Serbia Sustainable Development Issues:
A Baseline Review

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UN Sustainable Development Goals

The idea of creating Sustainable Development Goals (SDGs) arose at United Nations Conference on Sustainable Development in Rio de Janeiro in 2012, based on the success of Millennium Development Goals. SDGs altogether represent a holistic approach to tackling global challenges in years to come, addressing almost every aspect of human well-being. Here, we are giving a brief overview of all 17 interconnected goals that should be achieved by 2030.

Goal 1: No Poverty

Although halved since 2000, poverty still represents one of the global key challenges, especially in Sub-Saharan Africa. Lack of resources brings wide variety of inequalities to the poor, limiting their access to proper education, nutrition and other social services that should be uniformly available. The best way to fight poverty is through inclusive economic growth and enhanced development cooperation.

Goal 2: Zero Hunger

This goal stresses the need to find a proper balance between food production and allocation, and environment protection. Resources are becoming ever-more scarce with the climate change and pollution, making it harder for residents of rural areas to make ends meet. This problem should be resolved through building additional agricultural capacity while increasing productivity, and through raising awareness about the food that is being wasted around the world every day.

Goal 3: Good Health and Well-being

For this goal, focus lies on providing more effective health-care, easier access to physicians, improved sanitation and hygiene and finding new ways to reduce pollution. Healthy lives and well-being should be available for all at all ages. Sub goals include reducing maternal mortality and traffic accidents, tackling incommunicable diseases (…), with a special emphasis on early prevention and detection.

Goal 4: Quality Education

There can be no sustainable development or well-being without quality education. Only through providing inclusive and quality education for all, and through promotion of life-long learning can we make a step forward. As no one should be left behind, our focus has to be on building and upgrading education facilities, in way that every child, no matter what gender, skin color or disability, can be provided safe and stimulative environment for personal development.

Goal 5: Gender Equality

Undeniable right of every human being is to be treated equal, no matter of the gender. Great strides have been made on this topic, but women still suffer some kind of discrimination around the Globe. Women should not only get equal treatment in education and healthcare, but they should be empowered, instigated to use new technology and participate equally in political and economic decision-making process.

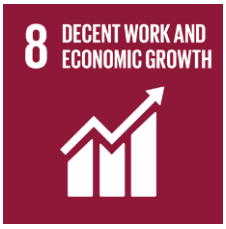
Goal 6: Clear Water and Sanitation

Clean and accessible water for all is an essential part of the world we live in. Scarcity of water causes an array of problems, from the most obvious as dehydration, through diseases and inadequate hygiene, to food scarcity and malnutrition. Problem can be solved through investments in infrastructure and better management. Local communities should be equally included in the process.

Goal 7: Affordable and Clean Energy

Access to affordable, reliable, sustainable and modern energy is a *conditio sine qua non* in today's world. Whether it is about jobs, food production, increasing income or food production, energy plays a vital role. As modern standards require, due to pollution and climate change, energy should be clean and should come from renewable sources like water, wind or sun. Efforts should not be made only to increase capacities, but rather to improve efficiency.

Goal 8: Decent Work and Economic Growth



One of the biggest challenges, even in developed countries, will be to create a sufficient number of decent jobs. This problem is emphasized even more so in developing countries. Sustainable solution to this challenge can only be found in smart and inclusive economic growth. All should share the fruits of progress, because under-consumption leads to an erosion of the basic social contracts underlying democratic societies.

Goal 9: Industry, Innovation and Infrastructure

A way to sustainable growth requires resilient infrastructure, sustainable industrialization and fostering innovation. Accessible education, healthcare, water and energy can not exist without a proper infrastructure, which is also known to boost productivity and improve energy-efficiency. Also, innovation in industry should be focused not only on productivity, but also in new technologies that preserve endangered environment.

Goal 10: Reduce Inequalities

Although inequalities among countries declined in recent years due to the development in Asia, there is still a huge disparity in living conditions around the world. Economic growth by itself is not sufficient, it has to be socially inclusive and environmentally sustainable. Policies should be universal in principle and created with holistic approach, with fiscal, wage, and social protection working together. First step is making sure that the voices of disadvantaged and marginalized are heard.

Goal 11: Sustainable Cities and Communities

Cities have always been centers of progress and knowledge, providing prosperity to wide areas. Half of the world's population lives in there, with rapid urbanization still in progress. This puts much pressure on the living environment, water supplies and public health. Challenges also exist in maintaining cities in a way to create jobs without draining all the resources. Effort should be made to resolve problems of infrastructure and congestion, while focus should be on turning cities greener.

Goal 12: Responsible Consumption and Production

If current natural resource consumption patterns and demographical trends persist, by 2050. almost three planets could be required to produce needed resources. Shift in consumption patterns, from linear (take-make-dispose) to circular (including recycling) is a necessary step that too many societies have not taken yet. In addition to this, energy efficiency and rational use of resources should be central part of all development plans – *"do more and better with less".*

Goal 13: Climate Action

Problem of climate change is specific, as it affects everyone, everywhere. Needless to say, poorest and the most vulnerable groups are being affected the most. Alarming changes in weather patterns with seemingly more frequent natural disasters and rising sea levels due to global warming send a clear message – pollution should be dramatically reduced. However, that is not a case to the required extent, especially in developing countries. Strategies addressing climate change factors should be included in all development polices.

Goal 14: Life Below Water

Conservation and sustainable use of the world's oceans, seas and marine resources is a significant determinant of the existence of more than 3 billion people today. Oceans and seas provide a wide variety of goods, like food and medication; also, they represent a source of income for some developing countries via tourism; last but not the least, they are home to some of the most diverse ecosystems on Earth. Sadly, they are also treated as biggest world dumpsites, causing a huge treat to marine life. Awareness should be risen, both locally and globally, to stop overfishing and to drastically reduce usage of plastic bags and other forms of pollution.

Goal 15: Life on Land

Slowing down and eventually reversing the process of land degradation is the focal point of this goal. We depend on forests, as they are sources of clean air and water drink and breathe, and the food we eat. Also, as oceans and seas, they can be used for tourism and recreation, and they are home to almost all terrestrial species. We have to ensure that the processes of deforestation and desertification are put to a halt if we do not want to further endanger existence some of the rear and valuable species. We have to give forests the respect they deserve, through local and global-partnership actions, by protecting endangered wildlife and preserving healthy ecosystems by reusing and recycling.

Goal 16: Peace, Justice and Strong Institutions

It is a fundamental right of every person on every corner of the planet to feel safe and free by birth, and therefore every government on earth has to ensure that through institutions the justice is always carried out. Long time ago has the need for strong intuitions and peace been recognized as a key to prosperity. It is a task for governments as well as civil societies to build and preserve these institutions, to ensure freedom of speech, to stop bribes and discrimination, to put an end to wide-spreading violence and finally, to hold elected officials accountable.

Goal 17: Partnership for the Goals

Even in this brief review it easily noticeable that all the goals are interconnected and that for their successful implementation revitalizing global partnership is essential. Developing countries should be helped to mobilize financial resources to be able to catch up. Technology diffusion and dissemination should be widely supported. Non-discriminatory trade importance should be emphasized. Natural resources need to be preserved by all, equally. There is not a single person, or even a country, that can succeed in their accomplishment on its own. We have to unite. The governments, private sector and civil society. All of us. Investing in SDGs is investing in the future, because by helping others, we will eventually help ourselves

Index of SDGs and Targets Mentioned in the Text

List of Abbreviations

HBS	Household Budget Survey
ERP	Enterprise Resource Planning
EU	Europe Union
FSA	Financial Social Assistance
GDP	Gross domestic product
GVA	Gross value added
HD	Human Development
HDI	Human development Index
IBRD	International Bank for Reconstruction and Development
IDP	Internally Displaced Persons
IMF	International Monetary Fund
IT	Information Technology
k	000 (thousand)
LFS	Labor Force Survey
NEETs	Not in Employment, Education or Training
NMS	New Member States
OECD	Organization for Economic Cooperation and Development
p.p.	Percentage points
PISA	Programme for International Student Assessment
R&D	Research and development
RSPP	Republic Secretariat for Public Policies
SBAN	Serbian Business Angels Network
SBRA	Agency for Business Registers Serbia
SDG	Sustainable Development Goals
SILC	Survey on Income and Living Conditions
SIPRU	Team for Social Inclusion and Poverty Reduction
SME	Small and Medium enterprises
SMME	Micro, Small and Medium enterprises
SOE	State-owned enterprises
UN	United Nations
UNICEF	United Nation Children's Fund
UNWTO	United Nations World Tourism Organization
VA	Value added
WHO	World Health Organization

Foreword

Serbia's commitments under the United Nations 2030 Agenda for Sustainable Development provide an opportunity to open a dialogue about how Serbia wants to look in 2030. It also offers a framework for mapping the road to get there, through concrete and measurable results. Clearly, Serbia's commitment to EU membership frames and sets the highest standards for Serbia's sustainable development goals (SDGs). Many of the SDG targets are, in fact, already set by programs guiding the EU accession process. However, the 28 EU member countries are all „European" in different ways. Their visions for how they expect to advance their socio-economic structures by 2030 differ, as well. The present document gives background information for the design of a society-wide dialogue that would promote and support Serbia in shaping such a vision for itself.

The dialogue would contribute to the nationalization of Serbia's SDGs, and particularly focus on identifying the so-called accelerators most likely to lead her to accomplish them. Although Serbia has a comprehensive policy framework guiding its path to EU membership, she still has too many vague strategies and no overarching national development plan. To illustrate, there are more than 290 thousand agricultural households (46.5% of total number of households) in Serbia with properties smaller than 2 ha, and almost 480 thousand agricultural households (75.5% of total) with properties smaller than 5 ha. Is Serbia's goal that they be consolidated through buyouts by large landholdings? Or does she aim to see them, and how many, become sustainable through niche production and green modernization? What will become of Eastern Serbia's dwindling rural population?

The present document is a baseline review of Serbia's human development, environmental challenges and the assets and limitations it faces in advancing all the key dimensions tackled by the SDGs. At this stage, we do not address existing policy goals, implementation or options as this needs to be the subject of the broader dialogue. We expect the broader dialogue will keep its focus on results and deal with policy in broad strokes, through the identification of accelerators, and the intermediate results that we should expect to see if we are on the way to accomplishing the set goals. Ultimately, we aim to contribute to the development of a results monitoring framework that will strengthen stakeholders' accountability.

To forge a vision, many questions should be answered. How do we want our economy, society and environment to work and look like by 2030? This baseline review is selective about the issues it deals with indicating indirectly already a "first cut" of prioritization. It is based on a literature review, CEVES' own insights, and feedback from a series of workshops and small-group discussions conducted to prepare the dialogue. While the further dialogue should be focused on goals, policies and intermediate targets, but we expect it will also enhance the choices and conclusions explicitly and implicitly made in this document.

Executive Summary

The present document is a baseline review of Serbia's human development and environmental challenges as well as the assets and limitations it faces in advancing towards attainment of the sustainable development goals (SDGs). It provides background information for the design of a society-wide dialogue to help shape Serbia's nationalization of the SDGs in line with its commitment to the UN 2030 Agenda.[i] The document focuses on those SDG dimensions that we consider key for Serbia's human development and it does not address existing policy goals or options, nor their implementation.

We dedicate Chapter I to reviewing the dimensions of human development (HD), largely covering the issues under Goals 1-5 and 10 (poverty, hunger, health, education and inequality), as well as overall income generation capacity and particularly employment (Goal 8, emphasis on 8.5). We start the review focusing on issues related to income generation capacity, because that is by far the lowest ranked dimension (84th in the World) of Serbia's human development index (which ranks 66th overall). Income shrunk as the traditional economy imploded in the displacement of the 1990s and was largely unable to transform and recover in the 2000s. A more competitive new economy has been developing in parallel, and it may be reaching the size needed to affect overall growth, but GDP_{pc} remains about 10% lower than in 1989.

Serbia's low income-generation is due primarily to the extremely low comparative level of employment (only 55.2% of the working-age population, compared to 66% for the EU28 and the NMS on average) and even lower level of formal employment. The productivity of the employed part of the population is low but closer to that of comparable countries. One of the few positions we take with regard to goal prioritization in this review is that accomplishing SDG 8 (Decent Work and Economic Growth) – *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all,* is likely the key to the acceleration of all goals. It translates to a need to substantially accelerate GDP growth (Target 8.1), based on much more generation of decent jobs (Target 8.5). Whether and how fast the growth of the overall economy accelerates depends on whether and when the positive processes in the new economy start significantly outweighing those in the traditional sector.

We proceed to present the low quality of overall employment and recent employment growth, and the patterns of economic activity by demographic and educational structure. We conclude that full employment in decent jobs (SDG Target 8.5) today would require approximately an additional 1.45 million decent jobs compared to those currently available—to employ the unemployed, the discouraged, and those working informally.

However, besides being dynamic, **growth needs to be inclusive—decrease inequality, eliminate extreme (absolute) poverty and leave no one behind.** Inequality in income distribution in Serbia is relatively high, primarily due to the weak redistributive role of government. However, there is puzzling discrepancy between SILC and HBS methodology, where the former seemingly overestimates inequality, while inequality measured by the latter also has its flaws. Inequality in consumption is probably less pronounced, as Serbia has a relatively equitable asset distribution, particularly of housing and land. Poverty in Serbia is also high both in relative and absolute terms. Given the country's legacy and values, Goal 1, ending poverty, should be rated highly in its development strategy.

Although Serbia is ranked better regarding health than income, the outcomes in health overall are very low, considering the strong Yugoslav legacy in this area. Serbian citizens' health is poorer than expected given the level of social-economic development, funding and the strong legacy in the health care system. 'Out-of-pocket' payments by citizens, a high mortality rate which could be prevented, lack of strategic documents and the unresolved role of the private sector paint a picture of unresolved systemic issues. Institutional limitations are revealed in that the infrastructure of health system has not been adapted to the changed demographics, or to system's priorities from the time when they were built. The system has not fully switched to dealing with the prevalence of non-communicable diseases, and the need for much more investment in their prevention, rather than belated treatment.

Education level is on the rise, as a result of grater education system coverage and demographic changes. However, quality of education in Serbia is not satisfactory. Results by Serbian students on PISA tests leave a lot to be desired and education does not fully prepare youth for today's labour market – either as employees or as entrepreneurs. This has a consequence in the high unemployment rate among students who have graduated (around 42%), while almost a half of employed youth are informally employed. That is probably a result of the fact that the education system has not yet adapted to major changes of the 21st century, which could further be a consequence of low level of public expenditure on education.

There is a number of particularly vulnerable population groups whose human development faces particular challenges and deserves special attention: women, persons with disabilities, internally displaced persons, Roma, young, rural, and elderly population. Gender equality has been established in the law, but inequality still persists, roughly in line or somewhat more than European levels, in employment, earnings, executive power as well as in the perception of the role of women in the Serbian society. The Roma remain side-lined in social life as the least educated and the poorest social group, and often living in unsanitary settlements, and facing discrimination in many spheres of social life. Notable advances have been made thanks to the implementation of the previous Roma Inclusion Strategy, and it will be important to keep this same focus in the period covered by the new Strategy, 2016-2020.

We conclude the HD review with a big and worrisome issue not explicitly covered by the SDGs: the strong negative population growth. According to projections, the population of Serbia is likely to decrease by 8% to 15% by 2030, and some settlements and sub-regions can be expected to be depopulated, especially in the region of Southern and Eastern Serbia. This, in and of itself, will affect the sustainability of economic growth—threaten to increase decent job wages faster than productivity. It is also certain to threaten the sustainability of the pension system. This issue needs to be much more studied and better understood, through comprehensive scenarios.

In Chapter II we explore Serbia's assets and constraints as a starting point for fostering quality (meaning inclusive and environmentally sustainable) economic growth, i.e. accomplishing Goal 8. We organize these assets and constraints roughly along the logic of economic factors of production, but also "mainstreaming" the fact that economic growth needs to be such as to meet not only the targets under Goal 8, but also Goal 9 (focusing on infrastructure, industrialization and innovation), Goal 7 (energy), parts of Goal 6 (water management), Goal 12 (sustainable production and consumption), and Goal 15 (forests and biodiversity).

Abundance of agricultural land and favorable climate conditions, favorable trade agreements and above all a long tradition of agricultural competitiveness and deep linkages of Serbia's population (both rural and urban) to land, give an important place to the agri-food system both in economic growth, through further modernization, and in quality employment growth, through increasing the

productivity of small-scale food producers. The key challenges that needs to be overcome are the fragmentation of land and the mostly SME nature of food processing. Access to land in Serbia is very broad, and while poverty is higher in rural areas, hunger and malnutrition are social safety net and health, and not food security issue.

Serbia is moderately rich in non-mineral natural resources, and there is considerable scope for fostering quality rural growth, especially through sustainable tourism. This requires a coordinated approach to the development of different kinds of tourism, relying on geothermal waters, more sustainable and efficient management of forests and biodiversity, and supporting integration with other rural activities (mainly food production, and services).

Serbia has engineering/technical skills to underpin the development of a productive, modern, high-income generating industry, but faces limitations that would need to be very carefully addressed to ensure quality growth. First, high quality technical skills are not abundant, and process and market management skills are in fact very limited. Together with the limitations faced by the largely SME domestic economy, there is a real risk that these industries remain limited to a relatively small share of total employment. However, manufacturing exports and output have been growing, particularly in the medium-low to medium-high technology range, thanks to the new economy, but because of the factors mentioned above, employment has lagged.

A particular opportunity for Serbia to catch up exists in the high-knowledge content service and intangible creative products industries, especially in the context of Industry 4.0. Already a larger share of Serbia's economy is comprised of these products/services than in Europe on average, but the potential for this economy's further expansion has not been gauged. Nevertheless, it is clear that the sustained expansion of the intangibles and service production as well as of industry generating quality employment, critically depends on the effectiveness of Serbia's education and science services as well as the society's/government's capacity to attract quality foreign investment, support the sustained growth of its SMEs, and improve the overall business environment.

Energy policies are a particularly complex, and thus far insufficiently defined, factor of accomplishment of nearly all other SDGs. Contrary to widespread belief, Serbia is not an energy rich country, yet it is highly energy inefficient--missing the opportunity to accomplish huge savings, and hence significantly increase the scope for investment through catching up with comparable economies in energy efficiency. Moreover, she does not have a clear answer to the fact that the hydrocarbon reserves on which it presently relies will be exhausted soon after 2030. Finally, potential for increased reliance on RER is substantially higher than current policies consider, but their development would require structural changes in the electric energy production/distribution system.

A cross-cutting advantage, Serbia's very favorable geostrategic position, could be better supported by the transport infrastructure, which is, nevertheless not fully a limitation to growth. Other cross-cutting issues are rather challenging: the need to develop more sustainable production/consumption patterns, and especially the very limited development of a circular economy, the need to address climate change, to encourage entrepreneurship, to have greater trust, and the need to radically increase the predictability and reduce the costs of the regulatory environment.

In Chapter III we review the role of institutions. As Serbia's values and aspirations with regards to the development of its political system, institutional quality, peace and security, and rule of law are firmly framed in its European path, the targets under Goal 16 and 17 are expanded and set to the high standards of European criteria. In as far as these goals are goals in and of themselves, we rely on the EU's Progress reports for their assessment.

However, we focus on the capacity/effectiveness of institutions as it fundamentally affects the attainment of all SDGs. We propose that related indicators should be included in the ultimate SDG results matrix. These would assess the capacity of institutions directly, by measuring their delivery of specific intermediate outputs for specific results. We also elaborate on two particular challenges that affect institutional capacity. First, Serbia has a long-standing difficulty with prioritizing policies/resource allocation. Second, the way administrative/regulatory powers are distributed combines with the high formalism of regulatory practice to prevent the clear allocation of accountability for results. This hampers the attainment of results even when political will is not lacking. Complex results are typically attained only through strong informal political pressure and campaigns, necessarily of limited duration.

In Chapter IV we review issues related to delivering human development at the community level and regional inequalities among Serbia's regions. Essentially, this is a cross-cutting approach that presently incorporates questions of territorial distribution of powers, management of regional/territorial development and the extent to which the basic human development needs and resilience are met at the local level (parts of SDG 6 (Clean Water and Sanitation) and SDG 11(Sustainable cities and communities). We underline the limitations inherent in Serbia's territorial distribution of powers. While it does allocate or delegate many competencies to the local level, it does not really allow for autonomy in nearly any of them. The expansion of the latter to the quality of community life is needed. Regarding basic needs, improving water and waste management still presents a challenge for Serbia – even though 84% of households are connected to water supply system, only 59% is connected to sewage systems (similar to EU NMS levels). Waste management is also a serious challenge, as there are an estimated 3000 wild dumpsites, and with only 20% of municipal waste not ending up at municipal landfills. In Serbia, like in other ex-communist countries, home affordability is a strength, but an important issue are informal settlements.

Regional development differences in Serbia are deep, and the transition further exacerbated them. Measured by GDP$_{pc}$, Belgrade is 2.5 times more developed than the least developed region of Southern and Eastern Serbia. Even with Belgrade excluded, differences between regions are significant, forming a pattern strongly resembling "leopard skin". As quality of employment is much worse in less developed regions, people there rely more on non-labour income, altogether resulting in much higher concentration of poverty in those regions.

Finally, in our concluding remarks we integrate the previous analysis from a forward-looking perspective. Serbia has many assets on which it can rely to substantially accelerate economic growth and its beneficial effects on human development. However, there is also a high risk that existing structural and institutional limitations will limit high-quality growth to a narrow segment of the overall population, exacerbating and cementing a duality that is already present in the economy. These limitations are that the layer of skilled population that can be employed in productive and decent jobs has become thinly spread and is immobile--not necessarily corresponding to the needs of the economy. Redistributive policies need to address this duality much more decisively, but also enhance the opening up of opportunities through more flexible and ready-to-support-entrepreneurship-and-change institutions, especially the education system. Greater decentralization and autonomy of local governments is also needed. However, there is also considerable scope for beneficial collaborative, collective, action by the private sector.

I. Serbia's Human Development: Dimensions and Challenges

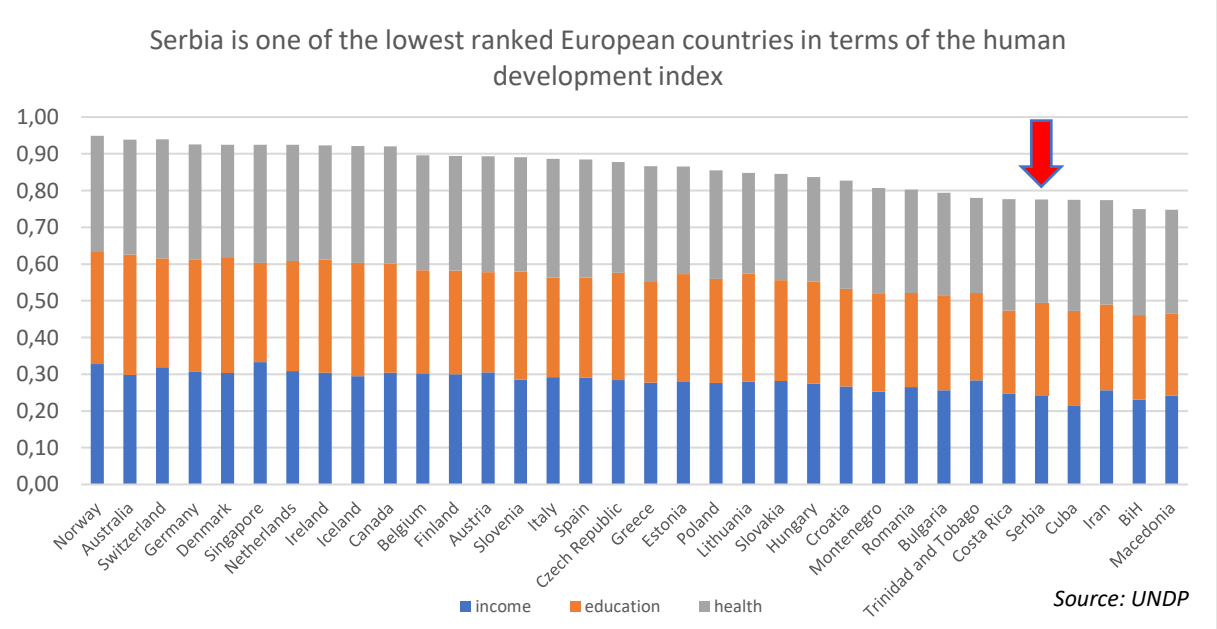
1. **Over the past few years, Serbia has ranked 66th in the World by human development – lower than any EU member country and Montenegro, and above Macedonia and Bosnia and Herzegovina (B&H) (See Graph 1).** It is also probably a much lower ranking than such comparisons would have shown thirty years ago. Serbia's human development imploded in the 1990s, and in some aspects, above all its national income, it has not been able fully to recover since. I This matters to our analysis because, as we point out throughout the text, the challenges and opportunities that Serbia faces often differ from what would be expected in a country that just arrived at a similar HD level. It also matters because it frames Serbia's citizen's expectations, affecting both their wellbeing and economic behavior.

2. There is little doubt that for Serbia, Goal 8 – *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all* — translates to a need to substantially *accelerate* its GDP growth rate (8.1), and as we argue in two next section, based on *much more* generation of decent, rather than precarious, jobs (8.5). Not surprisingly, Goal 8 in essence mirrors one of the overarching goals of the EU accession process: strengthening the economy's competitiveness to make it ready for full participation in the EU market and for benefiting from EU Structural and Investment Funds.

3. **It is in the income dimension of the HDI components that Serbia ranks lowest (88th by GNI per capita), while it fairs much better by educational attainment (55th) and somewhat better in health (69th), which is in fact also surprisingly low considering the strong Yugoslav legacy in healthcare.** The implosion in HD happened fastest and deepest in the country's productive lower, i.e. income generating capacity—Serbia's GDP_{pc} today probably still stands some 10% below that in 1989[ii]. Composition of HDI for Serbia and other comparable countries is presented on the Graph 1, while more detailed data can be found in Appendix 1.

4. Faster and better-quality growth would deliver higher disposable incomes for most citizens, more public resources to redistribute and ensure that poverty is eliminated, and more resources to ensure that the delivery of healthcare and education are not only raised to higher levels, but are of better quality, and much more equitable.

Graph 1. HDI rank



I.1. Prosperity: Growth, Employment and Wages

5. **Serbia's GDP_{pc} is low both because of the relatively low productivity of those employed (respectively, 4.4 and 2.2 times less than the averages for the EU 28, and for NMS), and because of the extremely low level of employment[1] (only 55.2% compared to 66% for EU28 and the NMS on average, among working-age population).** While the comparative productivity of the new economy that has developed since the 1990s is undoubtedly closer to historical expectations, it is the high level of inactivity or low-intensity employment, as well as the low productivity of the large and slowly transforming traditional economy that pull Serbia's GDP down. For example, Serbia's average total productivity is almost the same as Bulgaria's, but because its employment rate is 10 p.p. higher, Bulgaria's GDP_{pc} is 37% higher as well (See in Data Appendix). The absolute and relative number of decent jobs in Serbia is even lower. Formal employment accounts for only 40.6% of the working-age population, while remaining 14.6% refers to vulnerable employment. Vulnerable employment is 83% higher than the NMS average and much of the informal work (but not all) can be considered as subsistence employment . Therefore, we dedicate a separate sub-section to the analysis of employment in this section.

I.1.1. Slow GDP Growth: A Gradual and Incomplete Transformation

6. **Serbia needs to radically increase its economic growth rate if it is to converge with the EU.** Serbia's current official documents such as the government's Medium-term fiscal framework, and Economic Reform Programme (ERP) project GDP growth rates of 3.7% annually in the medium-term. The World Bank projections suggest that at that rate Serbia would catch up with current EU averages in 40 years. If in addition, the EU growth rate were projected at 2% annually, Serbia would need 70-80 years to catch up with EU average. Conversely, an average GDP growth rate of 12% annually would be needed in the next 15 years (assuming a constant steady natural and migration change in population), if Serbia were to catch up with the EU average GDP per capita of today, or a 5% average growth rate would be needed to reach the average GDP_{pc} of NMS today.

7. **Today's Serbia appears to have finally turned towards the new economy and export orientation, and by doing so, largely completed the exit of unsustainable traditional components.[2] The new economy, at least its export-oriented segment, has undoubtedly been growing significantly in recent years, as the GDP share of exports doubled from 26% in 2009 to 50% in 2016.** One key reason why exports accelerated after 2009 is that Serbia's new tradeable economy had reached sufficient strength and size to make the shift towards exports significant and well felt. It had previously been laboriously growing, rather imperceptibly small, in the shadow of the overblown non-tradeable and non-performing traditional sectors. Whether and how fast the growth of the overall economy accelerates depends on whether and when the positive processes in the new economy start significantly outweighing those in the traditional sector.

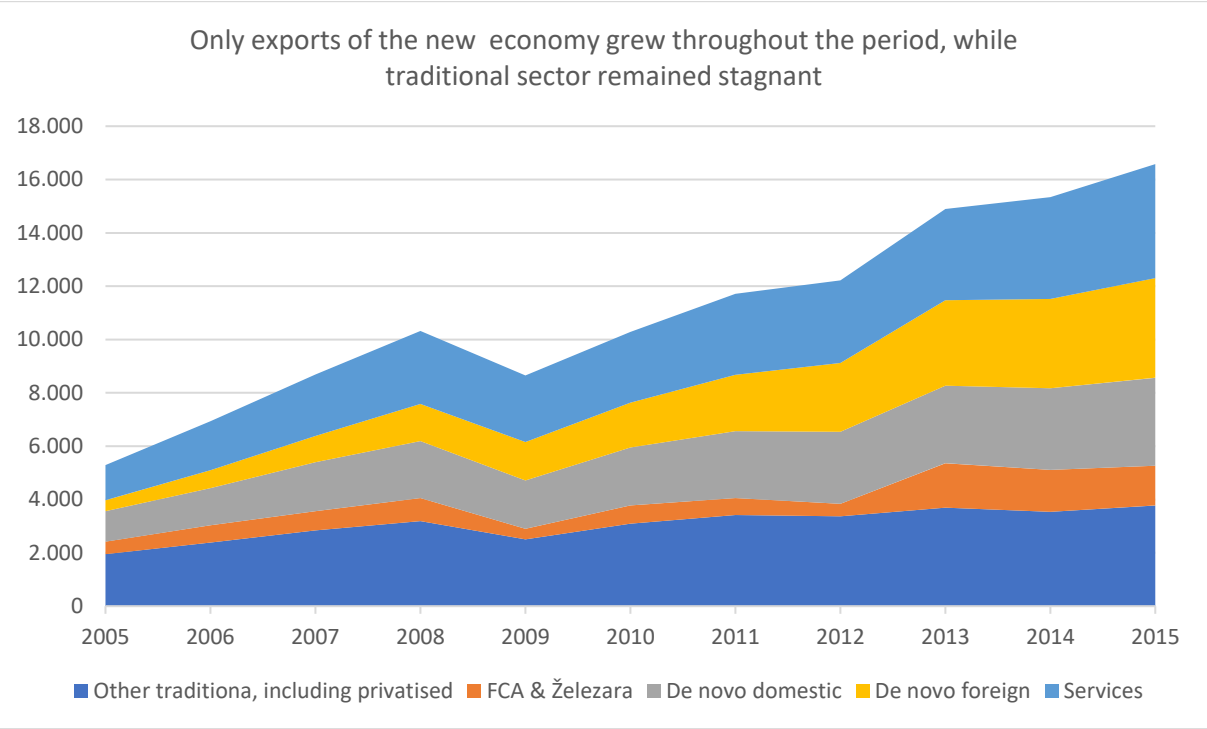
8. **Companies that were not fully shifted from state ownership or the "company under restructuring" limbo have largely exited the economy** (except for utilities, the armaments industry and some mines). We illustrate this process in Graph 2 with the performance of exports of traditional and new economy. It is clearly visible that the substantial growth of exports (both in relative and absolute terms) of the new economy is followed by a rather stagnant performance of the traditional sector. Share of exports of the traditional sector shrunk from 58% in 2005. to 29% in 2015. We can

[1] Employment among working-age population, i.e. 15-64 years.

[2] By traditional sector we denote current and formerly socially-owned or state-owned enterprises (untransformed state-owned or socialist owned-sector)

safely conclude that the new economy has finally reached a sufficient size to determine pace of the Serbia's growth, especially now, supported by the recovery of European economy and balanced macroeconomic framework after the recent fiscal consolidation.

Graph 2. Export by sectors (millions of euros)



Source: CEVES' calculations on Cube Administration

9. **Although in decline, importance of traditional sector shouldn't be neglected yet, as it is still relatively large. Thus, it can still lay the ground for significant inequalities (discussed in detail in Section I.2.1) and divergences in the trends, affecting population employed in different segments of the economy.** It is the low productivity (primarily resulting from low-intensity employment) of the traditional sector combined with the high level of inactivity that pull Serbia's GDP down. Formal employment, reflecting both slow growth in the new and the continuous but gradual shrinking of the hidden overemployment in the traditional sector, has been declining almost linearly during the last 15 years. In contrary, informal employment appears to have fluctuated more, albeit probably not as much as official statistics suggest.[iii] The remaining traditional sector itself, especially public utilities, needs to transform or, at least, raise its productivity and quality of services.

I.1.2. Employment

10. **An extremely low employment rate (55.2% of working-age population, compared to 66% in EU) may make SDG Target 8.5 the most important target for Serbia.** Employment is clearly the most important source of income, especially in a country with relatively low levels of accumulated private capital as is Serbia. Moreover, a decent job is a key condition of human dignity and fulfillment.

11. **Full employment in decent jobs (SDG Target 8.5) today requires approximately additional 1.45 million decent jobs** – an increase of almost 75% compared to the estimation of current number of formal jobs, that would need to be further increased[iv]. Factoring in the current rate of population decline, the actual increase needed by 2030 would be probably considerably smaller.

12. **The employment statistics have clearly not been reliable until recently, but their credibility appears to have increased in the past two years**. We operate assuming that the currently assessed levels are roughly correct but that the dynamics exhibited over 2008-2015 probably overstate both the decline in employment that bottomed in 2012 (almost all due to changes in informal employment) and the recovery since.[3]

13. **The extremely low rate of employment in Serbia is mirrored in somewhat less stark unemployment rates because of a high share of inactive (discouraged or elderly) population.** The unemployment rate in 2016 stood at 15.9% for working-age population (15-64). This compares with an average 8.7% rate for the EU28 in 2016, and it was lower only than in Greece 23% and Spain 19.6% in the EU, but also lower than in Macedonia, Montenegro and B&H. Activity rates are also significantly lower in Serbia than in EU countries – two-thirds of working-age population in Serbia is considered as active, 7 p.p. lower than EU average.

14. **The activity and employment status depend heavily on demographics with youth and women over 55 particularly hit.** Men aged 35 – 40 have an almost 80% employment rate (12% unemployment), while employment for women in the same age group reaches aver 68% (14% unemployment). The evident gender gap in employment for this age group is similar to that in the EU. However, it sharply opens after age 55, when women's employment drops to below 20%, five years earlier than for men[4].[v]

15. **Relatively low effectiveness of active labour market measures increases youth unemployability, hence making youth a vulnerable category in this regard.** Vulnerability of young people is reflected in the quality and speed of transition from educational institutions to the labour market. Unemployment rate of youth population (15-29) reaches as much as 30% -- twice more than the EU average. One of the key reasons for such large difference is that the share of youth not in education, training or employment (NEET) is higher in Serbia (18%) than in EU28 (average 13%[5]) (SDG Target 8.6). It is of particular concern that the youth appear to have great difficulty finding employment upon completing their education -- 2 years for those completing secondary and 1 year for those completing higher education, although the situation appears to be improving since recently. Due to uncertainty of finding their place on the labour market, the young are exposed to an above-average risk of poverty - 8.4% (19-24 years) and 8.5% (14-18 years)). Whilst youth employment is slowly rising, a third of the young labour force remains unemployed (2016)[6].

