

# **A Green Corridor for Europe**

## **Connecting the EU and the Balkans**

### **Background Paper No 1: the Western Balkans**

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#### **Abstract**

*The history of Europe is strongly and often dramatically interwoven with that of the Balkans. Presently, the nexus between Europe and the Balkans is acquiring new relevance due to sluggish growth and rising regional disparities across Europe, to diverging national interests exacerbated by the migrant crisis, and to the prospect of the Chinese “one belt, one road” initiative reaching South-East Europe. In this situation, we want to investigate the possibility of a Green Corridor linking Europe and the Balkans through a multimodal infrastructure for the transport of people, goods, energy and information. As a first step, the present background paper looks at the Western Balkans in this perspective. We show that this region is faced with enormous development challenges, including a population whose skills hardly match the needs and opportunities of the present world economy, a very low, sometimes even negative savings rate, weak and sometimes dysfunctional institutions, and more. We then show that infrastructure investments are badly needed in the Western Balkans, be it for transport of people and goods, of information and of electricity. Next, we survey the considerable toolbox that the EU has developed to intensify cooperation with this part of the Balkans. Against this background, two things become quite clear. First, the Green Corridor idea looks both necessary and feasible. And second, to really make a difference, this kind of infrastructure investment can and should target the greater Balkans, including not only the Western Balkans, but also Romania, Bulgaria and Greece. Along these lines, it can offer the Western Balkans a badly needed future of stability and prosperity.*

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**Country Codes**

AL Albania

BA Bosnia and Herzegovina

BG Bulgaria

DE Germany

EU28 European Union 28

FR France

GR Greece

HR Croatia

ME Montenegro

MK Former Yugoslav Republic of Macedonia (FYRO Macedonia)

RO Romania

RS Serbia

XK Kosovo

## 1. Introduction

The history of Europe is strongly and often dramatically interwoven with that of the Balkans'. Presently, the nexus between the Balkans and the rest of Europe is acquiring new relevance due to a whole range of factors. They include sluggish growth across Europe, rising regional disparities and increasing tensions between national interests, especially in view of the migrant crisis. Another factor giving new importance to the link between the Balkans and Europe as a whole is geopolitical: the prospect of the Chinese "one belt, one road" initiative reaching South-East Europe.

In this situation, we want to investigate the possibility of a Green Corridor linking Europe and the Balkans through a multimodal infrastructure for the transport of people, goods, energy and information. We suggest considering the following infrastructure investment options in combination:

- A high-speed train track for passenger transport
- A freight train track for containers and goods
- A broadband Internet backbone
- A high-voltage direct-current backbone
- A chain of charging stations for zero emissions vehicles

By interconnecting these components, costs can be saved at a large scale, starting from a main route through the Western Balkans<sup>1</sup> and going eastward and South so as to include the Balkans as a whole (including Romania, Bulgaria and Greece). Such a corridor offers an important opportunity to nudge Europe towards a green growth path. The basic economic mechanisms involved in such a shift will be analysed in separate project reports. Here, we assemble materials for an assessment of various design options of such a corridor, starting with the Western Balkans.

Infrastructure investments have been proposed as an answer to the challenges of underdeveloped economies since decades. Today it is important that such investments are made in a way that enables countries to advance on a path of sustainable development – economically, environmentally and socially. It is therefore necessary that investments take into account regional and national conditions, not only in static, but also in a dynamic perspective. Therefore a deep analysis of sectoral and cross-sectoral opportunities and needs is required before large-scale investment decisions and programs are made.

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<sup>1</sup> The concept of the Western Balkans is a term used for the first time in the early 1990s after the break-up of the former Yugoslavia. It refers to the following countries: Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Serbia, Montenegro and Kosovo. After Croatia joined the EU, the country is usually referred as included in EU28. Authors' figures focus on these seven countries and compare with data for Bulgaria and Romania and EU28 or – if no data for EU28 are available with examples – France, Germany and Greece. We use for that figures and tables the acronyms as presented on page 4, following ISO 3166 country codes.

As a first step, the present background paper looks at the Western Balkans in this perspective. With Croatia being the newest EU member, Serbia and Montenegro in the process of accession negotiations and Bosnia and Herzegovina having signed a Stabilization and Association Agreement, the region is connecting even more closely with the European Union. Currently suffering from low growth, high unemployment and infrastructure deficits, large-scale investments in sustainable infrastructure projects could enable high benefits in respect of employment, improvement of out-dated equipment, interconnection with the EU28 and resource efficiency in the Balkans. At the same time, green investments could help contribute to the international agreement on climate change reached in Paris in December 2015. However, the fiscal space of the region to achieve such goals is limited due to existing high public debt and significant deficits (EBRD 2015, pg. 5).

