

Cost of Youth Emigration

Western Balkans
Democracy Initiative

 Funded by
UK Government



Content

F

Foreword

[Page 3](#)

I

Introduction

[Page 4](#)

1

The migration statistics

[Page 7](#)

2

The economic nature of
migration

[Page 12](#)

3

The costs of population
emigration

[Page 18](#)

3.1
How much is the total cost of
an education that ended in 2018?
[Page 20](#)

3.2
How big are the effects on
economic activity?
[Page 28](#)

3.3
The economic benefit of
population migration
[Page 34](#)

4

Conclusion

[Page 37](#)

Foreword

This research study into the “Cost of Youth Emigration” is the first of its kind to provide evidence about Serbian emigration and to answer one simple question: How much does youth emigration cost Serbia?

This is a very simple question but it touches upon a very complex issue. Although there has been research into the various reasons for emigration, which is a complex global phenomenon that has existed since the beginning of humanity, there has been very little or no data or other evidence about the actual cost of emigration.

This research study presents an assessment of the costs and the financial impact on Serbia and the losses generated by the alarmingly high number of people who leave Serbia every year. The research

quantifies the effects and implications of emigration on the overall Serbian economy and the losses in gross domestic product (GDP), while taking a closer look at how remittances are spent.

The intention is to present this evidence to various stakeholders, the wider public, the media and state and non-state actors. We hope that the evidence will be used by a broad alliance which could then present policy solutions on how to tackle and decrease the cost of youth emigration and its negative effects. We also hope that the study will initiate a wider discussion on the topic of youth emigration.

The study was conducted by the Institute for Development and Innovation, a Serbian think tank which is supported by the Westminster Foundation

for Democracy (WFD). The Foundation is grateful to the Institute for Research and Development for this extensive and in-depth study, and to the British government for supporting the completion of the study.

The WFD is the UK public body dedicated to supporting democracy around the world. In August 2018 the WFD launched a new three-year regional initiative for the Western Balkans titled the “Western Balkans Democracy Initiative”. The initiative is funded by the British government’s Conflict, Stability and Security Fund.

Emil Atanasovski
Director Western Balkans
WFD



Zeljka Pantelic
Country Representative Serbia
WFD



Introduction

The migration phenomenon has been with humanity virtually from the beginning. The causes, volume and forms of migration have changed throughout history, and the deep and significant social, demographic, cultural and economic effects of this process have remained.

Today, when knowledge is becoming the most important economic resource, workforce migration has become the dominant form of migration flow. The extensive availability of information on the destination countries is accelerating these flows significantly. In a time when one can visit forums and social media to inform themselves on what awaits a surgeon in Scandinavia, a professor in China, a construction worker in Russia, or a pizza delivery person in Canada, when one can check advertisements or apply for work from their bedroom and do an interview the next day via a video link, leaving one's home country is no longer as big a venture as it was only 30 years ago. Other than the above-mentioned stimuli, there are also stimuli from immigration strategies in developed countries whose proactive politics are trying to resolve the rising problem of the lack of a qualified workforce. They have been facing that problem for the last few years and it has been identified as a limiting factor in their further growth and development.

The global acceleration of workforce mobility has shifted the focus of experts to this phenomenon. The number of papers about the causes and consequences of the global intensification of migration movements, as well as the significantly different views and conclusions on this matter, only confirm the complexity of the processes involved. According to Professor Paul Collier¹, regarding the actual state being emigrated from, the main questions are who is emigrating, how many people are emigrating and for how long they are leaving their country. Nowadays it is completely clear that it is necessary to acknowledge the two-way nature of the effects of migration flows and that, even with acceptance of the unfortunate idiom "brain drain", we cannot unanimously declare the emigration process as being negative for social communities. It is necessary to see all the potentially positive effects, so that they can be used through carefully defined measures and platforms.

1. Professor of economics and public policy in the Blavatnik School of Government at the University of Oxford and the author of the book „Егзодус: Како миграције мењају наш свет“ (*Exodus: How Migration is Changing our World*), Oxford, Oxford University Press, 2013.

To measure the
total effects first
means to have an
insight into who is
actually emigrating.

o measure the total effects first means to have an insight into who is actually emigrating. Are they young people in search of education, unqualified workers in search of higher salaries or highly qualified workers and others who are searching for a system with better chances for professional advancement and better living standards? It is clear that the departure of students, especially if they are planning on returning, is desirable migration from a community's perspective. The departure of unqualified workers can also have an overall positive effect, as they will add value in developed countries, they will be employed more efficiently and paid much better, which will be beneficial to the home country's economy first via their remittances and possible investments, and later via their pensions. However, the intensified departure of highly educated, qualified and highly qualified people has, as a rule, potentially significant negative sociological and economic effects. For several years demographers have been warning that the nature of today's departures from Serbia is completely different from those from the 1980s and 1990s. Better business offers and shorter adaptation periods enable entire families to emigrate, which on one hand strengthens the permanent nature of emigration and on the other hand significantly weakens the interaction with the home country (rarer visits, lower remittances, lower interest in investing, etc.).

According to
George Akerlof, the
more people leave,
the less attractive it
is to stay.

Another important matter, whose theoretical foundations were set by the Nobel Prize winner George Akerlof, is the matter of motivation of those who stay. According to Akerlof, the more people depart, the less attractive it is to stay. If this approach seems too philosophical, try to imagine the working day of a nurse after she has spent the night before talking via Skype to her former colleague who now

works in Norway, or a labourer who, during his break, checks out the Instagram profile of a former colleague who now works in Germany. It is clear that the matter of motivation for all those who stayed, and whose qualifications are attractive and wanted abroad, and who are pressured into considering leaving, or are preparing to, is a problem that has a negative impact on productivity. The quantification of this problem is very difficult; but there is no doubt that there is a reverse proportional connection between emigration intensity and work motivation.

For a long period Serbia has been facing serious demographic issues. Recognised depopulation trends forced the state to be more active in tackling the problem, which resulted in the first concrete stimulations to encourage a rise in the birth rate to counteract the declining birth rate. On the other hand, the negative migration balance is becoming more current and is contributing more and more to the deterioration of the total demographic image of Serbia. It is becoming clear that the global issue for developing countries has no universal solution; it requires a complex set of measures that reflect the specifics of each individual country and that should connect with a series of socio-economic policies in order to be more effective in the medium term.

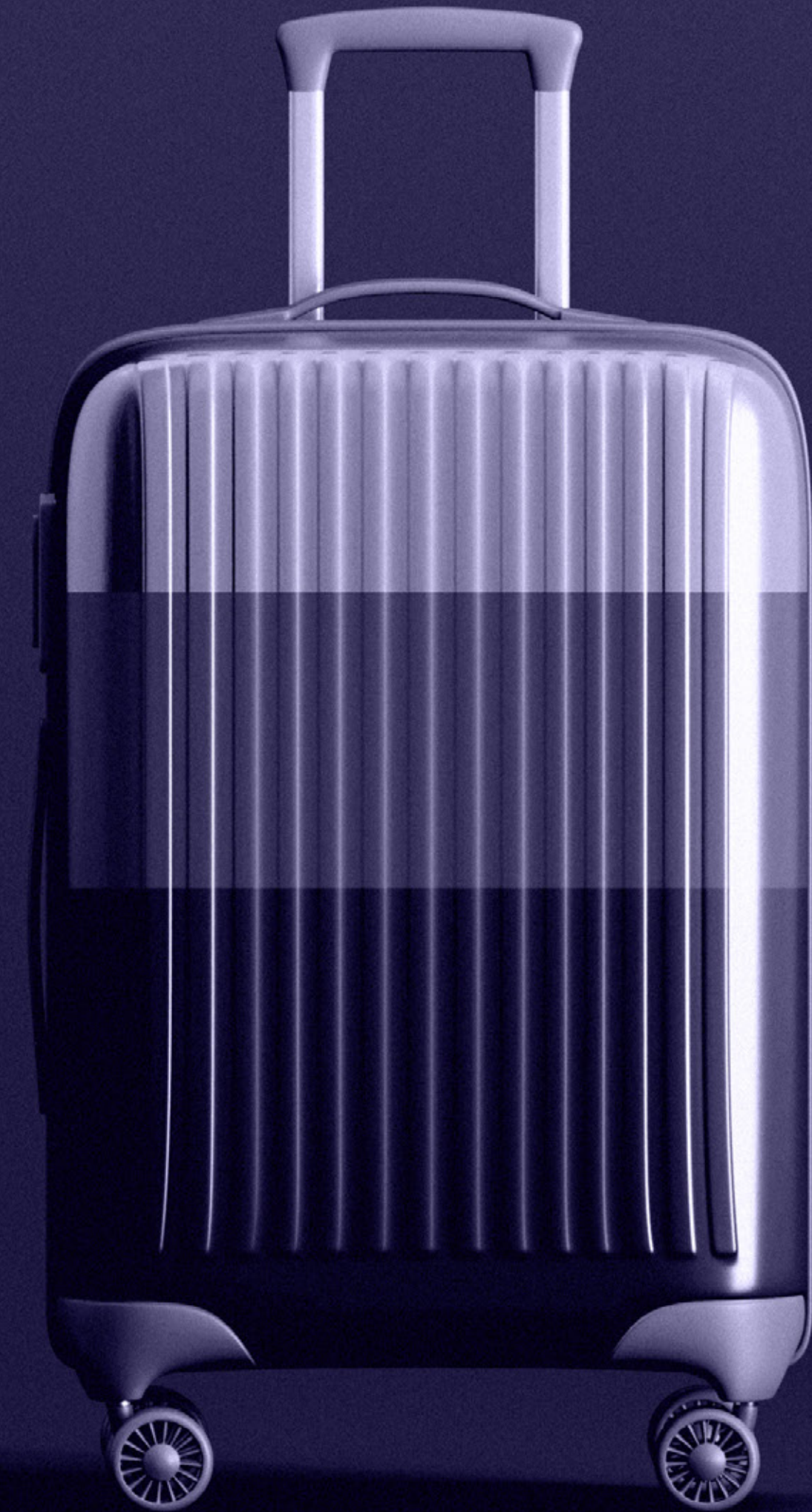
This work uses public demographic statistics, education statistics and macroeconomic data to attempt to quantify the impact of the current emigration trend on the economy of the Republic of Serbia, and to set a basis for further detailed and deeper analysis.

