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EMIGRATION FROM SERBIA AND DEPOPULATION

JEL CLASSIFICATION: J61, O52, P51

ABSTRACT:

In Serbia, one of the Western Balkan countries, emigration from the country continues at a high level while immigration to the country has been small. Concomitantly, a decline in population and depopulation in the rural areas continues. This paper aims to grasp how the mechanism of persisting rapid emigration was formed historically. The paper is constructed as follows: Section 2 will give an overview of the Serbian economy after the Second World War, Section 3 will give an overview of the Serbian economy after the system change in 1990, and Section 4 will discuss actual situations of emigration and related problems. Section 5 examines problems of 'brain drain' focusing on the area of medical care, and Section 6 examines challenges the country has to tackle. Finally, the paper concludes by stressing the importance of human capital and the necessity for promotion of return migration of highly-skilled Serbian workers living in advanced EU member states.

**KEYWORDS:****SERBIA, EMIGRATION, IMMIGRATION, DEPOPULATION, BRAIN DRAIN, THE EU**

1. INTRODUCTION

Serbia, a country of the Western Balkans, is an EU candidate. This country is facing challenges common to Romania, Bulgaria and Croatia, EU member states in the Balkans, i.e. rapid emigration from their countries and a decrease in population and depopulation in rural areas accompanying with the emigration. From 2004, the year when the EU's eastward enlargement began, through 2020 the population has increased in North Macedonia and Kosovo*², and it decreased slightly in Montenegro on the one hand. During the same period, on the other hand, the population has decreased sharply in other Western Balkan countries (Croatia, Serbia, Albania, and Bosnia and Herzegovina)³. All the Western Balkan countries are small and economically poor reflecting historical circumstances. This paper discusses Serbia as a typical case of the Western Balkans.

The population of Serbia (excluding Kosovo*) decreased from 7.55 million in 2004 to 6.899 million in 2020, meaning that during the 16 years it decreased by 651 thousand, i. e. 8.6%. Total fertility rate recorded 2.02 in 1965, but the next year it began to fall below 2, continuing to decrease with some fluctuations (the lowest rate was recorded in 2007 at 1.38) to 1.48 in 2020. The natural increase in population turned negative in 1992, and since then the amount of the decrease in population has been generally continuing to expand. In 2020 the number of birth was 61,692, the number of death 116,850 and the natural increase in population -55,158 (Statistical Office, 2021). A British journalist Tim Judah (2019a) quotes a Serbian demographer's words, saying "It's too late! It's not [that it's] too late now. It was too late even 20 years ago!" Except for Africa and some developing countries where demographic transition⁴ has not occurred yet, a decrease in population is a worldwide phenomenon. In addition to this, in Serbia there has been a massive outflow of population⁵. The problem is not limited to Serbia. Warning that there has been a problem of an outflow of population and a decrease in population in the Balkans as a whole, Tim Juda (2019b) depicts a gloomy world.

As for the unemployment rate (LFS) in Serbia, it was 12.1% in 2000. After having experienced the 2008-09 global financial crisis it soared to 28% in 2012. In spite of continuing emigration, the unemployment rate in 2018 remained a high level at 12.7%⁶. ETF (2021), which analyzes the problem of migration in Serbia, begins its description

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- 2 This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244 (adopted on June 10, 1999).
 - 3 Looking at changes in population during the period 2004–2020, the population has decreased sharply in Romania and Bulgaria (-11.1% and -11.2% respectively). In the Western Balkans the population increased in North Macedonia and Kosovo* (2.1% and 9.8% respectively) and decreased slightly in Montenegro (-0.6%) while in other countries the population decreased sharply as follows: Croatia (-8.8%), Serbia (-8.6%), Albania (-9.5%), and Bosnia and Herzegovina (-9.6%). The author's own calculation based on data from wiiw.
 - 4 According to Lutz and Gailey (2020), demographic transition is the progression of demographic regimes, from the high birth and high death rates of the pre-industrial era, to a middle-stage when death rates decline and spark rapid population growth until, finally, birth rates correspondingly decline and population growth moderates or ends. This transition has been characterized as the transition from uncontrolled high levels of birth rates to a modern system of controlled and low levels of these rates (p. 10).
 - 5 When refugee crisis occurred in 2015 numerous refugees from Syria and other countries took the Balkan route. There were some refugees who stayed in Serbia for several days, but almost no refugees settled down in this country. As Serbs themselves were leaving their country, Serbia was not an attractive destination for refugees. After having taken a rest here, they headed for Germany and some other advanced EU member states.
 - 6 Data from wiiw.

with the following shocking sentence: “Serbia’s most significant export item is labour and not – as is commonly presumed – steel, automobiles or raspberries” (p. 6). Why has the pace of emigration from Serbia been so quick? In this paper I will analyze historical and structural factors of emigration from Serbia.

To the best of my knowledge, there have not been so many studies dealing with the problem of emigration from Serbia. Among Serbian studies about this problem Rašević (2016) is the most comprehensive paper, emphasizing problems of inequality of income distribution. She says “effects which social transfer has on reduction in risks of poverty in Serbia is insufficient and remarkably smaller than that in the EU” (p. 31). Based on such a perception, she explains a massive emigration from Serbia. Stanković (2011) begins his explanation with situations in the socialist period in the 1960s and provides us detailed data based on censuses, but unfortunately his analysis ends in 2011⁷.

Among foreign literature, ETF (2021) is the most important. It is the result of a regional study entitled ‘Migration dynamics from human capital perspective in the Western Balkans’ jointly launched with the Vienna Institute for International Economic Studies (wiiw). It conducts a quantitative analysis from a perspective of the triangular relationships between human capital formation, labour markets and migration. Lutz and Gailey (2020) study the problem of depopulation in Serbia from a perspective of demography and warn against a rapid “brain drain” from Serbia. Atoyan, et al (2016) are optimistic saying that emigration has led to positive outcomes for CESEE (Central, Eastern, and Southeastern Europe) migrants themselves, and for the EU as a whole. At the same time, however, they say that large-scale emigration – through its externalities – may also have slowed growth and income convergence in CESEE economies.

I would like to grasp how the mechanism of persisting rapid emigration was formed historically. For this purpose, this paper considers historical and structural factors of rapid emigration from Serbia after having analyzed various literatures including the above-mentioned works. Of course there has been immigration to Serbia, but this problem will be discussed only in a supplementary way. This paper is constructed as follows: Section 2 will give an overview of the Serbian economy after the Second World War, Section 3 will give an overview of the Serbian economy after the system change in 1990, and Section 4 will discuss actual situations of emigration and related problems. Section 5 examines problems of 'brain drain' focusing on the area of medical care, and Section 6 considers future challenges Serbia has to tackle, and finally some conclusions will be reached.

⁷ In Serbia a national census is conducted once in every 10 years. The last census was in 2011, and the next was planned for 2021, but postponed because of Covid-19. It should start the October 1, 2022.

2. AN OVERVIEW OF THE SERBIAN ECONOMY AFTER THE SECOND WORLD WAR

Serbia in the former Yugoslavia

Serbia was the largest republic in terms of population during the period of former Yugoslavia. Within Serbia the number of agricultural population was overwhelmingly large accounting for two thirds of total population in 1953 (see Table 1). In terms of economic affluence Serbia lagged behind western two republics, i.e., Slovenia and Croatia with its per capita GDP being about the average of the former Yugoslavia.

▶ **TABLE 1. THE SIGNIFICANCE OF AGRICULTURE IN THE REPUBLICS AND PROVINCES IN FORMER YUGOSLAVIA**

REPUBLICS AND PROVINCES	AGRICULTURAL POPULATION (% OF TOTAL)			INCOME FROM AGRICULTURE (% OF TOTAL)		
	1953	1961	1971	1953	1961	1971
Bosnia and Herzegovina	62.2	52.0	40.0	28	23	15
Croatia	56.4	47.2	32.2	28	20	14
Macedonia	62.7	50.9	39.9	40	28	22
Montenegro	61.5	48.1	35.0	39	25	13
Serbia	66.7	55.7	44.0	43	28	24
Proper	67.2	54.8	44.1	38	22	19
Kosovo	72.4	64.0	51.5	44	34	28
Vojvodina	62.9	53.6	39.0	49	43	33
Slovenia	41.1	31.6	20.4	12	12	7
SFRY	60.9	50.5	38.2	31	23	17

Source: Stipetic (1975), p. 14.

