SERBIA COUNTRY STUDY: UNDERSTANDING INTERACTION BETWEEN MIGRATION, HUMAN CAPITAL AND LABOUR MARKET

Mihail Arandarenko
June 2020 – First draft

PREFACE

This is the first country report of its kind within the regional study of "Migration dynamics from human capital perspective in the six Western Balkan countries". European Training Foundation (ETF) launched this study in the beginning of 2020, which is carried out jointly with the Vienna Institute for International Economic Studies (wiiw).

The ETF study aims to shed light on the triangular relationships between human capital formation, labour markets and migration and determine the role of malfunctioning of education systems and labour markets on migration. The Western Balkan countries are characterised by declining population driven by low birth rates, ageing of the population and ongoing migration. Emigration from the region has persistently continued since the 1990s and evolved from irregular low to medium-skilled labour migration towards regular family unification, international students, and more recently to high-skilled migration. The study attempts to look at these trends from the perspective of human capital formation and use in these economies and identify its relationship with human capital and labour market developments.

Due to the availability and comparability of good quality data, Serbia was selected as the first country of analysis. The other Western Balkan countries' studies will follow. The results of this draft country report are to be presented in an online workshop on 9 July 2020, with a group of participants from academia, public institutions, civil society and researchers in Serbia, as well as the project teams of ETF and WIIW, including national experts from Western Balkan countries. The feedback received from the participants will feed in finalising it. The final version of the country report will be disseminated widely.

CONTENTS

INTRODUCTION

Serbia's most important export item is labour and not – as is commonly presumed – steel, automobiles or raspberries. Some 15 per cent of people who were born in Serbia live abroad, which is around five times the world average of some 3% (Ozden et al. 2018). On the other hand, remittances from foreign countries add a respectable 8% to Serbia's GDP.
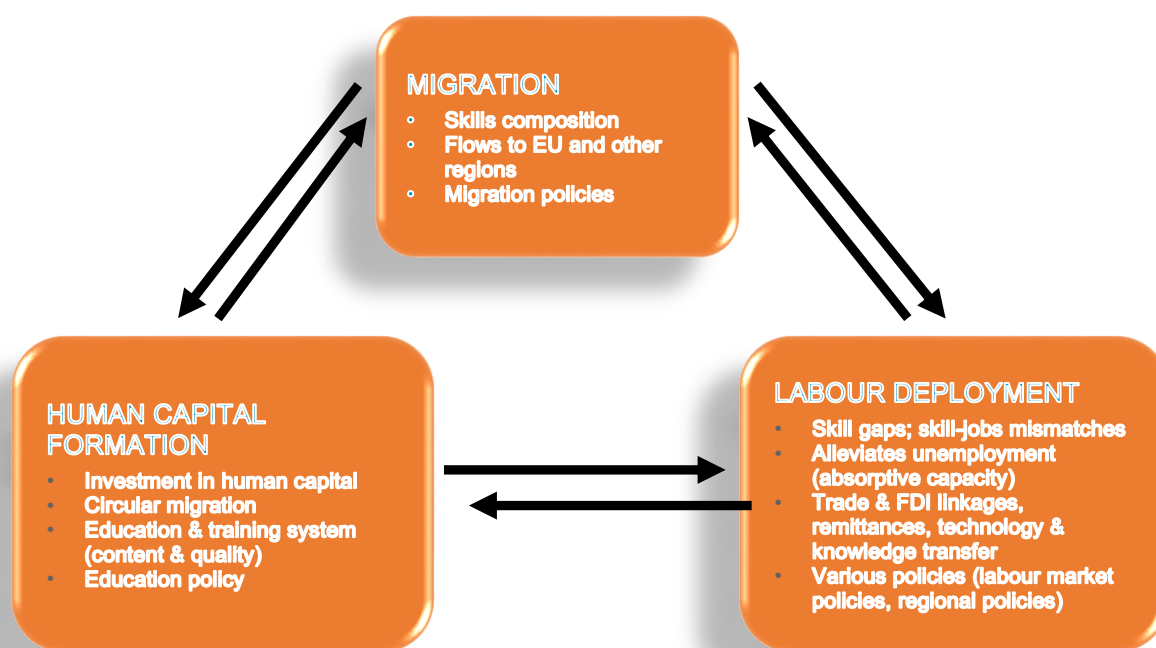
This means that Serbia has significantly more employed citizens and natives than employed residents. Similarly, its Gross National Disposable Income is significantly higher than the GDP. On both accounts, Serbia is close to the top of the global list of labour exporting countries, especially when micro-states are excluded. Still, among the Western Balkan countries, Serbia's proportion of emigrants to residents is the smallest, while this is not the case with the share of remittances in the GDP.

Nevertheless, labour migration is one of the long-standing defining features of Serbia's economy and society, and the topic that periodically comes to the forefront of public debate. This debate is typically led with a lot of passion but with little attention to data. Quite often the debate is framed around the issue of presumably uncontrollably increasing outflow of the most educated, talented and entrepreneurial individuals and coupled with the deep worries for the demographic future of a declining and ageing nation losing its best and brightest.

This paper focuses on the interaction of emigration from Serbia with human capital formation and labour deployment in the country, relatively loosely following analytical framework outlined by the ETF that has been further richly developed by the wiiw. This framework avoids the trap of taking sides and forming a judgement before the facts are thoroughly assessed.

Looked at either generally or specifically through the lenses of its impact on and interaction with the education and labour market outcomes of residents in a sending country, migration is certainly not unequivocally good or bad. In principle, both negative and positive feedback loops are possible, as well as a wide range of intermediate outcomes. The original framework in somewhat shortened form is presented in Graph 1 below.