For a long period
Serbia has been
facing serious
demographic
issues.

Three key questions that the analysis is trying to answer are:

1. What are the average higher education expenses for people?
2. What is the opportunity cost in terms of potential GDP growth generated by the annual populace emigration?
3. Are there positive effects from the migration flow on the economy of Serbia and, if so, what are they?

1 The migration statistics



In the Republic of Serbia, there is an aging population and a decreasing population trend. The cause of this trend is the joint influence of a negative natural increase and an intensified emigration flow. The Republican Bureau of Statistics does not have data on the volume and characteristics of external migration. Also, there is no organisation in the country or abroad that has precise records on migration from Serbia, so the age and education of migrants cannot be determined.

In the Republic of
Serbia, there is a
population aging
and total population
decrease trend.

In the International
Migration Report,
the Organization
for Economic
Co-operation and
Development (OECD)
estimates that in the
period from 2012
until 2016, around
245,000 people left
Serbia.

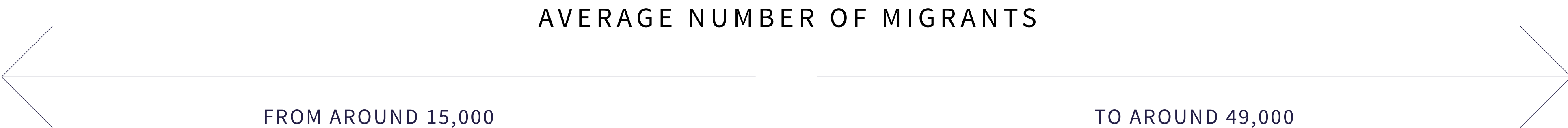
The estimates of Serbian migrant numbers are provided by the Organization for Economic Co-operation and Development (OECD). In the International Migration report², the OECD estimates that in the period from 2012 until 2016 around 245,000 people left Serbia. That means that, according to their estimates, on average around 49,000 people a year emigrated from Serbia to countries that are members of the OECD. According to their report, most of them (around 60,000) left Serbia in 2015, which is 15,000 more than in 2016. It is important to note that the data included all people who left the country, including those who left the country to work temporarily, who left to educate themselves, or were sent on intercompany transfers, as well as other forms of temporary labour migration³.

According to the OECD statistics, more than half of Serbian migrants go to Germany, around 17 per cent go to Austria, whereas Slovenia is in third place. Due to the fact that OECD reports include temporary migration, quite a few of these people return to Serbia. On average, 33,300 people a year returned in that five-year period, which in turn means that the annual net population outflow was around 15,700 people⁴. We leave the statisticians, demographers and employment groups to check the validity of this data. This study focuses on the estimation of total education costs of a person who emigrated and the estimation of total economic effects in the OECD model's data, which are the only available figures.

2
*International Migration
Outlook 2018*, Paris, OECD.

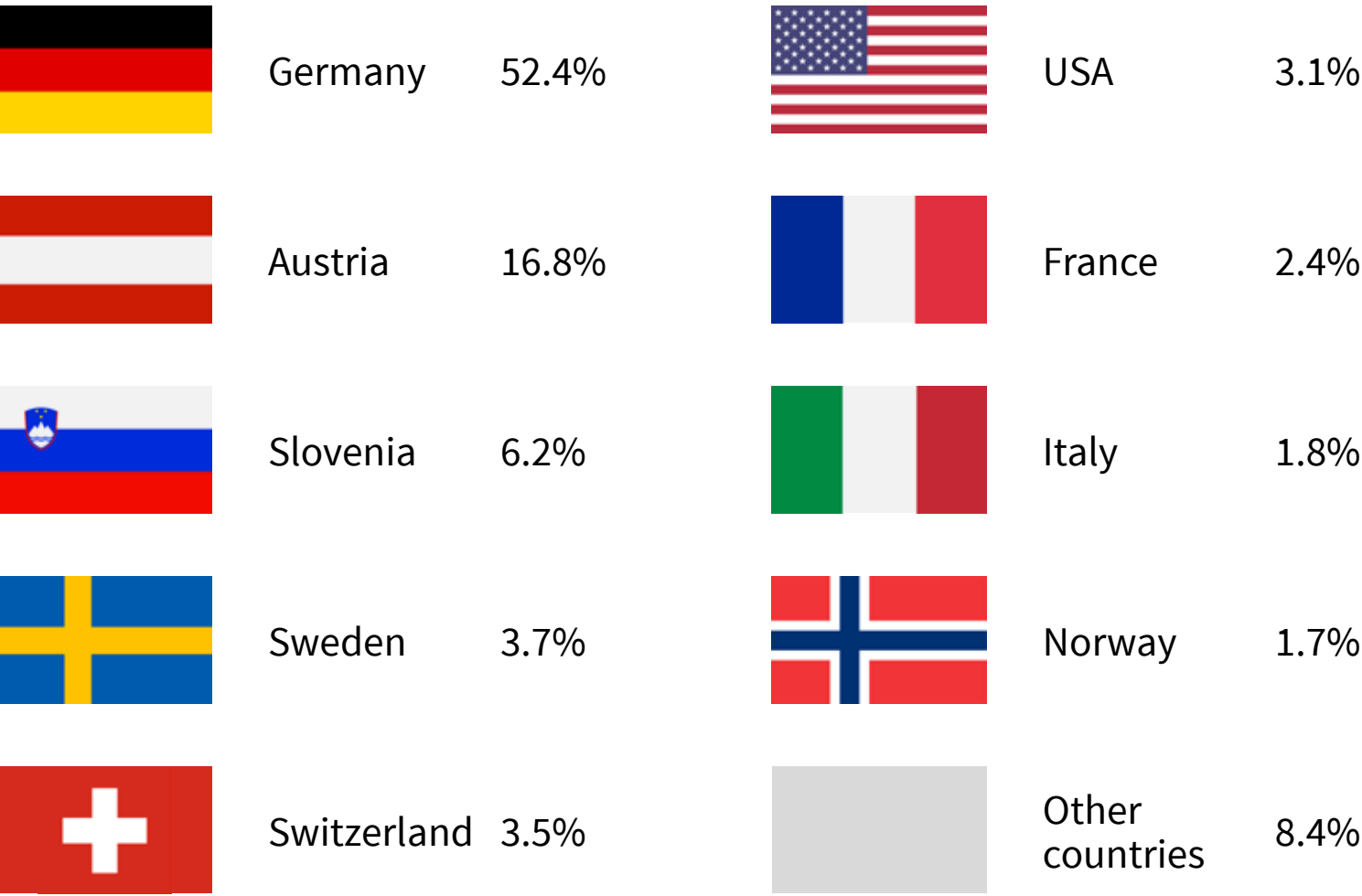
3
For forms of temporary
migration, please see the
*International Migration
Outlook 2018*, OECD, pages
25-34. Also, the detailed
metadata for each OECD
member country are
shown on pages 315-319
of the report in question.

4
[https://stats.
oecd.org/Index.
aspx?DataSetCode=MIG](https://stats.oecd.org/Index.aspx?DataSetCode=MIG).



Source: OECD

The structure of Serbian migrants by
destination country, 2016, in percentages



Source: OECD

According to UN data,
which goes up to 2015,
around 964,000
Serbian-born people
have lived
outside Serbia.

The number of
Serbian emigrants
increased in the
period from 1990 to
2000, and then started
dropping until 2010,
only to increase again
until 2015.