16. Also, of particular concern is that in addition to the 490k unemployed, almost quarter (700k) of the total employed (2.719k) hold informal jobs[7] - mostly in agriculture (400k). Broader structure of employment (formal vs. informal) is given on In line with the international LFS methodology, much of this employment is of extremely low work intensity and at risk of working poverty. Informal employment is more likely to be part-time (around 30-40% of all informal employment) and is notably higher among women (SDG Target 8.5).

[3] Graph A 1 and Graph A 2 in Data Appendix show a brief analysis of the available data. See also endnote xxix for literature about debate. More analysis is necessary and feasible to establish with greater confidence what may have been happening over the period observed.

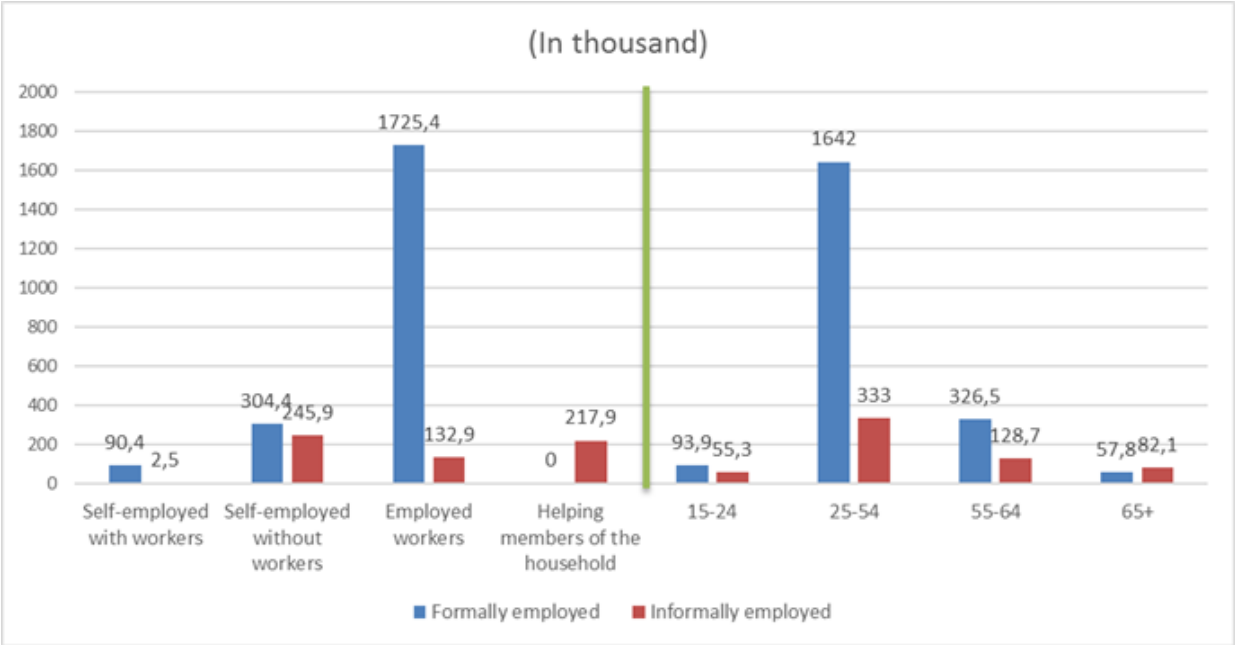
[4] See Graph A 3 in Data Appendix for a breakdown in activity status for the population older than 15, and separately for men and women.

[5] Only Italy (19,6%), Montenegro (18,4) and FYR Macedonia (24,3) have higher share of NEET population, while Bulgaria has similar share as Serbia.

[6] SORS (2016). LFS.

[7] Informally employed are those working without a legal contract.

Graph 3. Employment structure (formal vs. informal)



Source: LFS (2016)

I.2. People: Inequality and Poverty[8]

I.2.1. Inequality

17. **According to official statistics, inequality in income distribution in Serbia is high and may well be higher than in any EU country.** Hence, SDG 10 (Reduce Inequalities) that aims to reduce inequalities within and among countries, needs to be one of the top priorities for policymakers in Serbia, as it has a legacy of equitability and probably in a dialogue the public would not find the current level of inequality acceptable.

18. **While there is no doubt that inequality is high, it is, however, a controversial issue how high inequality is fraught with measurement challenges.** Graph 4 shows Serbia Gini coefficient measured based on two different survey instruments. While the survey on Income and Living Conditions (SILC), which is the standard EU survey instrument assessing income and living conditions, puts Serbia on the top HBS method puts it lower, closer to EU average; it is also true that none of the instruments are likely to take due account of the effect that the relatively even distribution of land and housing has on reducing inequalities in Serbia (discussed below).[vi]

19. **Though the difference between SILC and HBS can be quite baffling, newest research conducted by UNDP sheds some light on it.**[9] Authors find that *income in kind*, *treatment of negative income values (and outliers)* and *underestimation of social transfers by Serbian SILC* can be accounted for the most of the difference. Income in kind, although maybe not the most favorable way of consumption, is still important in Serbia, especially for lower deciles.[10] If income from self-employment is negative, SILC counts it in as such, while HBS treats it as zero. If outliers are excluded from SILC as

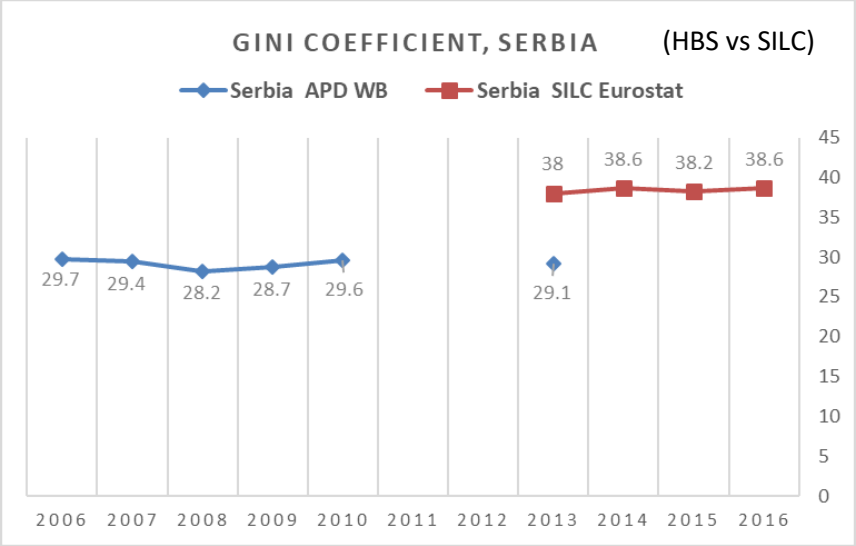
[8] While as a goal and moral imperative, Goal 1—the reduction of poverty-- is more clear-cut than Goal 10, the reduction of inequality, we discuss inequality first because of analytical reasons. The drivers of inequality, and measurement problems with it, go a long way in explaining drivers and measurement problems with poverty.

[9] For more details see: *"Human development paper on income inequality in the republic of Sebia",* UNDP, August 2018.

[10] Adding income in kind to the income calculated based on the SILC methodology increases it by about 53% for the first decile.

well, values converge even further to HBS. Eventually, findings suggest that pro-poor social transfers are also underestimated in the Serbian SILC by 20-23%. Based on the presented evidence, we can conclude that both results (from SILC and HBS) should not be taken for granted. While inequality in Serbia is high, probably the differences, compared to other European countries, are not so dramatic.

Graph 4. GINI coefficient



Source: WD Indicator WB, Eurostat

However, quite a few things *can* be said with confidence about inequality in Serbia.

20. First is that in Serbia, **key to market inequality are the broad span of salaries, low level of activity among working-age population, and low level of (decent) employment.** Salaries are not evenly distributed, and they represent the most important source of income in Serbia (three-fourths of entire available income), so they explain 93% of total inequality. However, although Gini coefficient is higher in Serbia than in EU28, it is important to note that Serbia's market income Gini coefficient is similar to the EU average (55.1 vs. 55.2).

21. **Second, the SILC results also confirm that much of the inequality in income distribution in Serbia is a consequence of the weak redistributive role of the government, in comparison with other European countries (SDG Target 10.4).**

- **Social transfers reduce inequality to a lesser extent than in the EU.** Serbia's expenditures on the most important social transfers and compensations are very low – social assistance and child allowances are only 0.6% of GDP, compared to average of 1.1% of GDP in EU countries[11]. In addition, the effect of pensions on inequality reducing in Serbia is also significantly lower than in EU countries, due to the lower coverage of the Serbian pension system (93% of males and only 79% of women receive pensions, according to 2012 Census). Also, the fact that many EU countries have social welfare programs, within which all persons over 65 years of age receive monetary compensation, explains the difference between Serbia's and EU outcomes.
- **Taxes significantly reduce inequality in the EU, but that is not the case in Serbia – due to the low progressivity of income tax in Serbia.** Income taxes and social contributions are relatively

[11] Arandarenko, et al (2017). *Income inequality in Serbia, from data to politics.*

higher burden for people working for minimum wage than for people whose salaries are twice higher than average[12].

22. **Third, the inequality in incomes is at present being perpetuated by the inequality in opportunities (SDG Target 10.3).** It is also important to note that all reported inequality data indicate inequality in the distribution of income and wealth, i.e. inequality in outcomes. However, today's outcomes are the result of former chances. Therefore, it is important to pay attention to inequality in chances - inequity in outcomes is acceptable only if it is not the result of inequality in opportunities – particularly in education. For example, level of education describes 63% of inequality in salary distribution. PISA test results also indicate that Serbia's education system does not manage to decrease effects of socio-economic inequalities – share of functionally illiterate children is higher in the lowest socio-economic quintile, compared to the highest socio-economic quintile[13].

23. **Finally, there is also little doubt that Serbia is, in relative terms, an "asset rich and income poor" country, because it has a legacy of a broad and relatively equitable distribution of land and housing across its citizens.** The broad distribution of land (albeit fragmented) and a tradition of broad and firm rural-urban networks, facilitate an unusually high level of non-commercial consumption of agricultural produce. This includes, in addition to the usual consumption in kind on farms, also a high level of direct informal sales which undoubtedly increases rural incomes in hard to measure ways. As described in the next chapter this poses a peculiar set of challenges and opportunities for quality growth in Serbia. Here, it matters that this ought to raise rural incomes. Only registered consumption in kind by households in the lowest income distribution quintile amounts to 13.5% (Table A and Table A in Data Appendix). These peculiarities also mean that the SDG 2 (Zero Hunger) relating to hunger is not a general issue for Serbia but rather it boils down to either malnutrition deriving from deprivation in vulnerable groups, or excessive body weight, considered under the health SDG.

I.2.2. Poverty

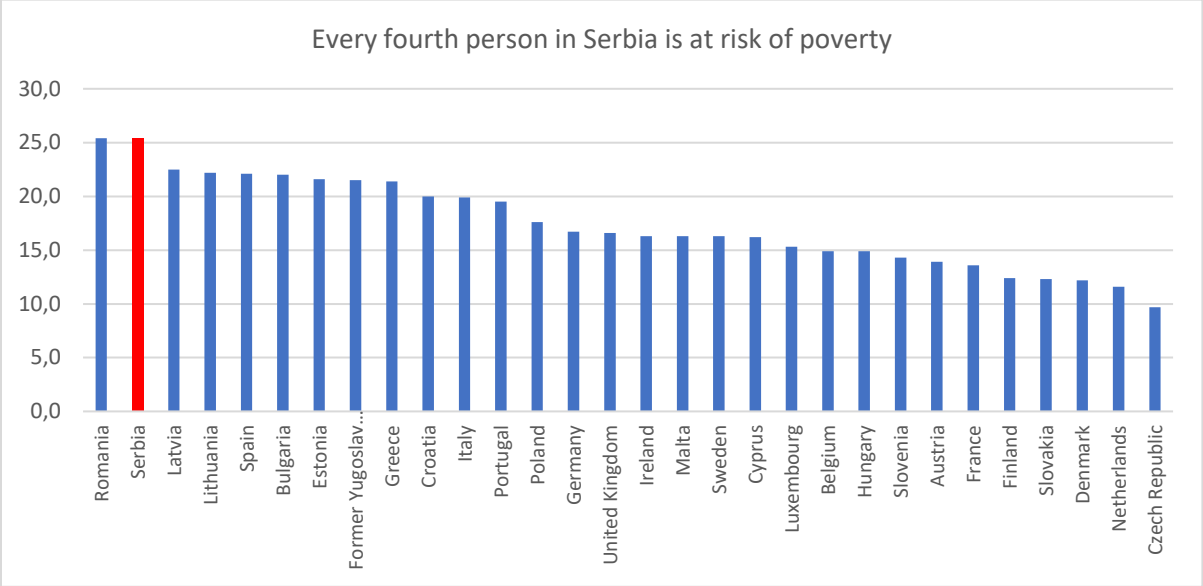
24. **Poverty in Serbia is high both in relative and absolute terms. Given the country's legacy and values as well as its European perspective, there is little doubt that** SDG 1 (No Poverty) **should be rated very highly** (with a focus on elimination of its extreme forms – SDG Target 1.1). However, Serbia should aim to substitute "absolute" for "extreme", i.e. to replace indicator 1.1.1 with 1.2.1, as well as to halve the number of citizens exposed to any kind of deprivation (SDG Target 1.2). In 2012, Serbia adopted the EU relative poverty measure – the fraction of the population living below 60 percent of the median income – as its official poverty rate. The first EU-SILC survey for Serbia measured this indicator of relative poverty at 24.6 percent for 2013, higher than any EU member state (only Romania with 25% has similar rate as Serbia; See Data Appendix Table A for more details). As this indicator is estimated based on the information gathered by SILC, it clearly reflects the same fundamental factors that result in a highly unequal income distribution in Serbia, as well as the methodological/measurement issues that likely slightly exaggerate them, as stated above. Larger households with more children and those with less education are more likely to be at the bottom of the welfare distribution, especially in rural areas.

25. **As much as 7.3% of the population, or about half a million, is estimated to fall below the conservatively set absolute poverty line in 2016[vii].** This measure has declined only slightly since employment and economic activity picked up in the past few years but has not returned to the level attained in 2008 (6.1%) losses in employment and labour income, which particularly affected the

[12] Ibid.
[13] Ibid.

bottom forty percent of the population.[14] (IBRD, Country Partnership Framework for Serbia for The Period 2016-2020). Still, it is significant that throughout the past ten years the more extreme measure of poverty—the population whose consumption falls below 80% of the poverty line—did halve, from 4% to 2%, and the depth and severity of poverty also show a slight declining tendency[15].

Graph 5. Percentage of population at risk of poverty (60% of median income poverty line)



Source: Eurostat, SORS

26. **Also, important and lending further support to the "asset rich-income poor" hypothesis for Serbia are measures of poverty based on access to consumption, which put Serbia in a slightly better position.** Measured by material deprivation in dimensions such as level of education, health and standard of living (access to electricity, drinking water, sanitation, floor, asset to information – radio, tv, telephone)[viii], the poverty rate in Serbia amounted to 19.5% in 2016, better than a few EU member countries (such as Greece, Bulgaria, Romania) and has been gradually declining since 2010 (SDG Target 1.3).

27. **The most important contributors to the risk of absolute poverty are the level of educational attainment and employment status.** The poverty rate for those without elementary education, or with only elementary education is as high as 19% and 12%, respectively, while for those with high education is only 0.5%. In addition, the poverty rate for the unemployed is 22.5%, while for non-active population, it equals 20.4%. The poorest demographic groups in 2016 were children under 18 and the eldest (76+), with poverty rates of 8.4% and 9.3% respectively. It is interesting that there is weak correlation between the poverty of the elderly and the trends in real pension payments, an issue that should be further explored. Finally, general poverty trends closely reflect vulnerability in rural areas. Rural areas make up 85% of the territory and more than 40% of the total population[16] -- and almost half of population in work are predominantly in the agricultural sector. The risk of poverty rate is twice higher in rural than in urban areas (38% vs. 16%). (SDG Target 10.1)

28. **Social transfers, excluding pensions, are particularly important for poverty reduction.** According to SIPRU's study "Poverty in the Republic of Serbia 2006-2016", in 2016, social transfers

[14] World Bank (2016), Country Partnership Framework for Serbia for Period 2016-2020.
[15] Mladenović, B. (2017), *Poverty in the Republic of Serbia 2006 -2016*.
[16] OECD.

reduced the absolute poverty incidence by 26.3%. Results show that without social transfers, 9.9% of the population would have been poor. If pensions are included in social transfers, the impact on poverty is even more significant. Without pensions and social transfers, in 2016, the consumption of approximately one third of the population would have fallen short of the level needed to meet the subsistence needs. If households had not supplemented their consumption by goods produced for own use, 8.7% of the population, i.e. about 95 thousand more people, would have been poor in 2016.

29. **Poverty rate among the elderly is also higher than country average, and in this group, there is a particularly vulnerable segment that might be missed by the social system.** Namely, in terms of age structure, the population in 65+ age group (about a fourth of the population) is facing the highest poverty rates.[17] Financial poverty, vulnerability of the elderly is also reflected in social marginalization and insufficiently systemic set-up for long-term care. In Serbia today, there are elements of the system in place, however, these must be interconnected through an integral long-term care system encompassing: growth and strengthening of health care institutions' capacity for long-term and palliative care, development of services for the elderly and interconnecting health care and social protection.[18] Finally, bearing in mind the negative demographic trends and population ageing, the belief is that the issue of social pensions will be the subject of expert considerations as part of the future social policy measures. Although there are no reliable official sources, it is estimated that in Serbia there is a significant number of the elderly without pensions (SDG Target 1.4 and SDG target 1.5).

30. **While the targeting of social safety nets to the poorest quintile is respectable, coverage of the poor, particularly by the last-resort social assistance program, is small.** Serbia's last-resort social assistance program, Financial Social Assistance (FSA), is well targeted to the poor, with 75 percent of the benefit going to the poorest quintile. However, the FSA covers only 5.7 percent of the population in the poorest quintile (SDG Target 10.4).

I.3. Education

Achievements of education in Serbia are high if measured by its coverage. However, if the benchmark is quality, equality and opportunities on offer, the achievements become lower.

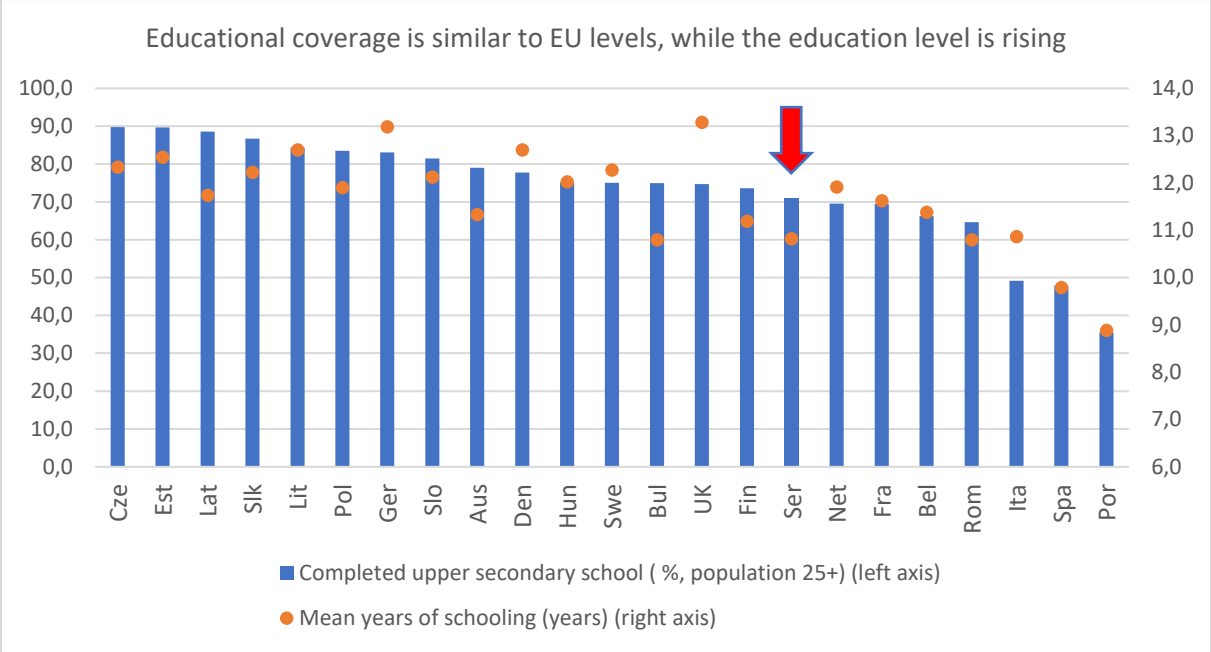
31. **Thanks to greater education system coverage and demographic changes, the educational level is rising.**

- **The primary education coverage of children is high – it is higher than in most new EU member countries and former Yugoslav republics[ix], at 98.6% in 2016.** However, whilst almost all students who complete primary school (94.8%) enroll in secondary school, the problem is that not all children get preparatory pre-school and primary education (SDG Target 4.1, SDG Target 4.2, and SDG Target 4.6). Quality education starts with early education of children through creating connections between home and school, and acquainting children with school environment. Pre-school education coverage in Serbia is still not at a high level (58,8%)[19], and is far lower than in new EU member countries (86,7%)[x], but higher than in FRY Macedonia and Montenegro.

[17] Mladenović, B. (2017), *Poverty in the Republic of Serbia 2006 -2016*.
[18] G. Matković, K. Stanić. (2014). *Social Protection in Old Age: Long-Term Care and Social Pensions.*
[19] SORS, 2017.

- **In 2015, about 71% of people over 25 years of age completed at least upper secondary education (as shown on the graph 6) – 77% of men and 65% of women**. At that level, Serbia still ranks below the NMSEU (81.7%)[20], but is catching up with them. Primary and secondary education completion rates have gone up for both men and women in Serbia. The share of population with primary education only is still high (20%), but as many as 23% of them belong to the 65-years-and-above age group. Although the coverage of generation attending faculties and higher schools is 50.7%[21]. The share of population with higher education is 18.5%, but in the 25-35 age group the share of population with higher education climbs up to 26%[22].

Graph 6. Education level and coverage



Source: UNDP, World Bank, SORS

32. **Quality of education in Serbia is not satisfactory – citizens of Serbia are, on average, still less educated than the citizens of new EU member countries.** Serbia's participation in PISA 2012 indicated that the country faces problems with education outcomes. Measured through PISA results, quality of education in Serbia was lower than in the European Union and new EU member states, except in Bulgaria and Romania. Still, it was higher than in Montenegro and FRY Macedonia. The share of 15-year-olds who have failed to attain the basic level of skills in reading, mathematics and science in Serbia stands at 38.9%[23] (SDG Target 4.4). In mathematics (upper rank), Serbia ranked 42nd on the table featuring 65 countries. With such ranking, Serbia was well below all PISA-participating European countries except for Bulgaria and Romania, as well as Montenegro, and on a par with Turkey[24]. In addition to low scientific, mathematical and functional literacy, primary school students are not developing their artistic and cultural literacy, or basic cultural habits important for formation of value-

[20] World bank data on education. NMSEU: Bulgaria, Estonia, Croatia, Czech Republic, Hungary, Lithuania, Latvia, Poland*, Romania*, Slovakia, Slovenia. For this indicator, there is no data for Croatia. All data are for 2015, only * are for 2014.
[21]SORS, 2017.
[22] SORS, 2016.
[23] Eurostat (indicator: Underachievement in reading, maths or science). Data for FRY Macedonia are for 2015, while data for other countries are for 2012 when Serbia last participated in PISA testing.
[24] PISA, 2012.

based views necessary for life and work. Moreover, only two thirds of schools in Serbia have libraries, and work conditions at schools and their level of equipment are not satisfactory.

33. **The education system has not yet adapted to major changes of the 21st century, although the recent expansion of IT curricula is an important step in right direction.** Nevertheless, quality of teaching methods is one of the fundamental problems of general secondary and tertiary education. Teaching is mostly based on ex-cathedra lectures, with no interaction and without training the students in autonomous intellectual work and problem solving, hence the acquired knowledge is mostly reproductive in its character[25]. Examples of schools that have succeeded to adapt curricula to labor market requirements and needs are limited, and progress colud be faster – still too many students are trained in skills that are not employable any more. These old-fashioned curricula do not only fall short on teaching students required set of skills, but also they fail at teaching students how to think. In the current economic environment this is even more pronounced, since the chances for youth to be employed are three times lower, while the quality of jobs for those who are employed often does not meet the criteria of the definition of "decent work".

34. **The quality of education does not fully prepare youth for today's labour market – either as employees or as entrepreneurs.** The unemployment rate affecting young people in the 15-24 age group is very high and totals 47.5%. According to the official Labor force survey in Serbia, 20.8% of those employed are estimated to be engaged on a part-time basis, while as much as 18.8% of youth are over-qualified for the work they perform.

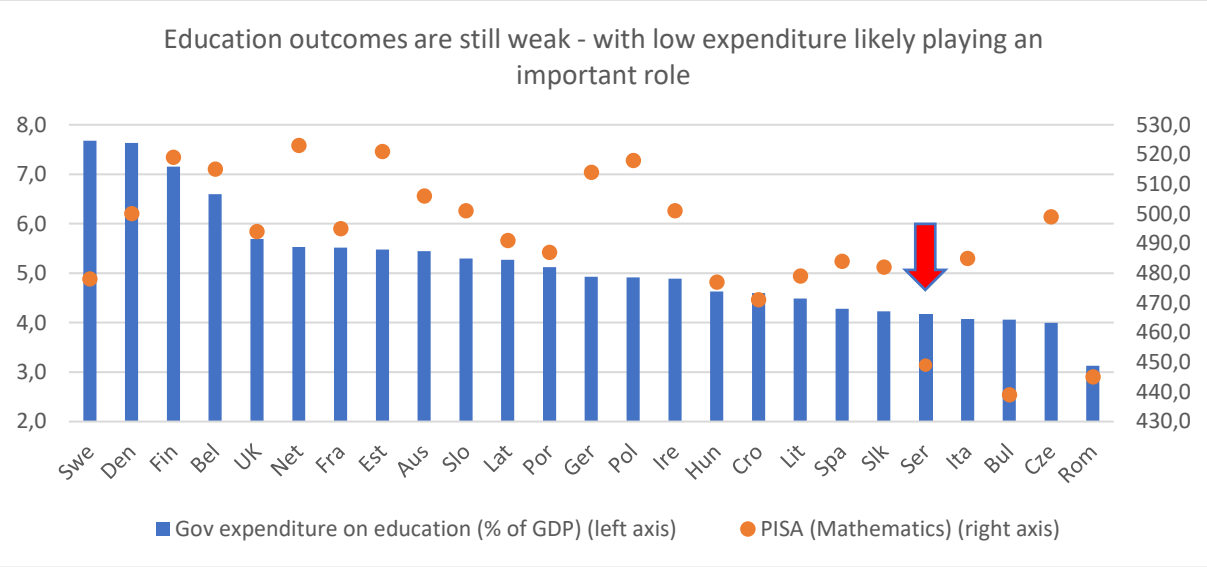
- **The unemployment rate among students who have graduated is around 42% in Serbia, while almost a half of employed youth are informally employed**. To get the first job, graduate students are waiting about one year[26]. Even though government expenditure per student in tertiary education (%, of GDP *per capita*) in Serbia (40%) is almost twice higher than in the new EU member states (20.7%)[27] and the European Union (23%), some higher education institutions are enrolling too many students in order to generate more revenues. Consequentially, these institutions fail to provide sufficient level of quality education[28] as they have larger teaching groups and higher teacher workload. Given the present-day trends on the labour market, it is important for students to acquire practical experiences whilst still studying, and student research work is insufficiently practiced.
- **Those who do not enroll in university schools are running the risk of becoming NEETs** -- **due to the failure to acquire functional knowledge.** Share of youth not in employment, education or training, also known as NEET is remarkably higher in Serbia (18%) than in EU (11.5%) and new EU member countries (11,9%)[29] (SDG Target 8.6). The key question is, then, if the dual education model is a way forward to reduce and eradicate this risk, as the students could acquire competencies which are conducive to more choice following the completion of the secondary school (a choice between further education at higher schools or professional accomplishments on the labour market).

35. **One of the potential reasons for the relatively weak outcomes could be found in the low level of public expenditure for education.** The expenditure on education in Serbia remains insufitient, at around 4.2% of GDP, compared to the EU average (5.2% of GDP) and NEUMS average (4.6% of GDP).

[25] Strategy on education development in Serbia, until 2020.
[26] FREN. Retrieved from: https://www.fren.org.rs/node/620
[27] WB data on education. All data for 2012, only for Croatia 2013.
[28] Strategy on education development (p. 107)
[29] World bank data

In addition to better funding, great strides should be made in redesigning and modernizing school curricula according to labor-market needs, as thoroughly elaborated above.

Graph 7. Expenditure on education and outcomes (PISA mathematics)



Source: UNDP, World Bank, SORS

Finally, since one of the fundamental principles is that education should be equally accessible to all (SDG Target 4.3 and SDG Target 4.5), Serbia needs to tackle differences of school attendance among poor and better-off students. According to MICS data (2014),[30] 100% of children from the most affluent quintile are attending preparatory pre-school institutions, as opposed to 94.7% of children from the poorest quintile of the population. Moreover, this percentage is even lower for Roma children and totals about 63%. These groups are also the most at risk from dropping out of primary schools, but also regarding their transition to secondary school. Whilst the network of secondary schools is well developed, inequitable distribution of these schools reinforces inequality, i.e. inequitable access to education for young people from all municipalities. Only 74% of children from the poorest quintile and 21,6% of Roma are attending secondary education, while Early school leaving ratio amounts to 27.8% for children from the poorest quintile in contrast to 0,9% for children from the wealthiest quintile[31].

I.4. Health

36. **Serbian citizens' health is poorer than expected given the level of social-economic development, funding and a strong legacy in the development of the system and expertise.** Life expectancy is improving but not keeping pace with comparable countries[32], and mortality rates that could be prevented are high. The lack of strategic policies, including blurred division between the public and private sector's roles and extremely high 'out-of-pocket' payments by citizens altogether point to deep problems in the set up and management of the system.

[30] UNICEF (2015), The analysis of Multiple Indicator Cluster Survey data. *Education in Serbia in light of MICS data*.
[31] Ibid.
[32] We compare Serbia's performance against a set of European countries including all EU28 and EFTA ,all Western Balkan countries, Turkey and Armenia. CEVES (2017), *What Is Our Health Like? System of Indicators for Social Dialogue on Health and Health Care System of Serbia*, Belgrade

37. **Clearly, the expectations for Serbia's SDG 3 nationalized goals should be set against European standards, rather than the minimum set in** SDG 3 (Good Health and Well Being). The health of a society clearly and measurably reflects not only its health care situation, but also its general economic and social welfare. Among key indicators of overall health attainment, the most comprehensive and one of the most telling indicators of the general health status of a country's population is the **life-expectancy indicator.** According to WHO estimates, the life expectancy at birth indicator in Serbia in 2015 was 75.6 years and was shorter than that of any EU member state or other former Yugoslav republic, with the exception of Romania, Bulgaria, Latvia and Lithuania.[xi] Of particular concern are maternal mortality rates (SDG Target 3.1) due to complications in pregnancy, delivery, and puerperal infections per 100,000 live births—17 deaths, according to WHO estimates. Among comparator countries, only Latvia, Armenia and Romania are poorer performers than Serbia against this indicator. Somewhat better but still surprisingly poor is the performance regarding mortality of children under 5 years of age (SDG Target 3.2), where Serbia fares worse than any former Yugoslav republics, but still better than the countries like Slovakia, Latvia, Bulgaria, Romania, Turkey and Armenia.

38. **Serbia's health care system has performed well with regard to infectious diseases, but there are signs of recent deterioration.** The health care system inherited from the previous times was coping well with infectious diseases, and, despite some signs of recent deterioration of performance, there has been a years-long decline in the incidence of HIV or TBC (SDG Target 3.3). However, a reduction in numbers of children vaccinated against diphtheria, tetanus and whooping cough [pertussis] (DPT), and against varicella is an adverse trend. Serbia ranks at the bottom of the list of comparable countries with 93% and 86%, coverage, respectively, for children up to 1 year of age. There is also a recent increase in the rates of late-diagnosed HIV incidence within new diagnosed cases of AIDS.

39. **On the other hand, the system has not commensurately developed systems and programs of prevention of non-communicable diseases**. Cancer, diabetes and heart diseases mortality rates are high, even for diseases where prevention is quite effective and available (SDG Target 3.4). In particular, the mortality of women suffering from breast and cervical cancer is remarkably high, making Serbia, respectively, the third worst (8 women per 100,000, which is twice the EU28 average) and the worst (29 women per 100,000, in contrast to 22 on average in EU28) performer among EU member countries and former Yugoslav republics. There is also a rising traffic accident incidence trend (SDG Target 3.6) and recent increase in death toll.[33] Road accidents are among the top ten biggest factors for years of life lost (YLL) with Serbia recording 476 years of life lost compared with an average for former Yugoslav republics (345 YLL) or EU28 average (318YLL).[34]

40. **Investment in the reduction of health risk factors has proven to give noticeable results and this is an area where Serbia too has been improving but could do more.** In comparison to former Yugoslav republics, Serbia fares well with regard to the risks of alcohol consumption, high blood pressure or percentage of obese persons, but the percentages of active smokers in the general population (42.1%) and physically inactive population (39%), respectively, are extremely high.[35] Also, 'out of the total number of inspected public water supply systems in urban settlements in the Republic of Serbia in 2015, 27, or 17.4%, of water supply systems failed to meet both physical-chemical and microbiological requirements whereas only 91, or 58.7 %, passed the test. A decline in Sulphur dioxide air pollution, when compared to the previous year's results, was recorded in Belgrade, Bor, Smederevo

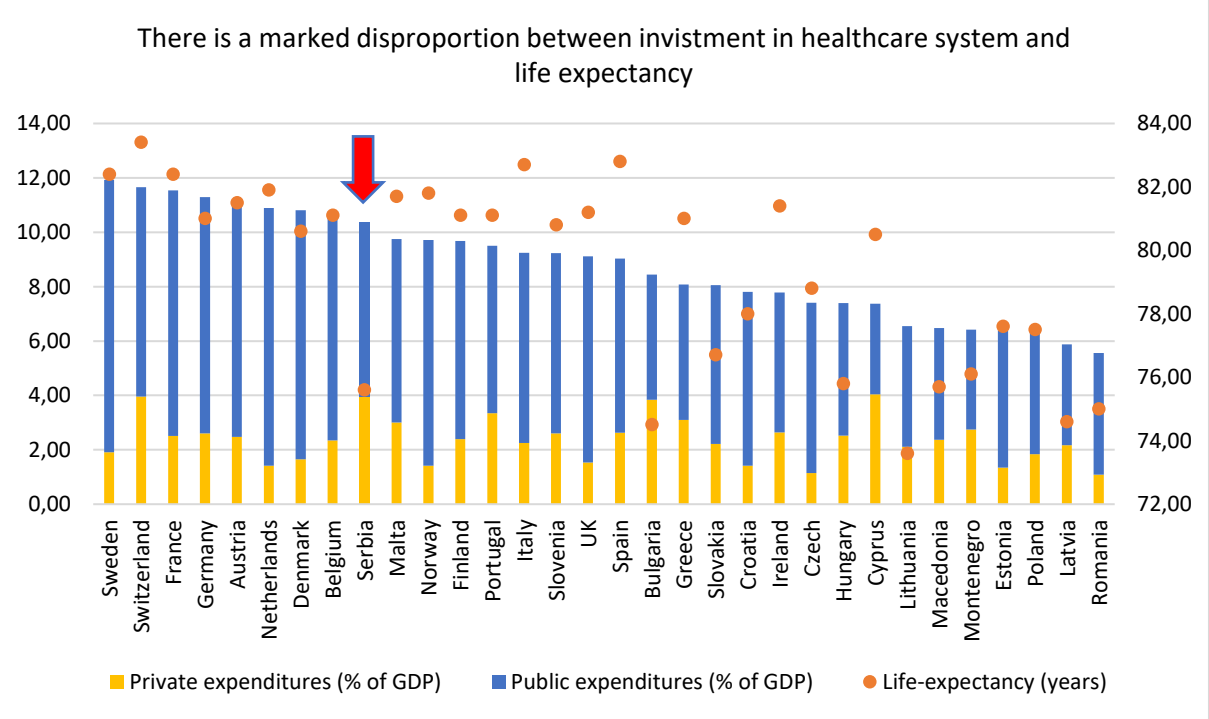
[33] Road Traffic Safety Agency (2017), *Statistical Report about Road Traffic Safety in Republic of Serbia in 2016*, Belgrade
[34] CEVES (2017), *What Is Our Health Like? System of Indicators for Social Dialogue on Health and Health Care System of Serbia*, Belgrade
[35] Ibid.

and Kraljevo, whereas the measured values were higher in Valjevo, Kikinda, Kruševac, Ćuprija and Jagodina (SDG Target 3.9).' [36]

41. **Access to health protection in Serbia is unequal, and this is probably largely connected to a health care funding structure that significantly relies on out-of-pocket payments, and also some gaps in *de facto* insurance coverage (SDG Target 3.8).** Serbia's citizens report one of the highest incidences of medical needs not being met (7.6%)[37], as well as a wide gap therein between citizens with the highest and the lowest incomes. This is probably more connected to high out-of-pocket payments as the private sector operates as an *ad hoc* solution in circumstances when the public sector is unable to meet presumably guaranteed (as well as not covered) health care needs. The matter should be further studied, but according to the same survey instrument, it appears that other factors, such as lack of physical access do not play a large role. Also, the current system of health protection, although based on the principle of universality and solidarity, leaves a non-negligible number of citizens uninsured. The number without health care insurance cards. (On the 31st of December 2016, the number of registered insured citizens was 6,860,667, and the population size estimate on the 1st of June 2016 was 7,040,272).