Graph 1. Schematic presentation of the triangular relationship between human capital, labour market and migration

MIGRATION
- Skills composition
- Flows to EU and other regions
- Migration policies

HUMAN CAPITAL FORMATION
- Investment in human capital
- Circular migration
- Education & training system (content & quality)
- Education policy

LABOUR DEPLOYMENT
- Skill gaps; skill-jobs mismatches
- Alleviates unemployment (absorptive capacity)
- Trade & FDI linkages, remittances, technology & knowledge transfer
- Various policies (labour market policies, regional policies)

Within this complex triangular relationship, migration is critical variable, but also the most elusive and challenging to capture. Reliable and detailed data on migration are notoriously difficult to obtain. Still, understanding its features and recent evolution needs to be the starting point in approaching the triangular relationship. This is the strategy that we take here. Due to both data gaps and complex links, our analysis is often speculative and simplifying. While in that way it certainly does not reach the standards of hard science (Akerlof, 2020) that is hopefully compensated for by the importance of the topic addressed.

The following analysis shall first throw some light on the size and structure of Serbian emigrants based on recent data available in the main destination countries (European Union and to some extent other OECD countries) (Sections 2 and 3). Then, it will return to link the results from migration analysis with relevant features of Serbia's labour market and education system (Sections 5 and 6). In the process, the specific role of Germany as the key destination country shaping to a degree triangular outcomes in Serbia is reviewed (Section 4), as well as the role of Serbian policy of the development of the IT sector in cushioning potential high-skilled migration. Migration perceptions and policy responses are analysed in section 7, followed by the conclusions and policy recommendations in section 8.

2. BASIC FACTS ON LONG TERM AND RECENT MIGRATION FROM SERBIA

Serbia is a mature emigration country. In recent times, as part of the former Yugoslavia, Serbia started intensively exporting mostly unskilled workers to Germany and other Western European countries in the 1960s. This early migration wave still remains of great relevance for today's migration outcomes. The next big wave came in the 1990s as a result of political turmoil and economic hardship following the dissolution of Yugoslavia, when the structure of migrants and their destinations became far more diversified and many high-skilled people emigrated from Serbia. With the return of stability in early 2000s emigration continued at a somewhat slower pace and started to pick up again in more recent years.

As a consequence of multiple waves and geographical diversity of migration, members of Serbian diaspora can be found around the world. The diaspora is comprised of multiple layers of migrants with variable degrees of connection with their country of origin. According to conservative and incomplete United Nations statistics, the total number of migrants from Serbia is slightly less than one million, which is around 14% of the total resident population.

Relatively high level of remittances of 8-9% of GDP hints at the on average intensive ties between migrants and home country, indicative of high circulation of migrants – the issue that we shall later explore in more detail.

Despite the low index of concentration of Serbian diaspora, the European Union countries account for at least two thirds of emigrant stock (and more in terms of labour migration), and within EU Germany accounts for over 40% of Serbian migrants. Geographic proximity of the main destination countries and improved road and air travel options contribute to the possibility of short-term and circular migrations. This trend was also contributed by the visa facilitation and readmission agreements signed in 2007 between the EU and Serbia, offering speeded up visa procedures for its citizens in exchange for stepped up migration cooperation as of 2008.

Table 1 presents the Census estimates of Serbian external migrants since 1971, published by the Statistical Office of Republic of Serbia (SORS), collected from their resident family members. These data clearly underestimate the true total number of migrants, but provide some rough general idea of the structure of migration by destination countries over time. As we shall see, even this picture turns out to be quite distorted. But above all, they are illustrative of great difficulties to get reliable data on external migrants at the source. That's why in the rest of this paper we shall use the statistics from the main destination countries, predominantly from Eurostat and occasionally from the OECD database.

Table 1 – Number of people working/staying abroad by the country of work/stay

Foreign country	Census years in Republic of Serbia					Index					
	1971	1981	1991	2002	2011	1981/ 1971	1991/ 1981	2002/ 1991	2011/ 2002	2002/ 1971	2011/ 1971
Total	203882	269012	268943	414839	313411	131,9	100,0	154,2	75,6	203,5	153,7
Austria	40194	62820	67060	87844	70488	156,3	106,7	131,0	80,2	218,6	175,4
France	27864	33559	22357	27040	20231	120,4	66,6	120,9	74,8	97,0	72,6
Germany	93327	99686	67229	102799	55999	106,8	67,4	152,9	54,5	110,1	60,0
Switzerland	6723	24990	37441	65751	41008	371,7	149,8	175,6	62,4	978,0	610,0
Sweden	8819	12351	9929	14049	10925	140,0	80,4	141,5	77,8	159,3	123,9
Benelux countries*	3520	4367	3591	9336	6243	124,1	82,2	260,0	66,9	265,2	177,4
Other European countries	5025	7562	11508	53745	52673	150,5	152,2	467,0	98,0	1069,6	1048,2
USA	5279	7352	7136	16240	13504	139,3	97,1	227,6	83,2	307,6	255,8
Australia	7025	6173	5065	7490	3760	87,9	82,1	147,9	50,2	106,6	53,5
Canada	2865	3679	6268	10908	6226	128,4	170,4	174,0	57,1	380,7	217,3
Other non-European countries	1048	2860	3235	5761	5073	272,9	113,1	178,1	88,1	549,7	484,1
Unknown country	2193	3613	28124	13876	7657	164,8	778,4	49,3	55,2	632,7	349,2
Ex-SFRY republics**	...	...	...	...	19624	...	...	...	70,8	...	144,1

*Benelux countries and other foreign countries are shown, due to comparison, according to classification used in Census 1971
**Index were calculated after exclusion of migrants from the ex-SFRY countries, due to comparison with previous censuses
Source: Statistical Office of Republic of Serbia (SORS)

Table 2 shows the EU (and Switzerland) stock data on Serbian migrant nationals in the years of 2010 and 2018 (on 31 December each year). There is a somewhat surprising and counterintuitive trend of overall decline but also of disparate trends among old (pre-2004) and new (2004 and after) European Union Member States (OMS and NMS hereafter). Behind the declining total migrant stock of around

69,000 or -12% between 2010 and 2018, there is a very variable dynamics when it comes to individual countries. The largest absolute decline is recorded for Germany (- 57,000 or over 20%), while other OMS record mostly moderate losses, except Italy, with the largest relative decline of almost one third. The stock of Serbian nationals in OMS shrinks most likely because the two main outflows (naturalization within the destination country and retirement and return for other reasons to Serbia) together outnumber the new inflow. On the other hand, the statistics records large increase in the migrant stock in NMS, albeit from a very low base. The table shows data for the most important (by number) EU destination countries.

