institutions (employment in the public sector is regarded as the most desirable, and it is linked to better security and higher salaries), leave the country and settle abroad.

BOX 3.1 AN ILLUSTRATION OF THE LABOUR MARKET STATUS AND POTENTIAL EMIGRATION

In October 2020 we interviewed a man (medium-VET-educated respondent in his 40s from a small city in east BiH) who had left his job and started a specific training programme for truck drivers in Slovenia. Asked why he had left his job, he answered that his monthly salary (EUR 250–300 net) and position had been the same for eight years in a row, although he had been formally recognised as the best worker in the company. He disappointingly concluded that ‘this situation would be the same eight years from now, nothing would change’, and this is why he had decided to follow opportunities abroad.

This is one example that suggests why there might be no difference between employed and unemployed individuals in terms of emigration, as employment per se is not a guarantee of satisfaction nor a prediction of a better future. It is important in future research to investigate how the quality of jobs, the type of contracts, the level of salary, and opportunities for career development in the labour market affect aspirations to leave the country.

According to the MSBiH (2020), a good number of BiH workers find their jobs abroad based on the bilateral employment agreements that the country has concluded with other countries, with Slovenia and Germany predominating. In the past few years there has been a substantial increase in the number of BiH nationals who are employed through these agreements with Slovenia and Germany, from 6 000 in 2016 to over 15 000 in 2018. However, these numbers do not capture workers who find their jobs using other channels (e.g. through individual initiatives or diaspora networks abroad), but still reflect a strong increasing trend (MSBiH, 2020).

The factors that lead to emigration from BiH are multidimensional and not primarily (or only) linked to individuals' employment or unemployment status in the labour market today. Thus, labour utilisation is one of the potential determinants of migration but, based on the existing data, is unlikely to be the leading factor for emigration. To draw further conclusions, it would be necessary to examine the quality of jobs (type of contract, salary) and prospects (opportunities for career progression) of those who decided to leave the country.

3.2 Migration and specific professions

A recent study investigating the professions of emigrants from BiH to the top 10 destinations (Halilovich et al., 2018)²⁹ finds that migrants abroad work in almost every possible profession and industry (from highly sophisticated engineering and academic jobs to positions in construction, transport, health and social services to hospitality, tourism and catering), suggesting a rather heterogeneous distribution of sectors. The study reports that 41% of emigrants have remained in the same or similar occupation that they held in BiH, while 28% changed fields but remained in similar occupations. Moreover, 11% of survey respondents changed occupations but remained in the same field, while 20% changed both their field and their occupation. The same study also reports that these migration and settlement patterns have been built mainly around social networks, which are often based on family, friendships and local communities from BiH, a phenomenon that is characteristic of this diaspora.

With regard to the professions of migrants from BiH, there are indications that specialists in some sectors, such as medicine, information technology (IT) and science, have emigrated more than individuals employed in other sectors (Čičić, 2019). In addition, labour migration is sometimes based on specific agreements between BiH Labour and Employment Agencies and destination countries. For example, Judah (2019) points to agreements on the emigration of nurses from BiH to Germany, and on the emigration of truck drivers and construction workers to Slovenia and Croatia. The author reports that in the period 2013–19 more than 5 000 nurses went to Germany, while close to 50 000 truck drivers and construction workers obtained contracts in Slovenia.

The OECD (2020) database on health workforce migration³⁰ identifies over 16 000 doctors and nurses who originated in BiH and now work abroad (including both stock and new inflows for the period 2000–19). However, these statistics differ between different sources, depending on the categories and periods observed. For example, Panic and Kozina (2016) report that the German Federal Employment Agency recorded over 10 000 nurses, doctors and carers who originated from BiH in Germany alone,

²⁹ As we will refer to this survey at other places in the report, it is worth mentioning that this study uses a sample of around 1 000 participants and the SurveyMonkey tool, and was implemented in 2017 among members of the country's diaspora in Australia, Austria, Denmark, Germany, Italy, the Netherlands, Slovenia, Sweden, Switzerland and the USA.

³⁰ https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI

while Rujevic et al. (2020) also refers to the German Federal Employment Agency, according to which close to 20 000 healthcare professionals originate from BiH.

Regardless of the source used, it is evident that emigration of health professionals is a huge problem, as BiH has been losing skilled healthcare professionals for decades. These data also indicate that emigration among healthcare workers has been intensifying over the past couple of years. Moreover, it has been regionally supported by intermediaries who have built businesses providing intermediation services and provisions for contracts signed by health professionals in Germany and other Western countries (see, for example, Rujevic et al. (2020)). Finally, although the aggregated data on emigration and aspirations to emigrate do not indicate a clear brain drain effect, this conclusion does not necessarily hold for particular sectors, an important example of which is the healthcare sector.

3.3 Migration and the undeclared and platform economy

Young people, women, those with low levels of education and those living in rural areas are most affected by unemployment and inactivity (ETF, 2019). In such circumstances, participation in the undeclared economy, which accounts for around 30% of GDP (Pasovic and Efendic, 2018), remains one of the possible strategies to offset the weaknesses of the formal labour market. Interestingly, these various categories almost overlap when we analyse participants in the undeclared economy of BiH. More precisely, the model of participation in the undeclared economy proposed by Efendic and Williams (2018) suggests that individuals who are young, less educated, from rural areas and from economically weak families have the highest probability of reporting undeclared economic activities. Although this finding may come as no surprise, it provides a useful signal to policy makers about the sections of the population that are most likely to participate in the undeclared economy, and who should therefore be targeted. The extent to which migration differs between those working in the declared and undeclared economies remains underexplored. However, as discussed earlier, the regional migration to the neighbouring states of Croatia, Serbia and Montenegro, often being seasonal and temporary, is more likely to involve those from the undeclared economy (Kačapor-Džihic and Oruč, 2012).

There is little evidence on the extent to which the labour force in BiH is involved in the platform economy through different types of online engagement. Still, data on the number of participants in the global internet freelance market confirm that there were 5 414 freelancers from BiH in 2018 (927 of whom were active users)³¹. This is equivalent to 1.55 freelancers per 1 000 residents in the country, ranking the country 45th among all other countries (175 in total), which seems to be a relatively positive achievement.