Situations in Rural Areas

After the Second World War the land reform⁸ was carried out based on the principle of “land to its tillers” under the socialist government. In 1948 a movement for establishing productive cooperatives of Kolkhoz type began. In spite of the dispute between Stalin and Tito and the subsequent expulsion of Yugoslavia from the Cominform in 1948 leaders of Communist Party of Yugoslavia continued the movement, peaking in 1951, as if they tried to prove that there was no deviation from the principle in the construction of socialism. As such type of cooperatives did not meet needs of rural areas of Yugoslavia

8 From non-agricultural people (possessing more than 25 ha or 35 ha of land and making hired workers cultivate it) as well as banks, firms, security companies, monasteries, religious institutions and foundations land exceeding the upper limit was requisitioned. From farmers land exceeding 25 ha or 35 ha was requisitioned for remuneration (Stipetic, 1975, p. 51).

the movement ended with dissolution of the cooperatives in 1953 (Stipetić, 1975, pp. 114-115).

The upper limit for land ownership up to 25 ha or 35 ha fixed by the law of 1945 was further decreased to 10 ha by the law on the pooling public agricultural land (Stipetić, 1975, p. 52). In this way, farmers in the former Yugoslavia were allowed to possess agricultural land during the socialist period⁹. In 1973 private farms possessed 85% of total arable land (Stipetić, 1975, p. 130). Total number of socialist farms was 1,172, and their sizes varied greatly¹⁰. Private farms were small in their sizes. They were poorly equipped. The number of farms in which one or more people living there but worked permanently out of agriculture was 9% but it increased to 48% in 1969 (Stipetić, 1975, p. 133).

Farmers are becoming more aged. Since 1966 small farms have invested only smaller amount out of total agricultural expenditure. This showed their lack of interest in long-term investment (Stipetić, 1975, p. 141). As for surplus population in rural areas, it was the largest in Serbia where 26.7% of active manpower was surplus agricultural labor force, followed by Kosovo* (25.1%). It was the lowest in Montenegro (1.6%), followed by Slovenia (8.6%) (Stipetić, 1975, p. 37).

Economic Reforms were carried out in 1963-1965. These aimed at active use of market mechanism within the framework of socialist economy. In the second half of the 1960s Yugoslavia was admitted to international organization such as the IMF, the World Bank and the GATT. In this way, the Yugoslav economy became included in the world economy. With these reforms, latent surplus labor came up to the surface. Stanković (2011) says as follows: "The opening of domestic economy', which was got rid of tariff barrier, and merciless struggle in the domestic market forced many socialist firms to release surplus labor power, which was latent until that time" (p. 7). The government permitted unemployed people to go to Western countries to work. It was not only workers who went on a Gastarbeiter's journey but also agricultural people joined them. "For several years, ... rural areas and agricultural production of their inhabitants had only roles of material basis and demographic reservoirs" (p. 7). As they could not find jobs in cities due to restrictive employment policy massive young farmers decided to go to foreign countries (Stanković, 2011, pp. 7-8).

The country industrialized rapidly after the Second World War. For example, in Kragujevac the production of automobiles on license from Fiat (Italy) began. Ironworks in Sme-

9 In 1900 the number of agricultural farms was about 1.38 million, total area of agricultural land 11 million ha, and the average size of land ownership per a farm 8.0 ha. In 1969 the number of agricultural farms (including both social farms and private farms) increased to 2.602 million, total areas of agricultural land was 12.171 million ha, and consequently the area per a farm was 4.6 ha. Of which farms under social ownership (about 2,000) possessed considerable arable land (208.1ha). Total area of agricultural land under private ownership was 10.091 million ha. However, as the number of private farms was so numerous that the average size of their land possession was only 3.9 ha. This means that the average size of farmers' land possession decreased to less than half of the average size as of 1900. Stipetić points out that in agriculturally developed countries the number of agricultural farms decreased and simultaneously the average size of a farm's land possession tended to increase whereas in Yugoslavia, on the contrary, the number of private farms increased and the average size of their land possession decreased (Stipetić, 1975, pp. 54-55).

10 There were 707 farms which had less than 50 ha of agricultural land while there were 101 farms which had more than 5,000 ha. As for people who were engaged in agriculture, 3.82 million people were engaged in farming, but of which only 201 thousand people (5% of total) worked in the socialist sector (Stipetić, 1975, pp. 122-123).

derevo has developed. Substantial parts of products of these firms have played important roles in Serbia's export.

Unfortunately, however, an economic crisis surfaced in the second half of 1979¹¹. In spite of various efforts including the Long-term Program for Economic Stabilization, which was put into practice in 1984, the economic crisis was getting worse, causing conflicts among republics. Finally, self-managed socialism in Yugoslavia collapsed and the Yugoslav Federation came to its breakup in 1991.

3. THE SERBIAN ECONOMY AFTER THE BREAKUP OF THE YUGOSLAV FEDERATION

The Serbian economy became weakened further. The main reasons were two grave shocks. The first one was a loss of market and disconnection of supply chains due to the breakup of the Yugoslav Federation. In addition, there were ethnic conflicts in 1992-1995 and the UN sanctions. The events aggravated the transition depression. In 1993 the GDP decreased to only 40% of the 1989 level (see Figure 1). As the Bosnian war ended with the Dayton agreement in November 1995 the Federal Republic of Yugoslavia finally became able to reconstruct its economy under peaceful conditions.

The second one was the Kosovo* war in 1999. The West countries intervened in the Kosovo* problem for humanitarian reasons, and NATO made air raid of the Federal Republic of Yugoslavia (especially Serbia and Kosovo*) for 78 consecutive days from March 1999. The economy, which just began to recover, decreased again, with the GDP declining to 50.3% of the 1989 level. The damage on the side of FR Yugoslavia was estimated at about US\$ 30 billion. More than 600 thousand workers lost their jobs, and 2.5 million citizens became incomeless. The unemployment rate reached 50%. Thousands of industrial, commercial and public facilities were destroyed or damaged. Destroyed industrial facilities include, for example, Zastava automobile factory in Kragujevac. This automobile factory, which had the annual products of 200 thousand cars, was almost totally destroyed by two Tomahawks and five guided missiles. 23 oil refineries were destroyed causing serious environment pollutions. Linkages of transport and communication including 61 bridges, railways, roads and airports were destroyed. In 1999 the GDP decreased by 22% compared with the previous year. In addition, this country was obliged to accept 566,000 refugees and 250,000 displaced persons (Koyama and Pitić, et al, 2002, p. 310). As the population was about eight million (total of Serbia and Montenegro), the country had refugees and displaced persons amounting to almost 7% of the populations.

11 The following causes of the economic crisis in the 1970s can be mentioned: 1) Simultaneous expansion of consumption and investment. Based on prescriptions of the 1974 Constitution, banks were established by self-managed enterprises. As a result, these banks became prisoners of these self-managed enterprises (= founders), which were practically main borrowers. This relationship allowed the emergence of such a situation; 2) Due to changes in laws in the 1970s self-managed enterprises became main parties in borrowing from foreign banks, causing a rapid increase in financial loans; 3) Socialization of losses (i.e. socialization of risks) resulting from the system of social ownership. In addition, weakness of coordination ability of the Federal government, an excess of decentralization under the regime of the 1974 Constitution, etc. can be mentioned, but I think the above-mentioned causes (1, 2 and 3) were especially important.

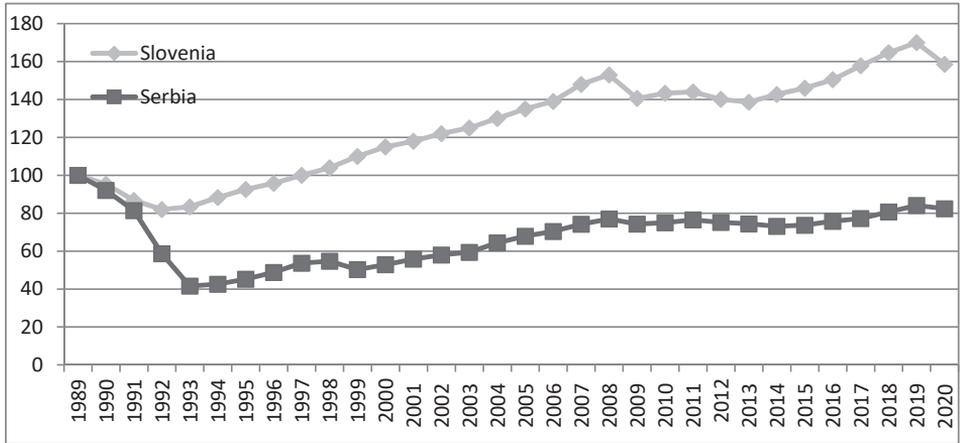
Serbia resumed its transition in October 2000, but the influence of the 10-year suspension of the transition process was significant. At that time its economy was exhausted. In Federal Republic Yugoslavia (consisting of Serbia and Montenegro) the savings rate has been at a single digit in the 1990s, and in 1999 it was only 4.1% of GDP, with domestic savings being much less than the total depreciation (Stability Pact, 2002, p. 71). Machines and equipment in enterprises were old and obsolete due to a lack of investment. FR Yugoslavia really needed international assistance. The European Commission, the IMF, the World Bank, the EBRD, the UN, other international organizations and many countries gathered to support FR Yugoslavia. The World Bank was entrusted to coordinate the division of responsibility among these organizations and donor countries and prepared a report titled "Breaking with the Past: The Path to Stability and Growth" (World Bank, 2001).