The European Union and its member states need to understand and observe the development of the Western Balkans. Besides the overall goal of alignment of living standards among European Union countries, the EU policy and politics needs to avoid any form of destabilisation of countries in the Balkans, which could be triggered by sociocultural and/or socioeconomic problems. Such problems and challenges are manifold: low income, out-dated infrastructure, corruption, and young governmental structures and institutions form an environment with low resilience against political or economic shocks. We recently witnessed such a shock for most of the Western Balkan countries created by the refugee flows mainly from Syria and Afghanistan. Besides the need of prompt answers to such immediate challenges, the European Union and its member states need long-term strategies to ensure socioeconomic and political stability of the Western Balkans. The Green Corridor envisaged with this report is an important element for a sound strategy of this kind.

The report is structured as follows. In the next chapter (2) we provide an overview of the main socioeconomic factors in the Western Balkan countries, providing a comprehensive picture of the actual situation and needs. Then we focus on infrastructure sectors, especially transport, electricity and telecommunication (3). We move on to review on-going processes of cooperation between the EU and the Western Balkan countries (4). Finally, we provide concluding remarks and provide elements to answer the question: to what extent and with what overall design can infrastructure investments massively support the development of the region.

## 2. The Socioeconomic Status Quo

While almost all New Member States (NMS)<sup>2</sup> of the EU were able to start a convergence process at the beginning of the 1990s, the Western Balkans have been ensnared in several military conflicts at this time. These conflicts – resulting from the breakup of the former Republic of Yugoslavia – led to a dramatic economic downturn, regional migration as well as emigration into the EU and a collapse of governments. Today GDP, living conditions and political stability are far behind EU28 averages and targets.

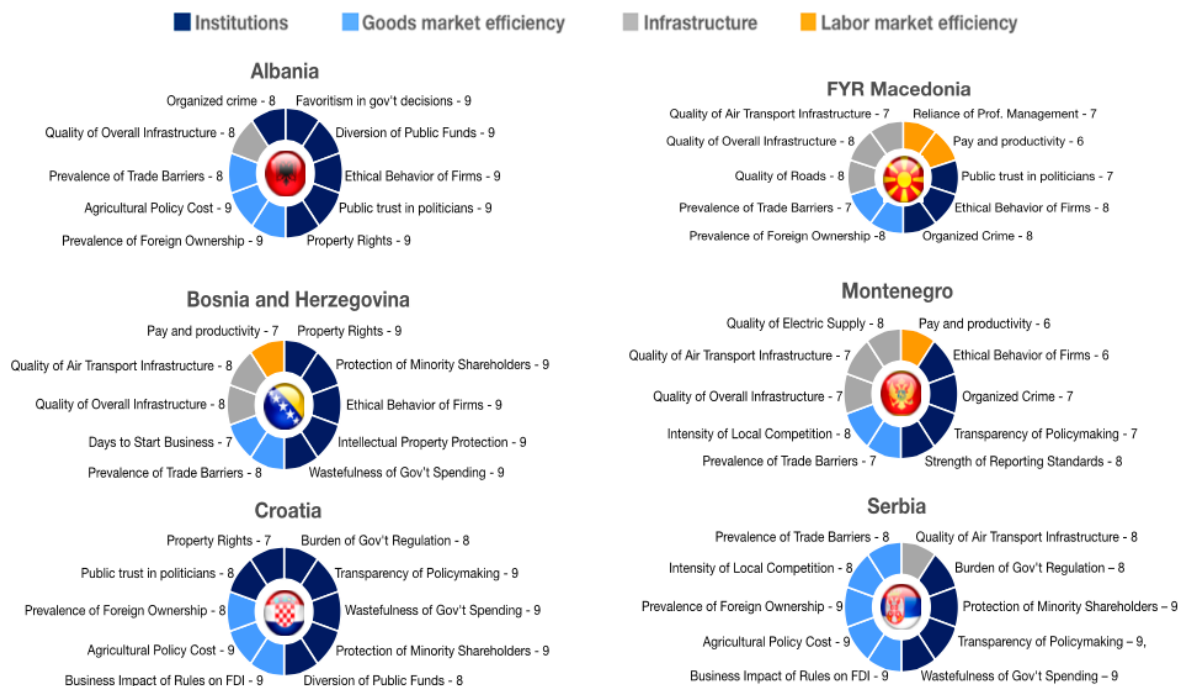
According to IMF (2015, pg. 29) several reform gaps hinder Western Balkan countries today in their convergence processes. **Institutional Reforms:** As a key problem all countries face a lack in the protection of property rights. These rights are a key basis for the development of a private economy and the foundation of businesses. **Infrastructure:** Except Croatia, all Western Balkan countries lag behind EU standards in infrastructure qualities. This includes ICT infrastructures as well as rail, road, water and air transport infrastructures. These problems hinder on the one hand the national economic development and on the other, the foreign trade. **Goods Markets Efficiency:** IMF (2015) points that existing gaps in competition policy needs political action. This subsumes a stabilisation of local competitiveness and anti-monopoly policies. In addition, agricultural policy cost seems to be a significant burden for Croatia and Serbia. **Labour Market Efficiency:** The main problem is relatively low skills of labour force and difficulty to retain and attract talents.