One related example has recently attracted public attention. After the tax authorities in BiH raised the issue of taxing income received from abroad (ex-post 2015–18), an association was quickly set up to protect the interests of freelancers, giving rise to extensive public debate. It became apparent that this type of engagement does exist in the country and that there are thousands of people working as freelancers, mostly young, educated individuals and predominantly in IT, design and foreign languages³². Through this association³³, freelancers advocate formal recognition of their professions by the government, and lobby for 'fair' taxation. This example shows that the platform economy does

³¹ See <https://analyticshelp.io/blog/global-internet-freelance-market-overview-2018/>. Online freelancers include only digital freelancers who work via online marketplaces. Offline and independent freelancers are not included. The data is based on publicly available data from World Bank and freelancing sites.

³² <http://balkans.aljazeera.net/vijesti/hiljade-freelancera-u-bih-traze-da-ih-vlada-prepozna-kao-radnu-snagu>

³³ <https://ufubih.org/>

exist and seems to be an increasing trend in the labour market, but its scope remains insufficiently recorded. The platform economy enables the young and educated labour force to work from home for distant markets without physically migrating, thus preserving human capital and bringing much needed foreign currency into the country. Policy makers should not ignore this new trend, which is not very visible in the country, but could be made attractive through relevant policies and initiatives that would put the net emigration balance in a better position, with a number of positive benefits for the economy.

3.4 Labour shortages and migration

Although unemployment remains high and is a persistent phenomenon in BiH, around one third of employers from the private sector still struggle to recruit an adequate labour force (EIS, 2015). This includes workers with some specific skills and work experience as well as those with adequate managerial skills. Several thematic reports (e.g. LEABiH, 2012; EIS, 2015; ETF, 2019; RCC, 2020) identify the mismatch between the type of education offered to young people and the needs of the labour market in the country. This challenge has not been ignored in the public debates – and policy initiatives have also been identified in these – but implementation on the ground remains weak.

In contrast to the high rates of international emigration, the low level of mobility of the workforce within the country hampers faster labour market adjustments, particularly where there is a significant mismatch between the skills produced by the education system and labour market needs. For this reason, despite very high unemployment rates, BiH experiences a lack of specific skills in one region, while having registered unemployed people in another (DEP, 2011).

The ASBiH (2019) reports that around 1% of the population (close to 30 000 people) migrate within the country each year. Based on an interview with an expert involved in writing strategic documents on the labour market in BiH, we found that these internal labour market movements have a different effect on local labour markets in larger urban areas (e.g. Sarajevo, Banja Luka, Tuzla, Mostar) than on those in smaller municipalities and rural areas. Put simply, while external migration takes place from all the different regions, internal migration happens primarily towards bigger urban centres and larger municipalities, which offer better employment prospects. In the context of the capital, Sarajevo, for example, the interviewee estimates that around 10% of the current jobs in this area are held by those who have come from outside the city. Consequently, it is likely that smaller municipalities will be losing relatively more of their population and labour force in the future as they combine external and internal migration, both of which are shrinking the working-age population and labour force participants.

Labour shortages identified in a number of reports (e.g. EIS, 2015; RCC, 2020) might be one of the determinants of wage changes, which have recorded an increasing trend over the past few years. However, the gaps between the wage levels in BiH and those in some EU countries (e.g. Austria and Germany) have been increasing since 2010, which suggests that the level of wages in relative terms has actually fallen, not only in BiH, but in the Western Balkans in general (Mara et al., 2019). Put simply, although the data suggest that wages have increased in the labour market in BiH, in relative terms there might actually have been a decrease in salaries compared with those in the top EU emigration destination countries, which might work as a pull factor for new emigration.

The country's labour market will face more challenges in the future, including a real possibility that BiH, and South East Europe in general, will need foreign labour (immigration) to support its functioning (Fassmann et al., 2016). Nevertheless, there are no visible state-wide labour market policies designed to offset the effects of emigration.

4. HUMAN CAPITAL FORMATION AND MIGRATION

The statistics for the education and training system in BiH are similar to the average of Western Balkan countries. The net enrolment rate in upper secondary education was 79.0% in 2019, while the gross enrolment rate in tertiary education was recorded as 40.2% (UIS database, 2020). Vocational education programmes constitute an important part of upper secondary education: 77.2% of all upper secondary students were in VET programmes in 2019 (up from 74.4% in 2014) (ETF, 2020). The share of early school leavers among the 18–24 age group seems to be quite low (3.8% in 2019), although there are debates about the reliability of this figure.

According to the Human Capital Index (World Bank, 2020), children born in BiH today will be only 58% as productive when they grow up as if they had enjoyed complete education and full health. Expected years of schooling is 11.7 years, but it drops to 7.8 years when factoring in what children actually learn (World Bank, 2020). The 2018 round of the Programme for International Student Assessment (PISA) also indicates problems with learning outcomes, owing to high levels of underachievement among 15-year-old students, who scored much lower than the OECD average in reading, mathematics and science. As an illustration, only 46% of students attained at least level 2 proficiency in reading (OECD average: 77%), 42% of students attained level 2 or higher in mathematics (OECD average: 76%), and 43% of students attained level 2 or higher in science (OECD average: 78%) (OECD PISA database, 2020).

The complexity of the educational set-up and governance in BiH, which is decentralised to the entity level, and even further to the cantonal level in FBiH, poses an underlying challenge to the implementation of state-wide policies in education. Such a system enables better local ownership and management, but also challenges national coordination and implementation (ETF, 2019). In these circumstances, even if public institutions at the local level come up with policies and initiatives to change the mismatch between education and the needs of the labour market (e.g. Canton Sarajevo offers scholarships to specific vocational schools that are identified as being deficient in the needs of the labour market), they can make only modest changes, given the lack of state-wide coordination.