FR Yugoslavia's external debt was estimated at US\$ 12.267 billion as of the end of 2000. As the GDP in 2000 was US\$ 6.922 billion, the country had very heavy external debt amounting to 177% of GDP. It reached an agreement with the Paris Club (the informal group of public creditors) and gained a write-off of 66% of its unpaid debt, and it also reached an agreement with the London club (the informal group of commercial bank creditors) and gained a write-off 62% of unpaid debts. Owing to such generous arrangements, the heavy burden of its external debt was greatly alleviated. Since then, however, Serbia had to receive continuously external assistance, for example, Stand-By arrangement from the IMF for several times and assistance based on Structural Adjustment Program, and every three years Country Partnership Strategy from the World Bank. In other words, Serbia had to pursue the transition to a market economy and the economic recovery while being subjected to the will of these international financial organizations. In November 2008 the government of Serbia and the central bank began negotiations with the IMF and concluded a Stand-By Agreement for a period of 15 months in the amount of US\$ 160 million. This support was extended on condition of budgetary discipline including freezing of wages and pensions.

Afterwards, the Eurozone credit uncertainty starting from the Greek crisis deepened. In order to insure against downside risks and to better anchor Serbia's policy framework, in September 2011 the government of Serbia and the IMF agreed on a precautionary 18-month Stand-By Arrangement in amount of € 1,054.7 million (IMF, 2011). I would like to add that in the same way as other cases the whole amount was not released as a stroke by the IMF. The implementation of Serbia's program was to be monitored through several criteria by the IMF, and after every three month's review, the next release was to be decided. In February 2012 the IMF suspended the first review on the ground that the amount of issues of public debt (including government's guarantees) which were planned in the budget for 2012 and the scale of domestically financed projects were too big. This case exemplifies how strong restriction imposed on a country by international financial institutions is.

An increase in real wages surpassed an increase in labor productivity from 2001 through 2008. As Uvalic (2010) points out, the Serbian economic development was led by consumption (high wages, credit boom and foreign borrowing) based on the growth of non-tradable goods. After the global financial crisis, however, such a model of economic development is no longer sustainable.

▶ FIGURE 1. CHANGES IN SERBIA'S GDP IN COMPARISON WITH SLOVENIA



Source: Prepared by the author based on Forecast Report (wiiw), various issues.

Figure 1 shows comparison of GDP growth of Slovenia and Serbia with the 1989 level being 100. In the case of Slovenia, its GDP declined in the first half of the 1990s, but then it developed in a relatively smooth way. Although the Slovenian economy stagnated for several years due to the influence of the global financial crisis, it developed smoothly in the second half of the 2010s, and its GDP reached 1.7 times the 1989 level (However, the economy declined in 2020 due to Covid-19 Pandemic. In this regard Serbia's situation was similar.). In the case of Serbia, in contrast, its GDP in 2020 was only 82.4% of its 1989 level, falling far behind Slovenia.

Privatization

There were three waves in the privatization of firms. The first wave came in 1990-94. It was privatization with priority given to insiders (workers and managers in the firm concerned), but unsuccessful due to hyperinflation. The second wave was the privatization starting in 1996. It was schemed at spontaneous privatization and gave priority to insiders. Strategically important firms were removed from the target of privatization. In fact, however, there was substantially no progress until the collapse of Milosevic regime, and only after the collapse of the regime in October 2000 through February 2001 was the privatization hurriedly implemented. As the sales of state-owned enterprises' share brought only limited amount of proceeds to the government, the law on privatization was soon abolished. The third wave was privatization based on a new law which was adopted in May 2001. The law required all state-owned enterprises to be privatized, and changed its method from an insider model to the sale in a commercial way.

Meanwhile, 6 major banks had huge amount of bad loans and fell into financial difficulties. Except for Vojvodina bank, these major banks were liquidated. 19 small-scale banks were closed. Several foreign banks began operation in Serbia as if they changed seats with domestic banks.

Foreign Direct Investment

Serbia eagers inflow of foreign direct investment (FDI). The amount of the inflow of FDI was very small until 2001. The inward FDI as a percentage of GDP was only 0.2% in 2000. Along with a progress in full-fledged privatization, the inward FDI has increased since 2002. Greenfield investment has been very few. In Serbia the amount of inward FDI has increased its connection with privatization, meaning that this was nothing other than selling of important national assets such as Telecom, etc. bit by bit (see Uvalic, 2011). The inward FDI as a percentage of GDP increased to 80.2 % in 2017 (wiiw, 2018, p. 67).

► **TABLE 2. INWARD FDI STOCK IN SERBIA BY ECONOMIC ACTIVITIES, IN 2014**

	AMOUNT (EUR MN)	IN % OF TOTAL
Agriculture, forestry and fishing	298	1.1
Mining	1,590	6.0
Manufacturing	5,642	21.3
Electricity, gas, steam, air conditioning supply	171	0.6
Water supply, sewage, waste manag., remediation	108	0.4
Construction	1,582	6.0
Wholesale, retail trade, repair of motor vehicles, etc.	3,651	13.8
Transportation and storage	337	1.3
Accommodation and food service activities	219	0.8
Information and communication	1,430	5.4
Financial and insurance activities	7,677	29.0
Real estate activities	1,616	6.1
Professional, scientific and technical activities	1,647	6.2
Administrative and support service activities	242	0.9
Arts, entertainment and recreation	94	0.4
Other	162	0.6
Total	26,467	100.0

Source: wiiw (2018), FDI Report, p. 131.

Looking at investor countries, the amount of inward FDI by the Netherlands (21.4%) comes first, followed by Austria (13.9%), Cyprus (10.5%), Russia (5.9%), Germany (4.6%), Greece (4.3%), Slovenia (4.3%), Luxembourg (4.1%), Italy (3.8%), France (3.3%). Although the Netherlands comes first, there is a possibility that investments made by American companies and Japanese companies, etc. via their Dutch branches are also included in the Netherlands. Cyprus occupies the third place, but its significant part can be actually regarded as investments by Russian companies.

The structure of the inward FDI stock by branches has a problem. The largest amount is occupied by finance and real estate (29%), followed by manufacturing (21.3%), wholesale and retail trade and repair of motor vehicle etc. (13.8%). Looking at the breakdown

of the inward FDI in manufacturing, the first place is occupied by foods, beverage and tobacco (21.7%). The second place is occupied by rubber, chemicals and chemical products (7.4%), basic metals, fabricated metal products excluding machine and equipment (6.7%), and textiles and apparel, leather and related products (5.1%). Unfortunately, in this way direct investment in advanced areas was very small.

Economic Structure

Looking at changes in the economic structure from 2000 through 2017 (Table 3), a noticeable change is that the share of agriculture, forestry and fishing decreased remarkably from 18.3% to 6.0%. Second, the share of manufacturing decreased significantly from 23.6% to 15.1%. Third, in contrast to the above-mentioned activities, wholesale, retail trade, repair of motor vehicles, etc. and electricity, gas, steam, air conditioning supply increased their shares remarkably during the period from 5.6% to 11.5%, and from 0.6% to 3.6% respectively.