Figure 1 provides a comprehensive overview about the assessment of the IMF regarding the top 10 reform priorities resulting from the above-described gaps. For all countries, the IMF calls for institutional improvements. This includes e.g. reduction of crime, transparency of policymaking and better property rights. A further improvement is needed in infrastructures, as we will show in this report.

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<sup>2</sup> We use the term “New Member States” (NMS) for former socialist republics of Central and Eastern Europe that are now part of the EU28.

**Figure 1: Top 10 Reform priorities for each of the WB countries**



Note: Reform priorities are assessed relative to the NMS along four sub-pillars of the Global Competitiveness Index (Institutions, Goods Market Efficiency, Labor Market Efficiency and Infrastructure). Numbers indicate the priority, with 9 pointing to the highest priority (see Annex 1.4). Analysis for Kosovo not included as the relevant data are not available.

Source: IMF (2015, pg. 31). Note: Reform priorities are assessed relative to the New Member States according to four sub-pillars of the Global Competitiveness Index (Institutions, Goods Market Efficiency, Labour Market Efficiency and Infrastructure). Numbers indicate the priority, with 9 pointing to the highest priority. An analysis for Kosovo is not included, as the relevant data are not available.

Table 1 provides an overview about the actual situation related to several institutional environment indicators based on the Global Competitiveness Report (WEF, 2015).

**Table 1: Institutional environment indicators in comparison to EU countries**

		AL	BA	HR	ME	MK	RS	BG	RO	FR	DE	GR
<b>Property rights</b>	<b>R</b>	131	114	83	131	48	124	110	80	17	18	74
	<b>V</b>	2.81	3.28	3.73	2.81	4.38	3.06	3.32	3.75	5.56	5.56	3.89
<b>Public trust in politicians</b>	<b>R</b>	105	85	124	105	52	118	130	109	42	15	106
	<b>V</b>	2.34	2.62	1.99	2.34	3.31	2.13	1.90	2.32	3.53	4.74	2.33
<b>Ethics and corruption</b>	<b>R</b>	107	56	84	107	38	96	97	88	32	18	90
	<b>V</b>	2.74	3.68	3.08	2.74	4.10	2.91	2.87	3.07	4.51	5.20	3.05
<b>Transparency of government policymaking</b>	<b>R</b>	67	64	121	67	29	108	124	86	70	22	120
	<b>V</b>	4.00	4.20	3.33	4.00	4.60	3.60	3.26	3.80	3.95	4.77	3.37
<b>Organized crime</b>	<b>R</b>	95	22	49	95	65	106	117	105	62	39	42
	<b>V</b>	4.31	6.04	5.42	4.31	4.80	4.12	3.98	4.14	4.87	5.54	5.50

Source: World Economic Forum (2015); R – Rank, V – Value (1 – 7 best); data for Kosovo not available