A persistent challenge remaining in BiH is the slow reform of the education system (Annex 2). Several studies (e.g. LEABiH, 2012; Barnes and Oruč, 2012; Kačapor-Džihčić and Oruč, 2012; EIS, 2015; ETF, 2019) are consistent in reporting that the current system of education and training is not aligned with the functioning of the labour market. For example, ETF (2019) reports that the education system is not dynamic enough to meet the economic demands for relevant and up-to-date skills, leading to widening skill gaps and imbalances in the labour market. Although this challenge has been recognised by relevant institutions, there is no state-wide social dialogue, no systematic approach or mechanisms, and no VET and employment strategies aimed at implementing good practices that could help to align the VET sector with the growth potentials of the country. Consequently, training VET students and quickly adjusting the composition of this group to meet the needs of the labour market remains difficult, leading to higher levels of unemployment and vulnerability in the market and, hence, supporting emigration aspirations. EIS (2015) argues that this misalignment is further challenged by the weak capacity of the private sector to generate new jobs. Such a combination supports persistently high unemployment, particularly structural unemployment.

Still, there is evidence to suggest that higher education is associated with lower unemployment rates (Kolev and Saget, 2005; ETF, 2019) and with higher levels of earnings (Efendic and Pugh, 2018). This implies that higher education in BiH brings positive returns to individuals, although some are motivated

to postpone their entry into the inefficient labour market by staying longer in higher education (Kolev and Saget, 2005). However, the unemployment rate among highly educated individuals remains far above the EU unemployment rate for the same category – 15.1% in BiH (SEEJGD, 2020) and 3.9% in the EU in 2018 (Eurostat, 2019).

As discussed in the previous chapter, the labour market in BiH is characterised by high levels of unemployment combined with high inactivity rates and a large informal sector. All these indicators point to significant challenges regarding the further development of human capital in the country, including the use of VET to increase employability. Economic performance is associated with differences in human capital endowment and levels of education. Matching educational supply and local labour needs as well as migration outcomes is equally important (Rodríguez-Pose and Vilalta-Bufí, 2005). All these factors influence labour market efficiency and its rigidities, and also individuals' aspirations to leave the country; in combination, this is not working in a positive direction in BiH (Dimova and Wolff, 2015). Moreover, while there is free movement of labour between the two entities in BiH and between cantons in FBiH, it has already been noted that labour mobility within the country remains very low.

In a report on efficiency in pre-university education, the World Bank (2019a) concludes that education and human capital development are especially critical for BiH, as learning outcomes are below those of the EU and regional peers and there is a skills mismatch between the education system and the labour market. There is also a high level of public dissatisfaction in the quality of primary and secondary education. Access could be improved across all levels of pre-university education, especially pre-school, and inequalities exist for the most vulnerable populations, namely students from minority, poor and rural backgrounds. Improving educational outcomes is vital for boosting human capital development and growth in the country.

Education in the EU and other more developed countries has been attractive for many of the BiH students. Around 13 000 students studied abroad in 2009, equivalent to around 4% of the country's student population (MHRRBiH, 2012). Further evidence of this trend is that the EU countries have reported granting close to 20 000 first-issued permits for educational purposes over the past decade, around 5% of the total permits given to individuals originating in BiH (Eurostat, 2020). As gaining an education in Western European countries, USA and Australia is generally perceived as an advantage in local and even regional labour markets, the country's human capital is enriched by people who have been educated abroad and returned to the country. This is regarded as especially relevant for individuals aspiring to some type of academic career at public or private universities, or those who are willing to work for foreign companies and international organisations that operate in the country. It is not known what percentage of these externally educated individuals return, but the author's observations confirm that public and private universities in the country have at least some employees who were educated abroad, and international organisations put a high value on education and professional experience gained in Western countries.

It is also a popular choice among BiH students to study at universities that offer double-degree diplomas (home and foreign universities), or to take internationally accredited courses at public or private universities in BiH. Student and staff mobility through programmes such as Erasmus+, the Central European Exchange Programme for University Studies (CEEPUS) and the European Regional Master's Programme (ERMA) are very popular. For example, the University of Sarajevo, as the largest university in the country (with around 27 000 students) registered 655 outgoing visits in 2018, with an increasing trend over the past couple of years (UNSA, 2019). The largest number of student visits were to three EU countries: Germany, Italy and Croatia. The universities in BiH are quite active in

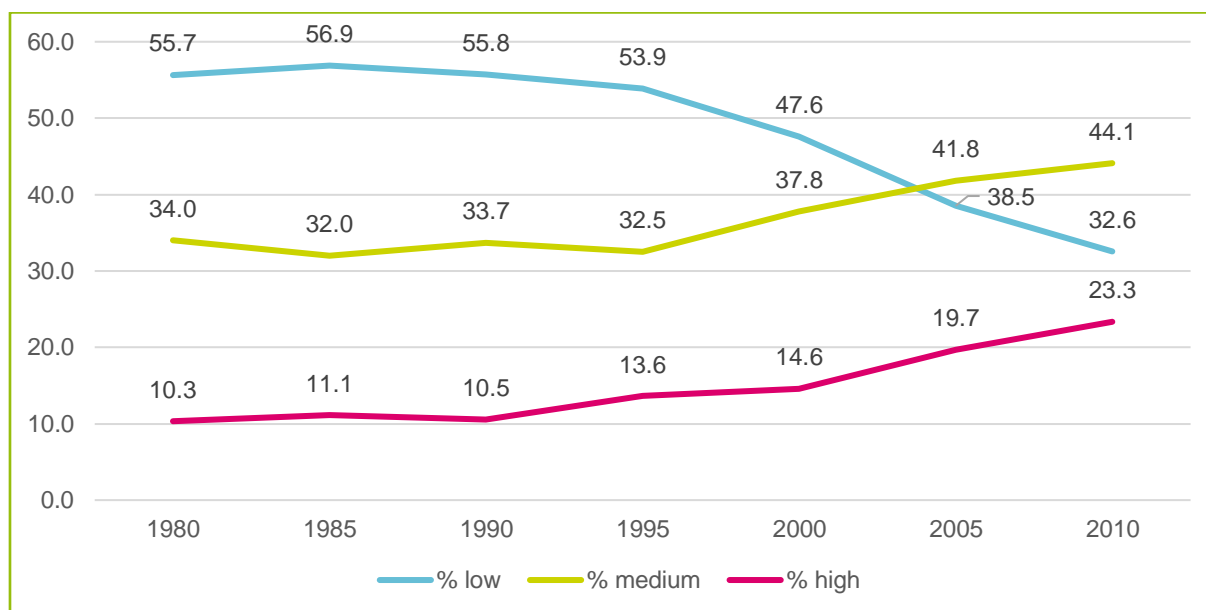
signing bilateral and multilateral agreements that facilitate the mobility of staff and students; thus, a higher level of academic mobility might be expected in the future.