Other than the OECD, the United Nations and the European Statistical Office (Eurostat) also have certain migration statistics. The UN has numbers of migrants starting from 1990, and they publish those numbers every five years. However, UN data, unlike OECD data, not only show the number of migrants from a certain country, but they also show the total number of migrants from all countries, no matter when they moved. The number of Serbian emigrants increased in the period from 1990 until 2000, and then started dropping until 2010, only to increase again until 2015. According to UN data, which goes up to 2015, around 964,000 Serbian-born people have lived outside Serbia. A total of 99 per cent went to developed countries, whereas only one per cent of Serbian emigrants chose developing countries. According to the UN 2015 data, around 850,000 Serbian emigrants live in Europe, which represents around 90 per cent of total Serbian emigrants. Around two-thirds, or almost 600,000 emigrants, moved to western Europe, mostly Austria (around 200,000), Switzerland (around 170,000), Germany (around 100,000) and France (around 85,000). Only around five per cent emigrated to eastern Europe, predominantly to Hungary. Around 20,000 went to northern Europe, and 45,000 to southern Europe, mostly Italy. The USA and Canada each had approximately 35,000 Serbian emigrants, whereas around 5,000 migrated to Australia and New Zealand. As for African migration, around 4,000 people moved, mostly to South Africa. Around 3,000 people migrated to Asia, and a negligible few migrated to Latin America. Eurostat data is not complete bearing in mind that they miss data on migrations to Germany, France and some overseas countries, and because the data series has sudden drops or stops in certain years and countries, depending on the data availability.

Serbian born people living
outside Serbia, 2015

	Austria	195,177		Hungary	38,724
	Switzerland	168,629		Australia	37,967
	Germany	106,673		Canada	35,859
	France	84,701		USA	28,334
	Italy	45,581		Slovenia	28,334

Source: UN

2 The economic nature of migration



Several basic macroeconomic indicators for regional countries, as well as attractive destination countries for emigrants from this region show that the significant differences could generate a motivational factor in the decision to emigrate.

The alarmingly high unemployment rate of the most mobile part of the population creates the key problem for young people once they finish their education – to find a job in their profession, or any job for that matter. Minimal wages are lower than a minimal consumer basket price, and average earnings are lower than the average consumer basket price.

These affect the perspectives of those who do manage to find a job. Finally, the per capita GDP level, as a population's standard measurement, points out the quality of life to be expected. Comparisons to developed countries through only a couple of these indicators create a pretty depressing image. The average net earnings in Germany and Austria, which are the most popular destination countries for Serbian emigrants, are six times higher than Serbian ones, whereas the per capita GDP is seven times higher and the unemployment rate of young people is four or five times smaller than in Serbia. If comparisons were made with Switzerland or Scandinavian countries, the

difference would be even more drastic. Even though young people do not analyse dull macroeconomic indicators when they decide where to go, their manifestation in everyday life is present nevertheless and it provides the so-called “push” factor.

Several basic macroeconomic indicators for regional countries, as well as for attractive destination countries for emigrants

COUNTRIES WHERE PEOPLE EMIGRATE FROM				
	GDP per capta	Unemployment rate of young people	Average net earnings	Poverty risk and social exclusion rate
Serbia	\$ 5,800	3.3 %	€ 379	39.0 %
Bulgaria	\$ 7,530	12.2 %	€ 339	40.2 %
Croatia	\$ 12,424	25.4 %	€ 720	27.8 %
North Macedonia	\$ 5,174	40.8 %	€ 349	41.4 %
Romania	\$ 9,768	13.1 %	€ 385	37.3 %
Hungary	\$ 13,158	9.5 %	€ 542	26.7 %
Montenegro	\$ 7,076	28.2 %	€ 479	/

Comparisons to developed countries through only a couple of these indicators create a pretty depressing image.

Sources: OECD, IMF, Eurostat, Federal Reserve Bank of St Louis, Ministry of Finance of the Republic of Serbia.
The data represent the average for the period 2015–2017, except for the poverty risk rate where the average is for the period 2013–2015.
GDP per capita is expressed in US dollars, and average monthly net earnings in euros.

Several basic macroeconomic indicators for regional countries, as well as for attractive destination countries for emigrants

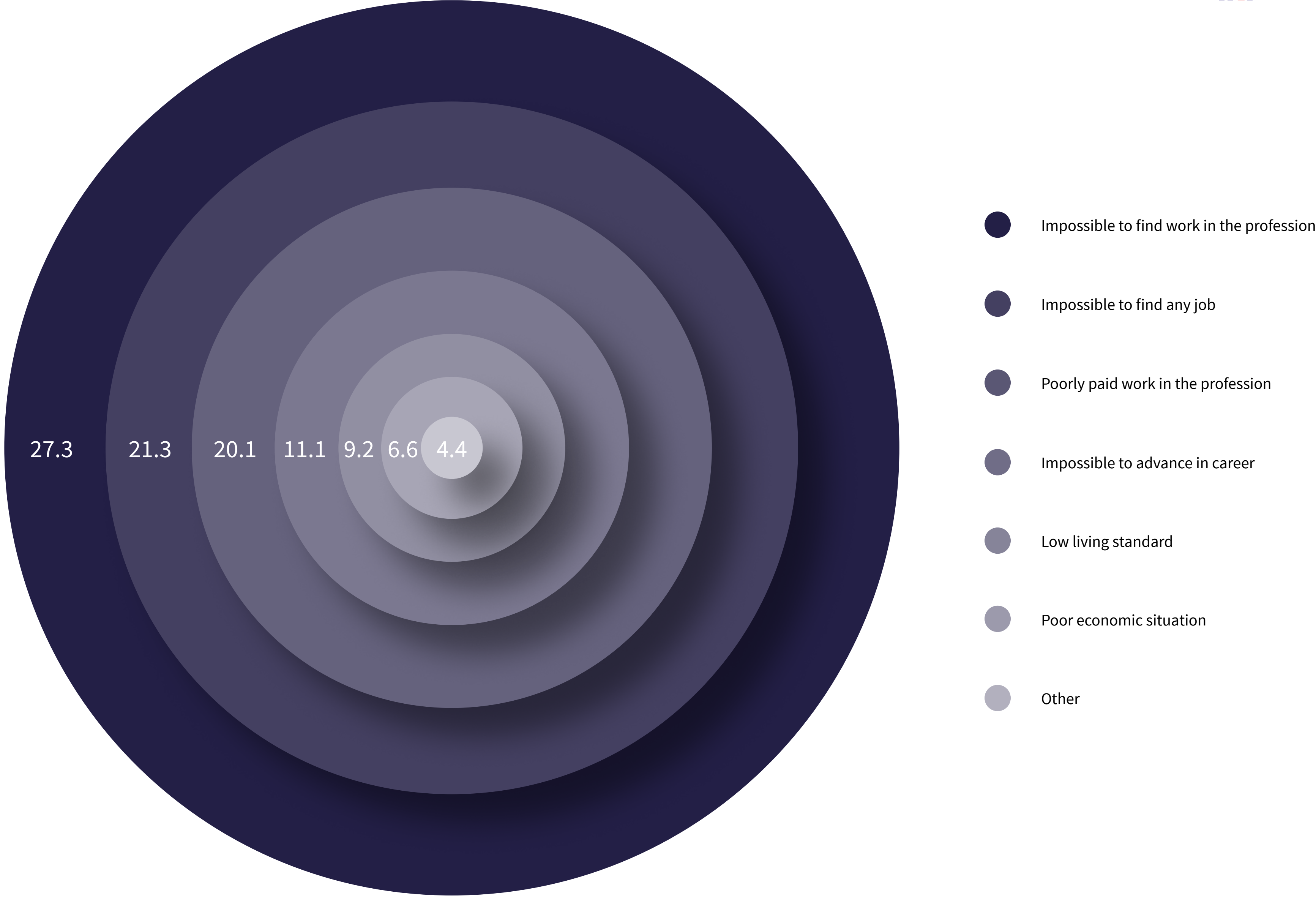
COUNTRIES WHERE PEOPLE IMMIGRATE TO				
	GDP per capita	Unemployment rate of young people	Average net earnings	Poverty risk and social exclusion rate
Slovenia	\$ 22.071	13.9 %	€ 996	18.2 %
Germany	\$ 42.882	6.2 %	€ 2.306	19.6 %
Austria	\$ 45,459	6.2 %	€ 2.306	18.1 %
Sweden	\$ 51.579	13.8 %	€ 2.828	18.2 %
Norway	\$ 73.441	8.4 %	€ 3.831	15.4 %
Switzerland	\$ 81.213	7.3 %	€ 5.300	18.0 %
USA	\$ 58.108	10.3 %	€ 2.500	/
France	\$ 38.690	18.1 %	€ 2.231	17.7 %
Italy	\$ 30.941	28.3 %	€ 1.754	29.2 %

Sources: OECD, IMF, Eurostat, Federal Reserve Bank of St Louis, Ministry of Finance of the Republic of Serbia.
The data represent the average for the period 2015–2017, except for the poverty risk rate where the average is for the period 2013–2015.
GDP per capita is expressed in US dollars, and average monthly net earnings in euros.