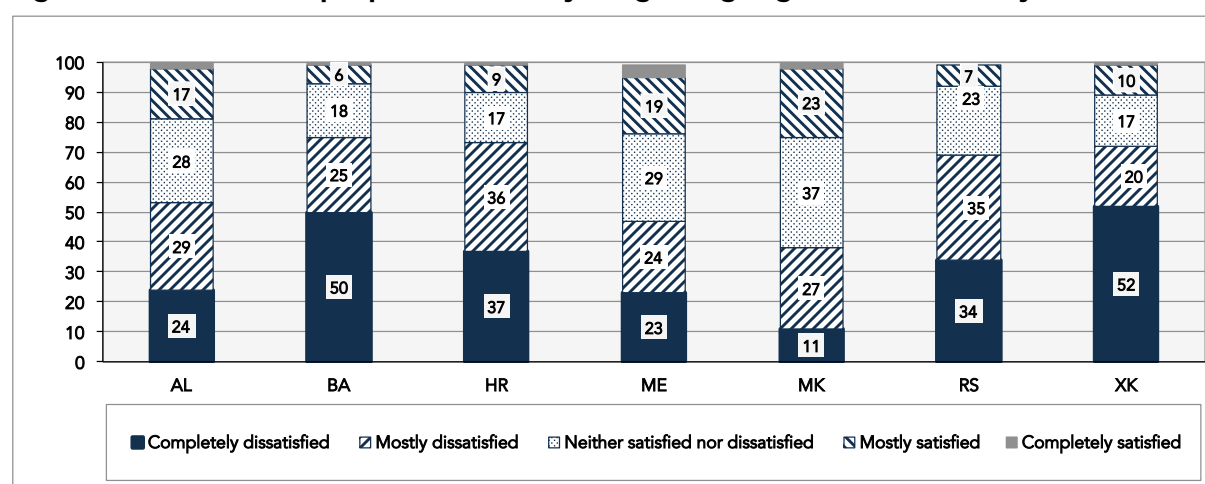


While institutional environment indicators show a high level of heterogeneity between the Western Balkan countries, there are no obvious differences with the two NMS considered here (Bulgaria and Romania) and with Greece. These figures clearly show the need for action.

## 2.1. People are dissatisfied with the economic situation in the region

Compared to EU28 average as well as to most of the NMS, Western Balkan countries consider their socioeconomic situation dissatisfying. In most countries of the region, economic perspectives for wide parts of the population are rather bleak. Unemployment rates are high and the GDP per capita is low. According to the World Bank (2016a) and the UN (2016), the income distribution (measured by the GINI coefficient, latest available data 2013 to 2014) of the Western Balkan countries is comparable with that of the EU28 countries. While the EU28 average was 30.9 in 2014, the values for the Western Balkan countries are in a 29 - 36 range with the exception of the FYRO Macedonia (44). The Regional Cooperation Council Secretariat (RCC, 2015) points out that – based on the result of a survey run in 2015 – on average, 66% of the population in the Western Balkans is dissatisfied with the way things are going on in the national economies while only 11% are satisfied (see Figure 2).

**Figure 2: Satisfaction of people with the way things are going on in the economy**



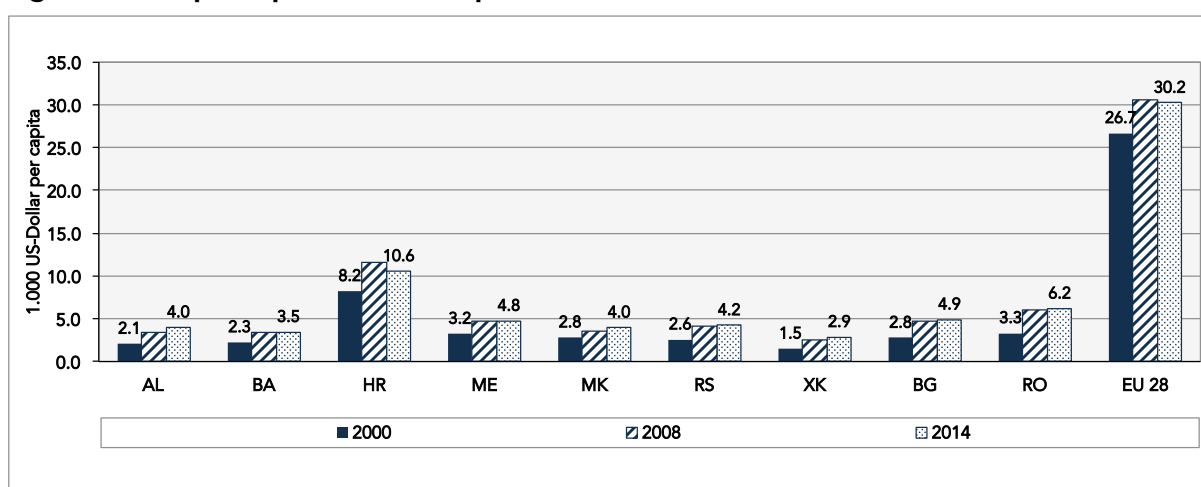
Source: RCC (2015 pg. 28) – Completely Satisfied - less than 2 % - doesn't show on the graph

The GDP per capita and household income are low compared to the EU28 average. Within the last 15 years the GDP per capita has been rising by up to 30 - 50% in the Western Balkan countries (see Figure 3), the largest increase taking place in Albania. However, the absolute figure is – compared to EU28 – extremely low. It's worth emphasizing that GDP per capita in the region (except Croatia) is 80% lower than that of the EU 28 average and lower than that of the poorest EU28 member state, Bulgaria.