4.1 Education, human capital and migration

The available data suggest that the educational profile of BiH emigrants varies between receiving countries. We present data from a number of studies that cannot be compared directly because they differ in their sampling, their methodology and their period of observation, but that nevertheless provide valuable insights for the report.

A first useful source covering the period up to 2010 is the IAB brain drain dataset. IAB (2020) includes the number of foreign-born individuals aged 25 years and older living in each of the 20 OECD destination countries, including information on educational level. Educational levels are distinguished between low-, medium- and high-skilled emigrants. These data are collected in five-year intervals, starting from 1980 and ending in 2010 (seven intervals). The IAB data suggests that the educational profile of emigrants from BiH has been changing since 1980 (Figure 4.1), when low-educated emigrants predominated, with over 55%, while in 2010 the largest group were medium-educated emigrants, with around 44% of the total number. In 2010, 23% of BiH emigrants were highly educated in the OECD countries examined.

FIGURE 4.1 EDUCATIONAL PROFILE OF BIH EMIGRANTS IN 20 OECD COUNTRIES, 1980–2010 (% OF TOTAL)

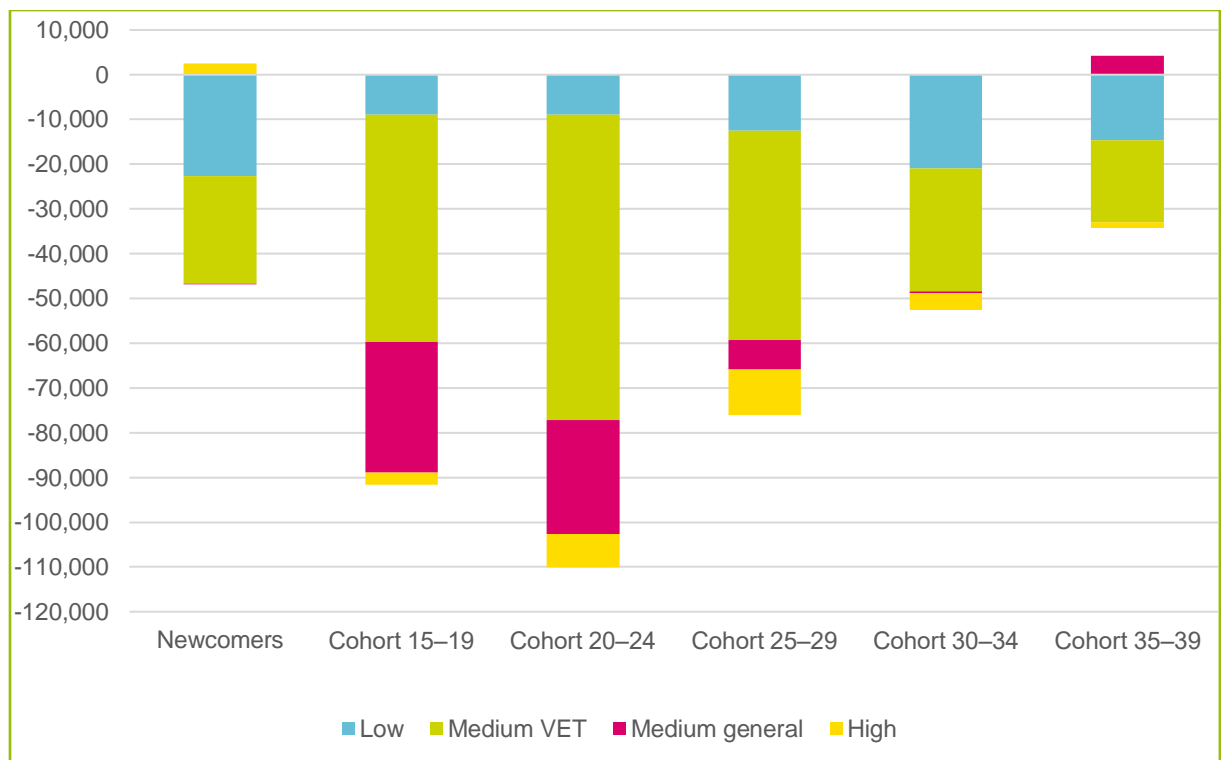


Source: IAB (2020) and author's calculations.

Interestingly, Figure 4.1 shows a clear pattern suggesting that overall, in all emigration phases in the period 1980–2010, the educational attainment of BiH emigrants in OECD countries has been improving over time. It is likely that emigrants from BiH to OECD countries may have used the opportunity to improve their educational performance in host countries. However, we cannot fully exclude the possibility that relatively more of the country's medium and highly educated migrants have chosen to emigrate in the last observed periods (1995–2010).

To examine the educational profile of BiH emigrants in the period after 2010, we use Leitner (2021) estimates of net emigration by cohort and educational attainment (Figure 4.2). All age cohorts (except for the ‘newcomers’) experience a net outflow of highly educated individuals. The highest net outflow of highly educated emigrants is among the younger cohorts (particularly the age group 25–29), which is close to the age at the end of higher education. All cohorts also experience net emigration of low-educated individuals. Net emigration of those with low levels of education is slightly higher among the older age cohorts (aged 30–34 and 35–39), where the low-educated population also make up a larger share of the total. All cohorts experience net emigration of those with medium VET as the highest educational attainment level; net emigration of those with medium VET is highest among the younger cohorts again (aged 20–24). There is also net emigration among those with medium general education as the highest attainment level; this loss is highest among the two younger cohorts (aged 15–19 and 20–24) but is negligible (or even positive) for the two oldest cohorts.