The economic nature of the initial source of the drive for migration was unequivocally identified by the following research done about this topic: “The strengthening of the capacity for the inclusive local development in the south of Serbia and the promotion of peace building in the south of Serbia” (Free Election and Democracy Centre, 2010 and 2013); “The territorial capital in Serbia: The structural and working potential of local development” (the Institute for Sociological Research, from the Faculty of Philosophy, 2013 and 2014), and “Student migrations” (The Minister without Portfolio’s office in charge of demographics and population politics, the Ministry of Education, Science and Technological Development); as well as the Statistical Office of the Republic of Serbia, 2018. It is necessary to emphasise that the “Student migrations” research, which covered a total of 11,013 public and private faculty and college students, showed that a third of all respondents planned to move abroad after they graduated. The main reason for 94.3 per cent of them was economic (being unable to find a job in their profession, or any job, being unable to advance professionally, low living standards, bad economic situation), whereas the rest 5.7 per cent stated that the reasons were not economic (corruption, law abiding, etc.). Over 90 per cent of students claimed that they had their parents’ full support to move abroad, which seems highly alarming information.



Reasons which students quote for leaving the country, in percentages



Source: “Student migrations” (The Minister without Portfolio’s office in charge of demographics and population politics in the Ministry of Education, Science and Technological Development), as well as the Statistical Office of the Republic of Serbia, 2018.

3 The costs of population emigration



Due to the emigration of young people, the economy and the entire country's society face both positive and negative effects from the departures. Before the effects on Serbia are researched, it would be useful to state the effects studied by the population migration literature.

Due to the
emigration of young
people, the
economy and the
entire country's
society face
both positive and
negative effects
from the
departures.

The most direct cost that society faces is the loss of funds spent on education. Depending on the level of education, society invests into the education of individuals for 8, 12, 16 even over 20 years, and with their emigration those investments become costs, or even worse, they become investments in the receiving country, as they obtain educated individuals without spending any money on their education.

The decrease of GDP is one of the more significant negative consequences of emigration, due to the decrease in consumption, which is one of its main components. By leaving the country, individuals stop spending in their own country, and that way they not only have a negative impact on the macroeconomic aggregates, but they also help to reduce the tax base. Budget tax revenues decrease during periods of migration, not only based on VAT and excise, but also based on the decrease of income taxes and other forms of taxation.

Also, the loss of creative capital is one of the negative consequences which becomes significant in cases of the emigration of young people. They represent the source of future innovators and implementers of new manufacturing or general service ideas. Another negative effect is the increase of pressure on pension and health insurance funds which is caused by the decrease of young people who would, as potential employees in the future, contribute fees to the self-sustainability of mandatory social insurance funds.

A country can realise benefits of emigration by young people, especially when their connection with the home country remains strong. The first form of the home country's benefit are emigrants' remittances. Also, other important positive factors are the knowledge and experience that the young gain abroad and bring back if they return. Another positive factor would be the inflow of money should emigrants choose to invest in the home country.



How much is the total cost of an education that ended in 2018?

3.1

In the attempt to answer this question, this study started with the data that Serbia can see on the Eurostat website for the period 2013-2016, which shows the education costs by education level, as well as by finance sources. The starting point was the total yearly amount that the state and the households pay for education.

METHODOLOGICAL NOTES

The data on the expenses of higher education include vocational schools, basic bachelor as well as postgraduate studies. Our average bachelor degree requires five years of academic studies. That means that someone who graduated in 2018 started preschool in 2000, so the necessary historical expenses for each year in that period need to be determined. The estimation of these costs was done by using the GDP production approach data and the output (value of performed services) by education classification, European Union (EU) NACE Rev2. The fact that the output of this activity was dominantly created by the state sectors supports the application of this approach, and as such it is in accordance with international

methodology calculated by the input-cost method or by the following formula:
employee compensation + intermediate consumption + consumption of fixed assets + other consumption taxes (paid) – other production subsidies (received) + business surplus. Taking into consideration the components that come into the billing output from the education sector, it is clear that this is a variable that is both conceptually and valuably very close to the total education costs that are available for the period 2013-2016, on Eurostat's website. We used this fact in order to compensate for the missing data from a whole time period, and the fact that the values are quite similar is shown in the yearly comparison of the already available data (both of them).

Also, the correction coefficients have been set via this comparison, which were then applied to the education sector's output in all the other years in order to show the closest possible estimate and to get close to the Eurostat's concept of total education costs. It is important to note that the Statistical Office of the Republic of Serbia (SORS) does the estimates of the so-called "uninvolved economy" and divides it into types of work, meaning that the stated amounts also show the education costs that are not regular (private classes, translation services, additional courses, etc.). In the next iteration, the education services costs are increased by the accompanying costs, which are methodologically not in the initial data. This first refers to dormitory costs, as well as state costs regarding student loans and scholarships. After the total yearly costs were calculated, the obtained values were discounted by the reference interest rate of the National Bank of Serbia in order to even all the costs from this 18-year period with today's value of money. In parallel, the SORS shows the data on the number of children in preschools, primary schools and colleges for every year in the relevant period in order to calculate the costs per unit. This kind of data set allowed the study to estimate the costs per education level, or the answer to the question: on average, how much did the primary, secondary and higher education of an individual (who graduated from one of these in 2018) cost the state and the household. This average should not have significant deviations in primary and secondary education, whereas it significantly increases in academic studies. This is actually a synthetic indicator of education costs as it has a part of each academic education level. More precise estimates could be done in separate faculties and colleges, specialists' profiles and postgraduate levels, which will be the topic of one of the future papers.

THE RESULTS

The results obtained from the application of the aforementioned methodology show that the education cost of a fellow citizen, from preschool, through primary and four-year secondary school, until the end of academic studies (which lasted five years on average, and ended in 2018), cost around €34,000. The costs of a four-year secondary education (that ended in 2018) cost around €21,000, whereas the eight-year primary education cost around €13,500. The estimate of PhD education costs is not easily done, due to the unavailability of data in the necessary structures. Based on the available information, approximately €55,000 on average are spent for the education of a PhD.



Source: OECD

Even though the use of average values in the data analysis can blur the image or be interpreted in different ways, please note that these amounts are only the first step towards the quantification of the negative migration balance effects. The group of people with faculty degrees is quite heterogeneous in terms of costs per faculty type, length of studies, the degree level, accompanying study costs, etc.

In that sense, the existence of yearly emigration data, the age and education structure of this part of the population, their return plans, whether they are individuals or families, etc. would significantly improve this calculation. However, from a macroeconomic standpoint, any precise quantification's deviation from the current one would not dramatically change the conclusions that the previous approach has reached. Also, by observing the yearly costs, the study found a strong stability of this data series, which enables consideration even of those who graduated before 2018. As stated, according to OECD data, the average yearly outflow of population from Serbia in the 2012-2016 period was around 49,000 people. There is no detailed age or educational data for these people, or at least

it is not publicly accessible. In order to estimate the education cost of this group, the study first excluded all those people younger than five, and corrected the group of people with incomplete primary or secondary schools (based on the fact that, for example, a six grade and a second grade child are counted as graduates from primary schools, etc.). The basic population age structure was used as a framework for this estimate, and was modified with the assumption that the number of emigrated children is less by half than the number of children in the population. As for the educational structure of the adjusted migration group, as a starting point the study used the educational structure of working people (who work abroad) who are older than 15 according to the census from 2011⁶.

For this paper, and fully aware that the emigration of highly educated people has increased in the last few years and that the method used to create this structure was disputed by professionals (in terms of the underestimation of the participation of those highly educated migrants and the way the data was gathered), the study created the Scenario 2 in which the participation of all three education levels is equal. This

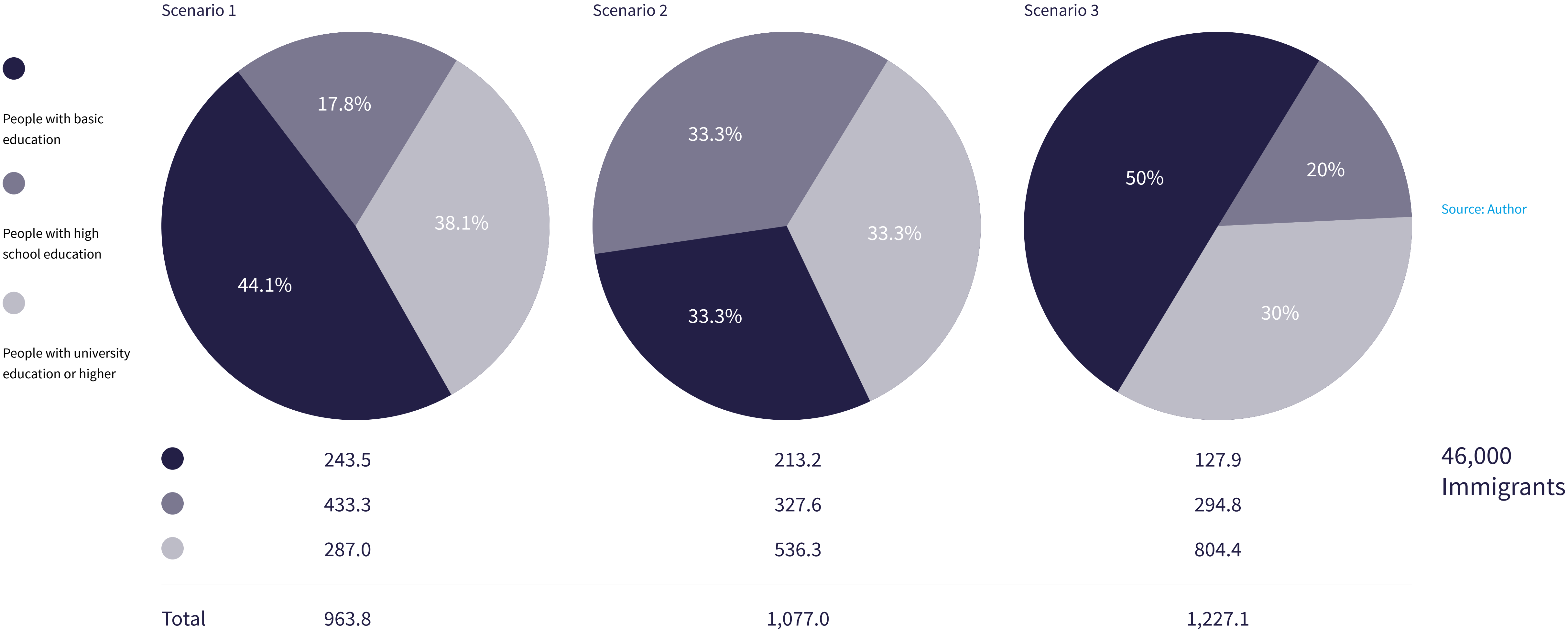
actually increases the number of highly educated people in the total count. It also created Scenario 3 which is based on the assumption that half of migrants are highly educated people.