42. **The fact that the results are not commensurate with investments in the system is illustrated by the data showing that the GDP share designated for health care spending (10.4%) is on a par with the richest and most developed countries, and (considerably) higher than in other former Yugoslav republics, yet the outcomes fall short of expectations (graph 7).** This is particularly due to the unduly large 'out-of-pocket' payments--the largest GDP share of such payments in Europe (about 4p.p.) while the GDP share of public funding is on a par with comparable countries (about 6p.p.).

Graph 8. Health expenditures (private & public, %GDP) and outcomes



Source: WHO, Batut institute

[36] Republic Secretariat for Public Policies (2017), *Serbia and Agenda 2030, Mapping the National Strategic Framework vis-a-vis the Sustainable Development Goals.* Government of Republic of Serbia

[37] SILC.

43. **Rules according to which the state/public and private sectors would operate separately from each other but would also complement each other and act in synergy are not clearly defined or implemented.** There is little evidence of systematic prioritization in the use of resources in the public sector, and their allocation fails to take into account the development of the private sector. Limited public funds are thinly spread to maintain an oversized system so that its parts overall achieve less than they could, if adequate investments were made in accomplishing a smaller number of priority goals.[38]

I.5. Vulnerable groups

44. In the previous chapters, the vulnerability of young, rural and elderly population has already been discussed. There are a few more groups of population with particularly complex human development challenges: women, persons with disabilities, internally displaced persons and Roma. These challenges need to be particularly addressed to ensure no one is left behind.

45. **Gender equality, SDG 5 (Gender Equality), has been established by law, but inequality persist in employment, earnings, executive power as well as in the perception of the role of women in the Serbian society.** Not only are men more likely to be in employment (see section I.1.2.), but there is a more striking gap between men's and women's earnings. In jobs with the same characteristics (education, work experience, profession, industry sector, etc.) women earn about 11% less than men.[39] (SDG Target 10.2) In other words, women in Serbia practically work for free as of the 23rd of November onwards (SDG Target 5.1) (SDG Target 8.5).[40]

46. **Women's organizations are strong and numerous, and they were successful in advocating regulations that increased number of women in the legislative branch of power (SDG Target 5.5)**. Number of women in Parliament increased from 12.4% in 2000 to 33% in 2014. On the other hand, women are still rarely seen on executive authorities' posts – for example, only 5% of mayors/mayoress and presidents of municipalities are women. The perception of women in Serbian society is still frequently one in the role of future mothers. Particularly worrying form of women's human rights violations is violence against women (SDG Target 5.2). "The data show that every other woman in the Republic of Serbia has experienced some form of physical violence (46.1%), and every third – a physical assault by some family member (30.6%)."[41]

47. **The principles of gender equality in Serbia are quite strongly upheld by the law.** The Government has adopted Gender Equality National Strategy, and in addition the process of introducing a principle of gender-responsive budgeting into the budgeting process is currently underway (SDG Target 5.c). Also, Serbia was the first country outside the European Union which introduced Gender Equality Index.[42]

48. **Persons with disabilities.** It is estimated that slightly more than 8% of the population in Serbia have some form of disability[43], whereas a disability affects a third of those in the 65+ age group. However, there is no single set of records offering data on the basis of which obstacles can be identified

[38] CEVES (2017), What Is Our Health Like? System of Indicators for Social Dialogue on Health and Health Care System of Serbia, Belgrade

[39] Jandrić, M. i Molnar, D. (2017), *Quality of employment and the labor market in Serbia*. Friedrich-Ebert-Stiftung, Belgrade.

[40] Available from: https://www.expertmarket.co.uk/focus/gender-pay-gap-in-europe ,[6 Feb2018]

[41] Government of the Republic of Serbia, (2015), *National Strategy for Gender Equality (2016-2020) and the accompanying Activity Plan (2016-2018).* Official Gazette of the Republic of Serbia, 2016-01-14, 05 No: 56-14173/2015

[42] Social Inclusion and Poverty Reduction Unit (2015), Gender Equality Index for Serbia, Government of Republic of Serbia

[43] Milan M. Marković, 'Persons with Disabilities in Serbia' (Osobe sa invaliditetom u Srbiji), RZS.

and public policies are defined.[xii][44] And yet, in its latest report on human development, UNDP highlights Serbia as a country which has succeeded in taking positive steps in the inclusion process by way of adopting and implementing pertinent legal regulations. The Government of the Republic of Serbia passed the *Professional Rehabilitation and Employment of Persons with Disabilities Act* in 2009. This piece of legislation has established a quota-based employment system obliging companies[45] to employ at least one person with disability and additionally one person with disability per every 50 new employees, and its effects should now be studied. (SDG Target 8.5) (SDG Target 10.2)

49. **Internally Displaced Persons (IDPs).** In the aftermath of the 1990s, about 203,000 IDPs from Kosovo and Metohija, which is about 2.9% of the population, sought refuge in Serbia.[46] Particularly vulnerable IDPs are those belonging to the community of Roma, Ashkali and Egyptians, estimated at about 22,000. With the assistance of EU, UN and other international oranization, the state has developed mechanisms for provision of all types of support to IDPs. Continuous monitoring of needs at the central and local levels, designation of budget funds and revising of the national strategy[47] highlight a commitment to the improvement of housing conditions for IDPs.[48] Solutions for IDP Roma from Kosovo and Metohija, who are mostly not inclined to return, are implemented through programmes for improvement of IDPs living conditions.[49] These funds, for example, have made it possible to close down three collective tenant settlements where mostly IDP Roma were living.[50] Changes to the state legal framework have facilitated the access to ID documents, and persons without personal ID documents (SDG target 16.9) dropped significantly (2010: 6.8%, 2015: 3.9%).[51]

50. **The Roma remain side-lined in social life as the least educated and the poorest social group, often living in unsanitary settlements, and facing discrimination in many spheres of social life.**[52] The Roma (about 2% of total population) include native population, refugees or internally displaced persons, as well as returnees from western countries. On average, the Roma population is poorer, but also facing multiple deprivations in the domain of living conditions health care, education, and labour market positioning.[53] According to UNHCR data, about 80,000 Roma are still living in around 600 informal settlements of more than a hundred residents each. Every third settlement has no water supply and electricity, and 40% have no access to sewerage.[54] Difficult housing conditions are closely related to Roma's health -- the Roma infant mortality is twice as high and life expectancy is 12 years below the average. In terms of education, only 85% of Roma children are regularly attending primary schools, whereas only 22% are attending secondary schools.[55] (SDG Target 11.1)

51. Economic empowerment of the Roma is the most efficient through inclusion in the formal labour market yet. Participation of the Roma is below par with regard to the average in the country,

[44] NOOIS. (2015). *Alternative Report on Implementation of the Convention on the Rights of Persons with Disabilities in the Republic of Serbia.*
[45] Number of employees: 20-50.
[46] Commissariat for Refugees. (2017). *Situation and Needs of Internally Displaced Persons*.
[47] Government of the Republic of Serbia. *National Strategy for Resolving the Issue of Refugees and Internally Displaced Persons*. (2015-2020).
[48] Commissariat for Refugees. (2017). *Situation and Needs of Internally Displaced Persons.*
[49] Cvejić, S. (2014). *Needs Assessment for IDP Roma in Serbia.*
[50] Commissariat for Refugees. (2017). *Situation and Needs of Internally Displaced Persons.*
[51] Cvejić, S. (2016). *Persons at Risk of Statelessness in Serbia*.
[52] OSCE. (2009). *The State of the Roma Political Community in Serbia*.
[53] Human Development Sector Unit. (2010). Roma Inclusion: *An Economic Opportunity for Bulgaria, Czech Republic, Romania and Serbia.*
[54] Report on Human Rights in Serbia, (2016).
[55] SORS.

with their unemployment rate of Roma[56] reaches almost 50%. Among those unemployed, most Roma have no qualifications (88%).[57] (SDG Target 8.8) (SDG Target 10.2)

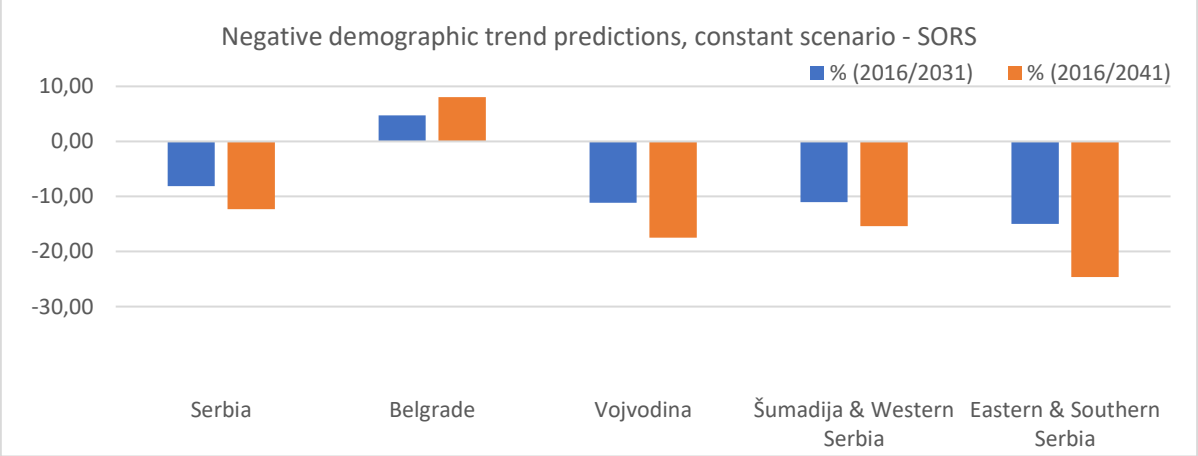
52. **Serbia has made some progress in previous period, especially in the field of education and the use of health services. An important role was played by the activation of Roma mediators.** Formal education is a key determinant for inclusion in the formal labour market. So, it is important to notice that progress has been made in terms of a higher primary schooling completion rate (an increase of 29 p.p. in 2014/10), as well as in terms of net secondary school attendance rate (an increase of 2.3 p.p. in 2014/10). In addition, the literacy rates of young women of Roma women, who are particularly vulnerable, have increased and are now 80.1% (2016).[58]

53. The inclusion of Roma in the years ahead will take place according to the strategy *2016-2025 Roma Inclusion Strategy* which covers five priority areas: education, housing, employment, health care and social protection has been adopted[59]. (SDG Target 11.1) In order to achieve the goals of equal opportunities for all categories of population, as well as the absence of any discrimination, it is important to conduct systematic and continuous monitoring in the period ahead.

I.6. Trends in Demographics

54. **Although not explicitly covered by SDGs, very particular and worrisome HD problem for Serbia is strong negative population growth. According to SORS projections, population of Serbia is likely to decrease by 8% by 2031th and 12% by 2041th – and substantially more in the region of Southern and Eastern Serbia (decrease of 15% and 24.6% by 2031 and 2041 respectively) (graph 9).** Study conducted by Fiscal Council in 2013 on population trends, shows that Serbia's population is likely to decrease by 10% to 15% by 2030th, depending on different expectations on mortality, fertility and migration rates. Constant scenario (same rates as in previous years) indicates that Serbia's population will shrink by 1 million citizens (14.5%) by 2030th. Even a significant increase in fertility rate (more than 2 children per woman, compared to current rate of 1.4-1.6) will not prevent a likely contraction in the size of the total population – such scenario would halve population decrease, to 500k.

Graph 9. Demographic trend in Serbia, % changes for 2016-2031 and 2016-2041



Source: SORS

[56] Age groups: 15-64.
[57] Regional Cooperation Council (2016), Roma Integration 2020
[58] Ibid.
[59] Report on Human Rights in Serbia, (2016).

55. **Serbia is among the nine European countries, together with Bulgaria, Croatia, Latvia, Lithuania, Poland, Moldova, Romania, and Ukraine, where population is expected to decrease by over 15% by 2050, as shown by the United Nations report "Perspectives for World Population: Review 2017".** According to the report, the population numbers will generally decrease across Europe, and the trend will not be overturned by the expected increase in migration. However, one of the many fundamental questions that a society-wide SDG dialogue needs to answer is, indeed, if as a society Serbia can afford to lose population at the current rate for such a long time, and what can be done about it. Certainly, this issue too requires the development of an elaborate model, and in-depth research and discussion.

56. Negative demographic trends and the aging society will have an influence on key dimensions of human development, already discussed in this chapter – labour force, pension systems, education and health sectors, and vulnerable groups. However, of greatest concern is the sustainability of the pension system which becomes unsustainable even at half the current replacement rates.[xiii]

II. Prosperity on Green Corner of the Planet: Assets and Challenges

57. As has been argued in the previous chapter, there is little doubt that the SDG accelerators for Serbia have to principally be sought in the accelerators of quality growth and decent employment (SDG 8) and the interplay of this goal with most other goals, mainly SDG 9 (Industry, innovation, infrastructure), SDG 4 (Quality Education), and SDG 16 (Peace, justice and strong institutions) as most of the specific targets under the goals that deal with sustainable use of natural resources and sustainable production: SDG 6 (water and related ecosystems), SDG 7 (Affordable and Clean Energy), SDG 12 (Responsible Consumption and Production), and SDG 15 (Life On Land). Climate action and sustainable communities are more a matter of complementary and multifaceted policy action, and are treated under a separate heading, as Chapter IV.

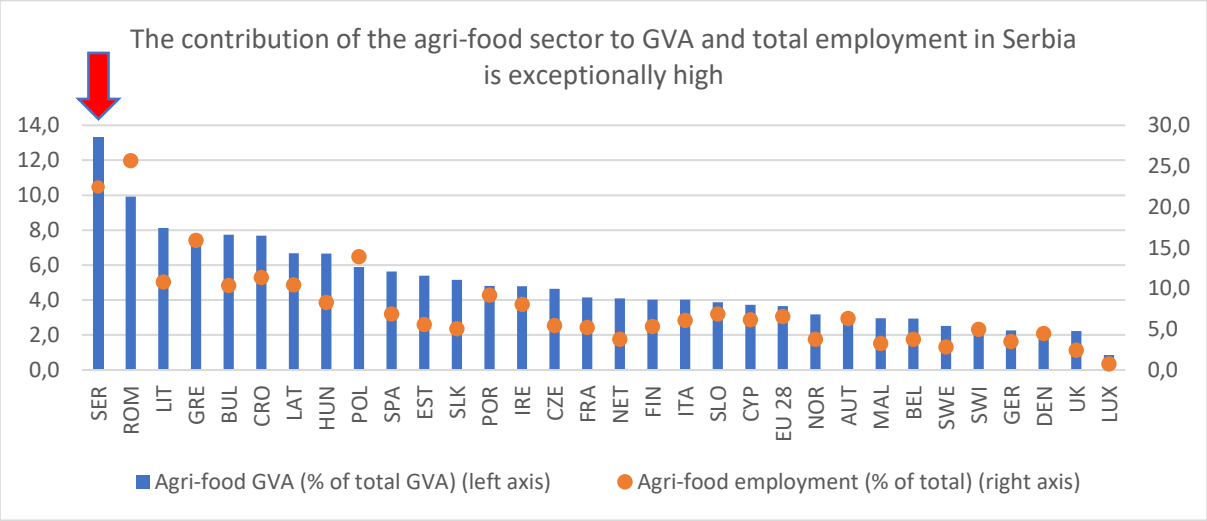
58. In order to help focus the future search for such accelerators, in this chapter we focus on the assets that Serbia can count on promoting such growth, as well as the obstacles and challenges that it needs to overcome. These literally refer to the economic structures that the acceleration of quality growth can rely on or need to be developed for it, as manifested by existing economic activity and the resources it is based on: natural assets such as agricultural land, tourism and mineral resources, capital and physical and other infrastructure, skills and knowledge (human capital), as well as broader concepts of „resources" such as access to capital and global markets, entrepreneurship and social trust. In discussing the obstacles and challenges, in this chapter we focus on resources and structural issues, and how/when institutional issues present an obstacle. We leave the shared issues of institutional lack of capacity for Chapter V. We refer to the other related goals in this context, returning to the environmental ones as and if needed in the next chapter.

II.1. Agricultural Land and the Agri-food System[60]

59. **Large tracts of fertile land, particularly in the Vojvodina region, favorable climate conditions, favorable trade agreements and above all a long tradition of agricultural competitiveness and deep linkages of Serbia's population (both rural and urban) to land, put the agri-food system as much into the context of quality economic growth (SDG 8) as within the issues treated by SDG 2**. The agrifood system has a two-prong potential, reflecting the strong duality currently present in the system. One is to contribute to the substantial acceleration of economic growth (SDG Target 8.1 and SDG Target 8.2) through the further intensification and modernization of significant segments of agriculture and agribusiness (SDG Target 9.2 and SDG Target 9.3), while paying attention to at the outset mainstreaming greater sustainable production and consumption practices (SDG 12). The other is to substantially contribute to quality employment growth, and poverty reduction by increasing the productivity of small-scale food producers (SDG Target 2.3), and possibly additionally contributing to this target and the income-generating power of small-scale producers by promoting sustainable, including organic, production practices (SDG Target 2.4). Access to land in Serbia is very broad, and while poverty is higher in rural areas, hunger and malnutrition are less a result of agricultural characteristics than operation of social safety nets and the health system, under which we treat them[61]. In fact, it is the fragmentation and underutilization of land, and the fragmentation of processing, accompanied by the low density and small size of market intermediators, that present the largest challenges to the growth of the sector.

60. **The agrifood sector is more important to Serbia's economy than in any other European country, and in terms of net export value, Serbia is ranked 9th (out of 36 countries and 13 net food exporters in total) in Europe.** Agriculture and food processing contribute 13.3% of GVA and represents the most important sector in Serbia's economy in terms of value added. In addition, it formally employs 120k, and over 600k in total (formally and informally), a quarter of the total employed[62] (graph 10).

Graph 10. Share of agri-food sector in GVA and total employment



Source: Eurostat, SORS

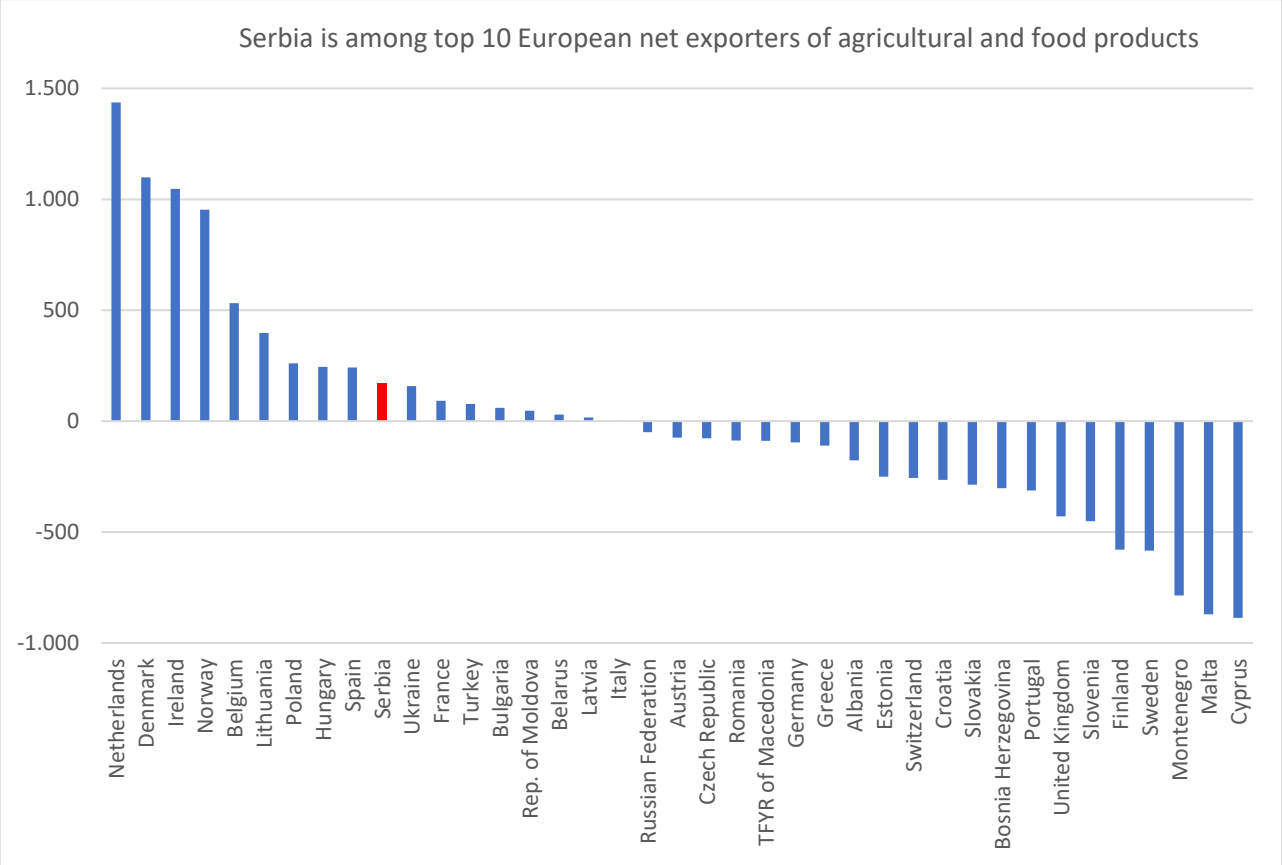
[60] By agri-food system we denote the entire value chain of production starting from raw agriculture, agribusiness (processing) and the trade intermediation that connects the segments of this chain as well as distribution systems that bring the outputs to their ultimate consumers.

[61] To illustrate, hunger was not broad spread even during the displacement, including a hyperinflation and trade embargo of the 1990s.

[62] SORS, LFS.

61. Serbia has been a net exporter of food for many years. It exports primary agricultural products, processed food, beverages and tobacco products (graph 11). These together account for 16 percent of total exports of goods in 2017, and have shown a tendency of strong competitiveness in recent years, expanding by 1.325 million euros since 2009, 70% of which was due to expanding market share in more than 60 countries (960 million euros, 45% of which was due to new market share, excluding tobacco products). However, around two-thirds of this expansion has come from just five low value-added agricultural products: corn, raspberries, apples and animal food.

Graph 11. Net export of agricultural and food products per capita (in euros)



Source: CEVES' calculations on SBRA data

62. **This large role reflects both a relatively large endowment and potential, and the incomplete urbanization and modernization of the country.** Compared to the EU 28 average, Serbia has 37% more of cultivated land per capita and almost three to four times more than needed for the population's food security. However, still 40% of Serbia's population live in rural areas, and agrifood contributes 20/30% of rural households' total incomes[63]. Subsistence agriculture provide significant surpluses, that are placed on market through green markets and still strong, usually family, channels and links between cities and rural areas. A significant amount of agricultural products is still used for natural consumption and informal trade (for milk 30-35%, for meat 40% -50%, even higher for certain fruit varieties).

[63] SORS. (depending on region, including subsistence farming).

63. **However, on average, the agrifood sector has considerable scope for increased and increasing the value it adds to Serbia's total production. The average yields per ha of cultivated land are low (on average 37% lower than EU yields), and the assortment of products is relatively low-value, and/or with low value added down the value chain.** Low value (added) is a consequence of short value chains. On the one hand, significant amount of agricultural raw materials, as already explained, is still used for natural consumption, while a significant part of raw materials - especially cereals and oilseeds – is exported (exports of agricultural raw materials reached almost EUR 1 billion). On the other, the remaining raw materials are mostly only slightly processed - frozen raspberry, sugar, soya and sunflower oil, and flour are Serbia's key exporting food products. Serbia could increase VA by lengthening value chains through creation of final and retail-ready products – instead selling it as intermediate or even raw products. For example, Serbian firms usually export raspberry in a bulk (10-20 kg), and could sell it in a smaller packages, "ready to eat", mixed with other fruits. Serbia is also one of the largest producers of soybeans in Europe – still, Serbia does not export soya sauce, soya milk, or tofu. In addition to low yields and short value chains, productivity is relatively low across the existing chain, with the processing segment marked by low labor productivity. This, of course, is compensated through lower labor and energy costs.

64. **The average figures presented above reflect in fact a strong duality in the agri-food sector.** The productivity of the largest and most technologically advanced companies in Serbia is not far from that in the EU, while a sizeable share of total production is produced by households for whom agricultural production is a marginal, complementary income, or by subsistence farmers. SMEs dominate the processing of the most important agri sectors, in terms of value added – bakery products, fruit and vegetable processing, even a significant part of meat industry.

65. **The modern agrifood sector is rooted in large or medium-sized farms ranging between couple hundred to even 30.000 ha in size, producing and processing industrial cultures (sunflower, soya, sugar), extensive corn, and milk. Most of it is in Vojvodina**, a flatland with 1.83 mil ha of arable land (by comparison, the Netherlands has around 1.1 mil ha) whose soil and moderate continental climate offer ideal conditions for both large-scale and intensive agriculture, throughout a wide range of products. Yields are 50% higher in Vojvodina, with large commercial farms and modern facilities present. The average productivity of the 50 largest companies in the food and drink industry sector in 2015 was EUR 30,000 per worker, with companies in concentrated sub-sectors reaching over EUR 70,000.

66. **The traditional smallholder farm tends to be extremely fragmented, producing fruit and subsistence meat and dairy, and tend to be located south of the Sava river.** The average farm size for the entire country is 6 ha (which is above 10 ha per farm in Vojvodina and less than 5 hectares in other regions), and further fragmented in smaller non-contiguous land plots. This agricultural environment has given rise to an also fragmented SME processing sector mostly located south of the Sava river, with 2.03 mil ha of arable land mostly on hilly terrain – but 11% of that arable land lies unused (out of which 80% south of Vojvodina). This land is appropriate mainly for fruit production, intensive cattle herding, and extensive cattle herding on mountainous terrain. Labor productivity in processing in this segment is below EUR 7,500 per worker. Smallholding is the least an obstacle in the production of fruit. The well-known exports of raspberries are an example of how traditional and marginal land cultivation on very small land plots can be turned into a strength – raspberry is produced by 80.000 households on average plot size of only 0.2 ha.

67. **The issue of land fragmentation and obstacles to consolidation is probably the single most important obstacle to raising transforming Serbia's agri-food potential into the income earner that**

it could be. We think that the issue of availability of agricultural land runs much deeper than what statistics of the average farm size show: (a) small or large agricultural land is further divided into 5-6 smaller agricultural plots in average; (b) state-owned land, and especially that under the disposal of large public utilities (electric, water and forest management) is sub-optimally used.

68. **A trade intermediation network capable of effectively integrating this fragmented structure has not developed yet, or is only gradually developing.** More substantial increases in value added are not possible without a clear switch from a producer driven to a demand/market driven system of production. This requires the existence of large wholesalers/distributors with strong expertise in developing and managing markets, as well as the ability to set standards for producers. Although Serbia is a top raspberry producer and exporter, bargaining power and visibility of firms-exporters is remarkably low, due to the high fragmentation of export. More than 200 firms export frozen raspberry – being competition one to another – while none of the firms has export share higher than 9%. Example of a firm that has established partnership with 600 households and exports organic dried plum to Netherlands is an exception – however, according to key informants, potential for scaling-up is high. Yet, without more effective channels of product collection from producers, and its distribution to markets, it is hard to imagine the sustainability of small-scale farmers and transformation of Serbia's agribusiness from a supply-driven to a demand-driven industry. It is even harder to imagine the proactive positioning in international markets.

69. While the creation of sustainable food production systems (SDG Target 2.4) is not really an issue for Serbia, **raising the productivity and ensuring the sustainability of its small holder farms is of great importance, both to poverty reduction and halting significant pockets of depopulation (SDG Target 1.2 and SDG Target 2.3)**. Also of great importance and potential to improve livelihoods and productivity the scope to improve the farmers capability to adapt to extreme weather condition (SDG Target 2.4) – such as floods, droughts, and hail, that have constant impact on variability and uncertainty of food production in Serbia (in 2012, drought decreased agriculture's GVA by 18%).[xiv]

70. **Organic, or at least natural, farming of land, is also a green way to substantially increase the value of Serbia's agri-food industry, and its developmental potential needs to be studied further.** It is likely that it would increase the environmental sustainability of agriculture and reduce chemical pollution of water. Most importantly, it may be a way to increase the economic sustainability of cultivation on Serbia's very small farms. Also, while the use of GMO seeds and products is regulated to facilitate a very belated membership in the WTO, Serbia's non-GMO food tradition and capacity needs to be harnessed for increased export value-added: this primarily refers to cereal- and oil-based products - fodder, soybean oil or other segments of the mill and confectionery industry.

II.2. Natural Resources, Tourism and Rural Development

70**. Better management of Serbia's natural resources, followed by more policy focus and coordination, could go a long way in fostering growth and making it sustainable.** Primarily through sustainable tourism and rural development, utilization of these resources could help increase incomes of its poorest citizens (SDG 1) and reverse Serbia's rural decline and depopulation, hence reducing regional inequalities (SDG 10) -- especially bearing in mind that Eastern and Southern Serbia, the least developed regions of the country, are rich in natural resources such as geothermal waters, minerals, and biodiversity (SDG Target 8.9). In addition, it would help to empower disadvantaged groups, particularly young people and women (SDG 8). At the same time, with responsible management of natural resources, Serbia could improve the environmental quality and sustainability of both its water

(SDG 6) and terrestrial (SDG 15) ecosystems (primarily forests and mountains). Also, it would help to preserve cultural and historical heritage (SDG Target 8.9), including promotion of local products and crafts. (SDG Target 11.4)

71. **Overall, Serbia is moderately rich in non-mineral natural resources, but management of these resources is neither sustainable nor value maximizing.** In particular, Serbia has a moderately large and relatively low-quality forest cover, plentiful water resources (although 92% comes from external flows[64], making this resource vulnerable), and quite rich geothermal resources[65], but only 6,8% of its territory is under protection (Slovenia has 53,6%, Croatia 37,7%, Macedonia 9,7%, Montenegro 4,1%, B&H 1,3%)[66]. There are 474 protected areas in Serbia: 5 national parks, 17 nature parks, 16 landscapes, 69 reserves, 325 nature monuments and 39 areas of cultural and historic importance. In addition to relatively small number of protected areas and species[67], the problem is that majority of Serbia's natural resources are managed by public enterprises[68], which seem not to deploy sustainability as one of their major objectives. On the other hand, many of Serbia's spas have been privatized in recent years, but their privatization was haphazard, without clear framework and often to owners who did not have capital and access to global markets that would convert these spas to high-end tourist destinations.

Box 1. Wood used for heating

Around 59% of households in Serbia use solid fuel--either wood or coal--for heating their individual households. The use of wood for heating contributes over one half of our estimated renewable energy production (discussed in II.4.2 below). This affects household air quality and it has a negative health impact that needs to be studied further. (SDG Target 7.1) This deep structure cannot be changed over the short term, but longer-term solutions need to be designed. Both private and public forest management should be adapted to ensure wood biomass is a proper renewable energy source, i.e. that it renews itself faster than it is consumed. Consideration should also be given to dedicating some forest areas and environmentally degraded land that is currently out of use, to the production of biomass for renewable energy production.

72. **Forests are the best example of suboptimal management and utilization**. Serbia has around 29% of its area covered by forests. i.e. around 3.100m^2 of forested area per capita, which makes it a moderately forested country. It has less forested area per capita than EU28 on average (3.500m^2), but more than Italy and Denmark (1.800 and 1.000 m^2 respectively) - two countries which manage to generate substantial value from its forests, through wooden furniture. However, inadequate afforestation (lower by as much as 80% than in 2007)[69], unsustainable and insufficiently efficient woodcutting[xv], as well as relatively low value adding wood processing activities[xvi] undermine the forest and wood potential of Serbia. Sustainable forest management is primarily hampered by poor forest infrastructure and inadequate forest mechanization, but there is also a need o improve know-how and awareness of the importance of sustainability. Lack of consistent and timely data is a general problem in Serbia, but when it comes to forests – it is very urgent tht it be dealt with. At the moment, there is no cadaster of private forests, data on forested areas are obsolete and the annual wood production is underestimated[xvii], while data on wood sold from public forests are not transparent and the ones from private forests non-existent.

[64] Eurostat, Freshwater resources — long-term annual average (billion m³)
[65] Milivojevic M. and Martinovic M. (2003), *Utilization of geothermal energy in Serbia*
[66] World Bank (2014) - Terrestrial protected areas (% of total land area)
[67] Indicator on natural resources, The Travel and Tourism Competitiveness Index (2016); more on this later in the text.
[68] National parks by ones in republic ownership, while management of other protected areas vary: some are managed by republic enterprises (e.g. "Srbijasume"), some by local enterprises or institutions, some by faculties (e.g. Forestry faculty), and some by private companies.
[69] Ministry of Agriculture (2017), *Economic potential and activities of importance for environment of the Republic of Serbia*

73. **Apart from the economic value that can be created from forests, forests are essential for numerous other aspects – climate, biodiversity, biomass, air, tourism, health, etc.** For example, biomass from forests is one of the main renewable energy sources in Serbia (Box 1), while some forests are the most important assets of certain tourist destinations (e.g. protected areas such as national parks or reserves). Therefore, taking care of forests is not only important for implementation of SDG Target 15.1. and SDG Target 15.2, but also the ones not directly linked to forests, such as SDG Target 7.2 and SDG Target 8.9.