FIGURE 4.2 NET MIGRATION BY COHORT AND EDUCATIONAL ATTAINMENT – CUMULATIVE, 2011–19



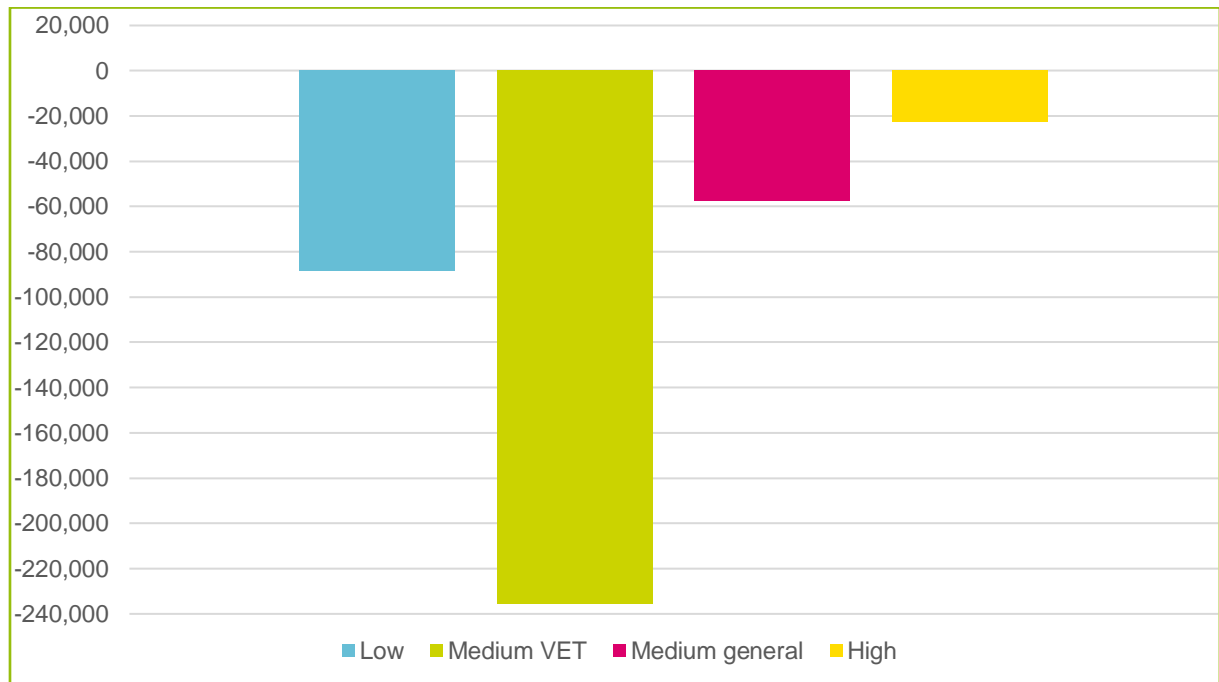
Note: Educational attainment levels: low (primary or lower secondary education), medium VET (upper secondary vocational education and training), medium general (upper secondary general education/gymnasium), and high (tertiary education). ‘Newcomers’ refers to the new group of young persons aged 15 who enter the survey population.

Source: For more info, see Leitner (2021).

The highest number of net emigrants is in the medium-VET category, from which some 240 000 people (around 60% of all emigrants) emigrated in the past decade (Figure 4.3). In second place is the low-educated population, while the lowest percentage is for those with higher education (around 5%). This finding does not indicate a clear brain drain effect if proxied by the emigration of those from the highly educated population. The 2013 census recorded this category as close to 10% of the population, which is double the size of their participation in emigration (although this is not directly

comparable as the age is not controlled). An indicative piece of evidence is that BiH citizens abroad are more educated than the current resident population, but it is likely that emigration of highly educated individuals was happening more in previous periods (e.g. positive selection during the war, as found by Oruč (2009)), and this would also be combined with higher educational attainments by BiH citizens who are currently abroad.

FIGURE 4.3 NET MIGRATION BY EDUCATIONAL ATTAINMENT – CUMULATIVE, 2011–19



Note: Educational attainment levels: low (primary or lower secondary education), medium VET (upper secondary vocational education and training), medium general (upper secondary general education/gymnasium), and high (tertiary education).

Source: Leitner (2021) based on the LFS data provided by the Agency for Statistics of BiH.

While previous studies have indicated a possible problem of brain drain in BiH among potential or actual emigrants (e.g. Oruč, 2009; Kačapor-Džihic and Oruč, 2012; Efendic, 2016), the latest data (Čičić, 2019) do not indicate a structural difference in emigration intentions between citizens with higher education (graduate level) and those with medium-level education (secondary education). The aspirations for migration are systematically lower only for the least educated citizens (primary education). Thus, emigration intentions are quite similar among high- and medium-level-educated workers, possibly capturing a current pull effect from EU countries that have a high demand for workers with medium VET, leading to shortages in particular occupations on the country’s labour market in these categories.

5. MIGRATION, LABOUR DEPLOYMENT AND HUMAN CAPITAL IN THE COVID-19 PANDEMIC

The Covid-19 pandemic, which led to diverse lockdowns in BiH and most of the other countries in March–May 2020, has also affected migration movements. No data are available to show what exactly happened in terms of migration from BiH during 2020, but there are indications of a significant inflow of BiH citizens at the beginning of the pandemic. The media reported on crowded borders as thousands of citizens queued to cross the country's borders or requested help from the relevant institutions to do so³⁴. These were BiH citizens, and possibly emigrants who held temporary, seasonal or unstable jobs, or were simply not well situated to working abroad. During the summer of 2020, there was evidence on the ground that some, thought probably not all, of the previous emigrants had moved back to the EU or other countries. Overall, the 2020 pandemic affected emigration, very likely leading to a decrease in the emigration trends recorded over recently years, including possibly a higher level of return to the country.