## 2.2. GDP convergence process is slower than in the New Member States

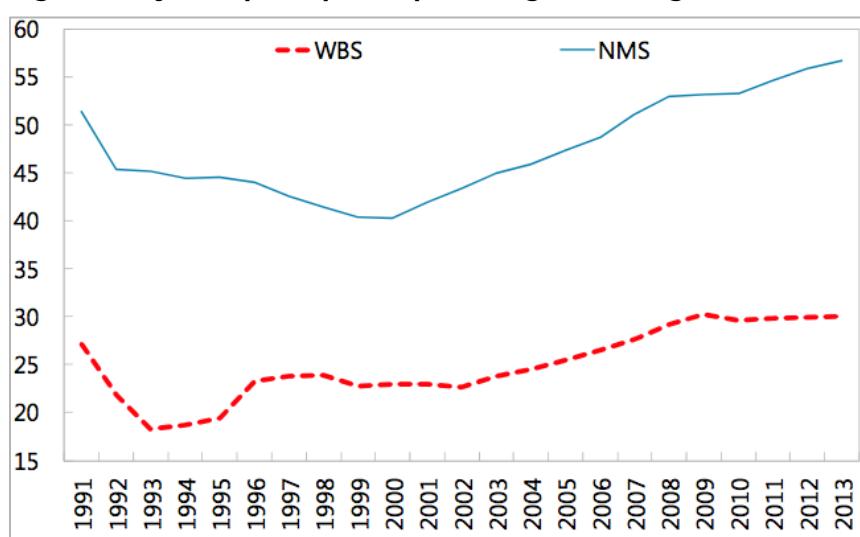
In addition, the GDP per capita convergence of Western Balkan countries to EU average has been developing significantly slower than that of the NMS (see Figure 4) since 2000. After the economic downturn resulting from the 1990 turbulence followed by regional military conflicts, the recovery from 2000 to 2008 brought the region to GDP per capita level that is nearly equal to that of 1990.

**Figure 3: GDP per capita in constant prices 1,000 US-Dollar 2005 (2000, 2008, 2014)**



Source: World Bank (2015a)

**Figure 4: Average country GDP per capita as percentage of average EU17\* GDP per capita**



Source: IMF (2015, pg. 13), WBS – Western Balkan Countries, NMS – New Member States, \*EU17: EU 15 plus Malta and Cyprus

The IMF World Economic Outlook 2015 forecasts heterogeneous GDP growth rates for the region between 0.5 and 4.7%: Albania 3.0%, Bosnia and Herzegovina 3.5%, Croatia 0.5%,

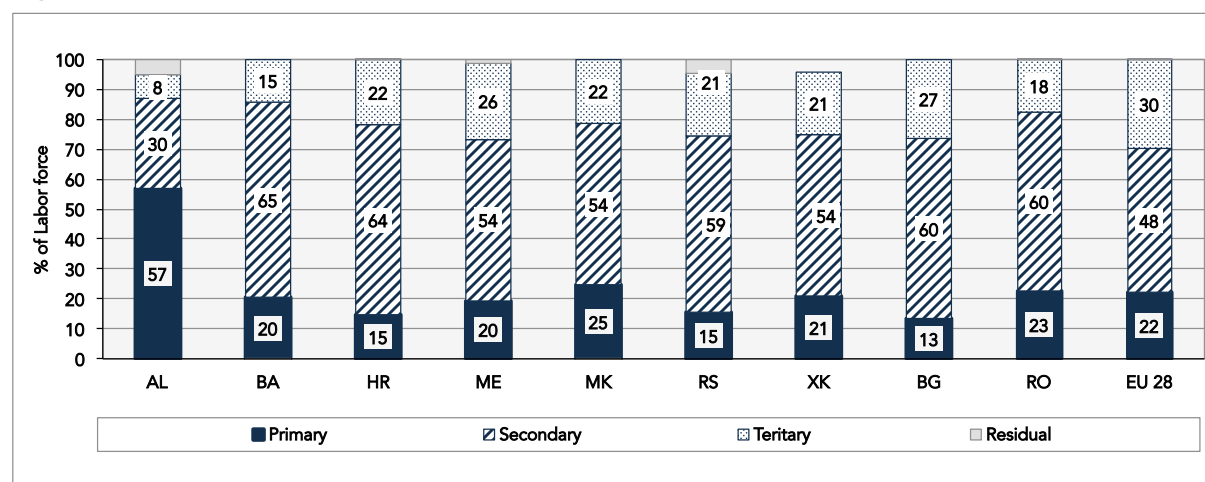
Kosovo 3.3%, FYRO Macedonia 3.2%, Montenegro 4.7% and Serbia 0.5%. The low rates for Serbia and Croatia seem to be caused by the floods these two countries experienced in 2014 (WB, 2015d).