The results show that the total education costs of people who leave Serbia in one year, depending on the educational structure, vary from €960 million to little over €1.2 billion. For comparison sake, the total earnings from exporting information communication services in 2018 were around €1.1 billion, whereas the earnings from the entire agricultural sector, in fertile years, were around €900 million.

Total education cost of people whole leave Serbia €960 million - €1.2 billion	
Exports in communication services in 2018	€1.1 billion
Earnings from the entire agriculture sector	€900 million

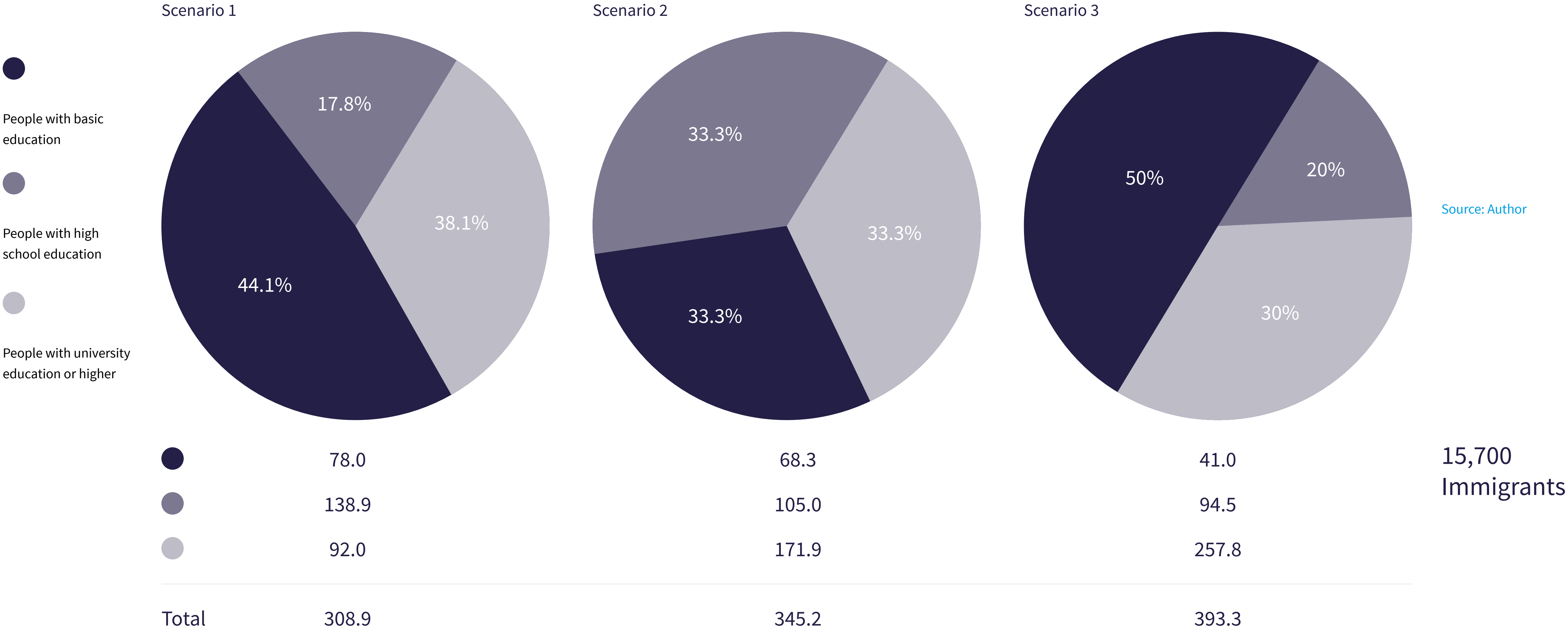
6
Vladimir Stankovic,
“Serbia in the
external migration
process”, page 70.
Having in mind that
the data in question
has people with no
known education
level, their number
was distributed
proportionally with
the number of people
whose education
levels are known.

Total costs of education of people who
leave Serbia in one year, in millions of euros



As stated in the introduction, this data includes all the people who are leaving the country, from seasonal temporary workers and student exchanges to those who are in professional or technical training. With this approach, the OECD publish data on the immigration flows, so due to the ambiguity of this process the average yearly net outflow of Serbian population is around 15,700 people. The education costs applied to this number of migrants are €300 to €400 million.

Total costs of education of people who
leave Serbia in one year, in millions of euros



The effect of the total outflow should be considered very seriously because no matter what the current nature of the number of those departures is, they represent a step closer to permanent emigration.

Detailed structures and statistics of all migrants (leaving and arriving) do not exist; it is not known whether these are temporary workers, foreign pensioners, temporary movements for education purposes, etc. This makes it considerably difficult to precisely quantify the final effect of the migration flow. Nonetheless, the effect of the total outflow should be considered very seriously because no matter what the current nature of the number of those departures is, they represent a step closer to permanent emigration, especially if the politics and policies of developed countries are considered.

With the lack of a sufficient workforce, developed countries devise different policies in order to attract work-capable people. According to the 2017 report, EU countries have introduced new laws, or are working on new laws, which would make it easier for developing country workers to stay. Their goal is to make up the number of qualified workers that a few countries lack. That way Austria altered their settling and staying law in 2017, with the purpose of making it easier for developing country workers to access the employment market and to integrate into society. Estonia developed the “Working in Estonia” strategy, with the goal of attracting highly qualified workers.

Germany started informing migrants in additional ways and organised professional training and all with the purpose of enabling working migrants to access the legal job market more easily and to hire them on long-term. Italy signed a memorandum of understanding with the chambers of commerce of developing countries, and founded the National Employer Association, as well as other corporate associations, in order to simplify the process of hiring highly qualified people from these countries. In November 2017, Slovakia signed the Protocol on Cooperation and Employment with Serbia, which increased the number of workers coming from Serbia to Slovakia. EU countries are making procedures for accepting developing country students easier too. The basic measure is to enable easier access to the job market for active students, but also for those who graduate. This is also the case with administrative procedures related to studying in EU countries, and also related to staying in the country after graduating. Sometimes, EU countries target a specific developing country and create specific policies to attract the young and the students from that country. In order to attract working students, Austria has increased the number of working hours for students to 20 hours a week. Also, once they graduate, students can stay

for an additional year in Austria in order to find a job. These measures encourage the young and capable citizens of Serbia to continue their education or to develop their careers in one of the EU countries. The destination countries of highly educated people are undoubtedly gaining by their coming and involvement in the economic and social system. This “gain” is much larger than the “loss” of the home country. Not only is the workforce problem resolved that way, but also we should consider the greater costs of state and households for education in the developed countries. According to 2015 Eurostat data, the yearly costs to the state and households for secondary education in France were around €11,000, in Germany around €10,500, whereas a little less than €1,500 per student were spent in Serbia. This gap is even bigger when we look at academic education, so in Serbia around €2,800 are spent yearly on a student, and almost eight times more in the UK, six times more in Sweden, five times more in Germany, etc.

In order to attract working students, Austria has increased the number of working hours for students to 20 hours a week.

Total financial education allocation in
2015 per student, in euros



Total education expenditures in 2015 per student, in euros		
	Tertiary education	Secondary education
Serbia	2,882 €	1,489 €
Germany	13,137 €	10,457 €
France	13,333 €	10,900 €
Austria	14,074 €	9,410 €
Sweden	17,011 €	9,100 €
Great Britain	21,682 €	8,796 €

Education costs represent costs over a longer time period in the past. Also, the migration of a certain number of people abroad has a current effect on a country's economics, and is the generator of lost gains in the future, which is the exact definition of opportunity cost. Even though this cost is connected to individuals' decisions, this study attributes it to the entire society. By leaving the recognition and description of migration flows on an aging population and on the development of the total society to demographers and sociologists, this study focuses on identifying the size of the impact on the economic component of social progress. With that intention, this study connects the number of people who leave Serbia on a yearly basis with the GDP as the measure of economic activity of a country.