With regard to the labour market in BiH, there was an increase in short-run unemployment during the first months of the lockdown, but employment started to rise during the summer period. This is in line with negative GDP growth in the second quarter of 2020 estimated at -5% to -10%. Economic parameters started to improve in the third quarter, although a recession in 2020 seems inevitable. Overall, the pandemic led to a short-run increase in unemployment and an initial recovery that was partly the result of a number of government programmes and activities supporting the private sector to improve its employment performance. What the long-run effects of the pandemic on the labour market will be is an issue for future research, but the negative effects seen at the beginning of the pandemic have partly reduced in subsequent months.

One of the potential consequences of the pandemic is that it is very likely to have affected the aspirations of young people to study abroad, but also the feasibility of this, including other types of mobilities relevant for human capital formation (e.g. academic exchange, foreign conferences, specialist programmes and workshops). We have recognised that education in the EU is an important feature of human capital formation in BiH and some 2 000 permits are issued each year for educational purposes. This number is very likely to be lower in 2020, with consequences that can be examined once the pandemic and restrictions are over.

We have reported that members of the diaspora contribute significantly to the country's economy through remittances, but also through direct spending in the country. The holiday season over the summer break is when they visit their home country, family and friends, and enjoy different tourist destinations in the country, but also use some specific services (e.g. dentists, hairdressers, car repairers and similar). The holiday season in 2020 saw a downturn from previous years as the pandemic prevented many members of the diaspora from making their usual summer visits. This has created a short-run decrease in overall spending in the economy, which will have an impact on GDP and public revenues in 2020. A similar situation was for the Christmas break and New Year holidays.

³⁴ For example, this media report describes activities of the Ministry of Foreign Affairs in supporting the return of BiH citizens from abroad: <http://ba.n1info.com/Vijesti/a434450/MVP-BiH-Omogučen-povratak-u-BiH-velikog-broja-gradjana-tokom-pandemije.html>

6. CONCLUSIONS AND POLICY IMPLICATIONS

BiH is an emigration country that has been continuously losing its population over the past few decades. A huge loss of population was recorded in the 1990s during the Bosnian War (1992–95), through a combination of high war-related mortality and forced migration. Immediately after the war, a proportion of citizens returned to the country from exile. Nevertheless, by the end of first decade of the 2000s, the population had been reduced from 4.1 million (1991 census) to 3.5 million (2013 census), while some estimates (based on LFS data) suggest that the population had been reduced to less than 3 million in 2018.

The second decade of the 21st century, which is the main focus of this report, was also characterised by significant emigration, in particular over the past few years (2016–2019). This emigration trend has been combined with negative (natural) population growth over the whole decade, and consequently, the population has been reduced from both directions. The cohort approach analysis based on the LFS data used in this study suggests that the net emigration induced an outflow of over 400 000 citizens in the past decade (2011–2019). This is a decrease of around 13% of the population, and the decrease is greater among younger and productive generations, making the country's average population older.

Most of the country's emigrant stocks are found in Croatia and Serbia within the region, as well as in Germany, Austria and Switzerland within the EU. The recent Eurostat statistics of residence permits within the EU show the increasing popularity of new EU Member States such as Croatia and Slovenia in the current flows of emigration, as well as the continuing importance of Germany. Almost half of these permits were given for durations shorter than a year, indicating temporary and/or circular movements. Work reasons constituted around 60% of these residence permits. Meanwhile, within the region, a certain amount of temporary and/or circular movement of emigrants is observed towards Montenegro and Serbia. Although the majority of these recent emigrants have medium and low levels of education, such trends generate some challenges and require relevant policies to tackle these phenomena. Below we summarise some of the key policy implications from this report.

Developing a comprehensive policy framework on migration. BiH is losing its citizens, labour force and human capital as a result of the negative (natural) growth rate of the population combined with the negative net emigration balance. The challenges posed by the emigration of citizens are largely recognised by the government, while some (piecemeal) direct and indirect policy initiatives are evident (e.g. initiatives for reaching diaspora and measures to improve employment). However, these policies seem mostly to remain fragmented and are not interlinked. The government authorities at all relevant institutional levels need to develop a shared strategy on all aspects of migration (in particular labour emigration). This could lead to a comprehensive policy framework that addresses all aspects of migration issues. A comprehensive and balanced migration strategy should be closely linked to the labour market and education policies of the country. The strategy has to be agreed by all relevant stakeholders, including social partners and key economic actors.

Collecting better evidence on migration flows and stocks. When developing evidence-based policies to address migration challenges, the first step is to improve data collection and research on the number of migrants (emigrants and immigrants, stocks and flows), focusing in particular on their socioeconomic characteristics, education levels and occupations. This will require improving institutional and statistical capacities so that they can produce relevant and credible data on the amount and type of migration for future strategies and policies.

Policies to encourage the population to stay in or return to the country. Although reducing emigration could be a strategic goal, it is hard to change individuals' minds and stop them from migrating in the short term. The government and entities need to develop initiatives and incentives, at both individual and institutional levels, to encourage people to remain in the country and attract members of the diaspora back to the country. Emigration from BiH will decrease with improvements in political stability and better governance, greater institutional efficiency and stronger economic prosperity. Governments and political actors in BiH need to be aware that the current emigration intentions are strongly affected by the development of these influences, which directly affect the quality of everyday life. All institutional levels should increase their focus on wider socioeconomic goals, send positive signals to society and potential emigrants, and be persistent over a longer period in order to overcome short-run electoral cycles and political interests.

Providing proactive support for (potential) returnees. BiH has a negative net emigration balance, but it might still be able to derive some benefits from various aspects of migration that are identified on the ground but rather ignored in migration statistics and policies. Much more proactive focus is needed on those who temporarily migrate, migrants who complete their education abroad and aim to return to the country, individuals who are acquiring internationally competitive skills within the country, and in particular returning entrepreneurs with developed business skills and external business networks. The loss of human capital occurring through emigration might be partly offset by offering such categories of migrants incentives to return, recognising their skills and qualifications, supporting them to work in the country for international markets, and providing them with transparent and tailored fiscal benefits.