74. **Tourism is one of the fastest growing sectors in Serbia[70], which confirms its solid potential and opens up new opportunities for this sector and wider (especially for rural development), but also poses certain threats.** Trebling the share of employment in tourism industries, reaching average shares in comparable countries in the region[71] would add as much as 55.000 formal jobs in a coming decade, compared to the current 29.000.[72] A new Tourism Development Strategy (2016-2025) states that particular progress was made in the following tourism types: city breaks (Belgrade and Novi Sad), festival tourism (Guca, EXIT, Mokra Gora, Drina regatta, etc.), and mountain tourism (Kopaonik, Zlatibor and Stara planina). On the other hand, no progress or significant investments were made in the fields of health&wellness tourism in spas. More focus should be put on that in future, but a special care should be taken to prevent overexploitation of natural resources in an endeavor to push tourism and rural development to their maximum levels – for example, deforestation in case of skiing tourism on which Serbia has put a significant focus so far[73], air pollution caused by hotels and transport industry which are major users of fossil fuels, or disturbed biodiversity[74] due to illegal and excessive hunting and fishing. Tourism-related companies normally have an incentive to combat such negative effects and develop tourist destinations in a sustainable way, but a more systematic approach is needed[xviii].

II.3. Skills[xix] and Technology: Industry and High-Value Services

II.3.1. Factors of Re-industrialization

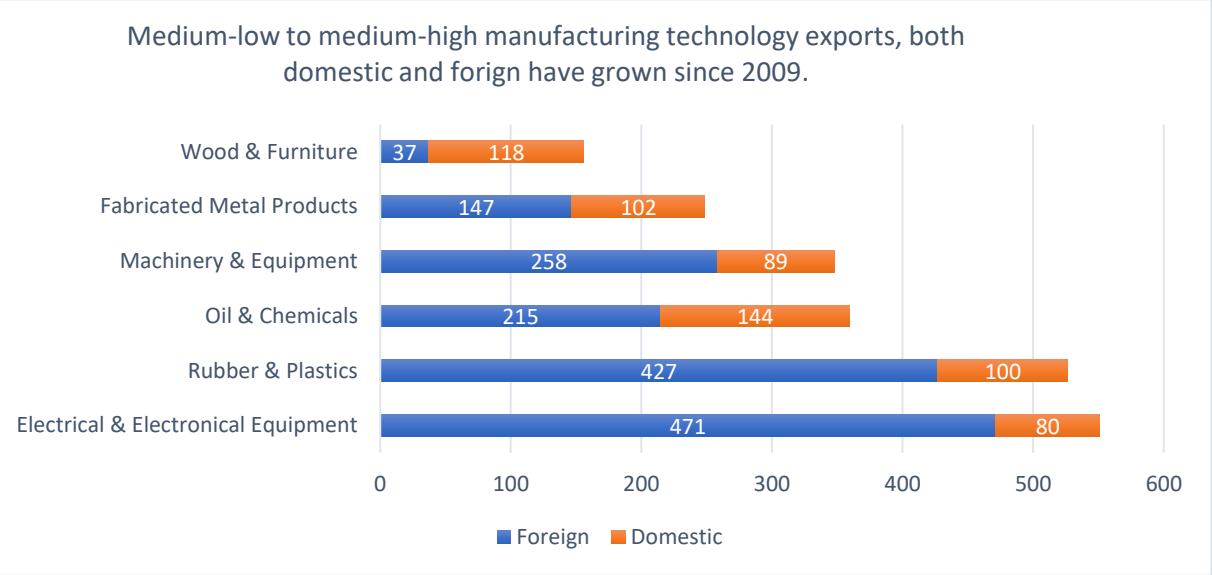
75. **Serbia has engineering/technical skills to underpin the development of a productive, modern, high-income generating industry and high-value services (SDG Target 4.3 and SDG Target 9.2), but faces limitations.** First, their limited density, limitations in the availability of other skills, as well as the largely SME nature of the domestic economy threaten to restrict these industries to a relatively small share of total employment. Whether their expansion is sustained and whether they generate a significant number of decent jobs, critically depends on the effectiveness of Serbia's education and science services as well as the society's/government's capacity to attract quality foreign investment and support the sustained growth of its SMEs. Critical in this regard is greatly improving the business environment (discussed under a separate heading below). (SDG Target 8.3)

76. **Manufacturing exports and output have been growing (graph 12), particularly in the medium-low to medium-high technology range, thanks to the new economy, but employment has lagged.** It may come as a surprise, but after nearly a decade of sustained growth of manufacturing exports, particularly in the range of mid-low to mid-high technologies, Serbia can be said to have „re-

[70] Number of foreign tourists is increasing every year by 10-17%, while the EU 28 average is 4,6% (Source: United Nations World Tourism Organization - UNWTO)
[71] Hungary and Slovakia, since these countries also do not have a seaside.
[72] Statistically, this covers NACE 55 (Acommodation), NACE 56 (Food and beverage services) and NACE 79 (Travel agencies).
[73] The cost-benefit to Serbia of the currently developing ski resorts need to be better understood, but what we know is that they create only seasonal jobs and that they are quite unlikely to become competitive with regional ski destinations.
[74] At the moment, there are 1,760 species under strict and 868 under protected regime.

industrialized". The share of industry in the total economy (26% of GDP at factor prices), is back in line with that of the NMSEU (27%), higher than the EU average (19%), although still somewhat lower in manufacturing (19% v. 21% in the NMSEU and 16% in the EU). Productivity, although substantially lower in manufacturing (13k EUR per employee v. 23k in the NMSEU and 62k in the EU – but higher than 11-12k in Romania and Bulgaria) has also been steadily growing in those industries that have completed the transformation from traditional to new (for example, productivity in rubber and plastic industry increased by 40% in period 2009-2015 and reached 17k EUR per employee). However, total formal employment in manufacturing[75] has declined by 11.5% (from 366k to 324k) in 2009-2015 period as employment was increased mainly by foreign-owned companies, while new SMEs and the traditional economy shed it. Now that the adjustment to the economic crisis is over and export demand in the European market has increased, it is possible that SME employment also picks up.

Graph 12. Export growth of chosen manufacturing sectors (2009-2016, millions of euros)



Source: CEVES' calculations on SBRA data

77. **Serbia's industry and quality of jobs would benefit from improved technologies, but it is highly diversified.** While in general diversification is desirable, the recovery of Serbia's manufacturing has been so diversified that it could be qualified as dispersed. This may possibly present a weakness as there is no evidence so far of the development of industrial clusters of growing, innovative, self-sustaining competitive strength[76].

78. **The low density, i.e. ready availability of a workforce of adequate profiles may limit the expansion of employment,** although productivity and outputs are likely to continue to grow. As export trends in 2017 remain strong, and as the share of traditional industries has dwindled, it is likely that exports/output growth continues and even accelerate over the short and possibly medium term. However, Serbian manufacturing employers state that the biggest obstacle to their expansion is the limited availability of adequately qualified people. They expand by increasing productivity and only gradually through increasing employment, at the speed at which they are able to train the necessary workforce. There is a paradox in this, as they also state that their greatest strength (asset) is a highly skilled workforce.

[75] The figures for industry are without construction, at factor cost (GVA). The share of manufacturing is still slightly lower further we switch discussion from industry to manufacturing

[76] CEVES (2018), *Serbia 2009-2016: Real Sector Performance and Competitiveness – Some Stylized Facts and Open Questions.*

79. **The paradoxical statements on the availability/lack of skilled workforce can be explained with Serbia's legacy and the extremely low mobility of the labor force.** The economic implosion associated with the 1990s led to a dispersion of capabilities across the entire country. Highly skilled people lost employment or were semi-employed, and as new employment opportunities were slow to develop, their skills have been dissipating through obsolescence and lack of use. Where new employment did happen, quality skills have been maintained as islands, used as germs for training and spreading to new employees. These new employees come only partially prepared by the also obsolescing education system. The very low mobility of the workforce in Serbia has prevented clearer clusters of strength from developing, and probably therefore slowed the rise in wages that the described limitations would otherwise produce.[77]

80. **Also, a limitation to the expansion of industry in Serbia is the lack of two kinds of skills, which for domestic SMEs is further compounded by the lack of access to global markets, capital, and a robust trade intermediation network.** Possibly the greatest challenge for foreign investors in Serbia is finding skilled top and mid-management staff, managing processes such as input sourcing, production system organization, quality control, HR, or finance. Even a greater limitation is finding individuals with skills in the management of downstream activities in the value chain: market development and penetration, sales, and branding. All these are skills that are developed through time and experience playing on modern markets, preferably the global one. Playing on the global market, or as we call it—„access to global markets"-- requires both knowing and understanding it, and being networked including by being recognized as a trustworthy partner. Nevertheless, domestically owned SMEs have been also able to to find their place on international markets, with a share of 25% total merchandise exports (overwhelmingly de novo companies), and well over a half of that is made by small and micro firms.

81. **Foreign investment is of critical importance exactly because they are able to overcome, or do not face, the above obstacles, in addition to being able to bring the latest technologies and know-how.** For the missing skills they are able to engage foreigners or Serbian individuals from the diaspora until local staff are trained. They can provide access to global markets and organizational know-how, particularly in industries which are beyond reach for the most of domestic (de novo) firms due to the high market and capital requirements. Having that in mind, it doesn't come as a surprise that 40% of Serbia's merchandise exports are carried out by large FDI companies. The most convincing comparative advantage is exhibited in the formerly mentioned fast-growing rubber and plastics (R&P) industry by large, well-established companies (Michelin, Cooper Tire). In addition, companies producing electrical equipment and machinery – such as home apliences (Gorenje), wind generators (Siemens), and engine parts (Albon/Agena) – have also exhibited a high level of competitiveness. Sadly, not all examples are bright. Despite being large exporters, FDI companies in the apparel, automobile, and steel industries are still creating comparatively little added value. Also, they have been recipients of massive government subsidies, and while the value added in the exports is increasing, there is no sign of sustainable growth. Nevertheless, NMSEU leveraged such development with the foreign investments which had a great impact on reassembling resources in these countries, adding capital, and improving technological and managerial skills, as well as helping to build institutions supportive of markets. Thus, Serbia cannot expect to rely its future growth on the massive capital inflows, since it missed such pre-global-crisis FDI inflows that benefited the transformation of the first and second waves of transition countries acceding to the EU.

[77] *Ibid.*

82. **For SMEs, lack of access to capital and know-how to overcome the above limitations, as well as their internal organizational and motivational limitations** also present formidable obstacles to growth. As is well known, the business model of banks is not suitable for the provision of the relatively small and risky funding often needed by SMEs. At the same time, alternatives to traditional financing, referring to alternative debt-based financing (non-bank financial institutions- primarily microfinance institutions) and alternative equity-based financing (venture capital funds, private equity funds, business angels, etc.), are still limited[78]. Equity-based financing is still underdeveloped in Serbia, with particularly missing private equity and venture capital activity. There are no exact data on the level of equity-based investments in Serbia, nevertheless there are only a few relatively small investment funds operating in Serbia. Business angel activity is marginal, even though the Serbian Business Angels Network (SBAN) was established eight years ago[79]. Microfinancing, as such, is not permitted by law. There are only three microfinance non-bank institutions who operate commercial bank platforms, greatly increasing their costs and limiting their reach. (SDG Target 8.10)

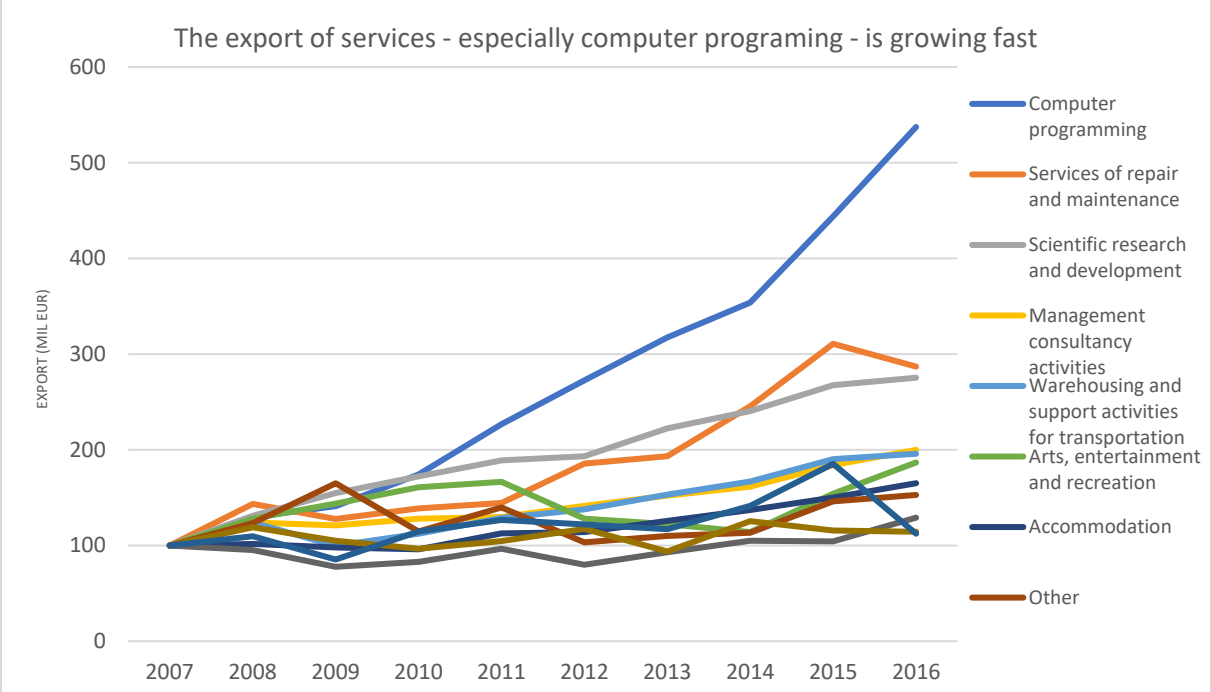
83. **Industrial growth, whether lead by foreign or domestic ownership, does not always generate human development and decent jobs.** As the government invests substantial resources in attracting foreign investors, it is important that much more be known about the effect that different kinds of investments have on human development. It may be necessary for this policy to become more discriminating. And similarly, while support to SME probably should be increased, their employment patterns also need to be better understood, and support should be aimed towards, and conditioned with, the generation of decent employment.

II.3.2. Intangible products, High Value Services and the Digital Economy

84. **An important opportunity for Serbia to catch up is in the development of high-value services.** These roughly overlap with the concept of "creative industries" and consist of IT, professional technical or scientific as well as administrative services, and arts, entertainment and recreation[80]. To a certain extent, IT and even more so professional products and services develop accompanying, or spinning-off of industry, but they are increasingly becoming important and independent export earners. Export of these products and services has been growing by 10% annually since 2009, while the net export has been particularly high from 2013 (annual growth rate of 32% from 2013 to 2017). This comes as a consequence of the fact that larger share of Serbia's economy is comprised of these products and industries than in Europe on average. Professional services and computer programing have been particularly competitive and growing fast, as shown on the graph 13. Registered professional services still have large room to grow, as their size relative to manufacturing is less than a half that of the EU, and somewhat below the NMSEU average.[81]

[78] CEVES, 2017.
[79] *Ibid.*
[80] Other services are public administration and social services, trade, transport and accommodation and food service which we do not consider high-value, and financial and real estate services which are high value but not an opportunity for Serbia.
[81] All services are likely also to be severely underestimated by Serbia's statistics.

Graph 13. Exports of chosen sectors of Serbia's economy (MIL EUR)



Source: CEVES' calculations based on NBS data

85. **However, there is considerable uncertainty about the size and further development potential of knowledge-services, and especially the digital economy in Serbia.** An adequate effort to estimate the *de facto* size and potential of Serbia's now strongly emerging digital services industry has not yet, to our knowledge, been made. An existing best effort[82] is based on registry data which is likely to very substantially underestimate the actual state of affairs. There are two issues. One is that formal, well known IT companies operating in Serbia have chosen to register their headquarters in other countries (often in the region) because of bureaucratic constraints in Serbia, above all to international payments. The other is simple informality--as many individuals that export their services charge for them on foreign accounts. Hence, while officially recorded exports of the creative industries in 2016 amounted to $356 million, key informants report that actual exports just by the IT sector are likely to be possibly even manyfold larger. This view is arrived at simply by adding up the likely business size of known key companies that operate but do not export products from Serbia. Similarly, the analysis identifies that there are 110.574 jobs related to companies registered in these industries, but anecdotal evidence suggests actual informal employment must be much larger.

86. **The ever-growing use of internet and IT platforms contributes to entrepreneurship support, particularly in domain of globally-oriented smart/niche products and services**. IT services are an example of the rapid development through (and support to) entrepreneurship, started with relatively less complex services such as outsourcing and websites design, with a strong turn towards more complex smart services such as mobile technologies, application development, software testing, the embedded industry etc. There is a positive influence also on entrepreneurial activity (and success) originating from ever growing intersectoral cooperation – such as traditional manufacturing (like furniture, food), design services and IT platforms.

[82] „Republika Srbija: Procena ekonomskog uticaja kreativnih industrija, 2014-2016." by Hristina Mikić and Branko Radulović, PPT held at the Creative Industries meeting with the PM of Serbia, March 13, 2018.

87. **A particular opportunity for "catching up" is opening up for Serbia with the 4th industrial revolution.** The impact of the 4th industrial revolution is global, regardless of the development level of the country. However, countries that have a sufficiently skilled workforce in the industries able to provide services or produce non-material goods that can be distributed world-wide over the internet are positioned to transform faster and position better than others. The market for digital services and non-material goods is limitless. Almost 4 billion people are connected to the internet, the majority of them over their mobile devices being fully available at the network 24/7. Internet users are consumers in the a new data economy where mainstream transactions are being transformed. These transactions are substituting the trust emerging from knowledge of personal information, reputational, profiles, for the trust involved in the exchange of currency. These personal data are fundamental for new forms of the economy based on surveillance where service providers and network operators are aware of personal identity of each particular user. Identities and reputation in the online world are enabling new business models based on tracking and targeting but also providing much needed trust in digital environment.

88. **Also a new organizational structure and new culture are emerging, changing traditional labor relations and completely obviating the need for territorial proximity of those engaged in a business venture.** This is a culture not of employing but engaging a more flexible workforce within a special form of the collaborative economy—the so-called gig economy. These new forms of labor relations do not target only a low-skilled workforce, like the drivers of Uber, but also top talents in fields of ICT, creativity and finance not interested to devote 8 hours a day to a single employer (TopTal is a famous platform establishing a community for these professions).

89. **Serbia undoubtedly has the assets needed to take advantage of the opportunities offered by the digital economy in relative abundance.** It is a country with high internet penetration, high level of English speaking population, fair education and access to knowledge opportunities for youth and urban population. It is not surprising hence that it has already found its place within the new digital workplace. Anecdotal evidence suggests that already some brain drain is turning into brain circulation, in this area, and that others are choosing not to emigrate but rather to work for and with more developed countries from their living room.

90. **However, there is considerable uncertainty about the size and further development potential of the digital economy in Serbia.** An adequate effort to estimate the *de facto* size and potential of Serbia's now strongly emerging digital services industry has not yet, to our knowledge, been made. An existing best effort[83] is based on registry data which is likely to very substantially underestimate the actual state of affairs. There are two issues. One is that formal, well-known companies operating in Serbia have chosen to register their headquarters in other countries (often in the region) because of bureaucratic constraints above all to international payments in Serbia. The other is simple informality--as many individuals that export their services charge for them on foreign accounts. Hence, while officially recorded exports of the creative industries in 2016 amounted to $356 million, key informants report that actual exports just by the IT sector are likely to be possibly even manyfold larger. This view is arrived at simply by adding up the likely business size of known key companies that operate but do not export products from Serbia. Similarly, the analysis identifies that there are 110.574 jobs related to companies registered in these industries, but anecdotal evidence suggests actual informal employment must be much larger.

91. **Collective action—public policies and also private sector collaboration—to ensure that the most is made out of this opportunity.** Two critical questions emerge. One is the extent to which the

[83] „Republika Srbija: Procena ekonomskog uticaja kreativnih industrija, 2014-2016." by Hristina Mikić and Branko Radulović, PPT held at the Creative Industries meeting with the PM of Serbia, March 13, 2018.

existing assets are used to produce maximum value added—ensuring that Serbia exports digital products, not just the services needed to produce them. Certainly, current policies that encourage companies to set headquarters elsewhere cannot be beneficial in this context. The exact articulation and wisdom of attracting foreign companies to set up operations in Serbia needs also to be meticulously explored to ensure they do not backfire. The second issue is to invest every effort in ensuring that the digital economy does not remain completely decoupled from the rest of Serbia's economy. How can digital skills be engaged to ensure they lift all boats? Including those in traditional industries and the rural economy.

92. **Raising the productivity and technological upgrading and innovation in industry and services require a more developed and much more relevant and integrated research function supported by public funds.** (SDG Target 8.2) Serbia's research support system does not deliver carefully targeted and applicable products, even though there is a significant number of researchers in Serbia (SDG Target 9.5). Measured by the number of researchers in R&D per million people, Serbia is at the same level or somewhat below NMSEU[84] (Serbia has 2.071 researchers per 1 million people, while Slovenia 3.821, Czech Republic 3.612, Slovak Republic 2.655, Bulgaria 1.989 and Croatia 1.502). Notwithstanding, they rarely provide relevant products applicable in the economy. The strategy on scientific and technological development of the Republic of Serbia for the period 2016 – 2020[85] underlines that the relevance and excellence of scientific research to the economic and social development are not sufficiently supported through the system of research funding; that there is no institutional framework for linking science with industry and public sector; while there is little coordination work in relevant institutions and different stakeholders. Even though there was an improvement in the research excellence (the number of scientific papers published in the journals indexed by the Web of Science database increased almost twice in period 2011-2015 compared to the 2006-2010[86]), there is a low applicability of these in the economy (out of the total number of achieved results, patents and technical solutions account for 3.3%). Research in the previous period was dominantly financed by budget funds (60%) and own sources of institutions (25%), while only 7,5% of financing came from business sector. Regarding improving the links between scientific research organizations and business entities, the strategy underlines that the Innovation Fund will serve as a main support mechanism.

93. **Finally, there is a considerable issue of the quality of the education and its capacity to prepare youth for labour market – either for employment or entrepreneurship (SDG Target 4.4)**. Education system did not adapt to the major changes in 21. century. The courses are not adapted to the firms' needs, while Universities rarely have direct cooperation with companies, and students have little or no chance to have practical training before they enter the labour market. Knowledge and skills applicability should be developed both through education system and by supporting technologically more advanced segments of manufacturing industry that require and develop higher level of workers' skills (not only high automation combined with unskilled workforce). At the same time, youth is not sufficiently prepared for lifelong learning, creative thinking, capability for self-employment and entrepreneurship. In the current economic environment this is even more pronounced, since the chances for youth to be employed are three times lower[87], while the quality of jobs for those who are employed often does not meet the criteria of the definition of "decent work" (SDG Target 8.3). A total of 47.4% of employed youth are informally employed. According to the official Labour force survey in

[84] World bank database.

[85] Government of the Republic of Serbia, (2016), *Strategy on Scientific and Technological Development of the Republic of Serbia for the period 2016 – 2020.* Retrieved from: http://www.mpn.gov.rs/wp-content/uploads/2015/08/Strategija-engleski-jezik.pdf

[86] Ibid. In 2015, 40% of total number of published papers are those published in the journals indexed by the Web of Science database

[87] ILO, (2015)

Serbia, 20.8 % of employed youth are estimated to be engaged on a part-time basis. On the other hand, 18.8% of youth are over-qualified for the work they perform. All of this leads to the issue of either a high share of unemployment, or poor quality and unsustainable employment (SDG Target 8.6).

II.4. Energy – Key Resource and Sustainability Challenge

94. **Rational management of energy resources is crucial for achieving almost all the Sustainable Development Goals--from the eradication of poverty through advancements in health, education, water supply and industrialization, to combating climate change. Contrary to widespread belief, Serbia is not an energy rich country (the hydrocarbon reserves on which it presently relies for about 60% of its energy consumption will be depleted soon after 2030).** More decisive action to bring energy efficiency and the share of renewable energy closer to European levels would significantly contribute both to Serbia's energy security and to the quality of her economic growth. Among other actions, this will require raising energy prices and giving renewable energy resources (RER) a bolder and more comprehensive look.

II.4.1. Energy intensity, Structure and Security

95. **Significant energy "reserves" are contained in the scope for radically increased energy efficiency.** At present, Serbia's energy intensity is extremely high--double that of the EU28 on average[88], and higher than any EU 28 country individually (SDG Target 7.3). In simplified terms, this means that the same GDP could be produced with half as much consumption of primary energy. In large part, the high energy intensity is the result of very low electric energy (EE) prices (discussed below) (see graph 14). This causes a high consumption of EE, which—in turn—consumes large amounts of primary energy to produce. There are structural reasons as well, since only about a quarter of all households in Serbia have access to district heating or gas. About 59% of households use solid fuels (coal or wood) for heating, 10% use electricity and others combine electricity with solid fuels[89], altogether bringing residential EE consumption per capita to 27% above the EU average[90]. Thanks to targeted programs, energy intensity has been coming down in recent years, but only gradually, and it is possible (but not certain) that Serbia will succeed in meeting its commitment to reduce final consumption by 9% by end 2018 compared to 2008[91].

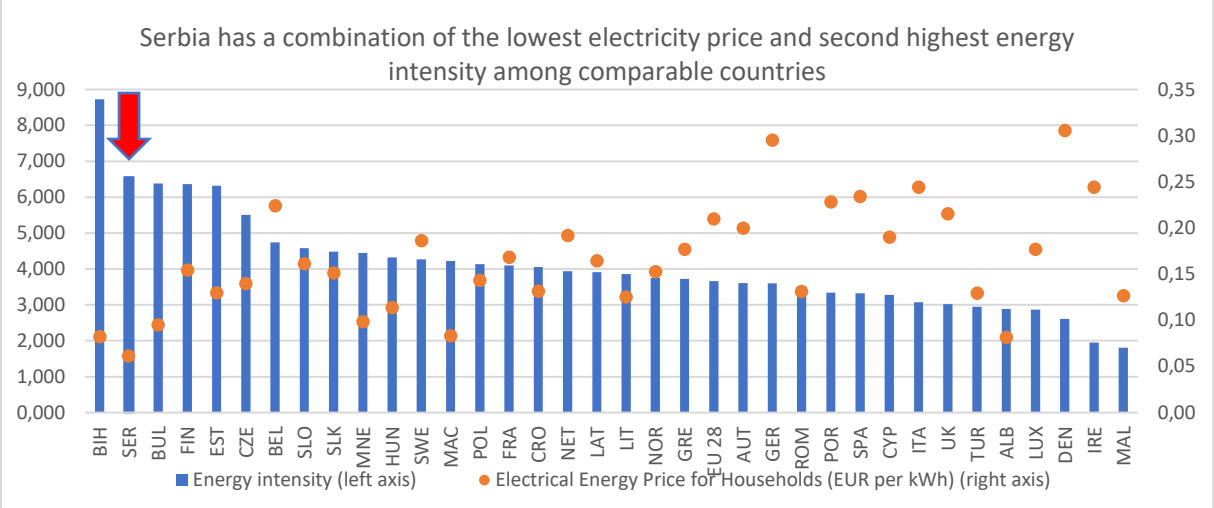
[88] Measured by Total Primary Energy Supply per unit of GDP in Euros of purchasing power parity. The comparison to the EU 28 would be doubly worse if nominal euros were considered.

[89] RES Foundation, http://www.resfoundation.org/wp-content/uploads/2016/08/RES_Grejanje-INFOGRAFIK.png

[90] Authors calculations from https://www.iea.org/statistics/statisticssearch/report/?country=SERBIA&product=renewablesandwaste&year=2015

[91] ttp://www.mre.gov.rs/doc/efikasnostizvori/efikasnost/Treci_akcioni_plan_za_energetsku_efikasnost_Republike_Srbije_za_period_do_2018_godine.pdf

Graph 14. Energy intensity and electricity price among European countires



Source: Eurostat, SORS

96. **Serbia needs to make bold decisions on the development of its energy sources soon or face a sudden switch to much higher prices and import dependence.** Currently, Serbia satisfies 27.7 % of its total energy needs from imports – principally ¾ of its oil and gas consumption needs, while it is a marginal net exporter of EE. Most of Serbia's[92] primary production of energy (66%) and even more of its EE production is produced from coal, mainly lignite. Table 1 shows the structure of primary production in comparison to the EU28[93]. The rest of EE production is mainly hydropower with under 1% of energy from other RER[94]. If energy efficiency is not radically raised, the hydrocarbon reserves currently under Serbia's control will be depleted soon after 2030, and even sooner if economic growth is accelerated as desired. Moreover, by 2030 a sizeable portion of its thermal power plants will have been closed, to comply with the EU Large Combustion Plant Directive.

Table 1 Primary Energy Production Structure: Serbia v. EU28, in %

	Serbia	EU
Coal	66	18.9
Renewable energy (hydro, solar, biomass, wind, geothermal)	19	26.7
o/w Hydropower	8.4	3.8
o/w Biomass (for Serbia, nearly all residential heating wood)	10.6	18.5
Crude oil and natural gas	15	23.8
Other	0	1.7
Nuclear energy	0	28.9

Source: RZS and Eurostat

[92] Statistical Yearbook of the Republic of Serbia 2017 pg. 281, Statistical Office, http://www.stat.gov.rs/WebSite/repository/documents/00/02/63/93/10-Energetika.pdf

[93] Production of primary energy, EU-28, 2015, http://ec.europa.eu/eurostat/statistics-explained/images/0/03/Production_of_primary_energy%2C_EU-28%2C_2015_%28%25_of_total%2C_based_on_tonnes_of_oil_equivalent%29_YB17.png

[94] Energetski bilans Republike Srbije za 2017. godinu (podaci za 2015. godinu; http://mre.gov.rs/doc/efikasnost-izvori/EN%20BILANS%20ZA%202017%2012.12.2016.pdf).

97. **The options for the future will be framed by Serbia's European path, the resolution of relations between Belgrade and Priština,** as well as an insufficiently explored RER potential (discussed below)**.** The already well advanced integration into the pan-European Energy Market will secure access to all energy sources at competitive prices. However, importing EE from longer distances is very costly so conditions on the SEE market will heavily influence import prices. Projections of EE production capacity for SEE are still uncertain, but there is little doubt that heavy dependence on imports would be costly because the entire region tends to be exposed to synchronous shocks[95]. This means that when there are, for example, negative weather conditions energy prices would increase sharply for all. And, this could not be compensated for when conditions are good—as then they would be good throughout the region, lowering prices. Once the relevant political issues are settled, the lignite reserves under Kosovo control can serve to reduce somewhat the cost of new supplies, but intensive exploitation would prohibitively raise costs owing to environmental damage, particularly in terms of CO2 emissions.

II.4.2. Renewable Energy Resources

98. **Serbia produces a considerable share of its final energy consumption from renewable sources (cca 22%), but it is not on track to meet the 27% target agreed with the EU for 2020.** SDG 7.2 refer to the need to substantially increase the share of renewable energy in the energy mix. (SDG Target 7.2) The existing production of renewable energy can be considered "traditional": over a half of it is biomass consumption by households in the form of wood for heating, while the remainder is by-and-large hydropower from large plants constructed several decades ago (See

99. Table 1 above). Only since the adoption of a new Energy Law in 2015 has the issuance of permits for, and construction of, independent renewable resource power generators (based on stipulated feed-in-tariffs) been accelerated. At present it is expected that the installation of 500 MW of wind-power foreseen by the National Renewable Energy Action Plan[96] (NREAP) will be realized by 2020. However, the AP envisages an increase in reliance on biofuels that is unlikely to be met. The coming on stream of new small hydropower and biogas plants is also underperforming, and although they could still accelerate, the foreseen increases in RE from these sources are very small.

100. **More fundamentally, official policy has not really dealt with longer-term strategic questions, including a more realistic assessment of all the potential harbored in RER.** First, the use of wood as heating fuel by a large proportion of the population is neither sustainable nor desirable in its present form. Wood stoves have a significant negative health impact, and it is in this regard that SDG Target 7.1, aiming to ensure not only universal access to energy, but that it be modern and clearn, is relevant in the context of Serbia. Furthermore, it does not appear to be known whether and to what an extent current practices ensure that the wood is duly replaced by new growth. Much of it comes from private, small and fragmented forest land-holdings, where the incentives to re-cultivate may not be too high. Moreover, there is no official control mechanism. Second, it is not clear that the energy derived from small hydropower plants envisaged in Serbia at present justifies the environmental damage, especially to biodiversity, that they appear to be causing. An urgent evaluation is needed. Third, the official

[95] Izveštaj za 2017. godinu o potrebi regulisanja cena električne energije za garantovano snabdevanje.

[96] National Renewable Energy Action Plan (http://www.mre.gov.rs/doc/efikasnost-izvori/NREAP%20OF%20REPUBLIC%20OF%20SERBIA%2028_June_2013.pdf).

estimates of RER potential, both as reflected in the Energy Strategy[97] and the NREAP assume no essential change in the structure of electric energy production.

101. **Reliance on RER could be substantially increased if more strategic measures and structural changes to the overall system were considered.** The Energy Strategy estimates that the use of RER can be increased mainly based on the further utilization of the biomass produced in agriculture (this would treble energy from biomass) and from the near doubling of hydropower production. The estimates of the potential from biomass do not assume the widespread adoption of circular economy principles, nor possible changes in the way the country's forests, both state-owned and private, are managed. The Strategy envisages rather marginal contributions of other sources of RE—above all wind and solar power potential—because it departs from the assumption of no change in the capacity of the current system to absorb intermittent forms of power.

102. **An increased reliance on RER would obviously increase energy security and reduce CO2 emissions, (part of SDG 7.1) but they could also additionally raise the quality of economic growth**. (SDG Target 7.1) This would, above all, happen because currently unused natural resources—principally land under forests or in favorable locations for wind and solar power—could be more activated. Initial costs through feed-in tariffs are presently considered high, but they are coming down, and after the payoff years they become radically smaller anyway. There are views that RE already now is not more expensive than would be the maintenance of new capacities based on conventional fuels. Such considerations, however, require a longer-term perspective. Furthermore, RER tend to be decentralized, and hence their development can considerably contribute to local community action and partnership.

II.4.3. Electric Energy Prices

103. **It is hard to imagine that much greater energy efficiency, more secure energy supply and increasing the share of RE in the total can be accomplished without substantially increasing the prices of EE.** EE prices in Serbia have consistently stood lower than in any EU country over the past decades[98]. These prices are not sustainable -- they would not cover new capacity operation costs, even if these were based on local coal extraction. They would also need to be sharply increased to pay for imports. New plants and sharply increased imports will become imperative as old coal plants become decommissioned (starting from 2022) and as coal reserves themselves become exhausted. Moreover, the currently low prices do not allow for the reversal of environmental damage caused by the exploitation of coal. Finally, these electricity prices provide a questionable competitive advantage to Serbia's industry, as they tend to favor sectors in which Serbia is anyway not showing competitiveness (excepting the rubber and plastics industry).

104. **In Serbia, all households have access to electricity but increasing its price would have a considerable effect on overall and energy poverty if not carefully managed.** A system for the protection of energy vulnerable population in Serbia is already in place, but it is likely that it would need strengthening if prices were duly raised. Current regulations offer a reduction in the energy bills for the energy vulnerable based on reasonable criteria. Essentially, the family's income has to be below a threshold that is approximately 15% higher than the absolute poverty line, and the family should live in only one housing unit. It is puzzling, however, that given its aims and criteria, it covers only about

[97] Energy Sector Development Strategy of the Republic of Serbia for the period by 2025 with projections by 2030 (http://www.mre.gov.rs/doc/efikasnostizvori/23.06.02016%20ENERGY%20SECTOR%20DEVELOPMENT%20STRATEGY%20OF%20THE%20REPUBLIC%20OF%20SERBIA.pdf).

[98] CEVES, CCIS; 2017, *Rubber and Plastic Sector Performanse and Value Chain Analisysis*

68 thousand households, when the estimated number of likely energy vulnerable population (based on SILC and similar measures) is at least three times as much. The reason may be that, based on a Constitutional Court decision, gaining the status of energy vulnerability requires a considerable administrative procedure.