▶ **TABLE 3. GDP AND GROSS VALUE ADDED BY ACTIVITIES**

	2000	2005	2010	2015	2016	2017
Agriculture, forestry and fishing	18.3	10.0	8.5	6.7	6.8	6.0
Mining and quarrying	1.1	1.3	1.3	2.1	2.0	2.1
Manufacturing	23.6	14.4	13.6	14.7	14.7	15.1
Electricity, gas, steam, air conditioning supply	0.6	0.6	2.8	3.9	4.0	3.6
Water supply, sewerage, waste manag. Remediation	0.8	1.2	1.1	1.2	1.2	1.2
Construction	4.7	4.8	4.7	3.7	3.9	4.1
Wholesale, retail trade, repair of motor vehicles etc.	5.6	9.5	9.4	11.1	11.1	11.5
Transportation and storage	4.0	4.2	4.5	3.7	3.7	3.9
Accommodation and food supply	1.2	1.3	1.1	1.3	1.3	1.4
Information and communication	2.6	3.1	4.2	4.8	4.8	5.0
Financial and insurance activities	2.0	1.9	3.3	3.0	2.9	2.8
Real estate activities	10.1	9.7	9.3	7.9	7.5	7.3
Professional, scientific and technical activities	2.4	2.7	2.9	3.9	3.9	4.0
Administrative and support service activities	1.0	1.2	1.4	2.0	2.1	2.2
Public administration, defence, compuls.soc. Security	3.5	4.5	3.6	3.2	3.1	3.2
Education	3.2	3.2	3.4	3.3	3.2	3.4
Human health and social work activities	4.6	4.6	5.4	3.9	3.9	3.7
Arts, entertainment and recreation	1.2	1.2	1.0	1.2	1.2	1.2
Other service activities	1.4	1.8	1.4	1.4	1.4	1.3
Taxes less subsidies on products	8.0	16.6	16.6	16.6	17.1	17.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: wiw (2018a), p. 91

Structure of Foreign Trade

What kind of goods is Serbia exporting? About 55% of total export were exported to the EU-27. The main item was agricultural products accounting for about 20% of total exports (mostly grain, sugar, fruit, vegetable, confectionery and beverage). Others were steel and metal ware (20%), machine and transport equipment (17%), and chemical product (9%) (World Bank, 2011, p. 1). Serbia's foreign trade dependency in 2019 is 58.5%¹². As this level is still low compared with other countries of the similar size, the country's foreign trade has room for further expansion.

In parallel with an increase in the domestic demand the import increased at higher pace than an increase in export, causing an expansion of external imbalance. The export of goods has always remained at about half of the import of goods (only 38.7% in 2004). The export of service and the import of service have amounted to almost same level, although there has been some surplus or deficit depending on years. Looking at foreign trade including both goods and services, the ratio of export to import was 46.9% in 2004, but later the ratio fluctuated at 55% to 63%. The deficit in foreign trade as a percentage of GDP has always been very large, and especially in 2004 it recorded 26.6%. Until 2008 it fluctuated at around 20 to 25%. After the global financial crisis the pace of a decrease in import was faster than that of export, causing some decreases in the foreign trade deficit. Similarly, the current account deficit amounted to 21.8 % in 2008, but due to the influence of the global financial crisis it decreased to 6.1% in 2009 (see Table 4).

► **TABLE 4. INDICATORS OF EXTERNAL SOLVENCY AND LIQUIDITY OF SERBIA IN THE PERIOD 2005 - 2021 (%)**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015	2018	2021
Indicators of external solvency												
External debt/GDP	60.7	61.3	61.1	64.2	76.9	84.1	68.0	76.1	70.4	73.4	62.2	68.4
External debt/Export of commodities and services	234.9	205.7	214.2	219.1	277.0	246.9	216.5	223.6	184.0	166.8	126.0	127.7
Indicators of external liquidity												
Repayment of debt/GDP	5.2	10.8	10.7	11.0	13.5	12.7	11.7	12.3	12.6	11.1	11.3	9.2
Repayment of debt/Export of commodities and services	19.8	36.2	37.5	37.5	48.8	37.4	37.3	36.0	33.0	25.2	22.9	17.1
Current account as a percentage of GDP	-8.8	-10.1	-18.7	-21.8	-6.1	-7.4	-10.5	-12.3	-6.5	-3.5	-4.8	-4.3

Source: For the period 2005-2010 Savic and Kovacevic (2014), p.83. For the period 2011-2021 National Bank of Serbia.

According to Savić and Kovačević (2014), there was phenomenon 'de-industrialization'¹³. As Serbia experienced ethnic conflicts in the first half of the 1990s and the Kosovo* war

¹² The author's own calculation based on data from wiiw (2021), p. 122.

¹³ Savic and Kovacevic (2014) mentions a fact that during the period between 1990 and 2013 Serbia increased its by 2.6 times while the Czech Republic increased its export by 26.6% (p. 85).

in 1999 and the UN sanctions, its industry has weakened. In advanced industrial countries, growth and further expansion of the service sector followed development of industry, whereas in Serbia the service sector expanded as a result of the decay of its industry. Indeed a large number of SMEs in the service sector such as restaurants, cafes, retail shop, boutiques, etc. have already have been established, and they mitigated unemployment to a certain extent. Savić and Kovačević (2014, pp. 70-72) stress “an extremely bad development model” applied by governments after the change in October 2000 (fall of the Milosevic regime, democratization, and Serbia’s return to the international community), specifically as follows: a) direction of inflow of foreign capital: FDI went mostly to services, real estate, etc. – consumption-led economic development; b) wrong privatization model; the privatization has been implemented by the governments based on neo-liberalism. They were so naïve to believe that “a majority of deeply stumbling industrial enterprises would be bought by rich foreigners who would rebuild them from the ruins into contemporary and efficient companies within a short time”; c) hasty liberalization of the Serbian market; a problem is that liberalization occurred in the second phase of transition when completely exhausted and devastated Serbian industry did not have chances in competition with very efficient multinational companies; d) a complete lack of a vision of long-term development of Serbia; in this regard, they positively evaluated a role played by Japanese Ministry of International Trade and Industry. It was necessary to finance budget deficit, and only a part of funds was used as for the construction of infrastructure. Foreign credits that domestic companies obtained were used not for investment but for financing current production with the exception of a few cases. Foreign credits should be used for investment to upgrade the economic structure and construct the industry’s export ability (export first of all in the EU market).

Looking at indicators of external solvency, the external debt reached 277% of the export revenue in 2009 (Table 4). Then the proportion declined gradually while the external debt as a percentage of GDP continued to increase and reached 86.6% in 2012. Looking at indicators of external liquidity, since 2006 the repayment of debt/GDP continuously exceeded 10% of GDP, being a heavy burden on the national economy. In 2009, the worst year, nearly half of the export revenue had be allotted to the repayment of external debt. The current account deficit reached 21.8% of GDP, which was extraordinary record figure.

Summing up the development of the Serbian economy after the system change, although there were the above-mentioned unfortunate circumstances its economic development has lagged behind new EU member states in Central Eastern Europe. The weakness of the Serbian economy can be seen in the structure of its foreign trade. Looking at its export, agricultural goods come first, followed by steels and metals. There have been almost no high value-added goods in its export. Consequently, the Serbian economy has had chronic import surplus. Thus the Serbian economy has been burdened with its obligation to repay a huge amount of debt

4. EMIGRATION

Many Serbian nationals¹⁴ have been emigrating to advanced countries. From which regions have they been emigrating? Looking at the percentage of emigrants of total inhabitants in 2011, it was 4.2% in Serbia proper (Central Serbia) within the Republic of Serbia while it was 2.5% in the Autonomous Province of Vojvodina. Within Serbia proper, it was higher in Southern Serbia (5.7%) than Northern Serbia (2.7%). Within Southern Serbia, the percentage in Šumadija and Western Serbia was 4.91 while it was 6.65% in Southeastern Serbia. Within Southern Serbia the percentage was higher especially in the eastern part where there were many communes which recorded more than 20% (for example, Kladovo, Negotin, Kucevo, etc.). Stanković (2014) includes a table which shows the average years of stay of labor migrants in foreign countries (based on 2011 census). According to it, the average years of stay in foreign countries is 10.82 years. In the case of people coming from cities it is 9.41 years while in the case of people coming from remaining areas it is 11.84 years. In the case of people coming from Southeastern Serbia it is 11.82 years, and especially for people coming from rural areas it is 12.44 years.

► **TABLE 5. EMIGRANTS FROM SERBIA BY PROFESSION, 2011 CENSUS**

	NUMBER	IN % OF TOTAL
Professional soldiers	64	0.0
Managerial staff, high officials and and legislators	1,636	1.0
Specialists and artists	15,291	9.0
Engineers, expert collaborators and technicians	13,104	7.7
Administrative employees	3,906	2.3
Service and commercial workers	17,836	10.5
People engaged in agriculture, forestry and fishery	999	0.6
Craftsman and similar	24,568	14.4
Leaders for machines and construction, installers and drivers	10,989	6.5
Unskilled workers	17,393	10.2
Unknown	64,398	37.8
Total*	170,184	100.0

Source: Stankovic (2014), p. 77.

* Excluding unemployed people.

Looking at table 5 which shows emigrants by their previous profession, the number of people who were engaged in handicraft is largest at 14.4%, followed by service and commerce (10.5%), simple workers (10.2), professionals and artists (9.0%), engineers, professional cooperators and technician (7.7%).