Source: Eurostat

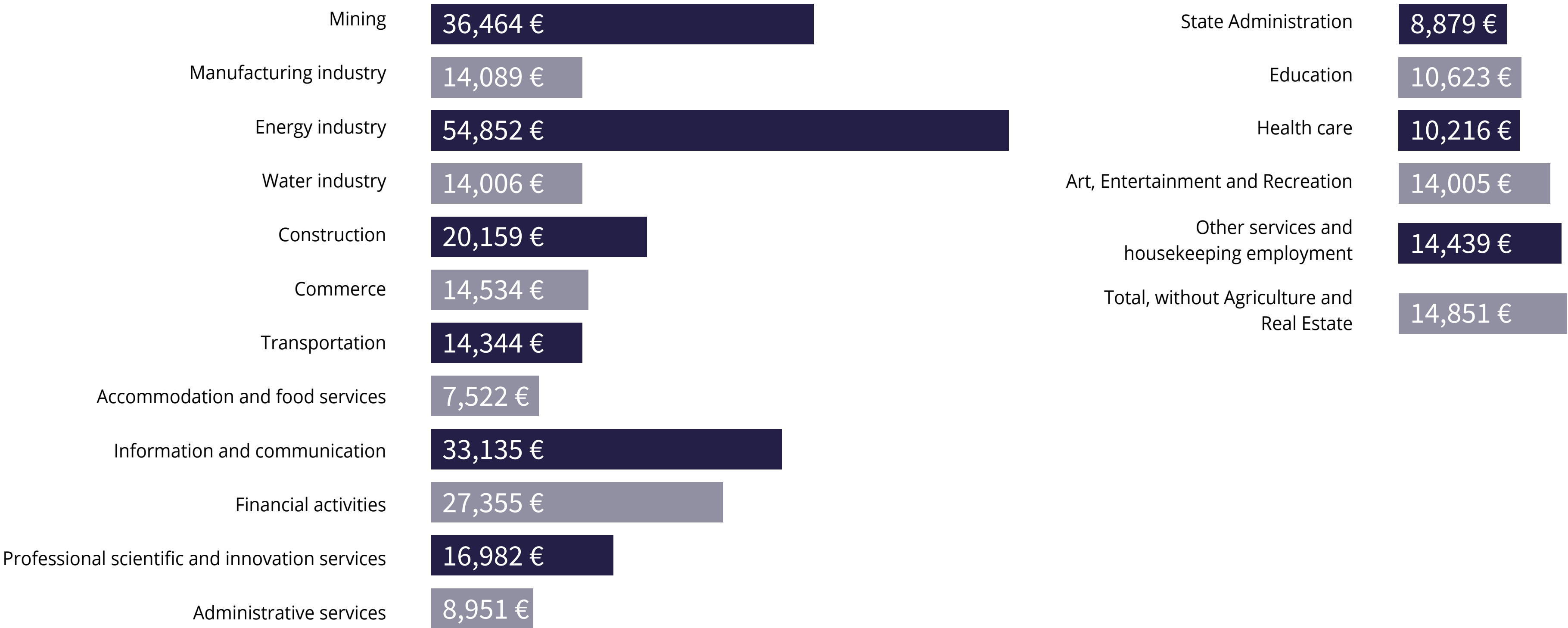
How big are the effects on economic activity?

3.2

According to the production approach of measuring economic activity, GDP represents the total created gross added value by resident institutions during one year, where taxes are added and subventions are subtracted. Gross added value is actually the total value of produced goods and services subtracted by the intermediate consumption, meaning the operational, material and non-material costs which were incurred during production or service provision. Official data on the created gross added value and the total number of employees give the production indicator, the gross added value per employee. This indicator varies significantly among types of work so it is clear that, for example, in information-communication technology and finance the indicator is extremely high, which is to be expected considering that the majority of employees in these lines of work are highly educated.

On the other hand, in lines of work that traditionally hire a lot of workers with lower education levels, such as catering for example, or have a visibly heterogenic structure of employees, such as healthcare, this indicator uses lower values. The next chart shows the gross added value per employee in each line of work. Due to the specificity of measuring employees in the agricultural sector, as well as the specific methodology of measuring economic activities in real estate work, these two have been omitted from the observation.

GDP per employee
in 2018, in euros



Source:SORS

The actual data for 2018 show that the gross added value per employee was around €14,850. This study uses the average yearly outflow of 49,089 people which was modified with the appropriate age structure in order to further consider only 46,144 active people. The next assumptions were that the reason for their departure – not being able to find work in their own profession, or any work – and that the economic dynamic set the conditions to hire them, so that they were considered as employed persons during 2018. By using the average amount per worker, the study found an opportunity cost of around €685.3 million in terms of lost gross added value. This is a direct negative effect to the potential GDP.

Other than the direct and indirect influences, macroeconomic analyses often use the so-called induced influence. Having in mind that it encompasses a large number of indirect reflections on the economic flows, the complete quantification is almost impossible. For example, if these people had stayed in the country, that would increase the need for more doctors, teachers, dentists, hairdressers, etc. With their salaries, they would create additional aggregate consumption, which would in turn stimulate manufacturing, turning this whole flow into a vicious circle of effects that are completely impossible to be seen and evaluated.

The departure of these people is an opportunity cost for the state as well, as their future taxes are lost: income taxes, social security taxes, VAT and excise are the most profuse budget income sources. By using the available data on the number of workers, the total personal consumption, budget income and their relation we estimate this amount to be €203.2 million. As this money would have been spent via consumption in the next iteration in the state (goods and services, capital investments, salary and pensions increase) it would positively act on the economy, so this influence is included in the group of induced effects and by using the fiscal multiplier, we estimate it at €60.1 million.

The results show that directly and indirectly, due to an inability to prevent the annual outflow by hiring people, the annual gross added value loss was around €897.3 million, which is around 2.1 per cent of GDP from 2018. To put it simply, by leaving Serbia, every work-able citizen approximately takes at least €19,500 of some potential future GDP with them. At first glance there is clearly a huge difference between different lines of work, so for example, for an ICT expert (as it is quite a homogenous line of work, compared to others) the amount is around €40,800. On the other hand, the estimate for healthcare workers demands a far more detailed availability of details and a deeper analysis in order to calculate the opportunity cost of a specialised doctor's departure compared to a nurse's or ambulance driver's departure.

The annual outflow
by hiring people,
the annual gross
added value loss
was around
€897.3 million,
which is around
2.1% of GDP
from 2018.

Having in mind that the departure of these people also means a decrease in total consumption (or the decrease of aggregate demand) which finally influences the GDP, this gives the indirect influence of migration flows on economic activity. By using the data on the annual average net earnings and the number of active workers who emigrated, and then the relation (or the elasticity coefficient) between the personal consumption and the newly created value, this indirect effect is estimated at €151.1 million.