Table 2. Stock of Serbian immigrants in the European Union and in most important destination countries, end of the year, 2010 and 2018

Country	2010	2018	Compared to 2010
EU	560,631	491,199	no data
Germany*	290,092	232,338	-57,754
Austria*	111,708	104,800	-6,908
Switzerland	no data	61,859	no data
Italy*	61,027	40,797	-20,230
France*	35,141	27,119	-8,022
Slovenia**	8,273	17,766	9,493
Slovakia**	3,826	13,555	9,729
Sweden*	12,090	9,060	-3,030
Croatia**	no data	6,001	no data
Malta**	502	5,744	5,242
Hungary**	18,080	5,434	-12,646
Czechia**	1,933	4,380	2,447
Poland**	701	1,607	906

* Joined before 2004; **Joined in 2004 or after
Source: Eurostat. Note: These numbers are based on the country of nationality, therefore they do not include those who are naturalised.

As mentioned, the stock of Serbian *natives* in the EU is gradually increasing during the same period judging by the data on their acquisition of EU citizenship. Still, since the total naturalization number in the same period is around 117,000, this implies annual increase in Serbian natives in the EU-28 countries in the thousands, which by itself is not excessively alarming. However, the alarm might come from the rapidly increasing flows in recent years and from the potentially changed structure of new migrants by their education level and countries of destination. This is clearly a crucial issue worth closer exploration.

3. CONFRONTING THEORIES OF MIGRATION: LOOKING FOR LEADS ON THE NATURE OF RECENT EMIGRATION FROM SERBIA

Why do the migrants leave Serbia? Do they stay abroad mostly permanently, never to return to their home country, or only temporary, often circulating between their origin and destination countries? What is the key reason for migrating - work, education, family reunion, or something else? Are there recent signs of disproportionally increasing outflows of high-skilled migrants (relative to their share in the Serbian labour force)?

The two major approaches within the economic theory of migration are broadly consistent with the permanent and temporary or circular pattern of migration. The first and older approach is called the

Neoclassical theory of migration (NTM). In the context of this theory, migration is seen as a typically lifelong, permanent decision of an individual emigrant (or his entire family) based on a rational calculation of the positive net present value of migration. In essence, it is the theory of human capital investment applied to migration decisions (Sjaastad, 1962). One practical consequence of interest is that the links of permanent migrants with the country of origin gradually weaken and often disappear completely with the passage of time.

An alternative view has been developed within the so-called New economics of labour migration (NELM). This approach is based on framing an individual migration decision into a household utility maximization strategy, in which the migrant and his family enter into a mutually beneficial contractual relationship. The family in a way 'delegates' the migrant to work abroad as part of its risk-sharing strategy while in return the migrant sends a significant portion of his discretionary income back to what is still his true home. Under the extended NELM framework, migration is usually facilitated through support networks in the receiving countries, which provide non-monetary assistance through direct information and support based on solidarity and the presumption of mutual assistance.

Although there is not too much direct empirical evidence specifically for Serbia, recent body of research in the Western Balkans confirms that the dominant pattern of recent migration flows is in line with the NELM model (Zbinden et al. 2016). The economic, social and political-economic consequences of this type of migration are much more complex than in the relatively simple one-way relationship between a permanent emigrant and his family at home, where it is simply assumed that the interactions and remittances steadily decrease over time.

Compared to the original classical perception of emigration as a clear and definitive way out, the NELM provides a much finer and more complex picture. In this context, emigrating is a fairly relative matter. For many migrants, it is quite possible to build their lives in parallel in the country of origin and in the country of destination over extended periods of time. In modern conditions, switching countries is literally possible on a weekly basis.

Having an idea on what part of the Serbian emigrant stock is closer to the NTM (or, more dramatically put, never-to-return) migration model, and what part belongs to the NELM migration pattern is of great policy importance. From the perspective of a sending country with the declining and ageing population, the NTM-type migration should be considered as damaging for its long-term growth and development prospects. On the other hand, the NELM-type migration should be seen in much more favourable light (Arandarenko and Aleksic, 2020). In the short term, the NELM-type migrants relieve the pressure on sending country's labour market and earn their wages abroad but spend their discretionary part mostly at home. In the longer term, they gain external knowledge and experience and bring them back to Serbia.

As already hinted at, due to data limitations, the demanding questions posed at the beginning of this section cannot be directly answered. However, there is enough indirect evidence in the migration statistics of the European Union, which is globally by far the most important destination zone for Serbian economic migrants, to be able to get some important hints and leads. In order to understand what is the dominant nature of economic emigration from Serbia and whether it has significantly evolved over recent years, a simple but still useful approach is to compare the data on Serbian nationals' gross flow (annual inflow of first-time migrants) and stock (the corresponding total number of Serbian emigrants) broken down by destination countries. Such data do exist for all legal migrants who obtained residence permits allowing them to stay for the first time 3 or more months in an EU country.

Table 3 presents gross first-time inflow as well as stock statistics in 2010 and 2018 and shows the flow to stock ratio for the EU as a whole (and Switzerland) and for the most important destination countries for Serbian migrants (with annual inflows of over 1,000).