Using the country's diaspora more efficiently. The diaspora is an important productive agent of the economy and requires an overall diaspora strategy and specific action plan. It needs more institutional attention, better institutional representation (e.g. Ministry of Diaspora), and targeted strategies of mutual communication and collaboration (migration and diaspora strategy), all with the aim of enhancing the better use of the different forms of capital (human, managerial, social, cultural and financial) possessed by its members. As the stock of the diaspora is significant, BiH institutions need to put more work into stimulating the contribution and return of its citizens, who will bring significant development potential to society, in particular in the form of human capital, which is otherwise shrinking.

Legal frameworks for short-term labour mobility. The results of the study suggest very dynamic inter-regional migration, in particular seasonal, temporary and circular migration, often involving informal employment. The government needs to develop bilateral migration dialogues with the main destination countries to facilitate and improve the movements and conditions of short-term/seasonal work. This would include not only countries such as Montenegro and Serbia, but also the new EU countries of Croatia and Slovenia. Policies and stimulation measures are needed to enable the Western Balkan region to take advantage of the gains generated by inter-regional mobility, even if this mobility includes participants in the undeclared economy. It is also worth establishing a regional platform to tackle the undeclared economy in the Western Balkans, similar to the European platform tackling undeclared work in the EU³⁵.

A proactive migration dialogue with EU countries, and Germany in particular. The new EU Pact on Migration and Asylum (European Commission, 2020) could represent an opportunity to develop such dialogue, as it proposes the launch of Talent Partnerships with interested third countries to help

³⁵ <https://ec.europa.eu/social/main.jsp?catId=1299&langId=en>

boost mutually beneficial international mobility (the Western Balkans is specified), and an EU Talent Pool for skilled third-country nationals. A bilateral dialogue with Germany, as the most important destination for emigrants from BiH, is also necessary. One topic of discussion could be the increasing healthcare demands associated with Covid-19 when significant numbers of doctors and nurses from BiH are working in OECD countries. The new German Skilled Immigration Act may further increase economic emigration, so the government could seek positive externalities, such as joint investment in skills development or re-importing skills acquired in Germany. The newly announced EU Pact on Migration and Asylum can guide this discussion in terms of developing talent partnership between Germany and BiH.

Labour market reforms. All labour market policies and programmes that aim to reduce unemployment and inactivity and to increase the number of decent and well-paid jobs are relevant for emigration. This is because efforts to secure better and higher-paid jobs have the potential – though not on their own – to curb economic migration. As intentions to emigrate are also high among the employed population, reforms need to focus not only on job creation, but also on types of contract, remuneration, quality of jobs and career progression. Employment in the public sector needs to be rationalised with fair and transparent recruitment procedures. More flexibility and entrepreneurship support are needed for new business developments that generate much needed jobs.

Developing alternative forms of employment. There is evidence of participation in an emerging platform economy in BiH in recent years. This is particularly common among the young and highly educated population, and primarily those who possess knowledge of foreign languages and advanced IT skills. The state and entity authorities should develop a relevant legal framework to recognise and support the platform economy by providing economic incentives for related professions. This will include tailored fiscal benefits and a flexible administrative environment that could even work as a magnet for talent from abroad, and in particular for members of the diaspora, who have a strong emotional attachment to the country.

Responsiveness of the education and training system. No clear evidence of a brain drain effect from emigration is detected for the past decade, as most of those who have emigrated were medium-VET-educated individuals in all age categories; these are also the majority of graduates at the secondary/post-secondary education level in the country. The next largest groups were low-educated and medium-general-educated individuals. However, the emigration of medium-VET graduates might lead to gaps in some sectors and/or specific skill types that are more in demand, and in a quite short period of time. Existing studies point to the high intentions to emigrate among experienced and employed individuals as well as less experienced and unemployed persons, who represent the younger and most productive cohorts. The education system needs to adapt quickly to these complex changes and the high level of mobility of the population, with state-wide coordination that is currently lacking.

Mechanisms to monitor and meet emerging skill gaps. There are emerging skill gaps in the domestic labour market as a result of various factors, emigration being one of them. The country needs to develop mechanisms to monitor these skill gaps and implement more systematic measures for the upskilling and reskilling of current workers and adults alike accordingly (e.g. lifelong learning approach). For example, digital skills are clearly among these emerging gaps, so IT education should be improved and diversified in both initial and continuing education. This could encourage more young and economically active people to remain in the country, to work from home for employers in other countries and to benefit from the chance to earn competitive salaries. In particular, there should be more specialised schools for information and communication technologies at upper secondary level.

Reducing disparities between rural and urban areas. Internal migration in BiH is leading to increased population concentration around big urban centres, while small cities and rural areas are losing their population at a higher rate. The latter areas are also the main source of international emigration. Public infrastructure is much less developed in smaller cities and rural areas, and improvement of this infrastructure should be part of a long-term policy to prevent the population from becoming concentrated in a few places in the country. Moreover, the geographical mobility of the workforce between the regions could be improved, as this would support faster labour market adjustments. Under the current situation, many employers complain about the difficulty of finding skilled workers, particularly in less dynamic areas and regions.

ANNEXES

Annex 1. Cohort approach methodology

In general, there are no official migration statistics for BiH, particularly in terms of the skills composition of migrants. Hence, data on net migration are approximated and are calculated using a cohort approach, which identifies and follows age cohorts over time.

It rests on the idea that in the absence of fertility and mortality, any population changes are the result of migration, so that migration dynamics can be deduced from population changes observable in official statistics. It uses LFS data, whose rotating sample design does not allow a person to be traced over time but whose stratification and weighting scheme allows the identification of representative groups (age cohorts) that can be followed over time.