The EBRD (2015) as well as the Balkan Economic Forum (2014) highlight the following drivers for economic recovery in the region: (1) an increase in domestic consumption – especially in Bosnia & Herzegovina and Kosovo; (2) a better access to credits to help increase private sector investment; (3) the recovery of most EU28 countries to increase exports into EU; and (4) low oil prices to reduce production costs. In addition, large infrastructural projects in the transport and energy sectors as well as increasing foreign direct investments (FDI) in some of the countries to increase national productions and incomes.

### **2.3. The skill level of the labor force lags behind the EU28 average**

Along with low GDP in the countries in the region, unemployment rates are high. The average rate in 2013 for the Western Balkans was ca. 23% and therefore 10 percentage points higher than in the NMS countries. Only Greece and Spain, which were massively affected by the economic crisis, had higher rates. While almost all countries in the EU28 (except Poland and Germany) had higher unemployment rates in 2013 compared to 2006, the Western Balkan countries had a constant high level of unemployment (IMF 2015, pg. 33). Even the moderate economic upturn till 2008 had no significant positive influence on the employment rates in the region. The structural unemployment has remained high, with over 800,000 jobs lost between 2008 and 2011 in the six countries (Friends of Europe et al. 2014, pg. 16). In addition, youth unemployment (with up to 62.8% in Bosnia and Herzegovina) is extremely high in the region. The absolute unemployment figures tell only half of the story of the labor markets in the region. While the average employment ratio in the EU 28 is ca. 65%, values for Western Balkan countries lags behind by 10-40 percentages points. This is in part due to a lower participation of women in the labor market (see WBIF 2012 pg. 5 and Goldstein 2014, pg. 23-25) and to a high level of inactive persons. One reason for structural unemployment in the region is related to the low education level in the countries (Friends of Europe et al. 2014, pg. 17). As Figure 5 shows, the share of highly educated labor force is ca. 10 percentage points lower in the Western Balkan economies than in the EU28. Table 2 provides the relative position for each country of the region based on the Global Competitiveness Report (WEF 2015). We note that Bulgaria faces a similar situation as the Western Balkan countries related to the different levels of education. The IMF (2015) points out that foundation of human capital is of high importance for growth in countries that are less developed - as Western Balkan countries are.

**Figure 5: Labor force, education level (2012, Albania 2002)**



Source: World Bank (2015a)

**Table 2: Quality of education/science in Western Balkan countries in comparison to EU28 countries**

Quality of:		AL	BA	HR	ME	MK	RS	BG	RO	FR	DE	GR
Primary education	R	55	16	41	55	56	78	50	65	31	22	74
	V	4.27	5.36	4.63	4.27	4.26	3.81	4.39	4.09	4.88	5.12	3.84
Education system	R	46	132	97	46	53	106	91	61	34	12	111
	V	4.11	2.68	3.23	4.11	3.96	3.06	3.39	3.83	4.38	5.24	3.00
math and science education	R	64	13	26	64	48	53	54	31	17	20	61
	V	4.29	5.35	4.91	4.29	4.44	4.34	4.34	4.72	5.19	5.09	4.30
Management schools	R	86	41	76	86	90	114	121	74	8	29	89
	V	3.91	4.69	4.20	3.91	3.87	3.55	3.39	4.21	5.73	4.98	3.88
Scientific research institutions	R	115	108	124	115	91	130	108	68	21	4	109
	V	3.21	3.13	3.11	3.21	3.52	2.97	3.30	3.75	4.77	5.60	3.30