14 According to 2011 census, among Serbian nationals (7,186,862) Serbs account for the largest proportion (83.3%), followed by Hungarians (3.5%), Romany (2.1%), Bosnians (2.0%), Croats (0.8%). Looking at the breakdown of total emigrants (313,411), the share of Serbs was 61.9%. Bosnians took the second place (6.3%), followed by Romany (3.0%), Hungarians (2.4%), and Vlas (2.0%) (Stankovic, 2014, p. 57). This paper grasps emigrants from Serbia as Serbian nationals not by ethnic affiliation and examines its total development.

Lutz and Gailley (2020) discuss who is leaving. They say that emigration from Serbia has been disproportionately concentrated among the high-skilled and low-skilled workers. According to them, during the 1970s there was a significant wave of about three million Yugoslavs, many of them Serbs, who left as guest workers heading especially for Germany, Austria, and Switzerland. They were used for relatively menial jobs in their destination countries. Many of these emigrants are deciding not to return, in a break with past tendencies (p. 22).

Only from Serbia's data it is impossible to precisely grasp problems on how many Serbian nationals emigrated and to which countries they emigrated. EFT (2021) adopted two main complementary strategies: First, they looked at the indirect evidence and proxies in the statistics of major host countries, namely, aggregated all data from all EU member states on immigrants from Serbia. Second, they approximated the data on net migration via a cohort approach, i.e. identifying and following age cohorts over time using the data from consecutive LFSs. The essence of the method could be summarized as follows: The first year of the analyzed period is set 2010. The sample population was divided into five different five-year age cohorts – 15-19, 20-24, 25-29, 30-34, 35-39 – and each cohort was then followed until 2019. Each cohort aged over time, so that, by 2019, aged by nine years. Furthermore, from 2011 on, a new group of young people aged 15 entered the survey population every year. Each of these newcomers was also followed separately each year from 2010 to 2019. Assuming little mortality and no fertility to change the size of this cohort, any population change observed could be explained by migration, meaning migration dynamics can be deduced from population changes observable in official statistics. This means that if there was a decrease in population there was the same number of net emigrants and that if there was an increase there was the same number of net immigrants.

▶ **TABLE 6. FIRST-TIME PERMITS AND STOCK OF SERBIAN MIGRANTS IN THE EU AND SWITZERLAND IN 2010 AND 2018**

COUNTRY	ANNUAL FLOW		ANNUAL STOCK		FLOW AS A % OF STOCK	
	2010	2018	2010	2018	2010	2018
EU as a whole	22,818	51,942	560,631	491,199	4.1	7.0
Old member states						
Germany	3,327	16,156	290,092	232,338	1.1	7.0
Austria	3,577	3,956	111,708	104,800	3.2	3.8
Italy	6,631	1,486	61,027	40,797	10.9	3.6
France	1,116	1,149	35,141	27,119	3.2	4.2
Sweden	1,228	2,620	12,090	9,060	10.2	17.9
New member states						
Slovenia	1,041	5,147	8,273	17,766	12.6	29.0
Slovakia	483	4,834	3,826	13,555	12.6	35.7
Croatia	n.a.	4,910	n.a.	6,001	n.a.	81.8
Malta	86	2,209	502	5,744	17.1	38.5
Hungary	1,226	3,767	18,080	5,434	6.8	69.3
the Czech Republic	199	1,693	1,993	4,380	10.3	38.7
Poland	114	1,151	701	1,607	16.3	71.6
Switzerland	n.a.	1,553	n.a.	61,859	n.a.	2.5

Source: ETF (2021), p. 11.

The results of the analysis are as follows: 1) There has been net emigration among the three youngest age cohorts, i.e., newcomers, cohort 15-19, and cohort 20-24, and net emigration has been highest among cohort 20-24 (around -18,500). 2) In contrast to the above-mentioned three youngest age cohorts, net immigration has been very high (almost 15,000) among cohort 25-29. 3) Net emigration has been high among the two oldest age cohorts, i.e. those in their mid-30s to late 30s, and it was especially high (around -15,000) among cohort 35-39 (ETF, 2021, p. 15, Figure 2.1).

Table 6 shows destinations of emigrants from Serbia in 2010 and 2018. The stock of emigrants from Serbia to the EU was 560,631 in 2010, but it decreased from 560,631 to 491,199 in 2018. As the emigration from Serbia to the EU continued during the period, the decrease in its stock can be explained to a certain extent by retirement from work and naturalization. Total number of the naturalization during the period 2010-2018 is about 117,000 (ETF, 2021, p. 9). The country which has accepted the largest number of emigrants from Serbia is Germany. The most dramatic change during the period between 2012 and 2018 has been the emergence of new EU member states (NMS) as important destination countries for the Serbian nationals. Most of the emigration to new EU member states is temporary or seasonal/circular, and the potential for permanent migration remains limited (ETF, 2021, p. 12).

Furthermore, the sub-population under analysis was further broken down into the following four educational attainment levels: i) low (primary or lower-secondary); ii) medium general (upper-secondary); iii) medium VET (upper-secondary vocational education and training); and iv) high (tertiary education).

According to ETF (2021), the most important conclusions to be drawn can be summarized as follows: First, there was substantial net emigration of people whose highest educational attainment level was medium VET, irrespective of age cohort; the outflow/loss of medium-VET skills was generally highest in the youngest (15-19) and two oldest (30-34 and 35-39) cohorts; Second, since the share of those with medium-general skills, i.e. those who completed academic secondary level, was around 26% of all those educated to medium level, net emigration among these was, in relative terms, equally high, especially in the cohorts below 25 years of age. Third, there is net immigration of the highly educated, i.e. those with college and university degrees, and thus no evidence of a brain drain. This point is different from widespread perceptions. ETF (2021) explains this point by two factors: 1) Young Serbian nationals who pursued their tertiary education abroad returned in large numbers. This does not contradict the above-mentioned high net-emigration flows of those with medium VET and medium-general skills from the youngest age cohort because both skills group appear to leave in large numbers after graduating from upper-secondary level and return, while still in their 20s, as university graduates. 2) A sizable share of students from neighboring countries in the Western Balkans, especially from Bosnia and Herzegovina Montenegro as well as other countries immigrated to Serbia to study at Serbian universities. "Brain drain" will be discussed more in detail in the next section.

ETF (2021) explains links between the labor market and migration outcomes as follows: The rapidly increasing flows to the EU in the 2015-2019 period coincided with steady employment and GDP growth in Serbia, as well as a general improvement in labor-mar-

ket indicators, including a significant reduction in youth unemployment. This indicates that factors on the 'pull' side must have played a very important role. There were two factors. One of them was the German 'Western Balkan regulation' of 2016¹⁵. Another one was rapid economic growth and a decrease in population in new EU member states. Serbian workers were very eager to grab the resulting new job opportunities in NMS (see Table 6). The huge increase in the number of first-time work permits issued in NMS confirms this. Manufacturing in Slovakia, Slovenia or Poland is paying a monthly wage of around EUR 1,000. Gross average wage of 65,976 dinar in Serbia in 2017 is converted into only EUR 544.

▶▶ FIGURE 2. PULL-FACTORS AND PUSH-FACTORS IN MIGRATION OF WORKERS

Pull-Factors	Push-Factors
<ul style="list-style-type: none"> - Stable social and political environment - Professional working environment favorable for training and skill-enhancement - Existence of adequate medical technology for contemporary procedure - Attractive wages, social and other benefits - Existence of employment policies which recognize good performance 	<ul style="list-style-type: none"> - Low wages - Impossibility of employment - Discontent with jobs - Non-existence of future prospect (training and carrier development) - Bad working conditions

Source: Institute of Public Health (2015), p. 3.

While there are many workers who are thinking of emigration in search of higher wages and better working conditions, there are some high-demand occupations such as manufacturing (metal-processing, in particular) construction (owing to the housing-market and civil-engineering investment booms), and road transport (for example, truck drivers) (ETF, 2021, p. 19). Lutz and Gailley (2020) point out similar problems as follows: The food and hospitality, wood, and transportation sectors are some of those left understaffed that are in need of more workers (p. 22).

15 According to ETF (2021), the German Western Balkan Regulation was a response to the disproportionately high number of asylum application from the six countries of the Western Balkans in the wake of the 2015 refugee wave from the region. In an attempt to transform those asylum applications into labour migration, around 65,000 visas were issued by Germany under this regulation for labour migrants from the region between 2016 and 2020.