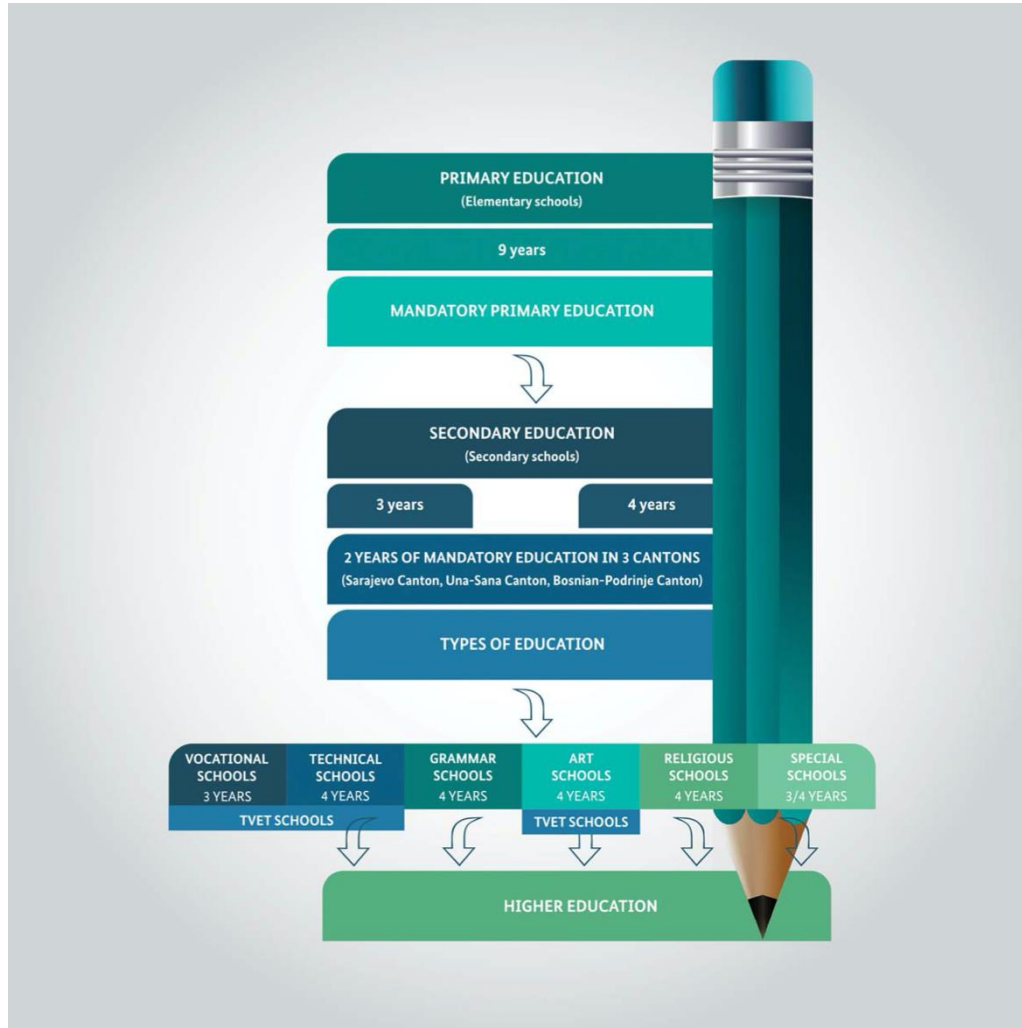
With zero fertility and in the absence of (substantial) mortality, differences in the size of an age cohort between two consecutive years give a good approximation of (cohort-specific) net migration in a year. In this context, an increase in the size of an age cohort is indicative of net immigration, while a decrease in the size of an age cohort is an indication of net emigration. It uses national LFS data for the years 2010 to 2019 and focuses on the sub-population of persons aged 15–39, which is characterised by zero fertility, little mortality and strong migration dynamics. In the first year of the period of analysis, this sample population is split up into five different five-year age cohorts: 15–19, 20–24, 25–29, 30–34 and 35–39. Each cohort is then followed over time until 2019.

Furthermore, each year starting in 2011, a new group of young persons aged 15 enter the survey population ('newcomers') and age by one year each year. Each of these newcomer groups in each year from 2011 onwards (i.e. those reaching the entry level age of 15 in 2011, 2012, etc.) is also followed separately on a yearly basis until 2019 to guarantee that all relevant age groups, as well as those younger than the aforementioned five-year age cohorts (and which would be part of the potential labour force), are captured and net migration of these newcomer age groups is also estimated. As a result of stronger migration dynamics in later years, for each of the newcomer groups only those persons who are 18 years and older are analysed.

The cohort approach is applied to the sub-population of persons aged 15–39 as well as being further broken down into the following four educational attainment levels: low (primary or lower secondary education), medium general (upper secondary general education/gymnasium), medium VET (upper secondary VET), and high (tertiary education).

In the analysis at the more detailed International Standard Classification of Education (ISCED)/educational attainment level, complex changes in the skill/educational composition are observable, particularly among the two youngest age cohorts and the newcomers. These changes are associated with educational transitions to higher education levels as persons graduate from one of the two secondary education tracks and either transition from low to medium general or medium VET, or graduate from tertiary studies and subsequently transition from medium general or medium VET to higher education. These educational transitions are corrected by means of detailed education statistics in order not to erroneously attribute them to net migration.

Annex 2. The education system in Bosnia and Herzegovina



Source: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (2020), *Technical and vocational education and training (TVET) in Bosnia and Herzegovina in numbers*, GIZ, Bonn.

LIST OF ACRONYMS

BAM	Convertible mark (currency)
BiH	Bosnia and Herzegovina
ERMA	Global Campus South East Europe – European Regional Master’s Programme in Democracy and Human Rights in South East Europe
ETF	European Training Foundation
EU	European Union
EUR	Euro (currency)
FBiH	Federation of Bosnia and Herzegovina
FDI	Foreign direct investment
GDP	Gross domestic product
IAB	Institute for Employment Research (Germany)
IT	Information technology
LFS	Labour force survey
MSBiH	Ministry of Security of Bosnia and Herzegovina
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
UNDP	United Nations Development Programme
USA	United States of America
VET	Vocational education and training
wiiw	Wiener Institut für Internationale Wirtschaftsvergleiche (Vienna Institute for International Economic Studies)

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