Table 3. First-time permits and stock of Serbian migrants in the EU countries and Switzerland, 2010 and 2018

Country	Annual Flow		Annual Stock		Flow as % of stock	
	2010	2018	2010	2018	2010	2018
EU 28	22,818	51,942	560,631	491,199	4.1%	10.6%
Czechia	199	1,693	1,933	4,380	10.3%	38.7%
Germany	3,327	16,156	290,092	232,338	1.1%	7.0%
France	1,116	1,149	35,141	27,119	3.2%	4.2%
Croatia	:	4,910	:	6,001	:	81.8%
Italy	6,631	1,486	61,027	40,797	10.9%	3.6%
Hungary	1,226	3,767	18,080	5,434	6.8%	69.3%
Malta	86	2,209	502	5,744	17.1%	38.5%
Austria	3,577	3,956	111,708	104,800	3.2%	3.8%
Poland	114	1,151	701	1,607	16.3%	71.6%
Slovenia	1,040	5,147	8,273	17,766	12.6%	29.0%
Slovakia	483	4,834	3,826	13,555	12.6%	35.7%
Sweden	1.228	1.620	12.090	9.060	10.2%	17.9%
Switzerland	:	1.553	:	61.859	:	2.5%

Source: Eurostat.

For the EU as a whole the flow to stock ratio more than doubled between 2010 and 2018, which is, combined with the either decreasing (without naturalisation) or slowly increasing (with naturalisation) stock data indicative of increasing circular migration. This is further confirmed by analysing flow to stock ratios country by country – they are well below the EU average (except for Sweden) for all 'old destinations', including Switzerland, and well above the EU average for all new destinations. Furthermore, while the flow to stock ratio at least doubled for all NMS destinations between 2010 and 2018, among the OMS this was the case only with Germany, where the increase in the ratio was almost sevenfold, albeit from a very low base (from 1.1 to 7.0 %, still below the EU average of 10.6%). Still, Germany alone had over 30% of the total number of first-time migrants in 2018, and recorded the flow increase of almost 13,000 compared with 2010. Note that accounting for naturalisation, which is widespread in OMS and very rare in NMS would make the difference between OMS and NMS in flow/stock ratio even starker.

Still, it is visible that, apart from the special case of Germany, the most dramatic change happened with the emergence of NMS as important destination countries for Serbian nationals. They practically did not exist as such back in 2010 (apart from those with substantial ethnic minorities in Serbia, such as Hungary, but in these cases migration was often preceded or quickly followed by naturalisation). That's why the tenfold increases in flow to stock ratios between 2010 and 2018 are quite common for NMS. It is amazing that Slovenia, Slovakia, Croatia, Hungary, Malta and Czechia have overtaken traditional well established destination countries such as Austria, France and Switzerland in the number of first-time migrants.

Still, it can be safely assumed that permanent migration potential of NMS remains very limited at best. The NMS do not themselves follow the policy of permanent migration / naturalization, except for foreign nationals who belong to their own ethnicity, and besides, the NMS are still not recognized as desirable permanent destinations for potential Serbian migrants. These migrations are predominantly either seasonal (Croatia, Malta) or temporary and circular in character (other NMS).

Further clues on the nature of recent migration from Serbia to the EU-28 destinations can be obtained by looking at the evolution of reasons for the issuance of first-time residence permits to Serbian citizens in the EU-28, as presented in Table 4.

Table 4. Reasons for the issuance of first-time residence permits to Serbian nationals in the EU-28

Reason	2010	2015	2016	2017	2018
Total	22,818	27,195	31,289	40,350	51,942
Family reunion	9,699	13,140	12,799	13,681	15,448
Education	2,129	2,384	2,381	2,478	2,477
Remunerated activities	6,719	6,496	9,358	17,333	27,383
Other	4,271	5,175	6,751	6,858	6,634

Source: Eurostat

As it is clear from Table 4, the most dynamic growth has been recorded for the remunerated activities (work permits). For most of the period 2010-2018, family reunion (which does not completely preclude migrants from working and also represents a track for possible naturalisation) was the most frequent reason until 2017. While it constituted almost 43% of total permits given in 2010, it was reduced to 30% in 2018 and overtaken by work migration. Migrations for work have almost tripled between 2016 and 2018 and in 2018 they already represented 53% of all residence permits issued (from 29% in 2010), and were almost twice as large as residence visas related to family reunions.

Table 5 focuses on the evolution of ratios of work to family reunion reasons for issuing first-time visas by destination countries. Switzerland is also included.

Table 5. First-time visa issuance in EU-28 and Switzerland: Work / family reunion ratio

Country	2010	2015	2016	2017	2018
EU 28	0.69	0.49	0.73	1.27	1.77
Czechia	0.58	2.59	3.05	3.84	11.31
Germany	0.27	0.15	0.53	0.83	0.74
France	0.34	0.24	0.21	0.26	0.29
Croatia	no data	0.36	1.13	3.01	20.48
Italy	1.68	0.45	0.41	0.28	0.42
Hungary	1.82	4.26	5.64	19.40	19.56
Malta	4.25	4.00	5.50	9.42	7.44
Austria	0.06	0.09	0.09	0.08	0.11
Poland*	6.50	No data	39.18	76.00	19.13
Slovenia	2.85	3.73	4.94	5.52	6.79
Slovakia	2.00	2.01	2.33	9.59	9.74
Sweden	0.20	0.31	0.23	0.28	0.37
Switzerland	no data	0.17	0.21	0.24	0.26

Source: Eurostat.   *Family permits barely double-digit in Poland

As presented in Table 5 above, the issuance of work permits is far more frequent in the NMS, while family-related residence visas are dominant reason in the OMS. Overall, the OMS destinations show stagnating or mildly declining gross inflows and their work/family ratio well below 1, meaning that the family reunion reasons dominate, which is conducive to mature to late phase of the NMT migration pattern as well as reflects restrictive immigration policy of the OMS countries.

Germany again appears to be the single most important exception from the rule, with the explosive rise in first-time work permits since 2015 and the ratio of work to family residence permits roughly tripling between 2010 and 2018 and reaching 0.74. This is still less than half the EU average of 1.77 in 2018.

Finally, it should be noted that education as the reason for migration into the EU has stagnated at slightly above 2,000 throughout the period in question, which means that its share in the total first-time residence permits steadily declined. This, together with the relatively slow growth in the family reunion visas, would indicate that high-skilled non-work-related inflows did not intensify during the last decade. When it comes to potential for increase in high-skilled work-related inflows, they are mostly limited to Germany, and are especially related to the employment of medical staff and high-skilled STEM professionals.