5. BRAIN DRAIN: A FOCUS ON THE CASE OF MEDICAL DOCTORS

Brain Drain

Lutz and Gailley (2020) and Rašević (2014) emphasize the seriousness of brain drain whereas ETF (2021) does not discuss the seriousness of brain drain. The reason for such a difference seems to derive from a difference in the definition of brain drain. ETF (2021) defines drain brain as disproportional emigration of high-skilled people (p. 26) and explains that brain drain occurs when the share of highly-skilled migrants among the total migrant population of a country is larger than the corresponding share of high-skilled residents among the total resident (non-migrant) population of a country (p. 10). According to this definition, 'brain drain' has not occurred since high-skilled emigrants have not appeared in such a high proportion. Another reason seems to consist in the fact that high-skilled workers emigrated to advanced countries from Serbia at the same time high-skilled workers from other countries in the Western Balkans immigrated to Serbia refilling the vacancies. However, even if the outflow of high-skilled workers has been compensated by the inflow of high-skilled workers from poorer neighboring countries, emigration of high-skilled workers has been in fact proceeding on a large scale. The scale of migration of high-skilled workers can be inferred from the number of 'blue card'¹⁶ issued by the EU-28. More than 80% of all blue cards issued to Serbian citizens within the EU were issued by Germany with the number increasing from 453 in 2015 to 594 in 2010 (ETF 2021, p. 14).

Emigration of Medical Doctors

Taking cases of medical doctors below, let us examine the problem of brain drain more concretely. Serbia produces medical workers more than the average of the OECD, many medical doctors are thinking about departure from the country, and some medical areas already lack necessary specialists. 2,644 medical doctors were unemployed as of the end of 2014 in Serbia. 75% medical doctors employed by the medical system in Serbia have once thought of departing the country, and this proportion is higher among young medical doctors (Institute, 2015, p. 1).

When they decide migration the economic reason is very important, but pursuit of working conditions and a possibility of professional progress is also important. 1,186 medical doctors in total are working abroad. They were mainly general medical doctors, general surgeons, radiological medical doctors, doctor of internal medicine and anesthesiologist. As younger medical doctors are emigrating, medical doctors remaining in Serbia are becoming more aged (Institute, 2015, p. 2).

¹⁶ According to EU (2021, p. 14), an EU Blue Card gives highly qualified workers from outside the EU the right to live and work in an EU country providing they have higher professional qualification, such as a university degree, and an employment contract or a binding job offer with a high salary, typically minimum 150% of the average salary in the EU country in question..

In 2017 wages of medical workers in Germany were nominally 5-6 times higher than in Serbia, meaning that they were 3-5 times higher in purchasing power parity. In Serbian public health institutions medical doctors receive net monthly salary (i.e. after reduction of taxes and contribution to the national health insurance) of € 500-700 Euro while nurses receive € 250, which is the same as in most of other jobs in Serbia (Pejić, 2020, p. 4). Medical doctors in Germany have better working conditions. A young female medical doctor, who is continuing practical training as a pediatrician in Germany after working as pediatrician for two and a half years in a Serbian hospital, says as follows: "Germans appreciate labor, diligence and respect. Bosses evaluate their employees and watch over them in order to enable them to grow further and enhance skills. Unfortunately, the situation here (in Serbia) was completely different, you have to pay for every skill enhancement yourself, or to look for a sponsor, and those were pharmaceutical companies" (Danas, 2019, p. 6).

Higher wages and better working conditions are surely affecting as pulling factors, but I think that people would not move only by such factors because they have attachment to places where they were born and brought up and their human relations. However, there are unfavorable factors which are pushing people to foreign countries, i.e. pushing factors, for example irrational system in their countries.

Also Rašević (2014) mentions unemployment of medical doctors (p.42). Due to inadequate enrollment policies at schools and faculties in the medical area, hyper-production of medical personnel was carried out. As a result, among young people of this kind of education high unemployment emerged driving them to emigrate to foreign countries (p. 66). It is difficult for Japanese people like me to understand this point because we think that those who have medical licenses can work as practicing doctors at private clinics. However, in Serbia there might be special circumstances which make it very difficult for him/her to do that. First of all we have to confirm circumstances specific to Serbia.

First, as Marković (2020) says, there were no practicing doctors working at private clinics during the socialist period. It was only in 1990 that private medical institutions became operating for the first time after 35 years break.

Second, as mentioned above, this country suffered devastating blow by ethnic conflicts twice, first in the first half of the 1990s and second in 1999. Only in December 2000 Serbia returned to the international community, and its huge amount of debt was substantially reduced. Also after that, when faced economic crises in the mid and late 2000s the country received financial support repeatedly from international financial institutions including IMF. In exchange for the financial support, the government's economic policy has been always monitored by these international financial institutions, forcing the government to have belt-tightening budget. Therefore, the public sector in medical care has been forced to rationalize itself. Under such a situation the Ministry of Health issued a decree in 2005. It reduced the number of medical doctors and medical staff, introduced supplementary health insurance, and got rid of specific services from the list of services covered by the Republican Fund of Medical Care.

Third, the educational system of medical specialist was changed. First of all, we should take into account the educational system of medical doctors. In Japan medical students

study at Faculties of Medicine for 6 years¹⁷. Also in Serbia future medical doctors study at Faculties of Medicine for 6 years¹⁸. At Medical Faculties, in addition to basic subjects for medical doctors they receive practical training in several special courses under mentors. After having received a half year's training after the graduation medical graduates take a professional examination. If they pass it then they get a qualification for medical doctor. Both in Japan and Serbia, it is necessary for young medical doctors to receive clinic training in order to become medical specialists. In Serbia, however, the specialization (practical training) was restricted for a while on the grounds that the number of medical specialists was excessive. This point will be described later more in detail.

Fourth, problems of health insurance should be mentioned. Japan has the national health insurance system covering all citizens. No matter how patients receive medical treatments at public hospital or private hospital, significant part of the cost is covered by the national health insurance, and therefore patients are not required to pay a large amount of the cost. In Serbia reforms of health care have been discussed for years, they have not met people's expectation. In his interview with Zorica Marković Dr. Visoslav Hadži-Tanović, director of a private cardiovascular clinic, says as follows, "Due to inertia of the domestic Health Insurance Fund and non-inclusion of private health care as an equal partner, patients have been obliged to use private health insurance in a supplementary way. About 50% of Serbian citizens are already treated in private clinics occasionally or permanently. Therefore, patients pay for the same service doubly. Namely, they pay the national health insurance through the contribution, which they do not use, and in addition, they have to pay for the service by a private clinic. Everyone who are included in the private health sector expected that, as in Europe, it would become part of a single health system, but this did not happen. I am an incorrigible optimist and believe that this must happen one day" (Marković, 2020, p. 9).

Volunteer Specialization

In order for young medical doctors to become a medical specialist they have to receive specialization (clinic training for becoming a specialist). If they are employed in medical institutions the cost of specialization is financed by the medical institutions. For convenience, I would like to call this type of specialization a 'regular type' of specialization,

17 Students at Medical Faculties in Japan study broad liberal arts other than medicine mainly at first and second years, wide-range of basic medical sciences such as biochemistry, anatomy, immunology, pharmacology, microbiology, medical jurisprudence, etc. at second and third years. Then at third and fourth years they study lectures of clinical medicine such as internal medicine, surgery, obstetrics and gynecology, pediatrics, and emergency surgery. At fourth to sixth years they practice by treating patients at medical institutions including university hospitals and private hospitals (MEDLEY Column: What do trainees know? <https://medley.life/news/5eaec13dc8ccb27de598813>). Immediately before their graduation they take a national examination. If they succeed in it, they get medical license (general medical doctor). In order to get the qualification of medical specialist, however, they are obligated to receive practical training for at least two years at university hospital of their alma mater or private hospitals (in the case of the Jikei University School of Medicine practical training for three year is required). For these practical training trainees are not required to pay any money corresponding to tuition fee. Since 2004 when the system of clinical trainee (resident) was established clinical trainees (residents) are paid salaries. There are medical doctors who study their specialty further for Ph.D. thesis as senior doctor in training (senior resident) (Above-mentioned column and information provided by Dr. Ikuo Taniguchi, Executive Director of the Jikei University School of Medicine).

18 I read the application guidebook of the Medical Faculty at the University of Belgrade (Upisivanje na specijalizacije) through English translation by a doctoral student Ljiljana Cabrilo Blagojevic, I think that there is not so much difference in Medical education between Serbia and Japan. see the following site: http://med.bg.ac.rs/?page_id=12419&script=lat

although there is not such an official name. If they are not employed the cost is financed by themselves. It is a volunteer specialization. The reason why they receive specialization even by financing the cost by themselves is presumably that not every graduate doctor could find a job, so they invested in voluntary specialization in order not to waste time and to enhance their chances to find a job in or outside the country¹⁹.