II.5. Cross-Cutting Issues

II.5.4. Geostrategic Position and Infrastructure[xx]

105. **One of Serbia's great advantages is its geostrategic position: above all its relative cultural and geographic proximity to core European economies, coupled with its EU membership perspective.** However, also valuable to it are: a shared culture and history with many of its neighbors which facilitates trade even in hard-to-trade products such as entertainment industry programs and professional services (even university teaching!); a geographic position that makes Belgrade a natural regional and logistic and transport center; and traditional economic ties with third markets (Russia, Middle East and the Far East) that are presently used far below their potential. Serbia also has numerous free trade agreements, but its position outside the WTO is a serious drawback. On the negative side, the culture, and particularly the public administration, are not very friendly towards entrepreneurship. There is an overall low level of social capital and mutual trust. Along with the low predictability and high costs of regulatory environment, all together these represent substantial obstacles to thriving entrepreneurship and investment needed to accelerate Serbia's development.

106. **Serbia's transport infrastructure is neither the generator of transit income that it once was, nor the facilitator of quality growth that it could and should be. Yet, with certain exceptions, it still is not a key obstacle to growth.**[xxi] The difficulties in expanding and improving both the road and railroad infrastructure of the country, are perhaps the most telling illustration of Serbia's deep institutional capacity limitations. Not only is Serbia missing the opportunity to raise the economy's competitiveness faster, but also to generate employment through more public works.[xxii]

107. **The existing transport networks were largely built well before the economy reached its zenith in the late 1980s and have not been essentially upgraded since.** While the road network has progressed very gradually in the past three decades, the capacity of rail transport has declined, there are no modernized river ports and no multi-purpose terminals that would facilitate intermodal transport. Moreover, not all economic centers have easy/near access to magistral roads[99], and there are very few ring roads, all of which slow down the traffic.

108. **The road infrastructure density in Serbia (49.5 km/100 Km2) is similar to that of countries in the region** (Between 44.7 and 57.2 for neighboring former Yugoslavs, 54.8 for Romania, 17.6 for Bulgaria, but 192.6 for Slovenia) but it is its quality, the long connecting times that represent a problem. Local road network should be more inclusive, and capillary system of small roads that are more inclusive and reaching to all (companies and population in general) (SDG Target 11.2).

109. **The situation is much worse with the railway infrastructure whose deteriorated condition begs the question of what and how much can Serbia afford to rehabilitate at all.** Almost 55% of the railway network was built in the 19th century, and with a maximum speed of less than 60 km/h and throughout 66% of the network, while only 4% of it allows speeds greater than 100 km/h. [100]

[99] Aranđelovac is located 12 km from the nearest magistral road and 38 km from the highway.
[100] (Compared with an average railway speed of 250 km/h in the EU)

110. **Over the past decade, the share of water cargo transport in Serbia decreased from 21,5% in pre-crisis period to 7,2% in 2015[101].** This is significant particularly in terms of environmental effects of the transport industry – where water cargo transport has the lowest level of emission greenhouse gases (CO_2 emission: kg of CO_2 per ton-mile for different modes of transport is the following: air cargo 0,81 kg; truck 0,17 kg; train 0,10 kg; and sea freight 0,04 kg). (SDG Target 11.2).

II.5.5. Climate Change and Disaster Preparedness [102]

111. **The Southeast European region, of which is Serbia an integral part, has been recognized as one of the most susceptible region to climate change in Europe.** The majority of forecasts estimate that the temperature in the next hundred years will increase in the range of 2.4 to 2.8 degrees C, while volume of precipitation will decrease by up to 15%. According to WWF and Environmental Improvement Centre research, about 60% of all disasters that occur are caused by nature, and there are dominated by floods, (over 50%). Over the past hundred years the number of natural disasters in Serbia (per decade) increased from 100 (1900-1940) to 2,800 (1990-2000). In Serbia, the risk of adverse effects in case of natural disasters is further increased due to the insufficiently developed infrastructure. Since climate change can produce negative socioeconomic impacts, it is very important to address capacity building and resilience to risks related to climate change (SDG Target 13.1) by integrating policies and measures related to climate change in national policies (SDG Target 13.2) and raising awareness of the consequences of climate change (SDG Target 13.3).

112. **The sensitivity to climate change and natural disasters is different from sector to sector.** Serbia, as well as the whole of Eastern Europe, is exposed to losses in the production of certain crops due to increased summer temperatures resulting in droughts. According to a 2005 World Bank study, the losses that occur in the agricultural sector due to adverse hydrometeorological events are estimated to be between 3,100 and 8,500 (million dinars) in case of floods, or about 40,000 (million dinars) in the event of drought. Today, these estimates would be corrected upward, because agrifood production has increased both in volume and value added, and there is no significant progress in the field of risk reduction. Climate change is reducing water levels in Serbia, resulting in reduced capacity of hydro power plants, but also use of water in thermal power plants. Apart from described issues on production side, the problem arrives on distribution side when excessive cold winters and snow disrupted distribution systems to remote locations.

113. **Serbia has not made sufficient progress in implementing infrastructural projects that should relieve risks imposed by the climate change**. The Serbian Government through relevant Ministries and other bodies has been working on climate change mitigation and adaptation SDG 13 (Climate action), however in previous years limited progress was achieved and most activities in the area were realized through projects making this area one of the major challenges especially related to integrating climate changes into sector policies and strategies[103] (SDG Target 13.2). Municipalities with the support of the local governments association the Standing Conference of Towns and Municipalities work directly in building capacities for sustainable DRR systems. Still, it is to be determined what is the quality of infrastructural protection from natural disasters, and what share of population would be at risk if some natural disaster would occur in future (SDG Target 13.3), (SDG Target 13.1).

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[101] SORS.

[102] This section heavily draws the report *Climate Vulnerability assessment Serbia*, WWF and Environmental Improvement Centre, (2012). All data are derived from it, unless mentioned otherwise.

[103] *ПРИЛОГ ЦИВИЛНОГ ДРУШТВА ЗА ИЗВЕШТАЈ О НАПРЕТКУ СРБИЈЕ ЗА 2014. ГОДИНУ, Преглед Поглавља 27: Животна средина и климатске промене*, pg. 24, http://eupregovori.bos.rs/progovori-o-pregovorima/uploaded/civil_society_contribution_sr_fin.pdf

II.5.6. Sustainable Consumption/Production Patterns

114. **Serbia does not generate comparatively high levels of waste as its economic activity and consumption are relatively low.** Generated waste, both in production and consumption, is somewhat below EU and NMSEU average. Measured by the generation of waste excluding major mineral wastes per domestic material consumption, the share of waste in Serbia is 7.1%, while in Czech Republic the share is 7.4%, Slovakia 9.3%, Hungary 9.4% and Bulgaria 12.9% (SDG Target 12.4). However, this comes as no surprise, since it is mostly determined by a relatively lower level of production at this level of economic development. As it has been previously described, Serbia could greatly improve the efficiency of its natural resources utilization (both land and forest) (SDG Target 12.2). On the other hand, the level of waste generated is lower even for municipal waste per capita – Serbia generates 268 kg of waste per capita, which is on average 100-150 kg pc less than EU NMS.

115. **However, its economy is still based on the linear principles "take-make-dispose" and much effort will be needed for it to adopt working circular principles**[104]. The waste that is being created, is not being collected through separate collection and it is typically disposed of by incineration or landfill (SDG Target 12.5). Out of total non-hazardous waste generated, even 94% is landfilled, while only 4% is recycled. At the same time, less than 1% of municipal waste in Serbia is being recycled, which is by far less from EU28 average (46%) and NMSEU[105]. The major issue that arises is the absence of separate collection infrastructure as a condition for a proper waste treatment. Additionally, there is a general lack of awareness in local communities, and almost none of raising awareness campaigns or consumer incentives for the waste reduction in Serbia (SDG Target 12.8).

116. **Serbia's EU membership aspirations set the highest standards globally for its environmental quality. It is well understood that Serbia may not have the financial means to implement them in the near future. However, much progress can be attained**, as well as more funding secured, by a more consistent and participatory monitoring of the quality of air and water, and environmental impact assessments, and identification of polluters. While the necessary regulations are mostly in place, environmental impact assessments need to be conducted more thoroughly, be of higher quality, and be treated consequently. This is particularly true of licensing the construction of mini-hydroelectric power plants which is threatening the existence of 350 km of rivers and biodiversity in them, most of them in scenic, some even protected, areas. Only a small number of industrial polluters treat their waste waters, and by far most of the large polluters are actually under state ownership (the thermal power plants, the mines around Bor and Sjenica as well as Kolubara).

II.5.7. Entrepreneurship

117. For a new company to develop and pick up some of the resources dispersed in the implosion of Serbia's traditional economy, in addition to the production/technological knowhow, there needs to be a market opportunity and, above all, entrepreneurship. Entrepreneurship has a particular role in accelerating quality job generation through more inclusive growth (SDG Target 9.2). Although there is a strategy for entrepreneurship and SME development[106], there is no systematic data collection on entrepreneurial activity in Serbia, and no evidence on potential entrepreneurs (i.e. the number of individuals who would like to start their own businesses, who they are, and what their ideas and

[104] Underlining waste management hierarchy in circular economy implies five preferred steps before disposal: prevention, source reduction (resource efficiency), reuse, recycling, energy recovery.
[105] (Croatia 21%. Slovakia 23%. Bulgaria 32%, Czech Republic 34%).
[106] Republic of Serbia, Ministry of Economy, (2015), *SME Development strategy and Action Plan 2015-2020.* Retrieved from: http://www.privreda.gov.rs/wp-content/uploads/2017/01/Strategija-I-Plan_eng_poslednje.pdf

concerns look like). Compared to the EU countries, Serbia exhibits a relatively high level of self-employment rates--24% in Serbia, comparable only to Italy (24%), while the EU28 (16%), and NMSEU (Czech Republic 17%, Poland 21%) are lower. Still, only 3,4% of total employment are employers employing others (SORS). Recent studies show that there is a higher share of population who would prefer working in the public sector to starting their own business. Considering youth, 27% stated they would like to be self-employed, but as many as 51% of the currently self-employed youth stated that the main reason was inability to find a job somewhere[107].

II.5.8. Business Environment (Including Red Tape and Trust)

118. **Security of property and contract, consistent policy making, regulatory predictability, low corruption and low red tape are key aspects of a conducive business environment**. Countries can exhibit fast growth rates without it (e.g. some African or Asian fast-growing countries do not have better institutions than Serbia), but competitiveness then ultimately means a lowering of wages, which Serbia cannot afford.

119. **Serbia has significantly improved its ranking on the World Bank's Doing Business List in recent years, but, this is only the tip of an iceberg.** Movement from the 93rd place in 2014 to 43rd in 2018 is undoubtedly a significant progress. However, this and similar international rankings cover only a part of the aspects important for the overall business environment of a country.

120. **Formalistic, detailed and comprehensive regulation of business is not only costly in red-tape terms, but it actually sometimes directly hampers entrepreneurship**. Serbian regulators will rather prevent a range of activities than risk that some of their aspects be abused (See box). This is partly a legacy of the past, and partly a result of difficulties with ensuring adequate oversight described in Chapter III. An example of this is microfinance regulation. Microfinancing is still not permitted in Serbia, because the National Bank of Serbia (NBS) concerns for its potential for abuse. Strengthening the oversight capacity of the NBS could go a long way in addressing this concern.

121. **This overwhelming regulation when inconsistently applied results in a fundamental unpredictability of the regulatory environment.** Onerous bureaucratic requirements are far less a problem if they are well-known in advance of any agent decisions, and consistently applied. Being costly and unpredictable, they become an unknown and potentially large risk. Being minutely prescriptive and formal, they necessarily become inapplicable, or too obviously illogical to be applied, in some circumstances. They then do objectively often require some interpretation, and this is open to political influence. Alternatively, uncertainty regarding interpretation often will lead to avoidance of an administrative response altogether.

122. **Finally, a crucial aspect for encouraging entrepreneurship and investments is trust – both directly among economic agents and regarding institutional protection, particularly of property.** In particular, the security of collecting payments is low, with a large number of insolvent business entities in legal transactions. At the same time, judicial processes are costly, lengthy and unpredictable; Regarding contract enforcement, average time to resolve a dispute in Serbia is 636 days (in Europe and Central Asia it is 490 days, and in OECD high-income countries it is 578 days), while average costs equal 41% of claimed value (in Europe and Central Asia 26%, and OECD high-income countries 22%). Weak institutional protection is only one side of the problem however. Trust is known to be low more broadly[108], and this presents an obstacle to the development of association and collective action

[107] Filipović, S. et al (2016), *Analysis of the regulatory framework of entrepreneurship of the three most promising activities, with a proposal for business simplification for young entrepreneurs.*
[108] UNDP, (2016), *National Human development for Serbia.*

processes within the private sector as well. Collaboration among private sector agents is an important ingredient of quality economic growth. (SDG Target 17.1).

123. **In this context, a particular venue to explore is the development of different forms of trust in the context of the digital economy.** Trust is crucial to its success, because internet actors enter into numerous contractual relations with individuals they have never seen before and will never meet again. Platform ecosystems empower these new forms of collaborative economy utilizing underused resourses and labor and benefiting both businesses and citizens. Skilled individuals are evolving from the workforce and consumers into autonomous business vehicles performing lucrative operations around the globe or efficiently providing access to their property via internet platforms. Along the way they are becoming "prosumers"—a new business form not likely entitled to all forms of protection provided under labor and consumer legislation. By all accounts, trust is developing in the digital community of Serbia as much as in others, and the possibility to its extending to other communities needs to be explored.

III. Partnership, Peace, Democracy and Institutions

124. **Serbia's values and aspirations with regards to the development of its political system, institutional quality, peace and security, and rule of law are firmly framed in its European path.** The European criteria also in this area are set to the highest standards and are broader—including political criteria that reflect fundamental European values as well as targets necessary for alignment with the EU acquis and the European administrative space. Serbia's nationalized SDG 16 and SDG 17 (Partnership for the goals) should be guided by these broader set of targets. We present them in Table 2 below, mapped and expanded relative to the original SDG 16 targets.

125. **The listed goals have two aspects: they are aspirations--goals in and of themselves and many of them are also instruments--necessary or helpful in attaining all other SDGs.** All aspects of institutional quality and the values they uphold are very hard to measure. This is particularly the case with those goals that are goals in and of themselves such as upholding democratic values and fundamental freedoms, observance of the rule of law including equal access and protection by the law. In this baseline study, for these targets we rely on EU progress report assessments, presented in section III.1. below. In section Section III.2. below we focus on some key issues regarding the overall capacity of institutions to deliver the SDGs.

Table 2. SDG 16 Goals and Targets vs. EU Accession Priorities

SDG 16 - Targets	EU Indicative Country Strategy Paper for Serbia for Instrument of Preaccession Assistance 2014- 2020- expected results
SDG Target 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels	Capacities of democratic institutions, especially the parliament, are improved for efficient oversight Enhanced cooperation of civil society organizations with public institutions Capacities of civil society organizations are strengthened to increase their autonomy, representativeness and accountability, as well as their membership base, fundraising and effectiveness.
SDG Target 16.1 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	Fundamental rights, including the protection of minorities in particular Roma, LGBTI persons and freedom of expression, are efficiently ensured, especially through improved access to justice, consistent implementation of anti-discrimination policies and measures, improved transparency of media sector financing in line with EU standards, and improved monitoring of the European media standards (media freedom and pluralism); Migration, especially irregular migration, is efficiently managed, while regular migrants are integrated into the society, in line with EU requirements; Asylum processing and asylum management is improved in line with EU requirements, including adequate asylum reception facilities.
SDG Target 16.3 Promote the rule of law at the national and international levels and Ensure equal access to justice for all	Judicial independence, impartiality and efficiency is improved, including improved constitutional and legal framework, technical and administrative capacities of the judicial network and substantial reduction of backlog of cases; Professionalism is strengthened through merit-based and transparent criteria for appointments of judges, prosecutors and court administrators as well as through evaluations of performance, merit based promotions and court inspections; The duration of proceedings is substantially reduced; The consistency of jurisprudence improved and timely and correct enforcement of judicial rulings is ensured;
SDG Target 16.5 Substantially reduce corruption and bribery in all their forms	An integrated approach to the prevention and fight against corruption is implemented, including an effective system for protection of whistle-blowers, strengthening capacities and efficiency of the relevant bodies, in particular the Anti-Corruption Agency; There is an improved track record of inter-agency cooperation, investigation, processing, prosecution and final convictions in corruption cases; Legal framework enabling efficient fight against corruption is strengthened;
SDG Target 16.1 Significantly reduce all forms of violence and related death rates everywhere End abuse, exploitation, trafficking and all forms of	An integrated approach to organised crime is implemented, including risk assessment, crime mapping, improved capacities of the police for investigations, including financial investigations, implementation of a centralised criminal intelligence system, improved inter-agency cooperation, solid track record of investigations, prosecutions and final convictions in organised crime cases developed, strengthened control

violence against and torture of children **SDG Target 16.4** By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime	system for public procurement, and enhanced protection of witnesses in organised crime cases and victims of human trafficking; Integrated Border Management (IBM) approach is implemented with improved facilities and strengthened cross-border and inter-agency coordination between border police, customs and phytosanitary services and improved risk assessment, data collection and databases systems;
SDG Target 16.6 Develop effective, accountable and transparent institutions at all levels **SDG Target 16.9** By 2030, provide legal identity for all, including birth registration	PAR coordination is enhanced and a policy co-ordination, planning and development system is established with medium-term planning documents and consolidated sector strategies, supporting the objectives of the Government and enabling prioritization and budgetary planning and monitoring; A civil service system based on merit is in place, including integrity systems, with regularly trained civil servants both at central and local government level, capable of applying sound administrative procedures in line with EU principles and therefore offering legal certainty to citizens and businesses; Public Administration governance and service delivery to citizens and businesses is improved, including upgraded e-Government services; Macroeconomic stability is enhanced through multilateral surveillance and implementation of the Economic Reform Programme; Public financial management is reformed in line with a public financial management reform programme, which covers in a sequenced manner the key reform needs in the relevant sub-systems over a number of years, including revenue administration and collection, budget preparation, budget execution with cash management, debt management, public procurement, accounting and reporting, public internal financial control, and external audit, and will support Serbia meeting the EU accession requirements under the relevant negotiation Chapters; Customs and Tax Administration are supported to meet the acquis requirements, including IT interconnectivity and interoperability with the EU systems. Serbia becomes a full member of the Common Transit Convention; Statistical methods applied by the Serbian Statistical Office are in line with the requirements of the European Statistical System; Serbia's EU accession process is supported with harmonisation of the acquis and general institution and capacity-building in other areas that fall outside the specific sectors;

III.1. Peace, Democracy and Rule of Law

126. Assessing the state of play regarding the EU's political criteria, rule of law, peace and security is an extremely complex exercise regularly conducted in the context of the European accession process. It is based on wide consultations with Serbia's institutions and civil society. At this stage of the SDG dialogue we see little that it could add to this process and assessments, although it may become useful to zero-in on specific aspects of this broad agenda in the future. Therefore, in Table 3 we present key issues raised by the EU in its latest issued Progress Report (2016) in the area of rule of law and political criteria for accession.

Table 3. EU Accession priorities and progress

EU Indicative Country Strategy Paper for Serbia for Instrument of Preaccession Assistance 2014- 2020- expected results	**EU Progress Report 2016- key issues**
Capacities of democratic institutions, especially the parliament, are improved for efficient oversight.	Outside the electoral period, parliament's legislative activity was intensive and reflected increased involvement in the accession negotiation process. Consultation and transparency improved. However, the inclusivity, transparency and quality of law-making and effective oversight of the executive need to be further enhanced, and the use of urgent procedures limited.
Enhanced cooperation of civil society organizations with public institutions. Capacities of civil society organizations are strengthened to increase their autonomy, representativeness and accountability, as well as their membership base, fundraising and effectiveness.	Some progress was made towards establishing an enabling environment for the development and financing of civil society. However, further efforts are needed to ensure systematic inclusion of civil society in policy dialogue and help develop its full potential.
Human rights and anti-discrimination: Fundamental rights, including the protection of minorities in particular Roma, LGBTI persons and freedom of expression, are efficiently ensured, especially through improved access to justice, consistent implementation of anti-discrimination policies and measures, improved transparency of media sector financing in line with EU standards, and improved monitoring of the European media standards (media freedom and pluralism); Migration, especially irregular migration, is efficiently managed, while regular migrants are integrated into the society, in line with EU requirements; Asylum processing and asylum management is improved in line with EU requirements, including adequate asylum reception facilities.	No progress has been made in the last year concerning freedom of expression. The overall environment is not conducive to the full exercise of this right. The legislative package in the media sector still needs to be fully implemented. Privatization of state media outlets has not led to greater transparency of ownership or funding sources, including state funding. Co-financing of media content to meet public interest obligations needs to be implemented in line with the legislative framework, using transparent and fair procedures, and without interference by the state 20 administration, especially at local level. Threats, violence and intimidation against journalists remain an issue of concern. Information leaks to media outlets, e.g. about ongoing investigations, threaten the personal safety of journalists and are an invasion of personal privacy. Investigations and final

	convictions for attacks on and intimidation of journalists are rare.
Judiciary: Judicial independence, impartiality and efficiency is improved, including improved constitutional and legal framework, technical and administrative capacities of the judicial network and substantial reduction of backlog of cases; Professionalism is strengthened through merit-based and transparent criteria for appointments of judges, prosecutors and court administrators as well as through evaluations of performance, merit based promotions and court inspections; The duration of proceedings is substantially reduced; The consistency of jurisprudence improved and timely and correct enforcement of judicial rulings is ensured;	In functioning of the Judiciary, Serbia should in particular: ® urgently adopt a new law on free legal aid and enable its efficient implementation in cooperation with the main stakeholders; ® amend the constitutional provisions related to the system for recruitment and career management in line with European standards related to the independence of the justice system; ® further step up measures to reduce the backlog of cases and standardise court practice.
Anti-corruption: An integrated approach to the prevention and fight against corruption is implemented, including an effective system for protection of whistle-blowers, strengthening capacities and efficiency of the relevant bodies, particularly Anti-Corruption Agency; There is an improved track record of inter-agency cooperation, investigation, processing, prosecution and final convictions in corruption cases; Legal framework enabling efficient fight against corruption is strengthened;	No progress was made on meeting last year's recommendations in fight against corruption. Corruption remains prevalent in many areas and continues to be a serious problem. There have been limited results from the implementation of adopted legislation. Serbia has still not adopted the new law on the Anti-Corruption Agency nor the amendments to the criminal code in the economic crimes sections. The government still does not take the recommendations of its own advisory body - the Anti-Corruption Council - into account. No progress was made on improving Serbia's track record of convictions or stepping up the implementation of the national anti-corruption strategy
Fight against crime: An integrated approach to organized crime is implemented, including risk assessment, crime mapping, improved capacities of the police for investigations, including financial investigations, implementation of a centralized criminal intelligence system, improved inter-agency cooperation, solid track record of investigations, prosecutions and final convictions in organized crime cases developed, strengthened control system for public procurement, and enhanced protection of witnesses in organised crime cases and victims of human trafficking; Integrated Border Management (IBM) approach is implemented with improved facilities and strengthened cross-border and inter-agency coordination between border police, customs and phytosanitary services and improved risk	Some progress has been made in adopting a new police law, reorganizing the Ministry of Interior and in adopting the first serious and organized crime threat assessment (SOCTA) using Europol methodology. However, the number of final convictions remains low. Efforts to investigate wider criminal networks and to process money laundering cases still need to be stepped up. Financial investigations and the concept of intelligence-led policing remain underused. Precautionary freezing of assets is rarely applied and the level of assets confiscated is low. Independent and transparent oversight of the police is not yet in place.

assessment, data collection and databases systems;	

III.2. Institutional Capacity to Deliver the SDGs

„...the legal framework for a functioning public administration is in place, but the lack of effective institutional structures and inter-institutional co-operation hinders implementation of the legislation."[109]

127. **As shown in the previous pages, it is often clear that the ineffectiveness of institutions, or the inadequate level of public services, present important obstacles to progress in sustainable development.** However, objective and comprehensive comparative assessments of the effectiveness of institutions and of the quality of public services are hard to come by. Most readily available are comparisons of citizen satisfaction with government services and trust in institutions such as the EBRD's Life in Transition III[110] that show relatively low levels of satisfaction and trust, but on a par with comparable transition countries. The World Economic Forum Global Competitiveness Report ranks Serbia's competitiveness in 78th place out of a total 137 countries, but 104th in the quality of institutions.[111] However, this measurement is largely (not entirely) based on perceptions (surveys) and as well as some hard but highly indirect indicators. The problem with assessments based on perceptions, is that citizens rate the phenomena against their expectations. In countries such as Serbia where citizens' expectations are likely to be high due to a number of factors, the overall assessment will be weighed down in comparison to countries of similar performance and lower expectations.[xxiii]

128. **According to the more insightful, in-depth expert assessment methods, Serbia's institutional readiness is somewhat above the lower end of the preparedness of new EU member states before they acceded to European Union membership[112]**. These assessment methods are based on methodologies that focus on observing key conditions/principles necessary to secure quality performance of institutions. Among these, particularly available and useful for our purposes are the OECD-sigma assessments based on six principles of good governance, regularly conducted in the context of EU Progress Reports (The list of principles can be found in Appendix 2).

129. **Ultimately, we are interested in identifying instruments/indicators that would help assess trends in the capacity of specific, relevant, institutions to deliver specific (ultimate or intermediate) results.** These could be seen as important elements of the results framework developed to monitor and encourage progress towards the accomplishment of nationalized SDGs. For example, as seen in the previous pages:

- The redistributive effect of tax and transfer policies in Serbia accounts for most of Serbia's high inequality of income distribution relative to comparable European countries; we might want to identify indicators of this redistributive effect.
- Drawbacks in the delivery of education and health services can, among other things, be linked to the institutional inability to change organizational structures (decades old) or provider incentive systems (changed very little over decades); we might want to measure if there is

[109] From the Summary Conclusion of the Sigma Monitoring Report on the Principles of Public Administration for Serbia 2017, http://sigmaweb.org/publications/Monitoring-Report-2017-Serbia.pdf
[110] European Bank for Reconstruction and Development (2016), *Life in Transition*
[111] http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf
[112] World Bank (2015), *Systematic Country Diagnostic*

appropriate organizational change, as an indicator of intermediate institutional capacity and progress towards accomplishing the SDGs.

- The unpredictability and restrictiveness of the business environment accounts for at least some part of the relatively low investment and economic growth; we might want to, for example, measure the observed continuity in the implementation of specific government programs, probably only within priority sectors.[xxiv]

130. **However, in the reminder of this Chapter, we focus on some general characteristics of Serbia's institutional set up that particularly seriously thwart its effectiveness**.[xxv] We set the stage to present the problems by illustrating a policy that at present Serbia's institutions would find a great challenge to implement. Take, for example, a multipronged industrial policy aimed at fostering (domestic) and attracting (foreign) investment that would promote a significant growth of knowledge-based and skilled jobs, such as has been pursued by Ireland[113]. Such a targeted and complex policy requires, first of all, the capacity to *truly* set strategic priorities. Truly setting priorities means that realistic funding is allocated to them and that, hence, less funding is allocated to lesser priorities. It, furthermore, requires the capacity for policy coordination among several different sectors (at a minimum, education, science, and economy). Finally, it requires effective implementation, i.e. accomplishing the desired results through the following sequence of events. First, tasks need to be rationally and clearly distributed across units/individuals. Second, those tasked have to have clear accountabilities for well-specified results. Third, they have to be qualified and technically competent to accomplish the results. Fourth, they also need to be motivated to accomplish them. In reality, despite numerous reforms, it seems that many public institutions in Serbia are rather geared towards those who work in them than to those who they exist for.

This illustrative description of requirements can be viewed as a highly distilled account of the above-mentioned sigma principles of good administration.[xxvi] In the discussion that follows in the next two sections, we group the issues/principles around the capacity to plan strategically and prioritize through deliberate allocation of resources, and the capacity to effectively produce the desired results.

III.2.1. Allocating Scarce Resources to Priorities

131. **The recent fiscal consolidation is an extremely important first step, but the continued shortcomings in resource allocation/policy prioritization are still a threat to sustainability and large contributor to institutional ineffectiveness.** Serbia still lacks a public financial framework that will ensure systemic financial discipline, and that would enforce a clearer and more transparent prioritization of the use of resources, and therefore policies. This also hampers institutional effectiveness because it stretches resources over an overextended public service infrastructure. While, on the one hand, all issues and organizations remain on the policy agenda, they are all made less effective by underfunding.

132. There are over 100 valid national planning and sector strategy documents in Serbia[114], that on the whole **do not perform the key strategic planning function: policy prioritization aligned with a realistic resource allocation**. Available policy choices are framed by the size of the envelope of fiscal resources. However, in Serbia policies are typically not costed, or at least not realistically so, and they are not linked to the budget allocation process. Also, there is no hierarchy among them, they are often very general in content, and they typically lack performance monitoring frameworks. At the sub-national level there is a number of local development strategies as well as regional development

[113] Civitas (2016), *Industrial policy in the Republic of Ireland*

[114] See Appendix 3 that maps the SDGs to national policy document, taken from RSPP, Serbia Agenda 2030.

strategies/plans, and there are also sectoral plans aligned with relevant national development strategies. They too tend to be excessively broad in content, and usually not prioritized, or linked with financial resources.

133. **There are several important consequences. First of course has been, for many years, the deep macroeconomic imbalance** (causing two hyperinflations and one high inflation in the 1990s!) with all the negative effects that inflation has on human development. In the 2000s the macroeconomic imbalance was reflected in unsustainable debt growth until the fiscal consolidation of 2015. Second is that Serbia has not so far been able to strategically direct and/or shift policies, unless through political campaigns (explained in next Section). To implement the industrial policy illustrative example above further advancing in the PAR would be needed first.

134. **The inability to prioritize is also mirrored in an inability to adjust expenditures and structures to the means available, causing further inefficiencies and ineffectiveness.** It should be stressed that this inability refers to change of structures, as stroke of pen reforms such as pension system reform and tax increases, have been conducted as needed, primarily in the early 2000s and again more recently. The inability to adapt the public service infrastructure to the available resources stretches the insufficient funding thin, resulting in further ineffectiveness. Typically, the share of wages in total expenditures rises and institutional capacity is sharply lowered because of almost non-existent material and program funding.

135. **This, in turn, entails a further distortion. From the 1990s onward, insufficient public funding has been "complemented" by direct, formal or informal, citizen out-of-pocket payments** for the material costs of services. And while they have largely been legalized since, as illustrated in the case of the health sector, they create huge inefficiencies and an unhealthy interdependence, instead of complementarity and competition between the private and public sector. It also compromises the integrity of the system.

136. **Finally, the lack of prioritization of funding outlays is also reflected in an overstretching of investment resources over too many programs and projects.** We have not been able to find comparative research on investment completion rates, but there is little doubt that for a variety of reasons they take extraordinarily long to be completed. An unfinished project keeps funding tied without producing the benefits and increased productivity that the funding or investment were meant to have. And yet actual general government capital outlays undershoot the original budget target year after year, and usually do not reach 2% of GDP, while committed international funding remains undisbursed—a further evidence of the low capacity of institutions.

III.2.2. Accountability — A Peculiar Obstacle

"The Serbian public administration lacks robust accountability for results and suffers from limited technical capacity and a high turnover in senior staff and advisors during frequent changes in government, which have led to a loss of continuity and institutional memory. The growing number of politically-based appointments has exacerbated clogged decision making throughout the system. Policy coordination and management are inadequate; many decisions are being pushed up to ministerial levels, and those at the top are overloaded with relatively trivial issues. This poor governance undermines implementation of reforms even when political will is sufficient".[115]

137. **It is peculiar to Serbia's institutional set-up that although the necessary legal framework and civil service capacity are largely or reasonably in place, implementation can be difficult or missing**

[115] World Bank (2015), *Systematic Country Diagnostic*

even if political will is not missing. In fact, it often takes concerted informal (parallel) political pressuring or campaigning to implement complex policies. Since such pressures generally cannot be sustained, neither can the policies. We believe it is important to focus on the roots of this problem.

138. **At the heart of the lack of institutional capacity to deliver is a difficulty in establishing accountabilities owing to the interaction of two phenomena.** Consider the following very simplified account of the principles of an effective administration: 1. set priorities/results clearly, 2. task rationally organized bodies, and individuals, in the system with accomplishing them, 3. make sure the organizations/public servants are motivated and competent to accomplish them, and, in the end, 4. call them to account. [xxvii] There are some problems with each one of these steps. The problems with point 1 -- planning and prioritization have been discussed. Those regarding the professionalism, competence and management of the administration (point 3) are well understood and will not be discussed here. However, there are little understood fundamental problems with point 2, and therefore the system cannot be adequately called to account (point 4) even if there was more transparency and better oversight.

139. **The first phenomenon is that while the organizational structure is reasonably in place, the allocation of powers for decision making and taking action, cannot be clearly related to results** (corresponds to 2 above)**.** Two kinds of muddying tend to happen. One is that decisions related to specific result are typically divided between several bodies or even levels of government[xxviii] in such a way as to create foggy, shared accountabilities for any given result. As to the internal organization of the bodies, including ministries, the problem is that there is a general tendency to raise accountabilities to unreasonably and inefficiently high levels. Ministers sign off on simple operational decisions that they cannot possibly be held accountable for. The tendency to pass accountabilities up the responsibility ladder reaches the sessions of the Government, whose decision-making is loaded with an inordinate amount of detailed operational decisions, about 70 per weekly session. This waters down and collectivizes the actual accountability for those operational decisions, while at the same time absorbing the resources that should have been used for the government's strategic decision-making.

140. **The second phenomenon is that the highly detailed, prescriptive, and formal administrative rules foster compliance, while impeding the definition and pursuit of meaningful results. This, of course then limits the scope for meaningful accountability for results.** Administrative rules today lag behind the needs and reality of an evolving, democratic, market-driven life. They tend to be so rigid and detailed that decision-makers either insert some discretionary escape clauses, or they rely on tacit understandings of tolerated non-compliance to secure reasonable outcomes. Now, how to know what discretionary decisions or broken rules will be tolerated? Traditionally the necessary substantive guidance came informally from the political realm. [116] Today, however, the political realm is no longer stable and monolithic. This in itself is a problem, and it also further reduces the likelihood that tacit understandings will develop, especially amidst fundamental transition and reforms. So ultimately rules, including policies and results, become unclear, i.e. it becomes unclear what to hold someone accountable for.

[116] Of course, no system of policy planning and implementation is so perfect as to not leave some, often substantial, decision-making to a certain degree of discretion. In those cases informal political influence and/or shared tacit understandings of policy intent will inform decisions. The question is one of degree.

IV. Prosperous and Healthy Communities

141. **Delivering human development on the ground, in local communities, is the ultimate destination of most national and all local policies, but Serbia's institutions are not equipped to shape policies to local circumstances.** It is in local communities that lives are lived, value is being created, and that no one should be left behind. Only a well-balanced relationship between economic, social and environmental progress at the local level can ensure good quality and sustainability of life. Yet the wide regional/local disparities in human development and economic conditions require different and locally adapted policy responses. This challenge is further complicated by Serbia's de facto territorial distribution of powers being excessively centralized, (with central authorities ill equipped to perform their part) and by accountabilities that are muddied by mixed competences (Section III.2). Moreover, the institutional framework for managing regional development policies is incomplete and largely inoperative.