Although there are no precise data to assess the scope of such high-skilled migration to Germany, by some indirect indications, such as relatively low average wages of recent Serbian immigrants (IAB, 2020) it is still not strong enough to be recognizable in the German wage statistics. On the other hand, work-related emigration to Central and Eastern European countries is mostly directed toward manufacturing sector and thus is dominantly composed of medium-skilled VET graduates.

4. EXCEPTIONAL ROLE OF GERMANY IN SHAPING TRIANGULAR RELATIONSHIP BETWEEN MIGRATION, EDUCATION AND LABOUR MARKET IN SERBIA

Since we have identified increased emigration to Germany as the single most important development regarding Serbian emigration trends in the past half a decade, in this section we look in some more detail at the multiple interactions between Germany and Serbia that have shaped not only migration flows, but have also had significant impact on education reform and labour market trends in Serbia, thus representing an important case study of a bilateral triangular relationship between migration, education and labour market.

Germany has been the single largest destination country for Serbia for over 50 years. At the same time, it is the economic powerhouse of the European Union and since the second half of the last decade almost the only one among the OMS with the permanently increasing demand for foreign labour, resulting in the more aggressive immigration policy. As already mentioned, strong increase in work-related emigration from Serbia to Germany in the past several years has been the direct consequence of the 'Western Balkan regulation' that went into effect in 2016 that liberalized access to German labour market to Western Balkan nationals.

In a way, even the increased migration of Serbian nationals to NMS could be explained as a result of a double-chain reaction. On the one hand, Germany attracts the labour force from NMS and that void that is left in NMS has to be filled by increased immigration from elsewhere, including Serbia. On the other hand, the economic growth and growing demand for labour in NMS is fuelled by their successful integration into global value chains realized largely thanks to their close economic ties with German economy (Ilahi et al, 2019).

While not economically interconnected with Germany to the same degree as NMS, Serbian economic and political ties with Germany have been greatly strengthened through a variety of channels in the last decade. Germany is the second most important export market and fourth largest FDI source for Serbia, with German-owned companies employing almost 50,000 people, or almost 4% of formal employment. The public perception of German employers is very positive as they are considered to be reliable and devoted to respecting collective and individual workers' rights, including fair pay, training and promotion possibilities. Thanks to a large degree to German-owned FDI Serbia has improved its integration into global value chains (GVC), especially those related to the export of manufactured parts and components, which has been instrumental in its efforts to reindustrialise the country after the jobless transition to a market economy.

German Corporation for International Cooperation (GIZ) has greatly expanded its field of activities in Serbia, supporting economic growth, administrative reforms, youth employment and many other areas. Notably, GIZ has been involved in a recent far-reaching VET reform resulting in the adoption of the Law on Dual Education and the introduction of dual education, where German, Swiss and Austrian dual education systems have been explicitly taken as models for replication. Furthermore, GIZ has supported Serbia in adopting its Economic Migration Strategy 2021-2027 and currently in developing its Migration Action Plan.

In a recent paper Clemens et al. (2019) have favourably described what they call the GIZ's three-pronged approach to supporting legal labour migration from sending countries. Clemens et al. have grouped GIZ's projects into those supporting skilled migration (for example migration of nurses, comprising of recognition of existing skills and provision of additional training in Germany); destination training (where migrants access training and apprenticeship programs in Germany); and origin training (where training is offered to non-migrants in their countries, without direct expectation or encouragement of their migration to Germany).

Recently, Germany adopted the Skilled Immigration Act which is in force as of March 2020. It is expected to represent a further boost to immigration of skilled migrants into Germany, making it easier for skilled workers with vocational, non-academic training from non-EU countries to migrate to Germany in order to work. The current conditions for qualified professionals with university degrees will remain in place, with some relaxations of the rules. According to new rules, the qualified professional will have to possess an employment contract or a specific job offer, and a qualification recognised in Germany. No priority check of potentially available workers in Germany or the EU will be undertaken by the Federal Employment Agency. The Federal Employment Agency still verifies the employment conditions.

While the bilateral triangular relationship between Serbia as origin country and Germany as destination country appears to be mutually beneficial, the asymmetry of economic and political power suggests that the current 'tacit arrangements' bring more benefits to the more powerful side. On the other hand, this is partly because Germany has over time built a well-thought strategic approach to resolving its defining long-term labour market and population problems, which Serbia largely lacks. We shall address the question of what could be Serbia's strategic response to German strategy in the final section, devoted to the analysis of Serbia's current migration policy.

5. LINKS BETWEEN LABOUR MARKET AND MIGRATION OUTCOMES

In this section, we attempt to provide reasonable explanations for observed overall and structural migration outcomes in the past decade as they are presented in the previous section, by connecting them with the features of Serbian labour market and labour force that could have most plausibly influenced these outcomes.

At the same time, migration decisions are heavily influenced by the availability of migration options in the destination countries for potential migrants overall and for certain groups among them. Thus, we shall also try to infer from the available data whether the size and structure of emigration from Serbia was primarily influenced by the so-called push factors (most important of which are local expected wage and probability of employment without migration) or by pull factors (expected wage and probability of employment in the potential destination country, as well as the ease of migration determined by the destination country's immigration policy).

Counterintuitively at first sight, the rapidly increasing flows to the EU in the 2015-2019 period coincided with the steady employment and GDP growth in Serbia and with the general improvement in labour market indicators, including significant reduction in youth unemployment. This indicates that factors on the pull side must have played very important role. We have already identified some of them – German 'Western Balkan regulation' from 2016 and increased labour shortages in fast growing and/or depopulating NMS. In response, Serbian workers were very eager to grab the new job opportunities as they appeared. Especially impressive is the huge increase of first-time work permits in NMS. This responsiveness and readiness of Serbian migrants to take mostly temporary jobs bringing relatively modest positive net wage gains, and flexibility regarding their longer-term career paths – these features further confirm our conjecture of the adaptability typical for NELM-type behaviour and are at the same time less consistent with the patterns of high-skilled migration.