Effects of migration on economic
activity per person, in euros

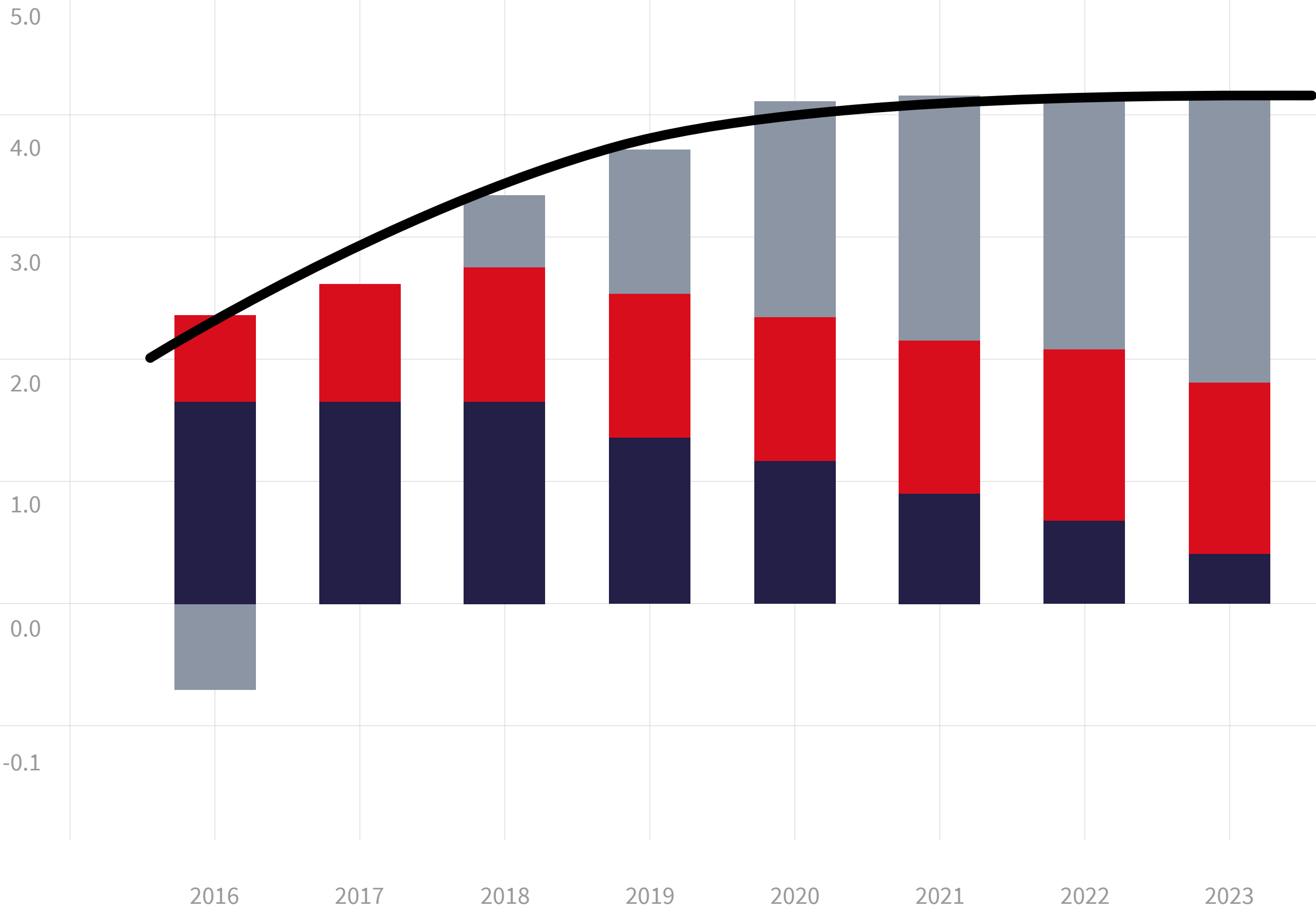


Source: Authors

The macroeconomic repercussions of the departure of work-able active people are visible via the potential GDP concept. The potential GDP is the maximum level of economic activity that will not create one of the macroeconomic imbalances (inflation growth, the growth of a foreign trade deficit, a budget deficit, public debt, etc.) and is defined by the available human and physical capital, and the technological progress (the productivity factor). The potential GDP could be said to represent the long-term trend of economic activity motion, around which the realised level of production and services circles in limited time intervals. Therefore, the potential GDP basically determines the country's level of development, as well as the standard of living for its citizens.

There are two approaches to measuring the potential GDP. According to the first approach, the potential GDP is seen as a trend tracking actual GDP movement. This study uses the second approach, which rests on the Cobb-Douglas production function, by which the potential GDP is defined by the actual capital, the natural level of employment and the level of technical progress.

Factors contributing to the growth
rate of production potential



Source: Authors

Serbia actually loses the manoeuvring space for raising potential GDP via the human capital factor due to the extensive departure of skilled and educated people.

According to the available data, in the last three years the workforce influence as a resource has provided a significant contribution to the growth of the potential GDP, which is in line with job market movements and the rapid decrease in unemployment. This influence is expected to weaken with the slowing down of the decrease in unemployment and, based on projections, will be minor when the natural unemployment rate is reached. The natural unemployment rate of five to six per cent will be reached by year 2025, according to the projections which include the current job market movements, the projected growth of economic growth and the demographic and migration flows. The data also shows that the Serbian economy is entering an equilibrium zone of actual and potential GDP. **In the situation where the natural unemployment rate is reached and the actual and potential GDP are equal, Serbia actually loses the manoeuvring space for raising potential GDP via the human capital factor, all due to the extensive departure of skilled and educated people.** The facts that the level of investing is insufficient to upgrade other production factors, and that the level of home savings (as one of the investment cycle sources) is pretty low, make this situation even more difficult. In that sense, the departure of working people with knowledge and skills, as well as the departure of the young who would bring new knowledge and update it with knowledge gained from experience produce a long-term negative effect on the economic flow.

The economic benefit of population migration

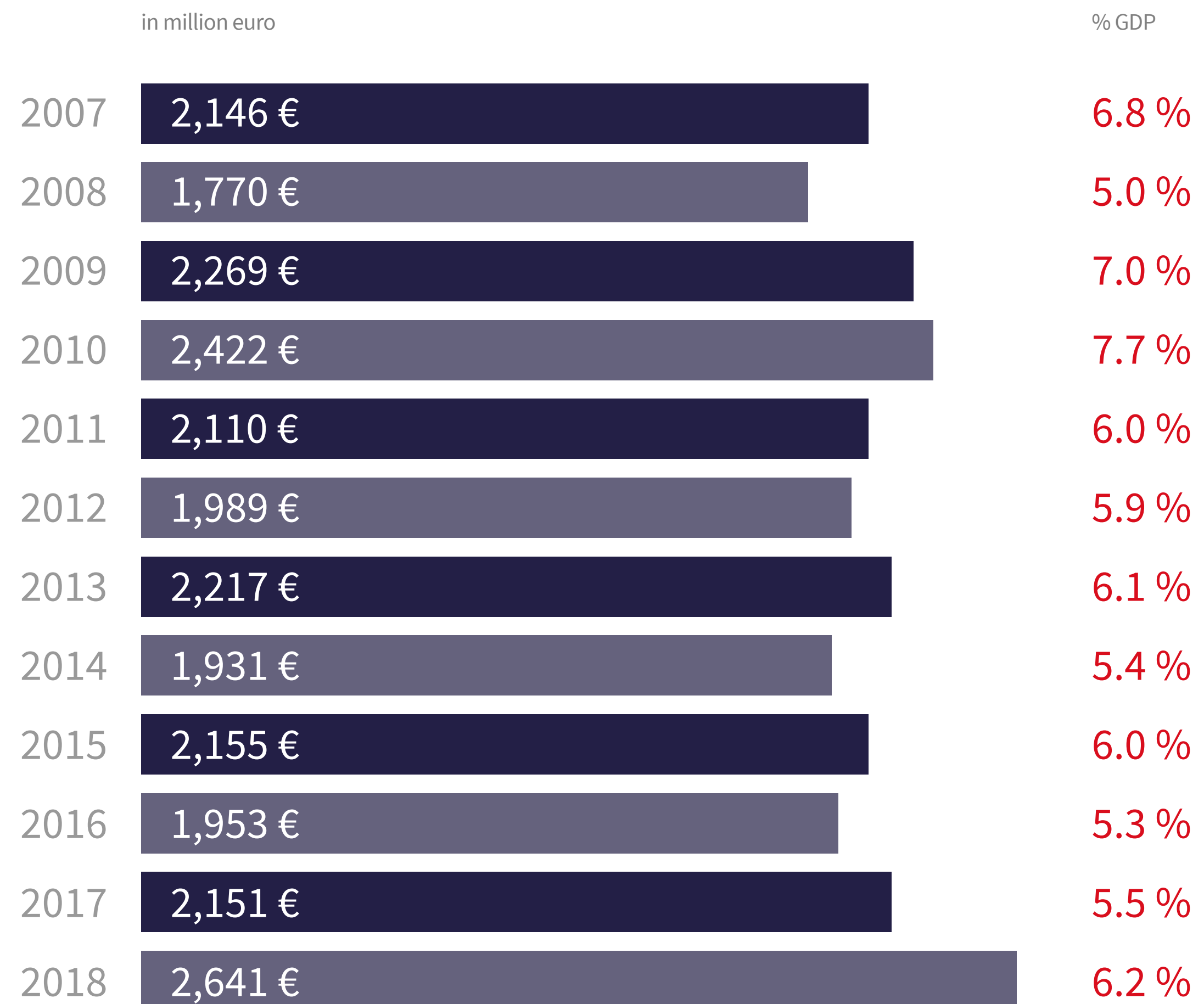
3.3

The effect of the migration cycle varies with different perspectives. From the individual's standpoint, economic migration has positive effects as it represents "upward" mobility. From a global standpoint, the migration processes are also positive as they increase the general wellbeing, efficiency and contribution to global growth. A number of authors compare this process with the uninterrupted flow of goods and capital, while pointing out how important the former is to the global economy. On the other hand, from a local and national standpoint, the emigration of qualified and highly qualified work-able people is a loss to the community.

However, as stated before, these processes have an ambiguous influence on the national economy. This study seeks to quantify the negative economic effects from the education of emigrated people, as well as the opportunity cost in terms of the lost future gain, and the quantification of the influence on GDP. However, the positive influence of these processes has to be mentioned, although most demographers and sociologists consider them side effects.

The most important benefit of the emigration flow is the remittances. Remittances are the money transferred by emigrants to the people close to them who remained in the home country. Their income improves the life quality of the recipients, but it also considerably influences the Serbian economy. Serbia is at the top among European countries in the contribution of remittances to the GDP, sharing first place with Albania, with five to six per cent of GDP. Broadly speaking, if sources in addition to remittances are considered, such as foreign pensions, other personal transfers and the taxes from temporary workers, the contribution increases to 8% of GDP. By comparison, the net income from direct foreign investment in the last three years in Serbia was around 6.3 per cent of GDP, which was US\$2.5 billion.