IV.1. Territorial Organization and Responsibility delegation in Serbia

Serbia's territorial organization[117] consists of: municipalities (150), cities (23), the City of Belgrade (i.e. 174 units of local-self-government), all of them units of local self-government (LSG), and the two Autonomous provinces of Vojvodina and Kosovo and Metohija as forms of territorial autonomy.[xxix]

While LSG units perform a broad array of tasks and have many competences, there are very few in areas in which they truly exercise sovereign power. Fully in the competence of LSG units are culture, recreation, preschool education, communal services, local roads and housing, while the Republic (and autonomous provinces), can also delegate tasks such as in the social policy area. In order to perform its tasks, LSG may establish local public companies, such as utility companies for water supply and waste water; solid waste disposal; district heating, as well as institutions and organizations in various areas (education, culture, sports, social policy, etc). In many of the remaining areas, such as social protection, education, health and environmental protection – the republic (and autonomous provinces) can and does delegate responsibilities. To date, however, in these areas policies are largely made by the republic, which has kept the ultimate decision-making power and most of the funding. LSGs tend to be their implementers. This is a substantially more centralized set-up than is customary in Europe, particularly considering that Serbia has some of the largest LSGs units in Europe. LSGs have a relatively limited taxing and revenue collection authority (mostly based on taxing property) and depend on tax revenue-sharing and transfers from the republic for the bulk of their revenues.

142. In order to most effectively plan, organize and deliver on policy objectives, the key issue is definition of **clear roles and responsibilities of different levels of governance and communities**. This does not refer only to legal aspects- definition of competences and mandate, but also understanding of role and accountability for socio- economic development, well- being and environment protection on local level. In this context, vertical coordination would imply not only consistency of policies between national and subnational levels, where targets are set on national level and implemented on local, but also coordinated action to deliver on those policies. Also, design of policies on national level should adequately take into consideration financial and other capacities on local level- either by

[117] Regulated by the Constitution of the Republic of Serbia Official, Gazette of RS, no. 98/2006, articles 176-193 and the Law on Territorial Organization Official Gazette of RS, no.129/2007.

planning and setting targets realistic to be achieved or by ensuring additional financial support to subnational level in order to be able to deliver.

143. **On the other hand, horizontal cooperation between communities at the same level of governance is key for issues that are more effectively addressed on a regional level** (such as waste disposal, waste water treatment), connectivity (regional transport networks), exchanging experiences and practice, but also designing joint actions and projects in different areas, including small projects improving social cohesion (bicycle paths, culture events, etc). Coordination mechanism and platform for coordination between local governments are, among other, regional development agencies, which should have capacity (legal, technical and financial) to adequately perform this role.

IV.2. Basic Needs Provided by Local Communities

IV.2.1. Access to safe and affordable water and sanitary systems

144. **Improving water and waste management still presents a major challenge as these are considered key infrastructure investment project areas**. Number of households connected to water supply system increasing on a yearly level from 2,003,418 in 2012 to 2,104,590 in 2016 making current percentage of households connected to water supply systems 83.7%, as well as number of households connected to wastewater collecting system for the same period – 1,387,067 in 2012 comparing to 1,501,289 in 2016 with increase of almost 10% in four years and current percentage of households connected to sewage systems 59% (SDG Target 6.1) [118]. Still, this is the similar level to the EU NMS (Czech Republic 85%, Hungary 79%, Bulgaria 75%, Poland 73%, Slovenia 63%, Croatia 55%, Romania 48%). Current sewage/septic tanks ratio being 72%/28% and with only 17% (Eco Bulletin, SORS, 2016) of wastewaters treated in Serbia (with number of wastewater treatment plants being 50 while only 35 operational) with 100% sewage sludge disposal from urban wastewater on landfills challenges in the water sector are considerable (Eurostat) (SDG Target 6.2).

145. **The high share of population is connected to the public water system (83,7%), however there are issues of water management in Serbia.** As other communal infrastructure, public water system is similar to other ex-communist countries regarding public water population coverage (Czech Republic 94%, Croatia 85%, Romania 64, apart from Bulgaria which has higher population coverage -- 99%). Still, ensuring clean drinking water present a serious problem in parts of Vojvodina with high levels of arsenic in underground waters, but also presents problem in other parts of Serbia as a consequence of inadequate water management of water sheds as in the case of city of Užice where in 2016 water from city water system was banned.[119]

146. **Water management issues include not only ensuring drinking water, but also treatment of waste waters** (and accompanying byproducts) and further development of irrigation systems in agriculture (target 6.5). Impact on the health of the citizens from inadequate waste water treatment and direct polluting of other water bodies and soil is present especially with only 17% of wastewaters currently being treated (only 35 of 50 water treatment plants are operational). Investments for improving water sector will include increase of the price of water which is currently below its market value, similar to electricity price.[xxx]

[118] SORS. (2016), *Eco Bulletin.*
[119] http://rs.n1info.com/a152700/Vesti/Vesti/Vanredna-situacija-u-Uzicu-zbog-pijace-vode.html

IV.2.2. Access to safe and affordable housing and transport system

147. **It comes as no surprise that Serbia like other ex-communist countries in EU faces no problems with home affordability**. Even 80% of population in Serbia is classified as "an owner with no outstanding mortgage or housing loan" (in Romania 96%, Croatia 84%, Bulgaria 79%, Slovakia 78%, Poland 73% etc.), while only 2% as "owner with mortgage or loan"[120]. The rest of population are tenants, where even 84% of them are "tenants on reduced price or free". According to the Household budget survey (2016), housing, water and electricity expenses constituted on average 17% of total household budget, while actual rentals paid by tenants was 1,5% in urban areas and 0,1% in other areas. Still, for 7% of total households, housing expenses comprise more than 50% of their total budget expenditures.[121]

148. **On the other hand, the main issue is the large illegal construction in Serbia in the last two decades**[122]**.** According to the Strategy on social housing, underlining problems refer to the inappropriate management of construction land, but also insufficiently updated information on real estates, the non-transparent and inadequate economic valuation of construction land, and permanent delay in the implementation of reforms in this area. It is estimated that the share of all informal settlements in capital is 5-25% in Serbia (which is similar or lower level to the neighboring countries Croatia 5-25%, Bosnia and Herzegovina 25-50%, Montenegro >50%)[123]. These informal settlements are usually classified into two groups: slums (built on the public land, mostly populated with vulnerable groups like Roma -- these settlements are not dominant type) and large suburban residential areas (with family houses built on private or public land) [124]. These informal settlements usually suffer from low level of communal services, and infrastructural problems related to the connection to the sewerage system and heating system.[125]

149. **Finally, there is an issue of access to transport system, particularly in rural areas. Affordable transport is an extremely important condition for the inclusion and employability of people living in less developed or remote areas of the country.** In rural areas today there is still a significant share of the population that faces difficulties accessing public transport, even roads, and hence accessing schools, health-care and jobs.

IV.2.3. Waste management in local communities

150. **Adequate waste management in most cities and municipalities is a serious concern for the citizens** (target 11.6). The 2016 Progress report for Chapter 27 stressed the need to […]*intensify efforts regarding implementation and enforcement including closing non-compliant landfills, investing in waste separation and recycling*[…].[126] Communal waste management and adequate treatment is still, apart in rare cases, on a very low level. Although the currently valid Waste Management Strategy[127] set goals for the area to be achieved by 2019 which include 29 operating regional sanitary landfills,[128] 44 transfer stations, 17 recycling centers, 7 composting centers and 4 waste incineration facilities, the

[120] Eurostat.
[121]Government of the Republic of Serbia, (2012), *National strategy on social housing*. Official Gazette 13/2012.
[122] Ibid.
[123] NALLAS, (2011). *Challenges of regularization of informal settlements in South East Europe*.
[124] Ibid.
[125] Government of the Republic of Serbia, (2012), *National strategy on social housing*. Official Gazette 13/2012.
[126] Eurupean Commission, (2016), *Serbia 2016 Report - 2016 Communication on EU Enlargement Policy*. (p. 76.).
[127] Government of the Republic of Serbia, (2010), *Waste Management Strategy for the period 2010-2019 (*Official Gazette of the Republic of Serbia no. 29/10).
[128] It is expected this number of planned regional landfills will be revised in the new Waste Management Strategy to be amended in the upcoming period.

situation in Serbia today is far from the set targets. There are only 10 operating sanitary landfills[129], out of which not all are regional ones, there are no composting centers or incinerator facilities[130], while the number of transfer stations and recycling centers is also not reached. According to the Environmental Protection Agency of the Republic of Serbia the coverage with municipal waste collection in Serbia in 2016 was at 82%,[131] while the same report states that only round 20% of municipal waste does not end up at municipal landfills.[132] However, at the same there are over 3000 wild dumpsites in Serbia and lack of proper waste management system especially in smaller municipalities with diverse small settlements. Additional issue is the fact that most of municipal landfills are not in accordance with the EU regulations, data for 2014-2015 showed that there are 165 non-compliant municipal landfills in Serbia.[133] (SDG Target 11.6)

151. With both areas being within the jurisdiction of local governments and that they often require inter-municipal cooperation, development of complex project and accompanying project documentations, financial planning and co-financing often municipalities either are reluctant in entering such processes or simply do not have the capacity to prepare and implement projects.

IV.2.4. Local Utility Companies (LUC)

152. **LUC in Serbia[134] often fail to provide satisfactory quality of services[135].** At the same time, they incur large losses that are subsequently covered by subsidies.[136] Therefore, LUC face significant illiquidity, which ultimately disables them to invest in upgrading of services quality. The main issues relate to the overstaffed companies, low service charge, service prices below their market value and technical losses[137]. Employment costs are high, while revenues are insufficient as it is estimated that LUC on average do not charge for up to 10% of the services they provide[138]. The issue is even more pronounced since the prices are lower than in other comparable countries. Finally, there are losses due to the low investments in maintenance of the existing infrastructure (e.g. 30% of water losses due to this issue solely, while upper boundary in EU is 25%)[139].

IV.3. Regional inequalities and institutional capacity of the LSGs

IV.3.1. Regional inequalities

153. **Regional development differences in Serbia are deep, and the transition has further exacerbated them**. The global shifts in production over the 1990s and the transition in Serbia have particularly hit heavy industrial production and the towns that strongly depended on them. At the

[129] Regional landfills are operating in Uzice, Sremska Mitrovica, Pirot, Leskovac, Jagodina and Lapovo while sanitary landfills are operating in Kikinda, Pancevo, Vranje and Vrsac

[130] With the PPP for the Belgrade city landfill Vinca the plan is to have operating incineration facility for the production of energy for heating.

[131] Government of the Republic of Serbia. *Waste management in the republic of Serbia, 2011-2016.* (p.8)

[132] Ibid

[133] NALAS, (2015), *Benchmarking on Solid Waste Management in South-east Europe* .(p. 33).

[134] World Bank, (2012). LUC provide numerous services, but 72% of them have their primary business activity in one of the following areas: water supply and sewage; waste management; and district heating (WB, 2012).

[135] Fiscal Council, Republic of Serbia, (2017). *Local public finances: problems risks and recommendations.* Retrieved from: http://www.fiskalnisavet.rs/doc/analize-stavovi-predlozi/Lokalne%20javne%20finansije_%20Problemi,%20rizici%20i%20preporuke%20(2017).pdf

[136] Ibid.

[137] Ibid.

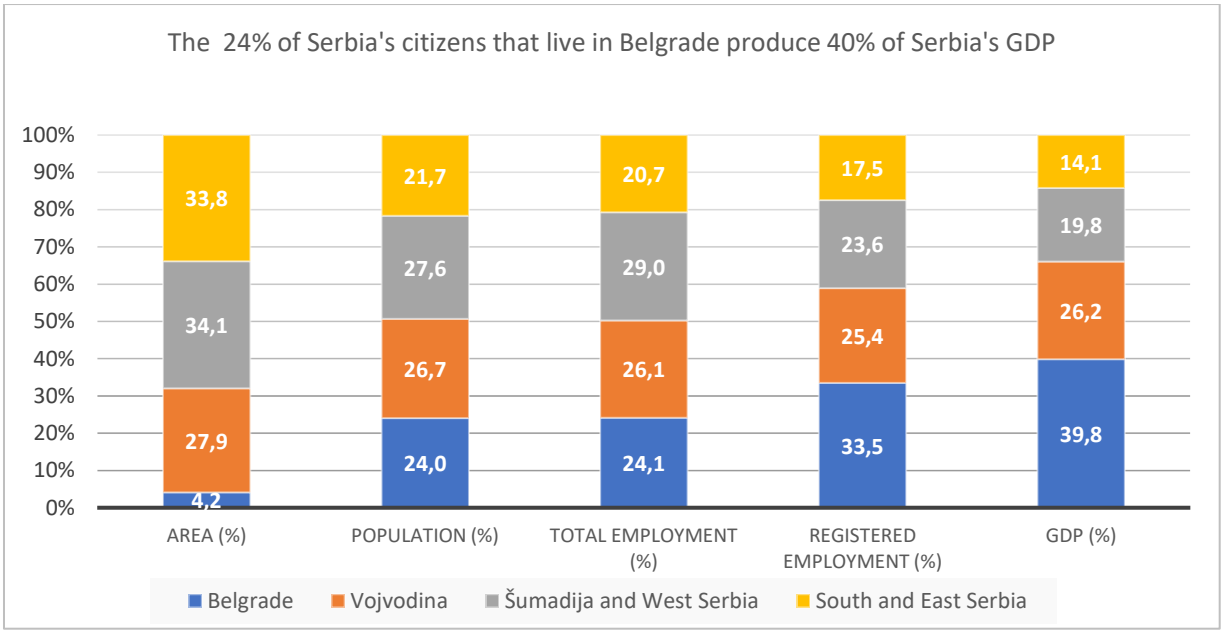
[138] Ibid.

[139] Ibid.

same time, the provision of services grew, similarly reflecting global trends, but also making up for the underdevelopment which occurred under the socialist economy. As in the post-communist countries, this has benefited Belgrade and Novi Sad, while rural regions suffered.

154. **The key macro indicator, GDP per capita, indicates that Belgrade, followed by Vojvodina, is much more developed than the rest of the Serbia, with GDP per capita 2.5 times higher than in the least developed region of Southern and Eastern Serbia.** It is clerly visible on the Graph 15 that although the region of Southern and Eastern Serbia contributes to 22% of the total population, it generates only 14% of country's GDP. Structure of the totatal employment compared to the structure of registered (formal employment) inidcates that much biger share of informal employment is concentated in Šumadija, Southern, Eastern and Western Serbia, than in Belgrade and Vojvodina.

Graph 15. Share of Serbia's regions in area, population, employment and GDP



Source: SORS

155. **Ultimately, differences in regional economic and social development in Serbia are sharp even if Belgrade is excluded from the analysis.** While Vojvodina's GDP per capita is 1.5 times larger than that of the region of Southern and Eastern Serbia, the differences are even sharper within the regions themselves. Gross value added per capita in the most developed district in the region of Southern and Eastern Serbia (Pirotski) is more than 2 times larger than that of the least developed district in the same region (Podunavski). This is creating a *"leopard skin"* of economic development and disconnected economic environments.

156. **Poverty is primarily concentrated in non-urban areas, especially in the Southern and Eastern Serbia Region.** Poverty rate in this region was as high as 13%, twice more than in Vojvodina, and Western Serbia and Šumadija, and three times more than in Belgrade. In addition, the population at-risk of poverty (i.e. the share of the population living below 60 percent of the median income) was also highest in this region. Greater poverty in this region is correlated with level and structure of income, as well as with the lower quality of employment.

- Although income in this region is at similar level as in other regions, other than Belgrade, on average **Southern and Eastern Serbia rely relatively more on non-labor income** (pensions, social assistance, and private transfers/remittances) and agricultural income (both market and natural). These two types of income comprise 50% of total available income of this region.
- **Quality of employment is the worst in region of Southern and Eastern Serbia.** Although activity, employment, and unemployment rates are only slightly worse in this region, deeper insight in the structure of employment reveals that share of employees with high-education in total number of employees in Southern and Eastern Serbia, that roughly indicates quality and prosperity of jobs, stands at only 19% -- similar to Western Serbia and Šumadija, and half of that share in Belgrade. In addition, half of total employment is generated in agriculture and public sector, while according to the international LFS methodology, almost 40% of employment is of extremely low work intensity and at risk of poverty (informal employment and self-employed without employees accounted for 220k out of 563k employees in 2016). In terms of availability and adequacy of labour force, 24 percent of firms in Southern and Eastern Serbia report an inadequately educated workforce as a major constraint compared with only 3 percent of those in Sumadija and Western Serbia, and 8 percent of firms in Belgrade.

IV.3.2. Institutional capacity of the LSGs

157. **Local communities lack the tools and autonomy they need to fully take responsibility for solving development problems.** The wide regional/local disparities in human development and economic require different and locally adapted policy responses. It does not help that the territorial distribution of power fogs accountabilities, along the lines described in Chapter III. Serbia's LSG level does not lack in the number of development aspects in which it is involved. The problem is that for the most part it is the implementer of national policies, rather than the creator of its own policies. Furthermore, the national government often tasks the local level with incomplete, or underfunded tasks. It also prescribes in minute detail how tasks, even those fully in the local competence, are to be carried out. It is true that some LSG units lack the necessary capacity to deal with their development needs, but this is less important than is usually believed. Finally, shared solutions require social trust and citizen participation, and these are much lacking in Serbia, as in the post-communist countries.

158. **It can be said with certainty that the institutional framework for regional/national development management needs much improvement.**

- **Regional and sub-regional development policies are much needed but few are in place.** The policy framework in this regard lacks a number of elements[xxxi]. One problem is the weak framework for policy coordination and planning at the national level, more discussed in Chapter III. Moreover, an institutional framework for policy coordination at an intermediate level—below the national, but above the local, i.e. including more LSG units is missing. LSG units are relatively large by international standards (most range between 50.000-70.000 inhabitants), but many economic projects and regional development planning require the coverage of larger territories. A legal framework for regional planning is in place but needs to be revised. Dedicated institutional capacities are weak, and while some Regional Development Agencies have developed capacities, they their mandate and tools are insufficient to guide regional policy development and

implementation. Finally, there is no regional development strategy/ plan at the national level, which would serve as the basis for alignment of specific regional strategies and ensure coordinated approach in financing territorial cohesion and reduction of regional disparities.

- **National strategies and policies are mostly sector-based, while subnational are mainly territorial socio-economic development strategies that address sector-specific issues and should be aligned to national priorities, targets and deadlines for their achievement.** Often ambitious national sector strategies and reform plans should be translated into actions on local level simultaneously in all sectors which poses high requirements in terms of local administration capacities- human resources wise as well as financial capacities. National Regional Development Plan should provide for strategic orientation on how to address the issue of reducing disparities and additionally support the least developed regions/ local government units, since capacity to progress further in economic reforms, industrialization, smart specialization and infrastructure development lies more within urban centers and most developed communities, which poses a risk of further increase of disparities unless efficient actions and instruments are planned on the national level within the regional development policy. Similarly, preparations to absorb much larger EU Structural and Investment Funds once Member State (Cohesion Policy) must be made timely, to build the capacities of less developed regions to manage and co-finance projects, in order to ensure that even larger disparities are not created in the future.

159. **Finally, the key challenge in local development, especially in large cities, is for its citizens themselves to confront complex local problems and tackle them together, as communities.** The many urban, environmental, safety and societal problems that characterize human settlements are very specific to each locality and require local action. Yet, only with such action can the great sustainability challenges facing humanity, both social and environmental, be overcome. Stemming global warming and conserving natural resources require radical changes in the way we conduct everyday life—from reducing and recycling waste, to reshaping urban transportation systems. Ensuring that these changes do not bypass the vulnerable is also a particular challenge, most often requiring localized solutions. Just as central planning proved to be incapable of distributing goods where they were needed, so it is the local communities, not central governments, that know who needs help, and what kind. Solving such challenges together is what makes a community, and it adds up to much more than the sum of the development aspects mentioned above.

V. Conclusion

160. **In these concluding remarks we integrate and summarize the findings of the previous pages with a forward-looking perspective.** We conclude that considerable opportunities lie open in front of Serbia's society to improve the development status of its people, their prosperity and the environment in which they live. However, there is also a considerable risk that these will not be realized—mostly due to factors deriving from the legacy of an economic and social implosion that today, paradoxically, hampers change. There is also little institutional capacity to promote adaptation to the new circumstances and to more decisively prioritize those actions that can be most beneficial to society as a whole. State institutions (the administration, education, science) are not set to work in support of private sector development, and especially not for the sort of decentralized action that would help activate and include all people and resources. Initiatives such as the proposed SDG Dialogue could make an important contribution by mobilizing some of the missing collective action.

161. **As described in the first part of Chapter I, while Serbia's GDP per capita is still lower than in 1989, economic growth is accelerating, and this is the result of mixed processes.** Growth is carried by what we call the "new economy", with its export growth averaging 12% annually since 2009, and accelerating recently. By new economy we denote formal economic undertakings that have emerged either completely new, including as FDI, or from resources strewn by the traditional economy. By "traditional economy" we refer to state-owned or privatized enterprises built in pre-transition times. The traditional economy imploded in the 1990s and its transformation is only now nearing completion. There is also a ring of informal and largely marginal, existential undertakings that, together with traditional agriculture offer a precarious mode of survival for an important segment of the population. The new economy at present is competitive. Nearly ¾ of the described export growth is coming from conquering new markets or market share. It is highly diversified based largely on the competitive advantages provided by the rich land and agricultural tradition of Serbia, on very competitive mid-technology industrial know-how (metals, machinery and electrical equipment), or on IT and other knowledge that can be exported through services.

162. **However, it is very questionable whether and to what an extent the new economy can spread to benefit Serbia's broader population.** It presently surely comprises a relatively small share of what is already the lowest total employment level in Europe (together with BiH, 38.5%, compared to 66% for the EU28 and the NMS on average). We assess that to employ the unemployed, the discouraged, and those working informally, would require approximately an additional 1.45 million new decent jobs compared to those currently available. Yet the growth of the new economy so far rests more on increasing productivity than employment. As discussed in Chapter II, companies report that they expand employment only gradually, building skilled employment over time, as there is little ready supply of skills on the market. This is paradoxical as, at the same time, companies cannot find skilled employees, wages remain relatively low and many are leaving the country.

163. **This paradox is explained by the fact that structures inherited from the past are withering rather than restructuring to adapt.** In contrast to the experience of the transitional New EU member states, in Serbia (and the rest of the Western Balkans) foreign direct investment did not arrive in time to employ a significant share of employees shed by the traditional economy. Instead, they were picked up by the new economy only gradually, much of their skills becoming obsolete or altogether lost. This left a thin layer of skills and capabilities widely spread throughout the country. At the same time, people cannot move to compete for better jobs (at the same time enhancing the labour expansion prospects of those companies that are growing) because wages stand deeply below historical levels.

At those levels, wages serve only as one component in the complex household livelihood strategies. These are based on combining the incomes of household members, and on their immobile assets (housing and land) to make ends meet. When people move, this is to Belgrade, or more likely emigration.

164. **This is creating a "leopard skin" of economic development and disconnected economic environments.** One kind of economy is developing around industrial/technological know-how and even ICT and creative industries. This is largely in Belgrade, Novi Sad, and much less so in a handful of smaller urban centers. Another kind of economy is developing in rural areas around land resources—largely the agri-food system, but also some tourism and other rural activities. Both these economies have a small healthy core surrounded by a ring of informality and precarious livelihoods. An important distinction can also be made between the foreign-owned, larger and globally integrated, companies and the domestic SME sector. CEVES' research suggests there is little integration between any of those worlds. Furthermore, a distinction can probably be made between those FDI and SMEs that are competitive and dynamic, generally export oriented, and those that depend on subsidies or clientele's relations with the state.

165. **Altogether, there is a serious risk that the new economy will not spread widely enough, cementing the dual nature of Serbia's economy**--with some part of the population employed in decent jobs, and others confined to a precarious livelihood in the informal economy or depopulating regions, or emigration. There is a real risk of a demographic implosion.

166. **Global trends in technology and the labour markets, as well as Serbia's demography, only further exacerbate this risk.** Economic opportunities for skilled work are beckoning from Europe, prompting an intensive brain-drain and overall emigration and depopulation. At the same time, a new degree and kind of automation is already eliminating relatively complex jobs and functions, relegating millions of people to unemployment or low value-added jobs--all of this clearly increasing risks of poverty and inequality in society.

167. **Strong policies and collective action are needed, and they need to be flexible and decentralized—as discussed in Chapter IV--to meet the described challenges in their local manifestations.** A described in Chapters I and III the educational system and other public services need to transform and adapt to help the expansion of necessary skills and entrepreneurship where and as they are needed. They need to prepare for the tectonic shift that is taking place in the global jobs structure. The jobs of the not-so-distant future are hard to even imagine, and Serbia's young need to be taught to learn, and react, rather than reproduce knowledge.

168. **Yet Serbia finds it difficult to implement policies (as explained in Chapter III) including those needed to directly address the duality of the present economy, to ensure that no one is left behind.** She is at the top of the list of European countries by income inequality, largely as a result of the low re-distributive effect of its fiscal policies (Chapter I). Serbia has one of the least progressive taxation systems and, although a high share of public funds goes to social transfers, pensions as their main component are themselves highly unequal. Too many jobs in Serbia are of low quality (e.g. fixed-term employment, occasional and temporary work and self-employment) and quantity (e.g. work intensity, as measured by the number of months of work over the past twelve months). Moreover, the equality of access to public services is below what it could and should be with the current expenditure of resources. All these factors contribute not only to inequality but also to one of the highest rates of at risk of poverty in Europe.

169. **The organizational and operational structures of large public service system have also shown a striking resistance to change, as discussed in Chapter III.** The education, health, and justice systems

have not reorganized and deliberately adapted to changed demographic and economic circumstances in decades. This is not only highly inefficient, but also likely to be a significant contributor to inequality. Institutional limitations are revealed in that the infrastructures of either the education or health systems have not been adapted to the changed demographics, or to system's priorities from the time when they were built. In the case of education, the profiles barely adapt to the needs of the changed labour market needs. In the case of health, the system has not fully switched to dealing with the prevalence of non-communicable diseases, and the need for much more investment in their prevention, rather than belated treatment.

170. **A broad social dialogue envisioning the future, understanding our current constraints, creating self-awareness for those parts of the society able to contribute to change yet currently constrained can be extremely important.** Serbia has strengths: a dynamic knowledge community is emerging, it is agile, and it is self-mobilizing. Its rural areas also have strengths. Serbia is one of only 12 net exporters of food in Europe, and the agri-food system's key limitation – small and fragmented landholdings – can be turned into a strength through the development of niche, high value-added produce. While the predominant attitude towards the environment is that "it can wait", considering our current difficulties, it itself also offers development opportunities. Awareness raising can go a long way towards creating them. However, there is a need to connect these disconnected worlds, and to create a space of shared information and forward-looking attitudes.

Endnotes

[i] The 2030 Agenda is a global commitment to the principles that development should "leave no one behind" as well as that the citizens of today should leave an environmentally healthy and manageable planet to their descendants. It is articulated through 17 Sustainable Development Goals (SDGs) and 169 targets to accomplish by 2030. Serbia is presently embarking on the process of nationalization of the SDGs. "Nationalization" consists of the prioritization and adaptation, even reformulation, of the goals/targets to fit a specific country's needs. Countries have also committed to develop results frameworks, and to monitor and report back to the UN on progress in their implementation. Finally, it is expected that the results frameworks will be supported by realistic and feasible strategies, which, in turn, will be reflected in the countries' overall strategic and policy planning frameworks.

[ii] This assessment is 10 percentage points higher than shown by the official GDP/GNI figures preduced by SORS and held in UN data bases. Weaknesses in official statistics pose a substantial challenge to the present analysis, as sometimes the official figures can be clearly far off from the likely true levels. For key indicators we have adopted a view as to their likely actual dimensions, and present the analysis and references in Annex I: Detailed Data and Measurement Issues. However, the figures and tables show official data.

[iii] The result has been a decline in registered employment since throughout the period since 2001, even in the "best" years, until 2015 (see graph), as the traditional economy was gradually restructured, and employment was shed whether their output increased or not. Meanwhile, the new economy whose output grew throughout the period (with the exception of 2009) was not able to absorb all this labor in formal employment.

[iv] Full employment assumes „no unemployment", which at present would require 490k new jobs. However, there is a large number of discouraged workers in Serbia, and assessment implies additional activation of 340k discouraged workers, in order to reach EU28 activity rate of 72%. On top of that, it is assumed that 600k out of 700k informal jobs cannot be considered as decent and should be transformed.

[v] Unemployment rates also sharply increase with the youth of the population (15-29), but have recently been de. that indicator reaches 30% -- twice more than EU average. One of the key reasons for such large difference is that the share of youth not in education, training or employment (NEET) is higher in Serbia (18%) than in EU28 (average 13%). It is of particular concern that the young appear to have great difficulty finding employment upon completing their education, although the situation appears to be improving since recently. It is of particular concern that the young appear to have great difficulty finding employment upon completing their education, although the situation appears to be improving since recently. It takes 2 years for those completing secondary and 1 year for those completing higher education, while 4 years are needed for those completing primary education. However, this time lag appears to be shortening and the unemployment for those aged 15-29 dropped sharply to 30% in 2016, from 35% a year earlier .

[vi] • In terms of inequality, of all measured countries, with a Gini coefficient of 38.6 in 2016, compared with 30.8 for the EU28 on average. Gini coefficient in Serbia is significantly higher than in neighboring countries -- Macedonia (35.2) Croatia (30.6), and Slovenia (24.5) (see Table A in Data appendix). This unfavorable position of Serbia is also confirmed by the quintile ratio -- income of top quintile of population is 9.7 times higher than income of bottom population quintile, which is higher than in Romania (8.3), Lithuania (7.5), Macedonia (7.2) and Bulgaria (7,1) (see Table A in Data appendix).

• However, there are strong indications that Household Budget Survey (HBS), which used to serve as a tool for inequality measuring in Serbia before first SILC was implemented in 2013, puts Serbia closer to the EU average. The most probable reason for such difference is that HBS is consumption-oriented, while SILC is income-oriented. Since Serbia has a significant share of natural income, as well as Macedonia and B&H, which is recognized by HBS, but not covered in SILC research, it can be rationally assumed that inequality in consumption is less emphasized than inequality in income. However, this finding can only be compared with a few other countries. As can be seen in Data appendix, inequalities estimated by consumption or income for the same country can show significant deviations.

[vii] The absolute poverty line of 6,411 RSD (per adult equivalent) was estimated using Household Budget Survey data for 2006. This amount has been updated for the following years, using the retail price index, so it reached 11,340 RSD in 2014 (Source: Mijatović B (2014), *Poverty in Serbia*). A price of an average consumer basket determined on the basis of a minimum daily intake of 2,288 calories per adult equivalent ("food line") and a price of a basket of non-food basic needs were used as a reference point. Non-food needs were estimated based on the share of food in households with equivalent food consumption of an adult near the "food line" (66.6 %). Source: Krstic G. and Sulla V. (2006), *Basic Document on Trends and Poverty Profiles in Serbia: 2004-2006*

[viii] Items of material deprivation are: 1. The inability of the household to afford adequate heating; 2. The inability of the household to afford a washing machine; 3. The inability of the household to afford the car; 4. The inability of the household to afford all members a week's rest at home at least once per year; 5. The inability of the household to afford an unexpected cost of 10.000,00 dinars that would be paid from the household budget;

[ix] Montenegro and Slovenia have a higher coverage, whereas only Lithuania (from the pool of NMSEU countries) fares better than Serbia (Eurostat data). Data pertain to primary education coverage of 7-year-old children in percent of the given age category. According to the enrolment-in-primary-school indicator (%net -- net enrolment rate is the ratio of children of official school age who are enrolled in school to the population of the corresponding official school age), Serbia also fares better than Montenegro with respect to primary education coverage. (World bank data on education).

[x] Total enrollment in pre-primary education, regardless of age, expressed as a percentage of the total population of official pre-primary education age. NMSEU – average for previously mentioned countries, except Estonia (N/A). Data for Poland and Slovenia are for 2014 year.

[xi] As the life-expectancy indicator is based on data on mortality which are quite reliable, various databases that we are using have very similar, but not identical life-expectancy indicator estimates. However, the presented position of Serbia in this respect is not different in other databases.

[xii] An approximation of the situation is done through examination of data from various state institutions which are not connected and networked amongst themselves.

[xiii] - Labour market -- according to the Serbia Systematic Country Diagnostic (WB), relative to 2013, the working age population is projected to fall by 16% by 2030. In order to achieve GDP growth, while working age-population is declining, more focus on enhancing labour productivity and on keeping workers in the labour force until retirement age and beyond is required. Currently, Serbia has a high rate of early withdrawal from the labour force which, if continued, would cause even stronger declines in the future labour force.

- Pension system -- beneficiary-to-contributor ratio expected to jump to 1:1 from the current 0.6:1. The ratio of beneficiaries to contributors is important in a pension system since contributions from those of working age are used to support pensions for the elderly. If the ratio becomes 1:1, the benefit that is affordable as a percentage of average wage becomes equal to the contribution rate as a percentage of average wage.

- Education -- due to the demographic decline, the number of students entering secondary schools is declining. In a five-year period, between school years 2011/12 and 2016/17, the number of students entering secondary school fell by 12 percent, for a total of almost 33.000 students. This trend will continue, creating pressure to urgently address issues linked to the size of the school network.

- Health -- the projected demographics trend will also affect health spending, as health needs increase with age, as well as the need for long-term care which tends to be highly labour-intensive. Health spending also tends to increase as older individuals deal with the management of non-communicable diseases, even if the acute spending only occurs in the very last years of life. Long-term care, which is highly labor-intensive, is also likely to present a challenge.

- Vulnerable groups -- children from low-income and Roma households will represent a growing percentage of the future workforce. The total fertility rate for the Serbian population as a whole is between 1.4 and 1.6 children per mother, well below replacement rate. Low income households tend to have higher fertility rates; specifically for Roma, the total fertility rate was 3.1 in 2014 (MICS 2014). Using best available estimates of the Roma population (between 400,000 to 800,000), preliminary estimates suggest that in the next 15-20 years new labour market entrants of Roma descent may represent between 14 percent to 29 percent of total new labour market entrants in Serbia. Even when using the official census estimates (which underestimate the Roma population), Roma would still represent at least 5 percent of new labour market entrants.

[xiv] Agribusiness is probably the sector that has a potential to benefit the most from proper government support. In order to strengthen international competitiveness and continue with transformation and commercialization of domestic supply – while maintaining as much traditional producers as possible, well-targeted interventions are necessary. Investments in rural infrastructure, agricultural research, extension services, and technology development, recognized by target 2.A, as well as support to proper functioning of food markets and timely access to market information, identified by target 2.C, represent top priorities for Serbia's agribusiness sector further development. Although Agricultural and Rural Development Strategy 2014-2024 recognizes majority of strategic development goals, such as (1) production growth and stability of producers' income; (2). increase in competitiveness, accompanied by adjustment to the requirements of the domestic and foreign market; (3) sustainable resource management and environmental protection; (4) improvement of the quality of life in rural areas and poverty reduction; (5) efficient public policy management and enhancement of the institutional framework for the development of agriculture and rural areas – goals and/or actions are not prioritized or clear enough, nor easily measurable. Agricultural budget (cca 370 mil EUR in 2018) and IPARD grants (175 mil EUR has been allocated for the years 2014-2020), together with extension services provided by Ministry of agriculture, are the key instruments that should contribute to the fulfillment of previously well-defined development vision.

[xv] Serbia produces 63m^3 of industrial roundwood per 1km^2 of forested area, while comparable countries produce much more: Bulgaria produces 92, Croatia 137, Romania 147, Lithuania 188, Portugal 218, Poland 380 and Czech Republic 518 (Source: SORS, Ministry of Agriculture, and Eurostat).

[xvi] Serbian wood processing sector generates the lowest value added per 1m^3 of sawnwood when compared to comparable countries (Lithuania, Croatia, Hungary, Slovenia, Slovakia, Czech Republic…). That is also evident from the fact that Serbia's wood processing sector has only 0,3 employees per 1km^2 of forested area, while the comparable countries[xvi] have 1 employee on average (with reasonable assumption that Serbian sector is not more capital intensive), meaning that Serbia could increase its wood sector employment for 10.000 - 22.000 people.