What makes manufacturing jobs in Slovakia, Slovenia or Poland, paying typically a monthly wage around 1,000 EUR so attractive for Serbian temporary, mostly medium-skilled VET migrants? The answers should reveal some important idiosyncrasies of Serbian labour market of more general importance for migration inclinations and incentives facing different labour force groups.

First, the average and median real wage levels in most NMS were steadily increasing during most of this decade while they remained stagnant in Serbia, which had to embark on fiscal austerity programme in the 2015-2018 period.

Second, public sector wages in Serbia are much higher than those in the private sector. Before the fiscal consolidation, adjusted public sector wage premium (controlled for education level and other key workers' characteristics) in Serbia was as high as 17%, but during the years of fiscal consolidation it dropped to around 6% (Vladisavljević, 2019). Contrary to that, Central and Eastern European NMS typically have adjusted private sector wage premia. In way of practical illustrative example, while Slovak teacher might have around 50% higher salary compared with her counterpart in Serbia, Slovak worker in a car plant can make at least twice as much as his peer in Serbia. Further strengthening this point, the labour taxation system in Serbia is in relative terms (i.e. comparing labour tax wages) less favourable to low- and medium-wage labour compared with these systems in NMS, except in Hungary.

Third, behind the relatively rapidly improving employment statistics, there remains the problem of low quality of most jobs, especially outside of public sector. The share of informal employment in total employment is around 18%, and low work intensity and underemployment in various forms are widespread. Of every 10 years between ages 25 and 55, the average Serbian spends over 3 years in unemployment or economic inactivity, while the average Serbian woman spends 17 years of her working life in unemployment or inactivity, far more than her peers in EU and OECD (World Bank, 2019).

Serbian labour market is characterized by pronounced duality, where permanent public sector employees and part of primary private sector[1] employees enjoy privileged position due to job security, high wages and relatively light taxation. On the other hand, large portions of the working age population are engaged in low-paid and less protected jobs. Since access to these jobs in primary labour market is limited (even more so since the fiscal consolidation started in 2015), and precarity of current job position hampers long-term career planning, those engaged in the secondary labour market are ready to switch jobs and a significant portion among them is migration-ready. Thus, it is the availability (or rather the lack of it) of the good jobs that more strongly determines migration readiness of Serbian labour force than the general unemployment rate and their own unemployment status.

While in generalized perspective Serbian workforce still appears to provide unlimited supply of export-ready labour without much impact on the labour market outcomes in the country, this is not the case with growing number of deficit occupations. Skill shortages of certain high-demand occupations have become more common in recent years. These include medium-skilled occupations in manufacturing and construction. As Serbian manufacturing firms become more alike to those in other countries of Central and Eastern Europe closely integrated into global value chains, they increasingly compete for the same type of skilled workers and have to offer more competitive wages.

Another key group of occupations is medical staff (nurses and physicians), whose main destination throughout the past decade has been Germany. Given the described public sector wage premium and general prestige of medical profession, for years there has been oversupply of physicians and nurses expressed in thousands of registered unemployed and long school-to-work transition, especially for doctors. While Serbia is still not facing urgent shortage of medical staff, the increased outflow of experienced staff has already rang the alarm bells. In 2019 there was a general increase in pay for

---

[1] According to the theory of dual or segmented labour markets, the labour market is not a single arena but is segmented into two tiers or sectors. In the upper or primary labour market, workers enjoy relatively high wages, fringe benefits, satisfactory working conditions, and employment security. In the secondary labour market, wages are low, benefits are minimal or non-existent, work conditions are less desirable, layoffs and periods of unemployment are more probable.

medical workers (15% for nurses and 10% for doctors), and yet another in 2020, admittedly the latter related also to Covid-19 outbreak.

6. LINKS BETWEEN EDUCATION AND MIGRATION OUTCOMES

Within Serbia, thanks to greater educational system coverage and the large differences in average educational level between young and older cohorts, the educational level is rising rather fast. In 2015, about 71% of people over 25 years of age have completed at least upper secondary education – 77% of men and 65 % of women. Nevertheless, Serbia still ranks below the NMS on average (81.7 %) but is catching up with them (CEVES, 2018). The tertiary educational attainment rate in the 30-34 age group stood at 29.9% in 2016, almost 10 percentage points lower than in the EU where it stood at 39.1%. According to the SORS data, in 2017/18 school year, a total of 1.25 million persons participated in any of the education levels, whereof preschool education comprised 17%, primary education comprised 43%, secondary 20% and tertiary 20%. Three-fourth of the upper secondary students (ISCED level 3) are enrolled in vocational programmes.

Overall, the education system's performance in Serbia could be assessed as satisfactory. According to ETF (2019), the share of early school leavers from education (% aged 18-24) is very low and decreasing (6.8% in 2018), while the adult participation in training (% aged 25-64) is still limited – albeit increasing (4.1% in 2018). The newly developed (2018) and somewhat controversial World Bank Human Capital Index (HCI) puts the Serbian human capital potential at 27th place out of 157 countries, higher than the average for its region and income group. While the expected years of schooling is 14.6, the learning-adjusted years of schooling drop to 11.1 years after accounting for students' learning gains. This result was achieved despite the fact that general government expenditure on education was 4% of GDP in 2015 compared to 4.8% in the EU in the same year (Arandarenko, 2019). According to HCI, a child born today in Serbia will reach 76% of his or her full potential at the age of 18.

On the other hand, results of PISA survey based on OECD methodology typically place Serbia well below the EU average, with scores similar or somewhat higher compared to its South Eastern European peers. In 2018, Serbia was ranked 45th out of 79 participant countries. Its scores in reading (439), mathematics (448) and science (440) were well below the OECD averages of 487, 489 and 489, respectively. In the same year, the share of 15 years-olds who could achieve only the lowest level of proficiency was almost 38% in reading, 40% in mathematics, and 38% in science. The EU-28 average for the underachievement (% aged 15) in the same year was around 22% in each of reading, mathematics and science.