In 2005, however, the specialization (clinic training) was restricted. Those who receive the specialization (clinic training) were limited to medical doctors who were approved by the Ministry of Health, and voluntary specialization was prohibited. Behind such a decision there were circumstances that the Ministry of Health considered medical specialists over-saturated. The Ministry of Health planned to develop primary medical treatment. New limiting criteria were introduced for the approval of the qualification of specialists. According to recommendation by the World Bank and the EBRD at that time, there should be one medical specialist per 50 thousand inhabitants²⁰ in a specific area, and one pediatrician should cover 1,800 children. Based on such a recommendation, the Ministry of Health concluded that Serbia had superfluous medical doctors.

Thus the so-called voluntary specialization – young medical doctors finance the cost of practical training by themselves – was abolished without any clear criteria (Pejić, 2020, pp. 2-3). At the committee for health of the Serbian Parliament an association “Private Medical Doctors of Serbia” warned repeatedly “if volunteer specialization was prohibited, it would cause terrible results in Serbian medical care, and the association instead requested an essential reform of medical care through the law on health insurance” and “law on protection of health”. Unfortunately, however, only a dressed-up law was adopted. In this way Dr. Hadži-Tanović retrospectively says (Marković, 2020, p.10).

With this decision, emigration of young medical doctors to advanced countries increased and at the same time the number of medical specialists has been decreasing gradually. Situations in the medical care in Serbia have become worse. Again in October 2014 a change in the policy of medical care was made (Lucić, 2014). Two years of obligatory medical activities after the graduation from medical faculties were abolished. Zlatibor Lončar, Minister of Medical Care at that time, said “The obligatory internship no longer exists”. Specialization for deficient branches of medicine, which the Ministry for Health Care specified, became possible. Minister Lončar at the Parliament explains that the essence of the change in the system is that it enables medical workers go to specialization immediately after they passed the national examination and that it is possible for young medical doctors to go specialization even if they do not belong to any medical institutions (Lončar, 2014). At this moment revived two types of specialization which existed before, i.e. the one that we can consider as “regular” for which the trainee is not paying him/herself, and the volunteer one for which the trainee is paying him/herself²¹. All of those

19 I am greatly indebted to a doctoral student of the ECPD Ljiljana Cabrilo Blagojević for the understanding of the two types of specialization.

20 It seems that this proportion is abnormally high, but I leave it as it was in the original text in Pejić (2020).

21 As the obligation of two years of medical activities was abolished, young medical doctors became possible to start specialization earlier, but not all of them welcomed this change. In Japan young medical doctors are paid salaries by the state during their two years specialization whereas in Serbia young medical doctors who went to volunteer specialization are left unpaid for 4 years (Lucić, 2014, p. 2). It is possible for us to guess their sense of alienation while people of the same generation with advanced educational background earn due income.

who have just obtained the qualification of medical doctors are not necessarily allowed to go to specialization²². Remaining young medical doctors go to volunteer specialization.

After all, volunteer specialization was restored in the early 2015. Young medical doctors who graduated from Medical Faculties and desire to study further can apply for volunteer specialization at their alma mater, but it is said that it can actually cost more in the end. They audit lectures at their alma mater and do practical part of the training at appropriate clinics. Whether medical doctors who finished volunteer specialization can find jobs of their specialty depends on medical institutions' ability to accept and demand for such medical workers (Nikolin, 2016, p. 2). Very excellent medical students had telephone calls and were given jobs at public hospitals and even promised to continue their study at Ph.D. course at the expense of the state (Danas, 2019, p. 3). Under conditions of prohibition of employment as well as the policy to rationalize the public sector, most of young medical doctors often end up with their names on the list of the national bureau for employment [Nacionalne sluzbe za zaposljavanje] (Pejić, 2020, p. 5).

Trainees are placed in a disadvantageous situation. A trainee pays for less than 700,000 dinar (about 6,000 Euro) to the Medical Faculty for specialization [practical training]²³. This is a heavy burden for the person in question. It seems that there are many people who find sponsors and pay the cost²⁴. He says, "Neither the Faculty nor the state has responsibility to us. They did not pay wages, did not invest under the pretext that you will easily find jobs" (Danas 2019, p. 4). Danas says that from the Ministry of Health we could not succeed in finding how many volunteer specialists are there and how many specialists are needed in Serbia. Danas adds that the Ministry of Health does not have any strategy and does not know how many volunteer specialists left Serbia in the past 5 to 10 years (Danas, 2019, p. 5).

Also Professor Saša Živković at the Medical Faculty in Niš is very angry at such a situation, saying that the state's response to this problem shows irrationality. He adds, "Four years ago the government perceived pediatrics as well as radiology is an understaffed department and approved volunteer specialization of 100 people. Medical doctors paid money by themselves for schooling. Now that specialization finished the government moved to get the best young medical doctors from the Faculty. How about pediatricians and radiologist? It seems that due to government's foolish act now they are in Germany as medical specialists" (Danas 2019, p. 4).

The above-mentioned systemic defects are working as pushing-factors. Most of these young medical doctors have been emigrating to Germany²⁵. That is why Serbia does not have sufficient number of anesthesiologist, radiologist, pediatrician, cardiac surgeon,

22 As an article in Danas (2019), which reports a case of an excellent female medical doctor, says that she as well as 99 students were luckily enough to get jobs, there was presumably a quota of 100 medical doctors.

23 Danas (2019), p. 4. There is no explanation on this amount in the article in Danas, but it seems that this is for several years.

24 In the case of the young female medical doctor who is mentioned above, her sponsor was a pharmaceutical company while she was in Serbia.

25 According to Marković (2020), Germany is facing a shortage in medical staff because medical doctors and nurses are leaving the country for the USA, Switzerland, Sweden, Austria and Canada.

etc.²⁶. Many young medical doctors are emigrating to Germany and other advanced countries while the average age of medical doctors working in Serbia is surely increasing.

Due to severe economic situations which Serbia has been facing, the government could not and cannot finance the cost of practical training of young medical doctors. This is understandable. However, it is regrettable that in spite of young medical doctors' eagerness and efforts to pursue their studies for enhancing their skills, the government cannot assure them jobs in Serbia. Consequently, young medical doctors left the country one after another. This is natural, but in patients' eyes it would be unacceptable.

In his reply to a question raised by Marković, Dr. Hadži-Tanović mentions the following solutions: "If I had the opportunity to decide, I would offer double salaries to all doctors who have acquired the condition for retirement (i.e. entitlement to receive pension. Y.K), so that they can stay and continue working. These are the most experienced and high-quality staff, they would be first-class teachers for young medical doctors. I would expand the range of volunteer specializations and stimulate the employment of young medical doctors in private care, where salaries are higher, which, I am convinced, would have the effect of reducing the number of people going abroad. I am sure that by reorganizing health centers, in terms of translating general practitioners and specialists into private family doctors, we would keep experienced medical doctors in our country. They would sign contracts with health insurance, and their former patients would continue to come to them for treatment with a health card, without additional payment (Marković, 2020, pp. 10-11). I think that his proposal might be one of effective solutions.

6. SERBIA'S CHALLENGES AHEAD

Remittance from Abroad and Its Good Use

According to Rašević (2016, pp. 47-50), the remittance of foreign currencies to Serbia amounted to EUR 2.8 billion in 2015. More than 250 thousand households, in other words, one out of every 10 households in Serbia received remittance of foreign currencies. She views that remittance by migrants to their families and relatives has brought an improvement in quality of their lives, and consequently macroeconomic and social benefit at regional and national levels. Furthermore, even when those who received the remittance spend it exclusively on satisfaction of their daily needs, it increases demand for goods and services and has wider economic effects in their regions. At the same time, however, possible negative results of the remitted money are also mentioned. For example, the remitted money can make receivers and the state passive and dependent

26 Pejić (2020) tells us seriousness of a shortage in radiologist as follows: Novi Sad maternity hospital can accept only expecting mothers whose childbirth is in the working time of anesthesiologists while less happy future mother give birth without anesthesia. Here, 10 anesthesiologists work while up to 30 expecting mothers give birth daily. In 2018 the number of anesthesiologists who were employed at national level was 823, which was only 200 more than several years ago when the situation was alarming. Anesthesiologists, who are in appointed positions, do overwork in spite of their working conditions and are overloaded due to a shortage in staff. Patients tell also a fact that operations were often cancelled (pp. 5-6).

on this kind of transfer. As Atoyan, et al. (2016) propose, it would be necessary to build a mechanism to redirect the remitted money to investment.