[xvii] For example, official data show that around 3 million m3 of roundwood is extracted per year, but some estimates show that this figure is at least two times bigger (Ministry of Agriculture (2017), *Economic potential and activities of importance for environment of the Republic of Serbia in 2015, p. 26)*. This is most probably due to the fact that significant quantities of wood are cut for non-commercial purposes, such as for heating, which is often done in an informal sector. Also, data on wood sold from public forests are not transparent, while data on wood sold from private forests are non-existent.

[xviii] Although Tourism Development Strategy (2016-2025) promotes sustainable tourism which creates jobs and promotes local culture and products (SDG Target 8.9), it seems Serbia still does not act in a systematic way. There are many great initiatives implemented by regional tourism organizations across Serbia (e.g. sustain babe rural tourism initiatives in Zlatibor and Vranje region, supported by SDC), but they are not coordinated among regions and are rarely scaled up to the national level.

[xix] It is very important to emphasize that we speak of skills under this heading. They differ from knowledge in that they denote the capacity to apply knowledge and they are not as simply transferable as knowledge as their development requires experience, the trial and error process involved in learning to do something as opposed to describing how it is done. This distinction is very important as it explains the value of Serbia not only having schools able to transfer engineering/technical knowledge, but having people that have worked, and created applying such knowledge—they have skills—and that can by coaching new employees help spread this skills much faster than it would be needed for a country industrializing for the first time.

[xx] Serbia does not have a valid strategy that would cover entire transport sector. The last one expired in 2015 (Strategy of railway, road, inland waterway, air and intermodal transport development in the Republic of Serbia, 2008 - 2015) http://www.putevi-srbije.rs/images/pdf/strategija/Strategijatransport_eng.pdf. There is a new strategy in place regarding water transport only (Strategy of water transport development in the Republic of Serbia, 2015-2025) http://uprava-brodova.gov.rs/sr_cir/pdf/strategija.pdf with the focus on water transport recovery.

[xxi] While the contribution of transport to employment and GDP is highly correlated to the general level of a country's economic activity, transport development should be at least one step ahead, aligned with expected future tendencies (Kenneth, 2015).

[xxii] Systematic comparisons of the progress in the construction, maintenance, and project pipeline of the road network could go a long way in assessing government capacity.

[xxiii] Perceptions in a country whose citizens have higher (possibly disappointed) expectations are likely to weigh overall assessments down. Similarly, the World Bank's Government Effectiveness Index is entirely perceptions based.

[xxiv] The economic governance of public utilities represents a particularly acute problem, and a subject of a number of policies awaiting implementation. For example, the low accessibility of stable additional electricity supplies and a misaligned incentive system in the operation of the electric utility of Serbia (EPS) present significant obstacles to third party investment, limiting overall growth; the low value added and sustainability of forest exploitation, ecosystem maintenance and lack of integrated water management all represent, at least to some extent, weaknesses in the operation of large public utilities.

[xxv] For example: there is little doubt that increasing energy prices in Serbia is necessary and important from the point of view of sustainability--both environmental and economic—but it undoubtedly may cause hardship in those households that depend on electricity for heating, and it is politically very unpopular. Accompanying such an increase with well-targeted financial and programmatic assistance to those who would be hard hit would both be fair and help its political acceptability. However, targeting financial assistance well, and even more—developing truly effective adjustment programs (such as support for households and business to reduce their dependence on energy), requires considerable institutional capacity. In Serbia at present it would take some time to build this capacity, before the necessary support measures could be deployed

[xxvi] Appendix 2 lists the 2017 rendition of principles, organized under 17 key requirements and 6 dimensions/overall principles. If the principles of public financial management are subsumed under either realistic budgeting or accountability, then there are only two dimensions of the PAR principles that this example omits: the need to have a PAR strategic framework in place, and citizen orientation. Among Sigma's broad principles all but accountability are also identified as objectives under the Indicative Country Strategy Paper, Table 3 (for Sigma Principles, see Appendix 2).

[xxvii] A slightly more elaborate account, weaving-in sigma principles of good administration, gives the following „recipe". First, priorities have to be set through a well-coordinated policy development process, taking into account, above all, the government's financial but also other limitations. Thereafter, these policies/priorities need to be translated into action/operational plans, that set specific results for entire chains of command--from the whole government, down to individual organizational units. (Clearly, these government organizational units also need to be reasonably rationally organized). Clearly, implementation of the plans requires that the public administration be motivated and capable (technically competent) to execute what tasks are needed to deliver results. This, in turn, requires that two principles, above all, be observed: the principle of professionalism of the civil service, and the principle of accountability (including in financial management). These two principles ensure that staff are selected and promoted according to merit (and therefore competent) and motivated (both through carrots and sticks), since they are adequately awarded through a performance management system, as well as regularly called to account by internal and external controls, including public and parliamentary scrutiny (transparency), and liable for compliance with the law.

[xxviii] Take for example the LSG's accountability for their agricultural development. The Republic owns all agricultural land, but it is put to the LSG's disposal under minutely prescribed and restrictive regulations. Moreover, each LSG annual agricultural policy/plan goes through several iterations of central government scrutiny and approval. Finally, the land inspectors whose accountability is to monitor the appropriate use of the republic's agricultural land are under the jurisdiction of the republic.

This means that the LSGs have no instrument to themselves monitor the implementation of their agricultural policies/plan. In the end, nobody can really be held accountable for a LSG's agricultural policy results.

[xxix] The Law on Regional Development[xxix] and Regulation on Nomenclature of Statistical Territorial Units[xxix] have defined and established 2 Statistical Territorial Units which correspond to NUTS[xxix] 1 regions: Serbia - North (consisting of the Region of Vojvodina region and Belgrade Region) and Serbia – South (which comprises the Region of Šumadija and West Serbia, the Region of South and East Serbia and the Region of Kosovo and Metohija); five statistical territorial units which correspond to NUTS level 2: Region of Vojvodina, Belgrade Region, Šumadija and West Serbia Region, South and East Serbia Region, Kosovo and Metohija Region; 30 statistical territorial units which correspond to NUTS level 3 (district of Belgrade and the districts which overlap with the territory of 29 administrative districts in accordance with the Law on State Administration and the Regulation on Administrative Districts. Administrative districts are the form of deconcentration of functions of state administration. An administrative district is established for the purpose of having the state administration authorities performing certain state administration tasks outside its seat in Belgrade.

[xxx] Comparison prices in the neighboring countries are more or less the same as is the condition in the sector (*units)*.

Country	City	Average cost – water	Average cost - sewerage
Croatia	Zagreb	0.60	2.05
Serbia	Beograd	0.42	0.17
Bosnia and Herzegovina	Sarajevo	0.42	0.17
Montenegro	Podgorica	0.40	0.20

[xxxi] Decree on Single List of Level of Development of Regions and Local-Self Governments classifies LSGs in five categories: first, LSGs with GDP per capita above national average (20), second, LSGs with GDP per capita 80- 100% of national average (34), third, LSGs with 60- 80% of national average (47), fourth, LSGs with 60% and less of national average (44), while fifth, devastated areas, includes LSGs with GDP per capita less than 50% of national average (19 LSGs also included in fourth category).

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Appendix 1 – Data

Table A 1. The position of Serbia according to the Human Development Report

		HDI			Helth		Education			GNI	
		HDI rank 2015[6]	HDI rank 2014[7]	Human Development Index (HDI)[1]	Life expectancy Index Rank[8]	Life expectancy at birth[2]	Education Index Rank 2015[8]	Expected years of schooling[3]	Mean years of schooling[4]	Income Index Rank 2015[8]	Gross national income (GNI) per capita[5]
	Country	Rank	Rank	Value	Rank	(years)	Rank	(years)	(years)	Rank	(2011 PPP $)
	EU 28					**79.5**		**16.31**	**11.7**		**33,084**
	Denmark	5	6	0.925	30	80.4	2	19.2	12.7	18	44,519
	Ireland	8	8	0.923	24	81.1	6	18.6	12.3	19	43,798
	Finland	23	23	0.895	24	81.0	21	17.0	11.2	24	38,868
	Portugal	41	41	0.843	21	81.2	56	16.6	8.9	43	26,104
	Greece	29	29	0.866	22	81.1	28	17.2	10.5	45	24,808
	New members EU[11]					**76.4**		**15.9**	**11.9**		**23,820**
1	Bulgaria	56	57	0.794	84	74.3	49	15.0	10.8	69	16,261
2	Romania	50	51	0.802	75	74.8	52	14.7	10.8	60	19,428
3	Estonia	30	31	0.865	47	77.0	16	16.5	12.5	42	26,362
4	Latvia	44	44	0.830	84	74.3	25	16.0	11.7	51	22,589
5	Lithuania	37	37	0.848	94	73.5	14	16.5	12.7	44	26,006
6	Hungary	43	43	0.836	66	75.3	26	15.6	12.0	49	23,394
7	Poland	36	36	0.855	43	77.6	20	16.4	11.9	47	24,117
8	Slovakia	40	40	0.845	54	76.4	29	15.0	12.2	41	26,764
9	Slovenia	25	25	0.890	29	80.6	13	17.3	12.1	38	28,664
10	Czech Republic	28	28	0.878	38	78.8	15	16.8	12.3	39	28,144
11	Croatia	45	46	0.827	44	77.5	41	15.3	11.2	59	20,291
	Montenegro	48	49	0.807	54	76.4	42	15.1	11.3	72	15,410
	FYR Macedonia	82	83	0.748	64	75.5	90	12.9	9.4	87	12,405
	Serbia	66	66	0.776	69	75.0	55	14.4	10.8	88	12,202
	Bosnia and Herzegovina	81	82	0.750	52	76.6	82	14.2	9.0	101	10,091

Source: UNDP

[1]The Human Development Index (HDI) is a summary measure of achievements in three key dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions.

[2]Life expectancy at birth: Number of years a newborn infant could expect to live if prevailing patterns of age-specific mortality rates at the time of birth stay the same throughout the infantís life.

[3]Expected years of schooling : Number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the childís life.

[4]Mean years of schooling: Average number of years of education received by people ages 25 and older, converted from education attainment levels using official durations of each level.

[5]Gross national income (GNI) per capita: Agregate income of an economy generated by its production and its ownership of factors of production, less the incomes paid for the use of factors of production owned by the rest of the world, converted to international dollars using PPP rates, divided by midyear population.

[6]UNDP Country Rank by HDI results, (1-189)

[7]HDI rank for 2014: Ranking by HDI value for 2014, which was calculated using the same most recently revised data available in 2016 that were used to calculate HDI values for 2015.

[8]Approximation of the rank of author according to Life expectancy Index value, Education Index value, and Income Index value

[11]Average (1-11)

Source: UN Statistics Division

Table A 2. International comparation of welfare

Country	GDP pc	Average salary *	Vulnerable employment	Total employment rate	Productivity
EU 28	**27.600**	**33.416**	**11,7**	**52,8**	**52.273**
Denmark	47.100	63.934	5,7	59,6	79.027
Ireland	42.200	49.264	12,2	55,5	76.036
Finland	37.600	48.447	10	53,4	70.412
Portugal	16.600	14.105	12,9	52	31.923
Greece	16.400	23.624	26,8	39,9	41.103
NMSEU	11.955	**11.189**	**11,6**	**53,0**	**22.563**
Slovenia	18.200	21.702	10,6	52,1	34.933
Estonia	15.000	13.850	5,6	58,6	25.597
Czech Republic	14.900	12.245	14	57,6	25.868
Slovakia	14.000	12.161	12,4	54,2	25.830
Poland	10.700	11.340	16,8	52,8	20.265
Latvia	11.900	10.130	8,6	54,6	21.795
Hungary	10.700	10.006	5,8	52,8	20.265
Lithuania	12.500	8.928	10,4	55,6	22.482
Romania	7.500	6.217	25,5	50,6	14.822
Bulgaria	5.900	5.366	8,3	49,3	11.968
Croatia	10.200	11.137	9,5	44,6	22.870
YU average with Slovenia	**10.833**	**12.946**	**16**	**46**	23.449
YU average without Slovenia	**7.150**	**8.568**	**18**	**43**	16.532
Montenegro			11,9	44,9	-
The former Yugoslav Republic of Macedonia	4.100	5.998	26,6	41,9	9.785
Serbia	4.700	6.637	26,9	45,2	10.398
Bosnia and Herzegovina			20,4	39,6**	

*Source: Eurostat Structure of earnings survey (2014)

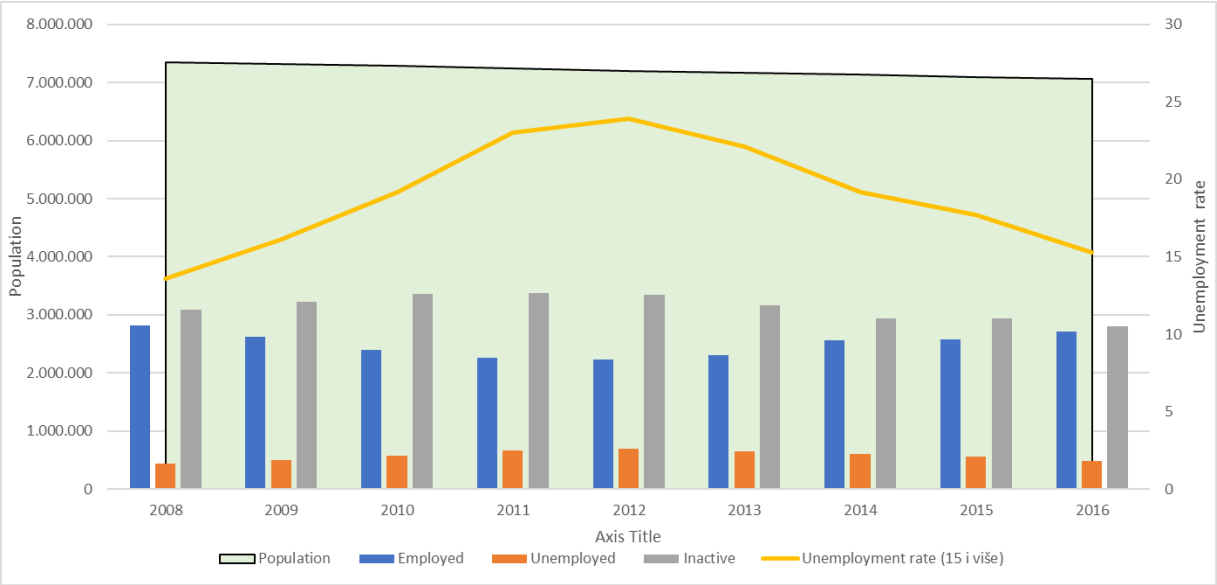
Vulnerable employment is contributing family workers and own-account workers as a percentage of total employment.

** Data for Bosnia and Herzegovina (15-74) http://www.bhas.ba/tematskibilteni/TB_ARS%202017_BS_ENG.pdf (s.41)

Total employment rate for age15+

According to the LFS, unemployment in Serbia first shot up between 2008 and 2012 to 701.000 people (with an increase of 255.000) and thereafter declined by 200.000 people to reach unemployment rate of 15,9% in 2016. Conversely, employment (as measured by the LFS) first declined from 53,7% in 2008 to 45,3% in 2012 (from 2.821.000 to 2.228.000 employed people), and then increased from 47,5% in 2013 to 55,2% in 2016 (i.e. from 2.310.000 to 2.719.000 employed people) over the same period. Graph A 1 shows the breakdown in employed, unemployed and inactive population older than 15 years, based on the LFS.

Graph A 1. Employed, unemployed and inactive in the total population over 15 years of age, and unemployment rate[xxxii]



Source: SORS

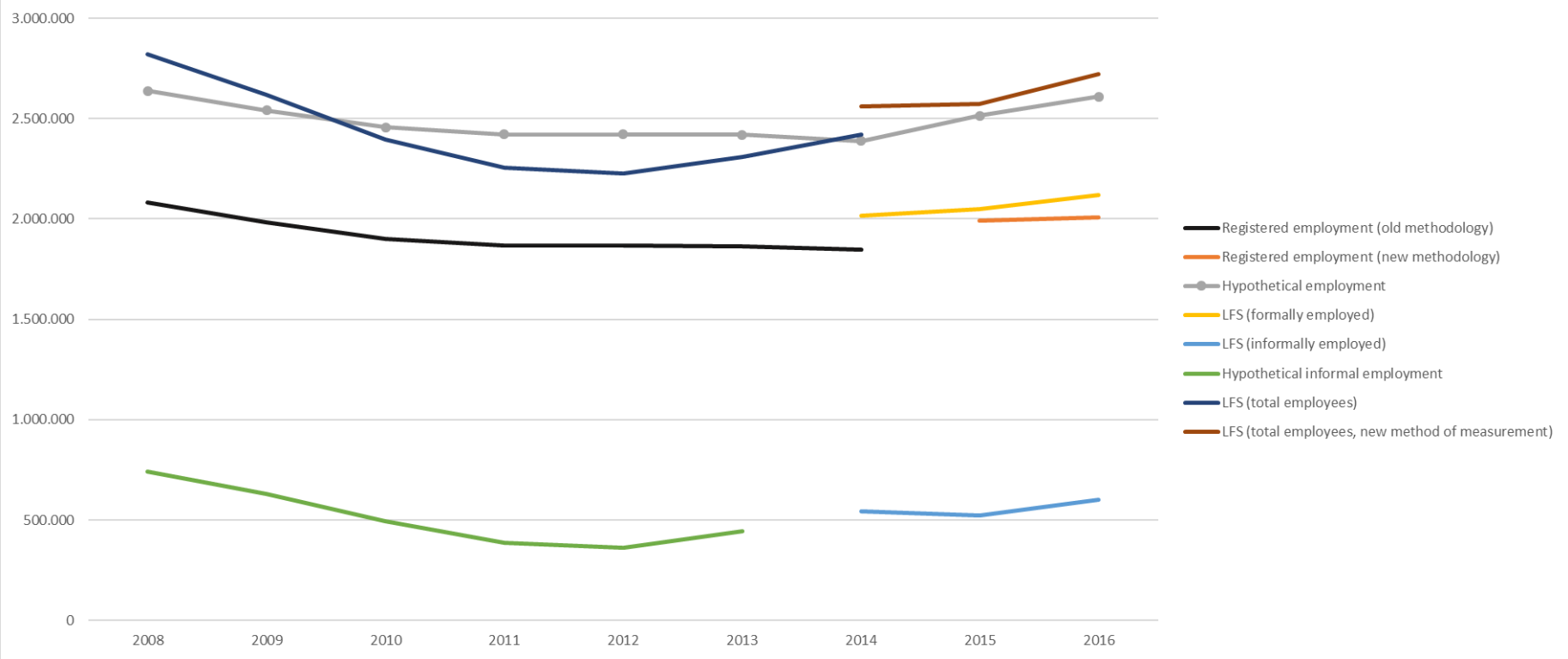
Given that available figures on registered employment are relatively reliable, in Graph A 2 we can see that most of the initial decline and the subsequent increase in employment had to come from changes in informal employment. While it could be possible that some of the exhibited trends are roughly correct, including the fact that informal employment was the first to increase once the crisis hit and thereafter, the overall trends do appear extreme. [xxxiii]

Graph A 2 shows the most recent versions of historical series for employment: registered employment from official statistics (SORS), as well as formal and informal employment according to the LFS. It is noteworthy to point out that the two sources give strikingly close figures for total formal employment, bearing in mind that the 2015 and 2016 changes in the methodology of the LFS and the introduction of more reliable sources for the observation of registered employment. A bigger question mark remains as to the size of informal employment and its trends since 2008.

[xxxii] The data are completely comparable for the period from 2008 to 2013, when the survey was conducted on a semi-annual level. In the course of 2014, the survey was conducted quarterly, thereby compromising comparability with previous years. From the beginning of 2015, the survey is conducted continuously throughout the year, and there has also been a change in the rating system, in accordance with the Eurostat regulations, which prevented comparability with 2014, after which the RZS did an audit of data from 2014, with the aim of providing a year-on-year comparability for the period 2014-2015. For this graph, for 2014 year are used data based on new methodology

[xxxiii] For a debate on this issue see Kovačević, M., Pantelić V., Aleksić, D. (2017). Trends and challenges in Serbian labor market: Change in the nature of jobs and labor underutilization. Ekonomika preduzeća(September-October 2017 pp. 341-353). Serbian Association of Economists Journal of Business Economics and Management. Petrović, P., Brčerević, D., Minić, S. (2016). *Fish that fly do exist, but are rare: Are the official labor market data misread or unreliable*. Ekonomika preduzeća. (September - October 2016, pp. 315-330). Serbian Association of Economists Journal of Business Economics and Management. Fiscal council, Republic of Serbia. Economic recovery of employment and fiscal consolidation: lessons from 2015 and prospects for 2016 and 2017. (2016, pp. 13-19). Macreconomics analyses and trends. (2017, pp. 17-18).

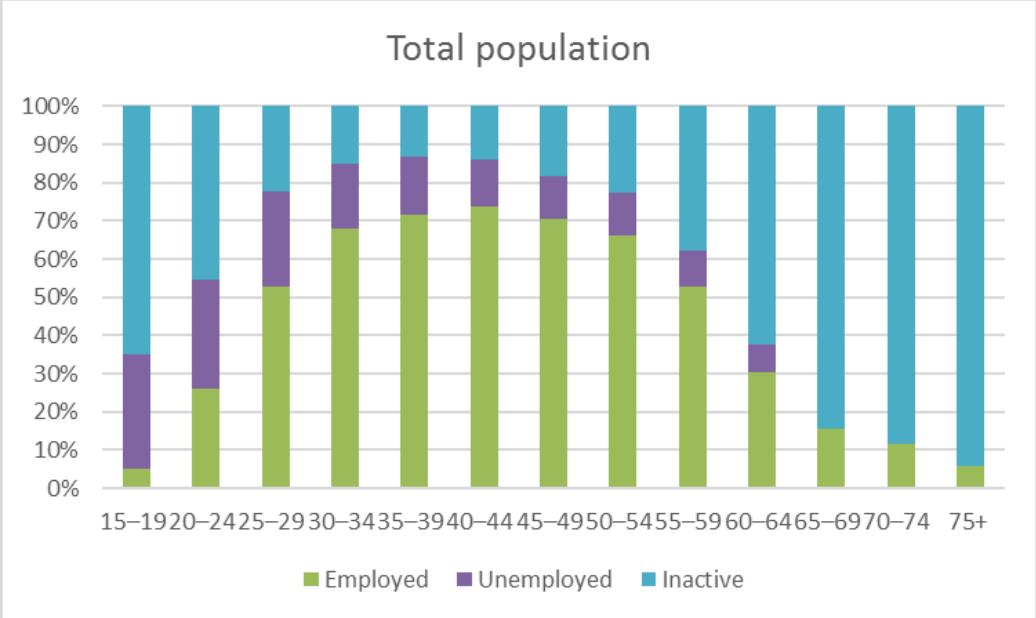
Graph A 2. Trends in employment (various souces and methodologies)



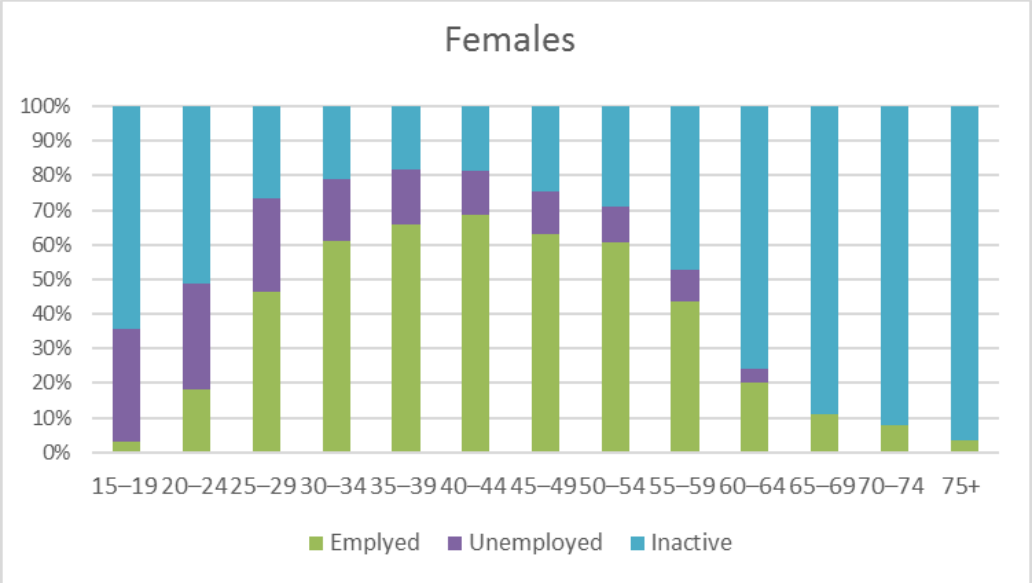
• Hypothetical employment = registered employment + informal employment. Data on registered employment was taken from official national statistics (SORS), while the data on informal employment was taken from LFS (also available from SORS). Regarding the registered employment, NBS switched to a new source of data in 2015. Conditions for such a change were met upon the establishment of the Central Registry of Compulsory Social Security (CROSO), which SORS took over at the end of 2014. A new methodology based on combined data of CROSO and Statistical Business Register was developed. Up to 2014, an estimate for informal employment was used, due to the lack of data. It was calculated as an average of informal employment in 2014, 2015 and 2016.
• LFS total employment = formal employment (LFS) + informal employment (LFS). Data on formal and informal employment in 2014 was calculated as an average of quarterly data.
• Hypothetical informal employment = LFS total employment - registered employment. For calculation of LFS total employment, LFS Total Employee New Measurement Method was used. Data for 2008-2013 (when the survey was conducted at a semi- annual level) are fully comparable. In 2014, the survey was conducted quarterly, thereby compromising comparability with previous years. Moreover, since the beginning of 2015, the survey has been conducted continuously throughout the year, and there has also been a change in the rating system (in accordance with the Eurostat regulations) which prevented the comparability with 2014, after which the SORS did an audit of data from 2014 with the aim of providing a year-on-year comparability between 2014 and 2015.

Source: SORS, LFS and Autor calculation

Graph A 3. Activity and inactivity, unemployment rate and population by age groups



Age groups	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75+
Unemployment rate	40,8	33,6	26,2	17,7	15,3	12,4	11,6	11,2	9,9	7,5	-	-	-
Population (in thousand)	349,4	407,4	440,3	485,9	499,2	483,5	466,1	478,2	499,9	567	464,2	293,3	583,3



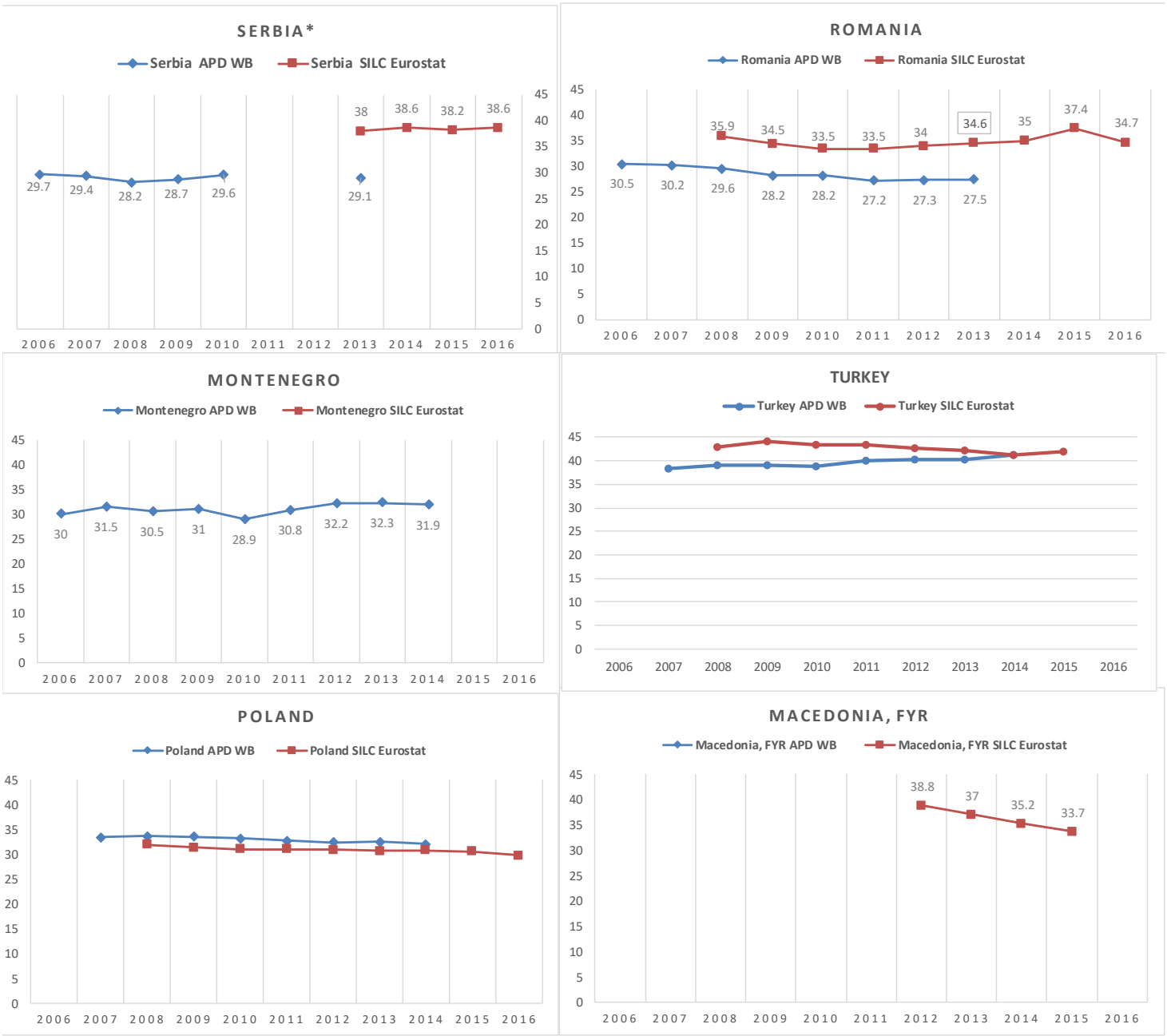
Age groups	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75+
Unemployment rate	46,2	38,1	29,1	18,9	16,2	12,9	12,9	10,6	9,5	4,3	-	-	-
Population (in thousand)	169,8	197,7	215,1	238,7	245,7	240,6	235,4	244,9	258,8	298	251,7	165,8	353,4

Age groups	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75+
Unemployment rate	38,0	30,9	23,9	16,7	14,6	12,0	10,3	11,7	10,2	9,2	-	-	-
Population (in thousand)	179,7	209,8	225,3	247,1	253,4	242,9	230,8	233,3	241,1	269	212,5	127,5	229,9

Source: SORS, LFS 2016

Graph A 4. Comparison of inequality according to two statistical methodologies

Gini coefficient according to two different methodologies[1]



[1]The graphic representation shows the results of inequality, but also the chosen methodology for measuring inequality. Thus, there are countries that have chosen only one methodology, so comparison is not possible.

*There are authors who published the Gini coefficient according to the APD (Household Budget Survey) for 2011. and 2012. year, and according to which the significance of deviations is noticed; but the selected source (WB WDI data) did not publish values for 2011 and 2012.