From the distribution of migrant stock and migrants flows in recent years presented in the previous section, there are little indications that Serbian migrants have on average significantly better skills than their peers of the same age who remain in the country.

Traditional high-skill migration destinations for Serbs are Anglo-Saxon countries. They all, except partially the USA, have adopted migration policies favouring high-skill immigration and discriminating against low-skill immigration and thus migration flows from Serbia might represent a plausible proxy for the intensity of high-skill emigration. Especially Canada and Australia received significant number of high-skill migrants during the 1990s and the outflow continued, albeit much less intensively, in the 2000s and 2010s. Other high-skill destinations are USA for scientists and artists, United Kingdom, Switzerland for technical professionals, Germany for medical doctors and high-skilled STEM migrants. More recently, the list was broadened with such countries like United Arab Emirates for various high-skill technical profiles and China for English language teachers, however the data for both destinations are hard to obtain.

However, a look at the OECD migration database covering Anglo-Saxon non-EU members shows modest and basically stagnant annual flow numbers from Serbia. Thus, between 2010 and 2018 annual

gross flow of Serbian migrants to Australia was between 200 and 300 and to Canada between 250 and 500, without a clear trend. Only the numbers for the USA increased to over 1000 after 2015.

It seems that Serbia has for the past two decades successfully kept in check otherwise natural tendency of its high-skilled professionals toward Anglo-Saxon migration destinations, facilitated also because of widespread usage of English language in the country. Since the immigration rules in high-skill destination countries have not significantly changed, the most plausible explanation lies in the extraordinary success of Serbian IT sector to attract and retain talents, which deserves a more detailed elaboration.

Serbia's success as a regional IT hub utilizing local high-skilled talents can be attributed to successful public intervention at elementary school level and a very supportive regime for investment and taxation. Serbia has improved its integration into global value chains (GVC) related to information communications and technology services. ICT is one of the rare sectors in which Serbia has revealed comparative advantage (IMF, 2019). Between 2007 and 2018 the value of Serbia's IT export grew from 0.5% of GDP in 2007 to 2.5% in 2018.

Most observers claim that the launch of the Microsoft Development Center (developing Live Search, handwriting recognition, image analysis, and database management) in 2005 was a turning point, spawning local start-ups around itself. Serbia has also benefited from the continuing boom in software outsourcing, thanks to the quality of the services provided by highly skilled IT specialists and the relatively low cost of production. Other international IT companies have entered the market by buying out Serbian firms that were providing coding services, software development and testing, and web design (IMF, 2019).

A thriving local IT community gradually emerged, comprising IT enthusiasts, freelancers, technical university graduates, IT returnees establishing successful firms in Serbia (e.g. mobile game developer Nordeus), increasingly attracting foreign digital nomads. Many IT professionals benefit from a government tax regime that allows for lump-sum presumptive taxation for unincorporated entrepreneurs, thus effectively taxing their income at a much lower rate.

On top of all this comes the additional income earned by the growing community of Serbian telemigrants, which mostly gets recorded among the remittance inflows. Telemigrants live in Serbia, but they work for foreign clients via the internet, often using online platforms like Upwork. According to rough estimates, there are currently more than 20,000 telemigrants in Serbia for whom foreign clients are their primary source of income, which places the country at the top of the world rankings on a per capita basis. Information on digital freelancers (analyticshelp.io, 2018) ranks Serbia the eleventh country in the number of freelancers in the world and first in per capita terms with 3.52 freelancers per 1,000 inhabitants.[2]

Foreign language is a mandatory subject from the first year of primary school. English language is by far the most popular, with coverage of 95% of students in primary and secondary schools. The second most popular language is German with coverage of some 35%. Its popularity has increased during the last decade, both thanks to the growing German-owned FDI and because of increased job prospects in Germany, especially for students in medical professions and in highly demanded VET occupations.

Education system has also prioritized IT knowledge acquisition. Informatics was taught as elective subject in primary schools since 2002 and has become mandatory subject in 2017. More than a quarter of university graduates each year major in technical subjects, more than in any other Western Balkan country, creating a strong computer science talent pool. The government increased enrolment quotas in IT departments in universities in 2017 by further 20 percent.

---

[2] See https://analyticshelp.io/blog/global-internet-freelance-market-overview-2018/

7. MIGRATION PERCEPTIONS AND POLICY RESPONSES

In public perceptions and in most media articles, such as Wikipedia entries, the size of Serbian diaspora is in the range of 2-3 million, two to three times the official international estimates. Similarly, the data on first-time residence permits issued to Serbian nationals in the EU countries presented in earlier sections have been invariably interpreted in various media articles as annual net outflow in the migration balance, and even more dramatically, as permanent departures from Serbia. To create a more informed picture, it would be advisable for the SORS to annually produce official estimates of migration flows with detailed explanations.

Without official national statistical guidance, it is difficult to reconstruct with precision what was really going on since around 2015 until the sudden stop in migration flows in early 2020 caused by the Covid-19 pandemic. Still, it seems highly plausible that most of the recorded increase in the EU residence permits issued to Serbian nationals was due to increased temporary migration rather than due to systemic rise in permanent migration. This is consistent with available distribution of permits by the destination countries and by the reason for stay. The only important exception might be Germany, where there is an overlap between the skill-neutral family reunion as completion of the permanent migration and medium- and high-skilled work migration of medical staff and other highly sought-after skilled workers.

In 2019 the Government bowed under growing public pressure that 'something needs to be done until it is too late' and passed several ad hoc measures aimed at prevention and reversal of migration, especially of high-skilled professionals. In that context, special tax benefits have been offered to employers hiring high-skilled returnees educated abroad earning at least three times the average wage, as well as to high-skilled foreign nationals employed in Serbia – the latter apparently in an effort to attract foreign IT talents to support growing needs of the IT sector. Apart from already mentioned pay rises for medical staff in public hospitals and health centres, the substantial double-digit increase in minimum wage in 2020 was partially presented as anti-migration measure. Similarly, the Government has also committed to achieve the average net wage of EUR 900 by 2025 as well as the average pension of over EUR 400. Affordable housing programme for public sector employees and young researchers has also been announced.