Encouragement of Highly-skilled Workers' Return Migration

Rašević (2014) says that a huge amount of money has been invested in education of highly-skilled workers such as medical doctors²⁷. In this connection, Lutz and Gailley (2020) say that Serbia's youth-concentrated "brain drain", especially in science, technology, and innovation sectors, results in a loss to the country of around 1.2 billion Euro (p. 20). Grečić (2019) considers that if the brain drain from one country is excessive with tendency of continuous growth, its effects will be negative and will have an impact on the economy and society of home countries (p. 255). He has high expectations for support from Serbian residents abroad (diaspora) and pays attention to the Serbian business diaspora. He says that the time to come, especially which carries the fourth industrial revolution, suggesting that Serbian academic diaspora, primarily innovators is of particular importance (p. 256).

Also Lutz and Gailley (2020) discuss return migration. They tell us returnees' motivations to come back as follows: "..., returnees offer insights into what attracts people to build their lives at home in Serbia. Returnees, as self-selected group who have often achieved financial success, cite as motivations to come back a feeling of belonging, family ties, day-to-day comforts, and even prospects for giving their children a better childhood in Serbia than where they had lived abroad". "Interestingly, the perception of quality of life was found to change with experience in Western Europe and North America, as Serbian returnees seemingly changed from placing highest value on better pay and material success that compelled them to leave, to instead stressing intangible cultural factors that drew them to return home" (p. 22).

Atoyan, et al. (2016) propose a multi-pronged policy approach to mitigate the adverse impact of emigration on the South Eastern Europe. More concretely, they stress necessity to create an environment that encourages people to stay, promotes return migration, and attracts skilled workers from other countries. For this purpose it is necessary for Serbia to create jobs. The country is required re-industrialization. Nowadays, however, it is impossible to revive and develop the previous type of industry. As the country has been included in the system of the IMF and the WTO it will not be allowed to protect the industry. It will be necessary for the country to adopt sophisticated industrial policies which do not contravene the principles of the WTO. It may be necessary for the country to adopt "knowledge-led reindustrialization" that Damiani and Uvalić (2014) propose.

27 Rašević (2014) quotes the OECD, according to which developing countries have invested US\$ 20,000 on average to each individual who have tertiary education. The amount of investment in education of medical doctors is surely much more.

Importance of Human Capital

The invitation of FDI for economic development is one of important policies. However, even if it is generally said that multi-national enterprises are stable, they are not immobile²⁸. In order to invite foreign countries with advanced technology and have them take root in the country there must be an intellectual and technological basis which supports them within it. First of all human capital is important.

According to ETF (2021), ICT is one of the rare sectors in which Serbia demonstrates a comparative advantage. During the period 2007 – 2018 the value of Serbia's IT exports grew from 0.5% of GDP to 2.5%. In this connection, a unique expression "the growing community of Serbian telemigrants"²⁹ is used, and there are currently more than 20,000 tele-migrants in Serbia (ETF, 2021, pp. 22-23). The actual state is that they are freelancers living in Serbia and provide remote foreign companies with services by using IT, and it is not so unusual.

Thanks to the improvement of educational system, the younger generation's level of educational attainment has rapidly risen. Although the tertiary educational attainment rate in Serbia is still lower than the average of new EU member states, it is approaching the average. The educational system has also prioritized IT knowledge acquisition³⁰. This is promising information.

Germany's Important Role

Thanks to direct investment by German-owned companies, Serbia is better integrated into global value chains, especially those related to the export of manufactured parts and components. This has been useful in Serbia's efforts to reindustrialize its economy after the jobless transition to a market economy. The German International Development Agency (GIZ) has greatly expanded its field of activities in Serbia, supporting economic growth, administrative reforms, youth employment and many other areas (ETF, 2021, p. 24).

28 Even if foreign capitals arrived in this country, multinational enterprises are fickle. For example, The US Steel Company acquired the Smederevo Steel Company in Serbia in 2003. In January 2012, when the Eurozone experienced a double-dip depression and demand for steel decreased due to the auto industry slump, the US Steel Company sold this steel factory to the Government of Serbia for only US\$ 1 and withdrew from the country, concentrating steel production on Slovakia where automobile production has been in good shape. The government bought back the factory to avert the loss of 5,500 jobs (*EEM*, April 2012). This relocation was the logical behavior for a multinational enterprise, but unbearable for both employees and the government in Serbia. Finally in June 2016, a Chinese Hesteel agreed with the Serbian government to acquire Smederevo Steel Company (*JICA Balkan News*, No. 11/2016, Summer Issue).

29 "Tele-migrants" is a unique expression, but it does not seem to be adequate. The above-mentioned economic activity is not so unusual phenomenon. New EU member states in Central Europe, for example, Poland accepted outsourcing of services from advanced countries already in the second half of 2000s soon after their accession to the EU. *Poland Competitiveness Report 2008* says that most of offshoring projects in service sector can be classified as section K (real estate, rental and business support) of NACE classification. In 2006, one third of FDI inflow in Poland, i.e. € 5 billion was invested in firms which represent the group 741 of NACE triple digit classification (legal service, accounting work, book-keeping and audit operation), SGH, 2008, pp. 259-260).

30 In Serbia studying a foreign language is mandatory from the first year of primary school. English is by far the most popular language, with 95% of students in primary and secondary schools studying it. ETF (2012), p. 23.

It is said that GIZ projects are classified into the following three groups: skilled migration (for example, migration of nurses, involving 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) (ETF, 2021, p. 25). GIZ projects are important, but it seems that they are not sufficient. Advanced EU member states including Germany have so far been drawing cheap but excellent labor forces and making full use of them for the economic development. In addition to the EU's official assistance, private capitals are needed. Now in turn it would be necessary for these advanced countries to guide private capitals to the Western Balkan countries under the guarantee by the EU.

Prospect of EU Membership

As all surrounding countries are EU member states or EU candidates there is no alternative for Serbia not to join the EU. Rather it is desirable for Serbia to join the EU especially when people desire the country's economic development. Already in 2009 Serbia made an application for its membership. In March 2013 Serbia was officially recognized as a candidate on condition that the country make efforts to improve its relationship with Kosovo*, and in the same year accession negotiations with the European Commission began. Unfortunately, however, the negotiations have not made any progress since the attempt at improving the relationship with Kosovo* is not going well.

Serbia's EU accession is a long way. Even if it is admitted to the EU, many difficulties lie ahead for it. Emigration from Serbia continues. It is expected that the emigration will be accelerated further if the country is admitted to the EU as Latvia, Lithuania, Romania and Bulgaria have experienced. It is also expected that the EU will take temporary measures to limit the number of immigrants. It is necessary for the EU to develop more active and comprehensive policies to develop the Balkans.

CONCLUSIONS

The history of emigration from Serbia is very long. Previously emigrants came from mainly from rural areas since it had a large number of surplus populations. Later, as industrialization and urbanization were making a progress the share of rural inhabitant of total emigrants was decreasing. Now the share of rural inhabitant of total emigrants was not so large as before.

The Serbian economy has significantly lagged behind not only advanced EU member states but also new EU member states in Central and Eastern Europe. Even in the period of self-managed socialism Serbia was placed at the average level among all republics. In addition, ethnic conflicts and the UN sanctions after the breakup of the former Yugoslavia as well as NATO's air raid have given Serbia severe damage. Consequently, still now the Serbian economy has not recovered its 1980 level. It is a matter of great urgency to materialize Serbia's dynamic economic development. Remittances by emigrants are very important not only for remaining families in Serbia but also for the Serbian economy as

a whole. It would be necessary to build a mechanism to redirect the remitted money to investment.

More than 70 years ago Germany was an enemy country that invaded Serbia, but now it is a very important country as a foreign trade partner as well as an investor country. Many Serbian companies have been integrated into German companies' supply chains. At the same time, Germany is the most significant destination country for Serbian emigrants. As advanced EU member states including Germany have so far been drawing cheap but excellent labor forces and making full use of them for the economic development. Now in turn it would be necessary for these advanced countries to assist poorer countries of the Western Balkans.

Human capital is indispensable for Serbia's economic development. There seems to be a mismatch between people that educational institutions produced and requirement by business circles. This mismatch should be solved. Continuous large-scale 'brain drain' is a serious problem. Among others emigration of young medical doctors is noteworthy. Unreasonable mechanism in which in spite of volunteer specialization – young medical doctors get training for skill enhancement even by paying the cost themselves - the state cannot assure them jobs is working as a push-factor. It is of urgent necessity to solve this problem.

Serbian skilled workers have been contributing to the economic development of advanced countries like Germany. In order to make a part of them contribute to Serbia's economic development, it is necessary to take some preferential measures to stimulate their return to their mother country. As they have acquired advanced knowledge, skills and experiences in their host countries they could contribute to Serbia's economic development. As Grečić says, it is necessary to make a full use of wisdom and wealth of Serbian diaspora who have lived in foreign countries for long years.

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