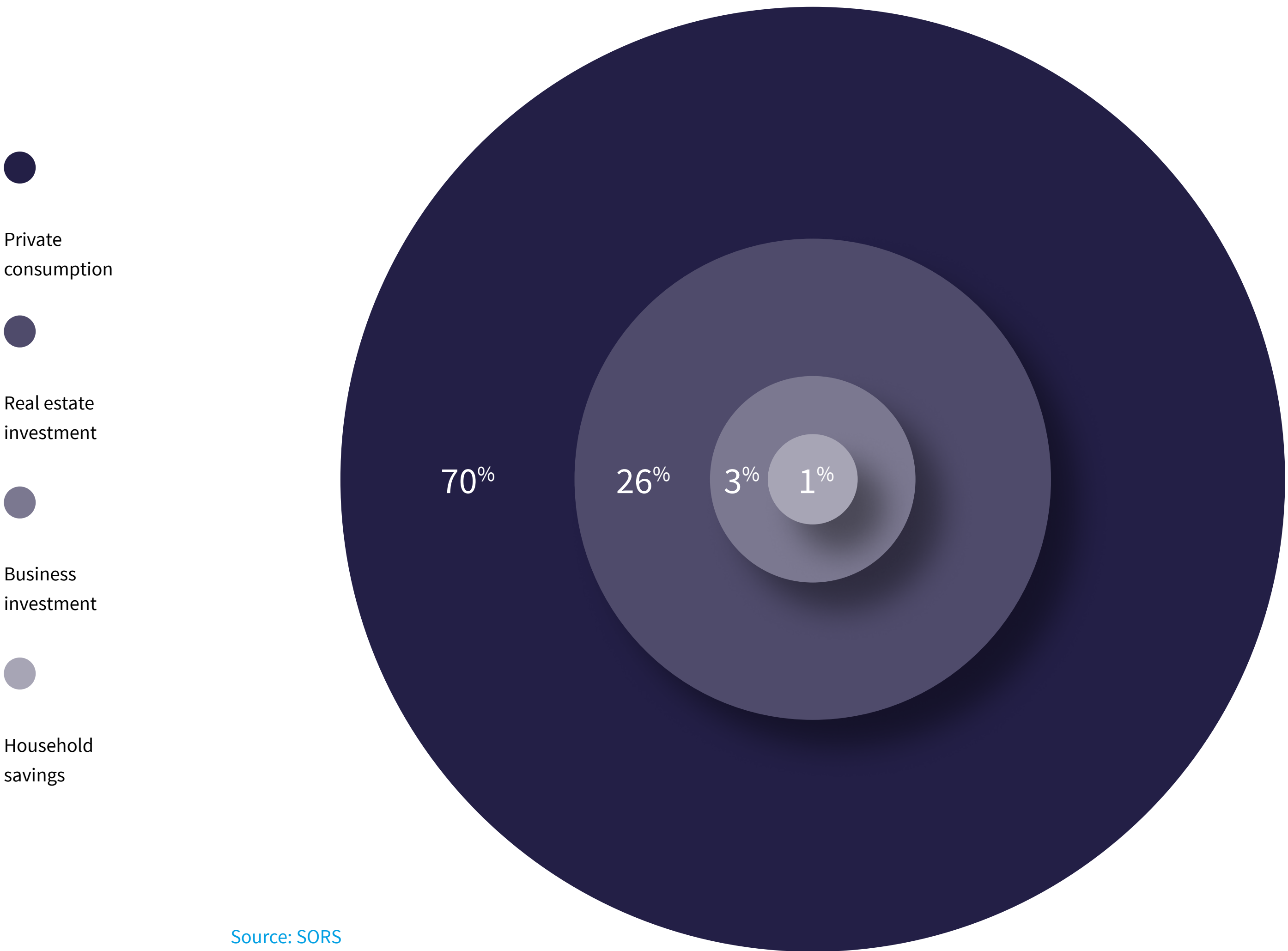
Employee remittances, in millions of euros



The stated amount is important on a macroeconomic level too. These funds directly influence the decrease in the deficit; however they also decrease the depreciating pressures on the home currency. Total foreign income represents around 12 per cent of personal consumption which shows their significant influence on the GDP. However, in order to quantify the influence of remittances on economic activity, it is necessary to consider their allocation structure. According to SORS research for 2014 and 2015, around 70 per cent of this income goes to personal consumption. Real estate investments account for around 26 per cent, and business investments are only three per cent. A modest one per cent goes to personal savings.

Source: National Bank of Serbia

Alocation structure of personal transfers
(Remittances) in 2014. and 2015.



Source: SORS

Remittances cannot be seen as a generator for future development or further growth while the investment component is that low

An examination of the allocation structure of transferred amounts leads to the conclusion that these funds play an important role in the national economy, but that they cannot be seen as a generator for future development or further growth while the investment component is that low. Also, there are warning signs that this finance source will start to decrease due to changes in the form of migration in which currently the migration of entire families dominates. Another reason is the generational change in the migrant population.

On the other hand, globalisation and the modernisation of business has allowed the transfer of entire service businesses, producing the so-called business transfer trend. These cases have been visible in the years prior to the world economic crisis. Many companies, faced with the need to lower business costs, their workforce, office space rent and other costs, moved their businesses to developing countries. It turned out that the migrants in these companies were the main link, so today in Serbia there are offices of German, American and Canadian IT companies, transportation companies and call centres, all formed from these processes. The state's proactive role in the creation of affirmative conditions to increase these activities would certainly increase their importance in the future and would increase and develop the national economy.

4 Conclusion



The growing trend of global workforce migration presents a complex challenge for Serbia. Having traditionally been an emigrating country, it now requires an interdisciplinary approach with detailed and deep analyses to create effective and efficient measures to reduce the negative effects and increase the positive effects that follow these processes. It seems that these effects were never as visible as they are today, starting from constantly active job advertisements for drivers, up to worrying data on the departure of health workers.

The future projection based on the growth of the negative migration balance and the decade-long negative demographic trends paint a depressing image of Serbian society in a not-so-distant future. The sluggish movement of economic activity, the disorder in the job market, the pressures on pension funds and the growing need for social protection of the elderly are only some of the already visible manifestations of the economic effects of the migration process.

This study seeks to quantify the basic economic elements of the migration activity. In order to get a complete image, it is necessary to see the economic component in relation to the demographic, sociological, political, cultural and other migration flow elements. The limited availability of current data hampers the presentation of a complete picture of this phenomenon in all its dimensions; but the results obtained by this study are a good and useful basis for future analyses.

Literature

1. Collier, Paul (2013). *Exodus: How Migration is Changing Our World*. Oxford: Oxford University Press.
2. Organization for Economic Co-operation and Development (2018). *International Migration Outlook 2018*. Paris: OECD.
3. Student Migration, Office of the Minister without Portfolio responsible for demography and population policy, Ministry of Science, Education and Population policy and Statistical Office of the Republic of Serbia, 2018.
4. Rašević, Mirjana (2016). *Migration and Development in Serbia*. Belgrade: Swiss Agency for Development and Co-operation (SDC), International Organization for Migration (IOM) and United Nations Development Programme (UNDP), part of the Global Joint Programme on Mainstreaming Migration into National Development Strategies 2014-2018.
5. Stanković, Vladimir (2014). *Serbia in the Process of Foreign Migrations*. Belgrade: Statistical Office of the Republic of Serbia.
6. Statistical Office of the Republic of Serbia (2015). *Non-Observed Economy-Remittances, Final Project Report*. Data Collection Project No. 19. IPA 12 Multi-beneficiary Statistical Cooperation Programme.
7. Arsić, Milojko (2016). “The Long-term Consequences of the Economic Collapse of the Serbian Economy in the ‘90s of the 20th Century”, Economic ideas and practice 22, Faculty of economics, Belgrade, 2016.
8. Research studies: “Strengthening Capacity for Inclusive Local Development in South Serbia” and “Promotion of Peace Building in South Serbia”, Centar za slobodne izbore i demokratiju CeSID, 2010 and 2013.
9. Research study: “Territorial Capital in Serbia: Structural and Operational Potential of Local Development”, Institute of Sociology and Social Studies of Faculty of Philosophy (ISI FF) of Belgrade.
10. System of National Accounts 2008, EC, IMF, OECD, UN, WB, 2009.
11. Statistical Office of the Republic of Serbia. “Estimation of the Value of Residential Services in Serbia using the User Cost Method. Available at: <http://arhiva.stat.gov.rs/WebSite/userFiles/file/Nacionalni/ImputiraneRente.pdf>.
12. Asch, Beth Reichmann, C. (1994). *Emigration and its Effects on the Sending Countries*. Center for Research on Immigration Policy. Santa Monica: Rand.

This analysis was conducted by the Institute for Development and Innovations (IDI) and prepared by Mr Rade Ciric, Mr Tomislav Despic, Mrs Marija Suzic and Mr Nenad Jevtovic.

The IDI mission is to encourage the development of the Republic of Serbia through growth based on knowledge, innovation and entrepreneurship, with the aim of increasing the quality and quantity of the work force.

The IDI vision is to become a necessary partner for economic subjects and institutions in achieving the economic development of the Republic of Serbia based on knowledge, innovation and entrepreneurship.



WESTMINSTER
FOUNDATION FOR
DEMOCRACY

Western Balkans
Democracy Initiative