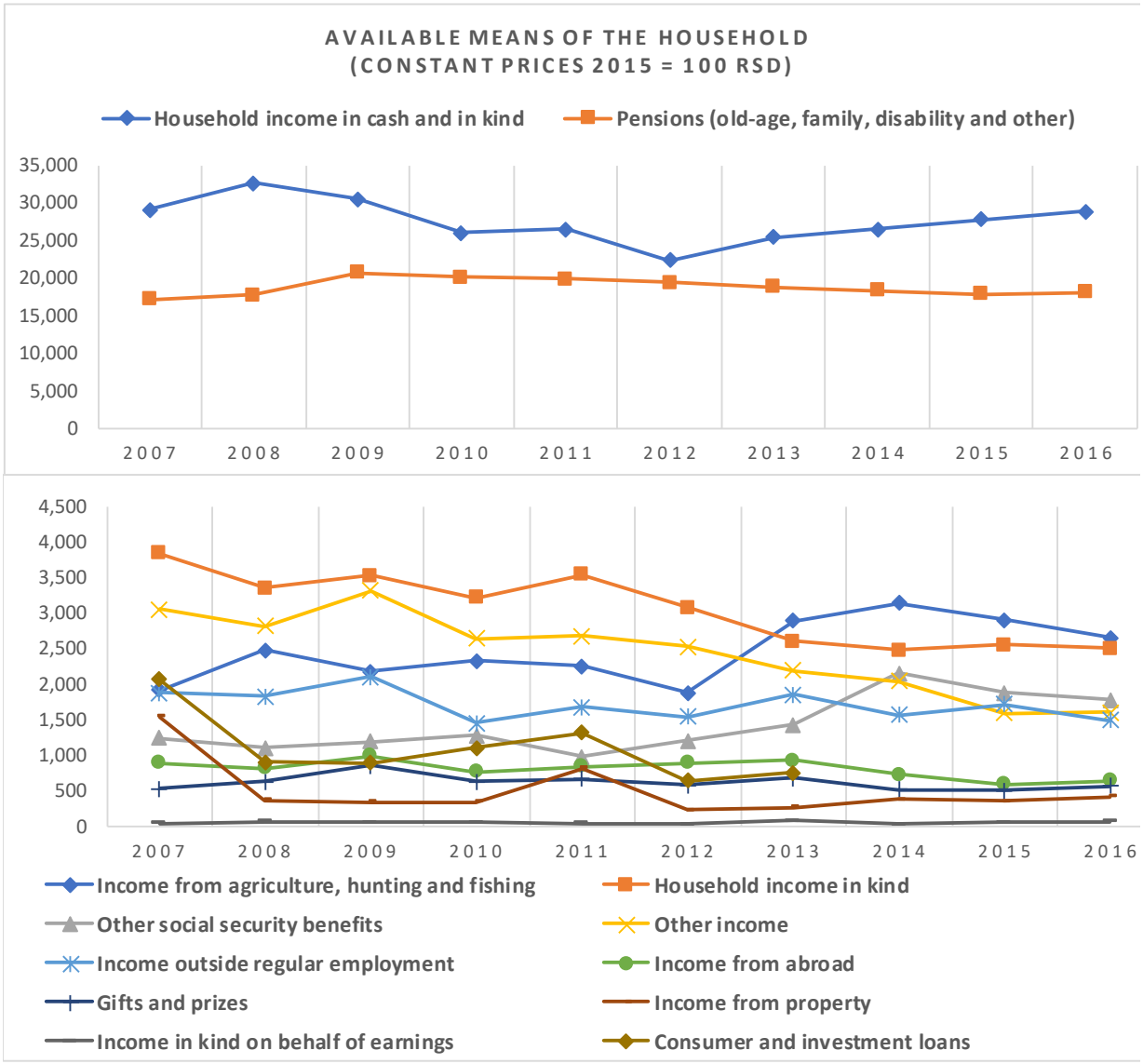
Source: WB (WDI), Eurostat

Table A 3. Sources of household income in Serbia, share

Main sources of household income in RS by consumption deciles, 2016 (%)											
		Decil									
	Total	1	2	3	4	5	6	7	8	9	10
Income from earnings	42.4	20	28	38	39	44	44	47	52	54	59
Income from self-employment	8.6	9.7	8.7	7.5	9.1	8.3	5.7	9.2	9.1	8.8	10
Income from property	0.5	0.2	0.3	0.3	0.9	0.6	0.6	0.2	1	0.5	0.1
Pension	43.2	50	55	50	46	44	46	41	36	35	29
Unemployment indemnity	0.2	0.5	-	0.3	0.2	0.2	0.4	0.4	-	0.1	-
Other	5.1	20	8.1	4	4.5	2.7	2.1	2.1	2	2.1	2.3

Source: SORS, Household Budget Survey, 2016

Graph A 5. Sources of household income in Serbia, value



Source: SORS, Household Budget Survey

Table A 4. Structure of household income in Serbia (%)

Structure of average household income in RS by deciles of income, 2016 (%)											
	Total	Decil									
		1	2	3	4	5	6	7	8	9	10
Household income in cash and in kind	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Household income in money	**95.6**	**86.5**	**90.7**	**92.6**	**93.6**	**94.7**	**95.6**	**96.7**	**96.5**	**97.8**	**98.0**
Income from regular employment	49.2	24.1	37.8	40.1	42.7	44.2	47.9	50.1	51.4	52.7	59.6
Income outside regular employment	2.5	3.3	3.2	1.8	2.0	3.3	2.0	2.3	1.9	2.0	3.5
Pensions (old-age, family, disability and other)	30.9	27.4	31.3	35.7	36.8	34.2	34.3	33.7	33.1	33.9	19.9
Other social security benefits	3.0	16.7	6.0	5.0	2.9	3.6	3.2	3.0	1.6	1.6	1.1
Income from agriculture, hunting and fishing	4.5	3.2	3.8	1.9	2.7	3.2	2.9	3.2	3.7	3.6	9.6
Income from abroad	1.1	1.6	1.0	1.6	1.6	0.9	1.2	0.9	0.8	1.3	0.9
Income from property	0.7	0.1	0.3	0.3	0.6	0.5	0.8	0.7	0.9	0.6	1.0
Gifts and prizes	1.0	1.7	1.9	1.6	1.4	1.6	1.2	0.6	0.5	0.7	0.5
Other income	2.7	8.4	5.4	4.6	2.9	3.2	2.1	2.2	2.6	1.4	1.9
Household income in kind	**4.4**	**13.5**	**9.3**	**7.4**	**6.4**	**5.3**	**4.4**	**3.3**	**3.5**	**2.2**	**2.0**
Income in kind on behalf of earnings	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2
Natural consumption	4.3	13.4	9.3	7.3	6.3	5.3	4.4	3.2	3.4	2.1	1.8

Source: SORS, Household Budget Survey

Table A 5. Inequality in the countries of Europe

Gini coefficient* of equivalised disposable income

	2013	2014	2015	2016
Serbia	**38.0**	**38.6**	**38.2**	**38.6**
Bulgaria	35.4	35.4	37.0	38.3
Lithuania	34.6	35.0	37.9	37.0
Romania	34.6	35.0	37.4	34.7
Spain	33.7	34.7	34.6	34.5
Latvia	35.2	35.5	35.4	34.5
Greece	34.4	34.5	34.2	34.3
Portugal	34.2	34.5	34.0	33.9
Italy	32.8	32.4	32.4	33.1
Estonia	32.9	35.6	34.8	32.7
Cyprus	32.4	34.8	33.6	32.1
United Kingdom	30.2	31.6	32.4	31.5
Luxembourg	30.4	28.7	28.5	31.0
EU (28 countries)	30.5	30.9	31.0	30.8
Croatia	30.9	30.2	30.4	29.8
Poland	30.7	30.8	30.6	29.8
Germany	29.7	30.7	30.1	29.5
Ireland	30.7	31.1	29.8	29.5
Switzerland	28.5	29.5	29.6	29.4
France	30.1	29.2	29.2	29.3
Malta	27.9	27.7	28.1	28.5
Hungary	28.3	28.6	28.2	28.2
Denmark	26.8	27.7	27.4	27.7
Sweden	24.9	25.4	26.7	27.6
Austria	27.0	27.6	27.2	27.2
Netherlands	25.1	26.2	26.7	26.9
Belgium	25.9	25.9	26.2	26.3
Finland	25.4	25.6	25.2	25.4
Czech Republic	24.6	25.1	25.0	25.1
Norway	22.7	23.5	23.9	25.0
Slovenia	24.4	25.0	24.5	24.4
Slovakia	24.2	26.1	23.7	24.3
Iceland	24.0	22.7	23.6	-
Former Yugoslav Republic of Macedonia	37.0	35.2	33.7	-
Turkey	42.1	41.2	41.9	-

**coefficient of 0 (maximal equality) to 100 (maximal inequality)* *Source: Eurostat*

Table A 6. Inequality in the countries of Europe, income ratio

Income quintile share ratio* (S80/S20)	2013	2014	2015	2016
Serbia	**8.6**	**9.8**	**9.0**	**9.7**
Bulgaria	6.6	6.8	7.1	7.9
Romania	6.8	7.2	8.3	7.2
Lithuania	6.1	6.1	7.5	7.1
Greece	6.6	6.5	6.5	6.6
Spain	6.3	6.8	6.9	6.6
Italy	5.8	5.8	5.8	6.3
Latvia	6.3	6.5	6.5	6.2
Portugal	6.0	6.2	6.0	5.9
Estonia	5.5	6.5	6.2	5.6
EU (28 countries)	5.0	5.2	5.2	5.2
United Kingdom	4.6	5.1	5.2	5.1
Croatia	5.3	5.1	5.2	5.0
Luxembourg	4.6	4.4	4.3	5.0
Cyprus	4.9	5.4	5.2	4.9
Poland	4.9	4.9	4.9	4.8
Germany	4.6	5.1	4.8	4.6
Ireland	4.7	4.9	4.5	4.4
Switzerland	4.2	4.4	4.5	4.4
France	4.5	4.3	4.3	4.3
Hungary	4.3	4.3	4.3	4.3
Sweden	3.7	3.9	4.1	4.3
Malta	4.1	4.0	4.2	4.2
Denmark	4.0	4.1	4.1	4.1
Austria	4.1	4.1	4.0	4.1
Netherlands	3.6	3.8	3.8	3.9
Belgium	3.8	3.8	3.8	3.8
Norway	3.3	3.4	3.5	3.7
Slovenia	3.6	3.7	3.6	3.6
Slovakia	3.6	3.9	3.5	3.6
Finland	3.6	3.6	3.6	3.6
Czech Republic	3.4	3.5	3.5	3.5
Iceland	3.4	3.1	3.4	-
FYR of Macedonia	8.4	7.2	6.6	-
Turkey	8.7	8.3	8.6	-

**The ratio of total income received by the 20 % of the population with the highest income (top quintile) to that received by the 20 % of the population with the lowest income (lowest quintile). Income must be understood as equivalised disposable income. The indicator is based on the EU-SILC (statistics on income, social inclusion and living conditions).*

Source: Eurostat

Table A 7. Population at risk of poverty

At risk of poverty rate* %	2013	2014	2015	2016
Serbia	**24.5**	**25.4**	**25.4**	**25.5**
Romania	23.0	25.1	25.4	25.3
Bulgaria	21.0	21.8	22.0	22.9
Spain	20.4	22.2	22.1	22.3
Lithuania	20.6	19.1	22.2	21.9
Latvia	19.4	21.2	22.5	21.8
Turkey	23.1	23.0	22.5	:
Estonia	18.6	21.8	21.6	21.7
FYR of Macedonia	24.2	22.1	21.5	:
Greece	23.1	22.1	21.4	21.2
Italy	19.3	19.4	19.9	20.6
Croatia	19.5	19.4	20.0	19.5
Portugal	18.7	19.5	19.5	19.0
EU (28 countries)	16.7	17.2	17.3	17.3
Poland	17.3	17.0	17.6	17.3
Ireland	15.7	16.4	16.3	16.6
Germany	16.1	16.7	16.7	16.5
Luxembourg	15.9	16.4	15.3	16.5
Malta	15.7	15.9	16.3	16.5
Sweden	14.8	15.1	16.3	16.2
Cyprus	15.3	14.4	16.2	16.1
United Kingdom	15.9	16.8	16.6	15.9
Belgium	15.1	15.5	14.9	15.5
Switzerland	14.5	13.8	15.6	14.7
Hungary	15.0	15.0	14.9	14.5
Austria	14.4	14.1	13.9	14.1
Slovenia	14.5	14.5	14.3	13.9
France	13.7	13.3	13.6	13.6
Netherlands	10.4	11.6	11.6	12.7
Slovakia	12.8	12.6	12.3	12.7
Norway	10.9	10.9	11.9	12.2
Denmark	11.9	12.1	12.2	11.9
Finland	11.8	12.8	12.4	11.6
Czech Republic	8.6	9.7	9.7	9.7
Iceland	9.3	7.9	9.6	:

**The share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers). The indicator is based on the EU-SILC (statistics on income, social inclusion and living conditions).*

Source: Eurostate

Appendix 2 - Principles of Public Administration for EU candidate countries[140]

I STRATEGIC FRAMEWORK OF PUBLIC ADMINISTRATION REFORM

1. Key requirement: The leadership of public administration reform and accountability for its implementation is established, and the strategic framework provides the basis for implementing prioritised and sequenced reform activities aligned with the government's financial circumstances

- Principle 1: The government has developed and enacted an effective public administration reform agenda which addresses key challenges
- Principle 2: Public administration reform is purposefully implemented; reform outcome targets are set and regularly monitored
- Principle 3: The financial sustainability of public administration reform is ensured
- Principle 4: Public administration reform has robust and functioning management and co-ordination structures at both the political and administrative levels to steer the reform design and implementation process

II POLICY DEVELOPMENT AND CO-ORDINATION

1. Policy planning and co-ordination

1.1. Key requirement: Centre-of-government institutions fulfil all functions critical to a well-organised, consistent and competent policy-making system

- Principle 1: Centre-of-government institutions fulfil all functions critical to a well-organised, consistent and competent policy-making system
- Principle 2: Clear horizontal procedures for governing the national European integration process are established and enforced under the co-ordination of the responsible body

1.2. Key requirement: Policy planning is harmonised, aligned with the government's financial circumstances and ensures that the government is able to achieve its objectives

- Principle 3: Harmonised medium-term policy planning is in place, with clear whole-of-government objectives, and is aligned with the financial circumstances of the government; sector policies meet government objectives and are consistent with the medium-term budgetary framework
- Principle 4: A harmonised medium-term planning system is in place for all processes relevant to European integration and is integrated into domestic policy planning
- Principle 5: Regular monitoring of the government's performance enables public scrutiny and support the government in achieving its objectives

1.3. Key requirement: Government decisions and legislation are transparent, legally compliant and accessible to the public; the work of the government is scrutinised by the parliament

[140] http://www.sigmaweb.org/publications/Principles-of-Public-Administration_Edition-2017_ENG.pdf

- Principle 6: Government decisions are prepared in a transparent manner and based onthe administration's professional judgement; the legal conformity of the decisions is ensured
- Principle 7: The parliament scrutinises government policy making

2. Policy development

2.1. Key requirement: Inclusive, evidence-based policy and legislative development enables the achievement of intended policy objectives

- Principle 8: The organisational structure, procedures and staff allocation of the ministries ensure that developed policies and legislation are implementable and meet government objectives
- Principle 9: The European integration procedures and institutional set-up form an integral part of the policy-development process and ensure systematic and timely transposition of theEuropean Union *acquis*
- Principle 10: The policy-making and legal-drafting process is evidence-based, and impact assessment is consistently used across ministries
- Principle 11: Policies and legislation are designed in an inclusive manner that enables the active participation of society and allows for co-ordination of different perspectives within the government.
- Principle 12:Legislation is consistent in structure, style and language; legal drafting requirements are applied consistently across ministries; legislation is made publicly available

III PUBLIC SERVICE AND HUMAN RESOURCE MANAGEMENT

1. Policy, legal and institutional frameworks for public service

1.1. Key requirement: The scope of public service is clearly defined and applied in practice so that the policy and legal frameworks and institutional set-up for professional public service are in place

- Principle 1: The scope of public service is adequate, clearly defined and applied in practice
- Principle 2: The policy and legal frameworks for a professional and coherent public service are established and applied in practice; the institutional set-up enables consistent and effective human resource management practices across the public service

2. Human resource management

2.1. Key requirement: Professionalism of public service is ensured by good managerial standards and human resource management practices

- Principle 3: The recruitment of public servants is based on merit and equal treatment in all its phases; the criteria for demotion and termination of public servants are explicit
- Principle 4: Direct or indirect political influence on senior managerial positions in the public service is prevented
- Principle 5: The remuneration system of public servants is based on job classification; it is fair and transparent

- Principle 6: The professional development of public servants is ensured; this includes regular training, fair performance appraisal, and mobility and promotion based on objective and transparent criteria and merit
- Principle 7: Measures for promoting integrity, preventing corruption and ensuring discipline in the public service are in place

IV ACCOUNTABILITY

1. Key requirement: Proper mechanisms are in place to ensure accountability of state administration bodies, including liability and transparency

- Principle 1: The overall organisation of central government is rational, follows adequate policies and regulations and provides for appropriate internal, political, judicial, social and independent accountability
- Principle 2: The right to access public information is enacted in legislation and consistently applied in practice
- Principle 3: Functioning mechanisms are in place to protect both the rights of the individual to good administration and the public interest
- Principle 4: Fair treatment in administrative disputes is guaranteed by internal administrative appeals and judicial reviews
- Principle 5: The public authorities assume liability in cases of wrongdoing and guarantee redress and/or adequate compensation

V SERVICE DELIVERY

1. Key requirement: The public administration is citizen-oriented; the quality and accessibility of public services is ensured

- Principle 1: Policy for citizen-oriented state administration is in place and applied
- Principle 2: Good administration is a key policy objective underpinning the delivery of public service, enacted in legislation and applied consistently in practice
- Principle 3: Mechanisms for ensuring the quality of public services are in place
- Principle 4: The accessibility of public services is ensured

VI PUBLIC FINANCIAL MANAGEMENT

1. Budget management

1.1. Key requirement: The budget is formulated in compliance with transparent legal provisions and within an overall multi-annual framework, ensuring that the general government budget balance and the ratio of debt to gross domestic product are on a sustainable path.

- Principle 1: The government publishes a medium-term budgetary framework on a general government basis that is founded on credible forecasts and covers a minimum time horizon of three years; all budget organisations operate within it
- Principle 2: The budget is formulated in line with the national legal framework, with comprehensive spending appropriations that are consistent with the medium-term budgetary framework and are observed

1.2. Key requirement: Accounting and reporting practices ensure transparency and public scrutiny over public finances; both cash and debt are managed centrally, in line with legal provisions

- Principle 3: The ministry of finance (or authorised central treasury authority) centrally controls disbursement of funds from the treasury single account and ensures cash liquidity
- Principle 4: There is a clear debt management strategy in place and implemented so that the country's overall debt target is respected and debt servicing costs are kept under control
- Principle 5: Transparent budget reporting and scrutiny are ensured

2. Internal control and audit

2.1. Key requirement: National internal control policy is in line with the requirements of Chapter32 of European Union accession negotiations and is systematically implemented throughout the public sector

- Principle 6: The operational framework for internal control defines responsibilities and powers, and its application by the budget organisations is consistent with the legislation governing public financial management and the public administration in general
- Principle 7: Each public organisation implements internal control in line with the overall internal control policy

2.2. Key requirement: The internal audit function is established throughout the public sector and internal audit work is carried out according to international standards.

- Principle 8: The operational framework for internal audit reflects international standards, and its application by the budget organisations is consistentwith the legislation governing public administration and public financial management in general
- Principle 9: Each public organisation implements internal audit in line with the overall internal audit policy documents, as appropriate to the organization

3. Public Procurement

3.1. Key requirement: Public procurementis regulated by duly enforced policies and procedures that reflect the principles of the Treaty on the Functioning of the European Union and the European Union *acquis*and are supported by suitably competent and adequately resourced institutions

- Principle 10: Public procurement regulations (including public-private partnerships and concessions) are aligned with the European Union *acquis*, include additional areas not covered by the *acquis*, are harmonised with corresponding regulations in other fields and are duly enforced
- Principle 11: There is central institutional and administrative capacity to develop, implement and monitor procurement policy effectively and efficiently

3.2. Key requirement: In case of alleged breaches of procurement rules, aggrieved parties have access to justice through an independent, transparent, effective and efficient remedies system

- Principle 12: The remedies system is aligned with the European Union *acquis*standards of independence, probity and transparency and provides for rapid and competent handling of complaints and sanctions

3.3. Key requirement: Contracting authorities are adequately staffed and resourced and carry out their work in accordance with applicable regulations and recognised good practice, interacting with an open and competitive supply market

- Principle 13: Public procurement operations comply with basic principles of equal treatment, non-discrimination, proportionality and transparency, while ensuring the most efficient use of public funds and making best use of modern procurement techniques and methods
- Principle 14: Contracting authorities and entities have the appropriate capacities and practical guidelines and tools to ensure professional management of the full procurement cycle

4. External audit

4.1. Key requirement: The constitutional and legal frameworks guarantee the independence, mandate and organisation of the supreme audit institution to perform its mandate autonomously according to the standards applied for its audit work, allowing for high-quality audits that impact on public sector functioning

- Principle 15: The independence, mandate and organisation of the supreme audit institution are established, protected by the constitutional and legal frameworks and respected in practice
- Principle 16: The supreme audit institution applies standards in a neutral and objective manner to ensure high-quality audits that positively impact on the functioning of the public sector.

Appendix 3 – SDGs and the Strategic Framework of Serbia[141]

SDGs – Sustainable Development Goals AGENDA 2030	STRATEGIC FRAMEWORK OF THE REPUBLIC OF SERBIA	EU CHAPTERS
Poverty reduction (Goal 1)		
Poverty (1.1), (1.2), Social protection (1.3)	• ESRP – Employment and Social Reform Programme in the EU accession process • National Employment Strategy for the period 2011 – 2020 • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025	Chapters 2 and 19
Equal rights (1.4)	• National Strategy for Social Housing for the period 2012 – 2022 + Action Plan until 2022 (Is it being implemented?) • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025	
Equal rights (1.4)	• National Strategy for Gender Equality for the period 2016 – 2020 • Strategy of Prevention and Protection against Discrimination (Action Plan 2014-2018) (Is it being implemented?) • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025 + Action Plan 2017-2018 • Action Plan for the Realization of the Rights of National Minorities • National Strategy for Resolving the Issues of Refugees and Internally Displaced Persons (IDPs) for the period 2015 – 2020 (Commissariat for Refugees and Migrations)	Chapters 19 and 23
End hunger, achieve food security and improved nutrition, and promote sustainable agriculture (Goal 2)		
Poverty (1.1), (1.2), Social protection (1.3)	• ESRP – Employment and Social Reform Programme in the EU accession process • National Employment Strategy for the period 2011 – 2020 • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025	Chapters 2 and 19
Equal rights (1.4)	• National Strategy for Social Housing for the period 2012 – 2022 + Action Plan until 2022 (Is it being implemented?) • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025	
Equal rights (1.4)	• National Strategy for Gender Equality for the period 2016 – 2020 • Strategy of Prevention and Protection against Discrimination (Action Plan 2014-2018) (Is it being implemented?) • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025 + Action Plan 2017-2018 • Action Plan for the Realization of the Rights of National Minorities • National Strategy for Resolving the Issues of Refugees and Internally Displaced Persons (IDPs) for the period 2015 – 2020 (Commissariat for Refugees and Migrations)	Chapters 19 and 23

[141] Appendix Table to *Serbia and the Agenda 2030*, Republic Public Policy Secretariat

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture (Goal 2)		
Double agricultural productivity and the incomes of small food producers (2.3), Sustainable food production systems (2.4)	• Strategy for Agriculture and Rural Development for the period 2014 – 2023 • IPARD Programme for the Republic of Serbia for the period 2014 – 2020 • National Strategy for Upgrading of Establishments Producing Food of Animal Origin for the period 2016 – 2021	Chapters 11 and 12
	• Strategy for Agriculture and Rural Development for the period 2014 – 2023 • IPARD Programme for the Republic of Serbia for the period 2014 – 2020	Chapters 11 and 12
Ensure healthy lives and promote wellbeing for all at all ages (Goal 3)		
Prevention of substance abuse (3.5)	• Drug Abuse Prevention Strategy for the period 2014 - 2021 + Action Plan	Chapters 24 and 28
Prevention of traffic accidents (3.6)	• Strategy on Road Safety in the Republic of Serbia for the period 2015 – 2020 + Action Plan	Chapters 1, 14 and 21
Maternal mortality (3.1.), deaths of new-borns and children (3.2), communicable and other diseases (3.3) and (3.4), reproductive health (3.7) and universal health coverage (3.8), diseases caused by pollution and contamination (3.9)	• Strategy on Prevention and Control of Chronic and Non-Communicable Diseases + Action Plan until 2018 • *Public Health Strategy (maybe in the process of drafting)*	Chapter 28
Ensure education for all (Goal 4)		
Quality primary and secondary education (4.1), pre-primary education (4.2), tertiary education (4.3)	• Strategy for Education Development in Serbia 2012 – 2020 + Action Plan	Chapters 23 and 26
Relevant technical and vocational skills (4.4)	• Strategy for Education Development in Serbia 2012 – 2020	Chapter 26
Combating all forms of discrimination and violence against women (5.1), (5.2), (5.5)	• National Strategy for Gender Equality for the period 2016 – 2020 + Action Plan • Strategy for the Prevention and Suppression of Trafficking in Human Beings, Especially Woman and Children, and Protection of the Victims 2017 – 2022 + Action Plan 2017 – 2018 • *National strategic document for preventing and combating violence against women in the family and in intimate partner relationships (in the process of drafting, Coordination Body for Gender Equality)*	Chapters 19, 23 and 24
Ensure availability of drinking water and sanitation for all (Goal 6)		
Access to safe and affordable drinking water (6.1)	• Water Management Strategy of the Republic of Serbia for the period 2016 – 2034 • National Programme for Environmental Protection	Chapter 27

	• Spatial Plan for the Republic of Serbia 2010 - 2020 • National Strategy for Sustainable Use of Natural Goods and Resources (not being implemented) • National Sustainable Development Strategy (not being implemented)	
Improve water quality (6.3), increase water-use efficiency (6.4), implement integrated water resources management at all levels (6.5)	• Water Management Strategy of the Republic of Serbia for the period 2016 – 2034 • National Programme for Environmental Protection • Spatial Plan for the Republic of Serbia 2010 - 2020 • Waste Management Strategy for the period 2010 – 2019 • National Environmental Approximation Strategy for the Republic of Serbia • National Strategy for Sustainable Use of Natural Goods and Resources (not being implemented) • National Sustainable Development Strategy (not being implemented	Chapter 27
Ensure access to affordable, reliable, sustainable and modern energy for all (Goal 7)		
Universal access to affordable, reliable and modern energy services (7.1)	• Energy Sector Development Strategy until 2025 *(AP drafted, waiting for adoption by the Government*	Chapters 15, 21 and 27
Increased sustainability of renewable sources of energy (7.2)	• Energy Sector Development Strategy until 2025 *(AP drafted, waiting for adoption by the Government)* • National Renewable Energy Action Plan	Chapters 15, 21 and 27
Energy efficiency (7.3)	• 3. National Energy Efficiency Action Plan	Chapters 15, 21 and 27
International cooperation and investment in energy infrastructure (7.a and 7.b)	• Energy Strategy of the Energy Community	Chapters 15, 21 and 27
Promote sustained, inclusive and sustainable economic growth and descent work for all (Goal 8)		
Sustainable economic growth (8.1), entrepreneurship (8.3)	• Strategy for Supporting the Development of Small and Medium Enterprises, Entrepreneurship and Competitiveness for the period 2015 – 2020 (Ministry of Economy) • Strategy and Policy of the Industrial Development of the Republic of Serbia for the period 2011 – 2020 (not being implemented) – in the process of drafting	Chapter 20
Sustainable economic growth (8.1), enterpreneurship (8.3)	• *Free Zones Development Strategy in the Republic of Serbia for the period 2017 – 2020 (planned, but perhaps still not in the drafting process)* • *Quality Infrastructure System Improvement Strategy in the Republic of Serbia for the period 2015 – 2020 (Action Plan for regulation of harmonized area, and AP for regulation of un harmonized area are currently in the drafting process)* • National Programme for Countering Shadow Economy 2015 – 2020 • Programme for the improvement of the Republic of Serbia on the World Bank's Doing Business Ranking on business environment	Chapter 1, Chapter 20
Technological upgrading and innovation (8.2)	• Strategy for the Development of Information Technology Industry for the 2017 – 2020 – AP has not been adopted, Ministry of Trade, Tourism and Telecommunications)	Chapter 20
Technological upgrading and innovation (8.2)	• Strategy of Scientific and Technological Development of the Republic of Serbia for the period 2016 – 2020 – research for innovation *(AP in the drafting process)*	Chapter 25

Technological upgrading and innovation (8.2)	• *Smart Specialization Strategy (in the drafting process)*	Chapter 25
Resource efficiency in consumption and production (8.4)	• Waste Management Strategy for the period 2010 – 2019 *(new one planned for the period 2019 – 2025)* • National Strategy for Incorporation of the Republic of Serbia into Clean Development Mechanism of the Kyoto Protocol for the sectors of waste management, agriculture and forestry (not being implemented) • Strategy for Implementing the Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters – Aarhus Convention. Is it being implemented	Chapter 4
Productive employment and descent work (8.5)	• Employment and Social Reform Programme in the EU accession process – ESRP (horizontal) • National Employment Strategy for the period 2011 – 2020 + National Action Plan for Employment (Ministry of Labour, Employment, Veteran and Social Policy) • National Strategy for Gender Equality for the period 2016 – 2020	Chapters 2 and 19
Unemployment of youth (8.6)	• *National Youth Strategy for the period 2015 - 2025 + Action Plan until 2017* (*new AP in the process of drafting)* • ESRP	Chapters 19 and 26
Labour rights, safe and secure working environments (8.8)	• Strategy on Health and Safety at Work in the Republic of Serbia for the period 2013 -2017 + Action Plan	Chapter 19
Promotion of sustainable tourism (8.9)	• Tourism Development Strategy for the period 2016 – 2025	Chapter 30
Access to banking, insurance and financial services for all (8.10)	• Monetary Policy of the National Bank of Serbia	Chapter 17
Promote sustainable industrialization (Goal 9)		
Infrastructure (9.1)	• Railway, Road, Inland, Waterway, Air and Intermodal Transport Development Plan until 2020 • National Programme for the Public Railway Infrastructure for the period 2017 – 2021 (23/02/2017) • *Road Transport Development Strategy for the period until 2025 (planned, perhaps in the process of drafting)* • *Air Transport Development Strategy for the period until 2025 (planned, perhaps in the process of drafting)*	Chapter 14, Chapter 21
	• Waterway Transport Development Strategy of the Republic of Serbia, 2015 – 2025 + AP until 2020 • *Energy Sector Development Strategy until 2025 (AP drafted, waiting for adoption by the Government)* • National Renewable Energy Action Plan • 3. National Energy Efficiency Action Plan	Chapter 15, Chapter 21
Sustainable industrialization (9.2), value chains and credit policy (9.3)	• Strategy and Policy of the Industrial Development of the Republic of Serbia for the period 2011 – 2020 (not being implemented) • Strategy for Supporting the Development of Small and Medium Enterprises, Entrepreneurship and Competitiveness for the period 2015 – 2020	Chapter 20
Efficiency and clean technologies (9.4)	• 3. National Energy Efficiency Action Plan • National Strategy for Sustainable Use of Natural Goods and Resources (does not have an action plan) • Energy Sector Development Strategy	Chapter 15

	• Sustainable Development Strategy	
Scientific research for sustainable industrial development (9.5)	• *Smart Specialization Strategy (in the process of drafting)* • Strategy of Scientific and Technological Development of the Republic of Serbia for the period 2016 – 2020	Chapter 25
Access to ICT (9c)	• Strategy on Development of Information Society in the Republic of Serbia until 2020 • Strategy on Development of Electronic Communications in the Republic of Serbia until 2020	Chapter 10
	• Strategy on Development of Electronic Communications in the Republic of Serbia for the period 2010 – 2020 (does not have an action plan)	Chapter 10
	• Strategy for Development of Information Security in the Republic of Serbia for the period 2017 – 2020	
Reduce inequality within and among countries (Goal 10)		
Sustain lower income growth (10.1)	• ESRP	Chapter 19
Inclusion (10.2)	• ESRP • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025 + Action Plan 2017 – 2018	
Eliminating discrimination (10.3)	• Strategy of Prevention and Protection against Discrimination (Action Plan 2014 - 2018)	Chapters 19 and 23
Fiscal and wage policies (10.4)	• ERP – Economic Reform Programme (tbc) • Public Administration Reform Strategy + AP • Fiscal Strategy for 2017. with projections for 2018 and 2019	
Inclusive, safe, resilient and sustainable cities and human settlements (Goal 11)		
Access to adequate, safe and affordable housing and upgraded basic services (11.1)	• National Social Housing Strategy of Serbia for the period 2012 – 2022 • Strategy for Social Inclusion of Roma in the Republic of Serbia for the period 2016 – 2025 + Action Plan 2017 – 2018	Chapter 23
Sustainable transport systems and road safety (11.2)	• Strategy on Road Safety in the Republic of Serbia for the period 2015 – 2020	
Protection of cultural and natural herritage (11.4)	• Spatial Plan for the Republic of Serbia until 2020 • *Strategy for Cultural Development 2017 – 2027 in the drafting process*	
Reduced number of deaths caused by disasters (11.5)	• National Disaster Risk Management Programme	
Air quality and municipal waste management (11.6)	• Waste Management Strategy for the period 2010 – 2019, addresses also hazardous waste *(new one is currently being drafted for the period 2019 - 2025)* • *Air Protection Strategy (planned by National Programme for Adoption of the Acquis - NPAA)*	
Advancing sustainable production and consumption patterns (Goal 12)		
Sustainable management and efficient use of natural resources (12.2)	• National Renewable Energy Action Plan of the Republic of Serbia until 2020 • National Strategy for Sustainable Use of Natural Goods and Resources (does not have an action plan)	Chapter 27
Environmentally sound management of chemicals (12.4)	• National Programme for Environmental Protection until 2019 (does not have an action plan) • Waste Management Strategy 2010 - 2019, addresses also hazardous waste *(new one being drafted for the period 2019 - 2025)*	Chapter 27

Reduce waste generation (12.5)	• National Programme for Environmental Protection until 2019 (does not have an action plan)	Chapter 27
Public procurement practices in accordance with principles of sustainability (12.7)	• Public Procurement Development Strategy of the Republic of Serbia for the period 2014 – 2018	Chapter 5
Education for sustainable development (12.8)	• Strategy for Education Development in Serbia 2012 – 2020 + Action Plan	Chapter 26
Promotion of action at all levels to combat climate change (Goal 13)		
Resilience and adaptive capacity to climate change (13.1)	• First national communication (First Report of the Republic of Serbia under the UN Framework Convention on Climate Change), adopted in 2010; • First Biannual Update Report (FBUR) under the UN Framework Convention on Climate Change - UNFCCC (adopted in January 2016); • *Adoption of the Second National Communication Report under the UN Framework Convention on Climate Change (SNC) was postponed - initially planned by the end of 2016* • *Climate Change Strategy with Action Plan (in the process of drafting: IPA 14, expected in 2019)* • *Climate Change Adaptation Strategy (in the process of drafting, IPA 16, expected in 2019)* • *Air Protection Strategy, planned in the period 2018 – 2020* • Programme for Disaster Risk Financing for the Republic of Serbia until 2019 (03/03/2017) • National Disaster Risk Management Programme + AP until 2020 • *National Action Plan for Mitigating the Effects of Drought and Land Degradation (in the process of drafting)* • National Strategy for Protection and Rescue in Emergency Situations • Plan to Eliminate the Use of Halogenated Chlorofluorocarbons, with the goal to decrease the consumption of halogenated chlorofluorocarbons by 35% by 2020	Chapter 27: Environment
Integrate climate change measures into national policies and strategies (13.2)	• Energy Sector Development Strategy until 2025 *(AP drafted, pending adoption)*	Chapter 27
Commitment undertaken to the UN Framework Convention on Climate Change (13. a)	• *Climate Change Adaptation Strategy (in the process of drafting, IPA 16, expected in 2019)*	Chapter 27
Sustainably manage forests, combat desertification and land degradation and biodiversity loss (Goal 15)		
Sustainable use of ecosystems, in particular forests, wetlands and mountains (15.1)	• Spatial Plan for the Republic of Serbia until 2020 • National Strategy for Sustainable Use of Natural Goods and Resources (does not have an action plan) • National Renewable Energy Action Plan until 2020	Chapter 27
Sustainable management of forests (15.2)	• Forestry Development Strategy of the Republic of Serbia (*does not have duration period defined, does not have AP*)	Chapter 27
Combat land degradation (15.3)	• National Strategy for Sustainable Use of Natural Goods and Resources (does not have an action plan)	Chapter 27
Halt biodiversity loss (15.5)	• Biodiversity Strategy of the Republic of Serbia for the period 2010 – 2019	Chapter 27
Peace, justice and effective institutions (Goal 16)		

Reduce violence/combat crime (16.1)	• National Strategy against Violence and Misbehaviour at Sports Events in the Republic of Serbia for the period 2013 – 2018 • Strategy of Community Policing • Strategy on Small Arms and Light Weapons Control (*the old one has expired, the new one is in the preparation process – the working group is being established*	Chapter 23 Chapter 24
Combat abuse of children (16.2)	• Strategy for the Prevention and Suppression of Trafficking in Human Beings, Especially Woman and Children, and Protection of the Victims 2017 – 2022	Chapter 24
Rule of law and equal access to justice (16.3)	• National Judicial Reform Strategy • Strategy for Free Legal Aid System • Development in the Republic of Serbia *(does not have duration period defined, does not have AP)*	Chapter 23, NAP for Chapter 23
Combat money laundry and organized crime (16.4)	• National Strategy against Money Laundering and Terrorism Financing until 2018 • National Strategy for Fight against Organized Crime (it does formally exist but it is not implemented in practice)	Chapter 24
Combat corruption (16.5)	• National Anti-Corruption Strategy of the Republic of Serbia for the period 2013 – 2018	Chapter 23, NAP for Chapter 23
Effective and transparent institutions (16.6)	• Public Administration Reform Strategy of the Republic of Serbia • Public Financial Management Reform Programme 2016 – 2020 • Strategy for Development of Public Internal Financial Control for the period 2017 – 2020 • Strategy for e-Governance Development of the Republic of Serbia for the period 2015 - 2018 • *Strategy on Functional Organization of Job in the Republic of Serbia (planned, maybe in preparation)* • Strategy for Professional Development of Civil Servants in the Republic of Serbia • Strategy for Professional Training of Employees in Local Self Government Units (LSGs)	Chapters 10, 32, 33
Accountable and participatory decision-making (16.7)	• Strategy of Regulatory Reform and Improvement of the System of Managing Public Policies for the period 2016 - 2020 • National Strategy for Gender Equality for the period 2016 – 2020, with one of the specific goals: Men and women equally participate in decision-making in public and political life	
Public access to information and protection of fundamental freedoms (16.10)	• Strategy for Implementing the Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters – Aarhus Convention. Is it being implemented • Strategy on Personal Data Protection (without AP) • Action Plan for the implementation of the initiative Open Governance Partnership in the Republic of Serbia for 2016 and 2017	Chapter 23
Partnership for achieving goals (Goal 17)		
Mobilization of resources and capacities for tax and other revenue collection (17.1)	• Public Financial Management Reform Programme 2016 – 2020 • Strategy for Development of Public Internal Financial Control for the period 2017 – 2020 • Fiscal Strategy for the period 2017 – 2019	Chapter 16 – Taxes

	• Tax Administration Transformation Programme for the period 2015 – 2020	
Long-term debt sustainability (17.4)	• Public Financial Management Reform Programme 2016 – 2020 • Fiscal Strategy for the period 2017 – 2019	
Regional and international cooperation in the area of science, technology and innovation (17.6)	• South East Europe Strategy • European Union Strategy for the Danube Region	Horizon 2020