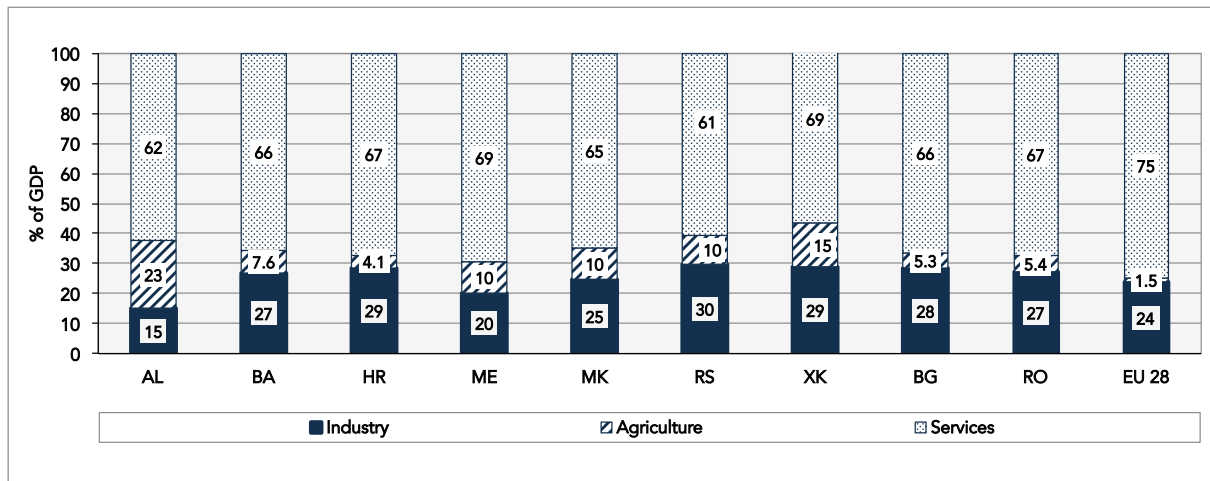
Source: World Economic Forum (2015); R – Rank, V – Value (1 – 7 best); data for Kosovo not available

A further problem that reduced the skill level in most of the countries was the export of skilled and unskilled labor force into the EU28 over the last decade (Balkan Economic Forum, 2014). Lack of social perspectives for young people due to high unemployment and national loss of knowledge due to emigration reinforce each other and cause a downwards spiral.

## 2.4. Agriculture is overrepresented in GDP compared to EU28

In the EU28, the service sector is the main economic driver. Comparatively, in Western Balkan countries its share of the GDP is ca. 10% below the EU average. While services in industrialized EU28 countries are at a large extent, industry services and services of financial intermediaries with high added value, agriculture plays a significant role in the Western Balkan region (see Figure 6).

**Figure 6: GDP sectoral split (2014)**

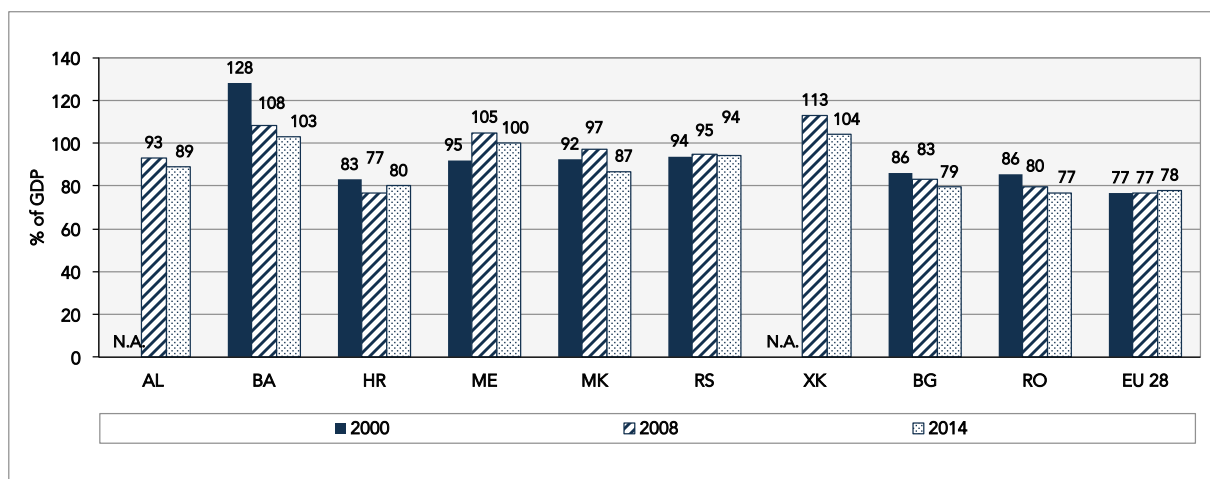


Source: World Bank (2015a)

## 2.5. High consumption expenditures and low savings hinder growth

GDP is composed of consumption, gross investments and net exports. In 2014, consumption expenditures in the WB countries were up to 20% higher than in the EU28 average and got to values above 100% in some years. Indebtedness for consumption is a bad recipe for economic development.