The Strategy for Economic Migrations 2021-2027 was adopted in early 2020, with the following main priority goals: Building and strengthening institutional capacities for monitoring and increasing the quality of data on economic migrations; Improving life and work conditions in economic and social sectors; Aligning the educational system with the needs of the economy, with focus on following innovations brought on by the fourth industrial revolution, especially when it comes to developing new occupations and creating conditions to attract foreign students; Advancing the cooperation between the diaspora and homeland and encouraging transnational entrepreneurship; Creating conditions for monitoring, encouraging and supporting circular and returning migrations; and Creating conditions for more efficient management of internal migration flows.

It is interesting that the first draft of the Strategy had much narrower focus on preventing high-skilled migration and facilitating return migration of high-skilled migrants, as well as attracting high-skilled immigrants. Fortunately, the adopted Strategy has much more comprehensive approach, although it lacks operational details. Currently, Action Plan for the implementation of the Strategy 2021-2023 is being drafted.

8. CONCLUSIONS AND POLICY RECOMMENDATIONS

Like other Western Balkan countries Serbia faces a serious emigration problem and needs to address it strategically. There is no immediate threat of mass exodus and migration driven mass depopulation – a general conclusion unfortunately aided by the crisis caused by the Covid-19 pandemic. Recent increased outflows were shaped by the demand rather than supply factors. Most new migrants are apparently flexible and adaptive, eager to grab temporary work opportunity, not long term oriented and proactive. Some of them are not only pulled by positive wage differentials abroad, but also pushed by negative idiosyncrasies of home labour market, such as large public sector wage premium, regressive taxation of labour and inaccessibility of good and secure jobs in the primary labour market. Overall, there are no strong indications that recent spike in work-related migrations has disproportionally depleted Serbia of high-skilled professionals.

Some people leave Serbia permanently in search of higher living standard and better life and get estranged from their home country over time, but most recent migrants opt for being engaged in circular migrations, that is intrinsically beneficial, in a Smithian manner, both for themselves and for their home country. They improve their existing or get new useful skills, are able to take better care of the needs of their families and contribute to the economic progress of their country by spending at home most of what they earn abroad. In short, wise migration strategy of a middle-income country like Serbia, in close proximity of one of the richest world regions, should not attempt to minimise all migration. Rather, it should aim at minimising permanent migration.

Our analysis has shown that among the traditionally preferred Western European destinations for potential Serbian permanent migrants only Germany exercises the ever-increasing demand for high-skilled migrants and appetite for their eventual naturalisation. At the same time, Germany provides responsible leadership by example to other less active labour importing EU countries, pioneering comprehensive approach to orderly migration. In view of newly adopted German Skilled Immigration Act that is expected to further intensify skilled migration, Serbia could attempt to negotiate a comprehensive arrangement with Germany that would benefit both parties by balancing German growing high-skill needs with Serbian interest to improve human capital of its resident labour force and minimise permanent migration.

Some elements of Serbia's negotiating strategy could include the creation of a joint German-Serbian committee for monitoring migration flows and skill needs in both countries, insistence on expanded origin training in Serbia for non-migrants, relaxation of age discrimination for work migrants over 45 and application of mixed-skill rather than high-skill immigration strategy for migrants from Serbia. Depleting Serbia (or any other European origin country) of high-skilled workforce by aggressively pursuing own high-skill immigration agenda might backfire for Germany in the long run, by losing benefits from integration at the source through increase in FDI and stronger integration in GVC. Equally important, circular migration patterns should be promoted over migration pathways leading to permanent migration. Milanovic (2019) points out that making access to citizenship and permanent residence harder for migrant workers in a destination country could result in more immigration flows and smaller migrant stock – which for different reasons could be preferred outcome for both the destination and origin countries.

REFERENCES

Akerlof, G.A., 2020. Sins of Omission and the Practice of Economics. Journal of Economic Literature, 58(2), pp.405-18.

Arandarenko, M. and D.Aleksic, 2020. There and back again: Employment statistics of the citizens of the Western Balkans, in: W. Bartlett, V.s Monastiriotis and P. Koutroumpis: Social exclusion in the Western Balkans, Cambridge Scholars.

CEVES, 2018. Serbia sustainable development issues: a baseline review, Belgrade.

Clemens, M., Dempster, H. and Gough, K., 2019. Maximizing the Shared Benefits of Legal Migration Pathways: Lessons from Germany's Skills Partnerships. Center for Global Development Policy Paper, 150.

ETF (2019), KIESE - Key indicators on education, skills and employment 2019, https://www.etf.europa.eu/en/publications-and-resources/publications/key-indicators-education-skills-and-employment-2019

IAB, 2020. Evaluierung der Westbalkanregelung: Registerdatenanalyse und Betriebsfallstudien, Bundesministerium für Arbeit und Soziales.

Ilahi, M.N., Khachatryan, M.A., Lindquist, W., Nguyen, M.N., Raei, M.F. and Rahman, J., 2019. Lifting Growth in the Western Balkans: The Role of Global Value Chains and Services Exports. International Monetary Fund.

Milanovic, B., 2019. Capitalism, alone: The future of the system that rules the world. Harvard University Press.

Ozden, C., Wagner, M. and Packard, M., 2018. Moving for Prosperity: Global Migration and Labor Markets. Policy Research Report Overview, World Bank Group,(15).

Sjaastad, L.A., 1962. The costs and returns of human migration. Journal of political Economy, 70(5, Part 2), pp.80-93.

Vladisavljević, M. 2019. Ekonometrijska analiza premije zarada u Srbiji u uslovima fiskalne konsolidacije, PhD thesis, University of Belgrade.

World Bank, 2019. Serbia: Building a skilled workforce. Serbia's new growth agenda, CEM.

Zbinden, M. Dahinden J. and Efendic A. eds, 2016. Diversity of migration in South-East Europe, Peter Lang.