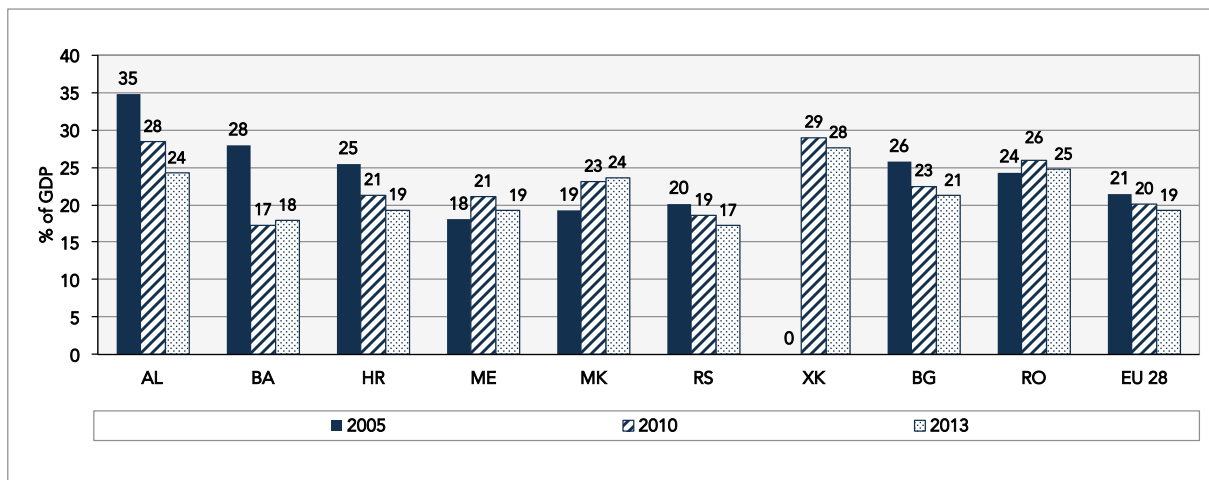
**Figure 7: Consumption expenditures in percentages of GDP (2000, 2008, 2014)**



Source: Eurostat (2015a), Trading Economics (2015 a, c), \*Albania 2013 instead of 2014

According to IMF (2015, pg. 48) the Western Balkan countries have a low capital stock. Gross investment levels have not been helping to overcome the gaps existing since 2000. While the figures for 2008 (see Figure 8) show higher values than in the EU28 average, we note that these investments result from indebtedness. Furthermore, IMF (2015 pg. 18) highlights that in 2011, the NMS countries reached gross investment rates (ca. 22% percentage of GDP) almost comparable to EU17 countries while the Western Balkans on average lagged behind at 20% of the GDP.

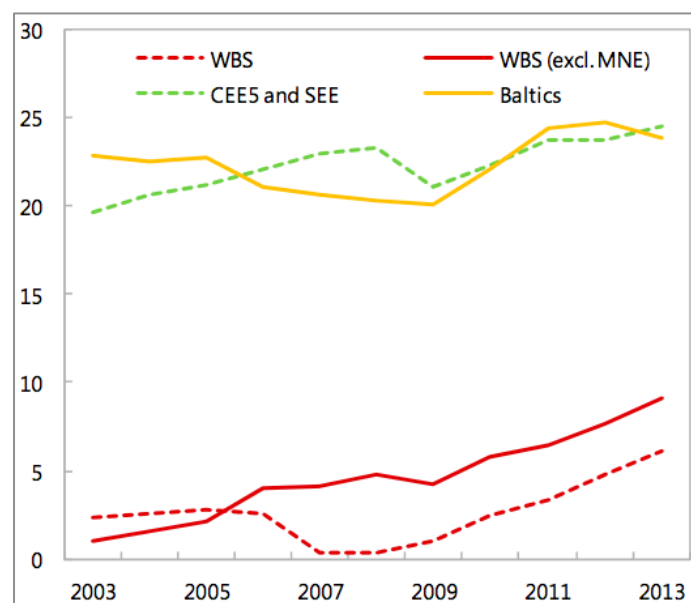
**Figure 8: Gross capital formation percentages of GDP (2000, 2008, 2014)\***



Source: Eurostat (2015a), Trading Economics (2015b), UN Data (2015)

An important aspect is the level of domestic savings. While NMS countries have saving rates of 20 – 25% of their GDP, Western Balkan countries lag behind with values lower than 10% (see Figure 9) of national GDP.

**Figure 9: Gross savings in percentage of GDP, Western Balkan, NMS and Baltics (2000 – 2014)**

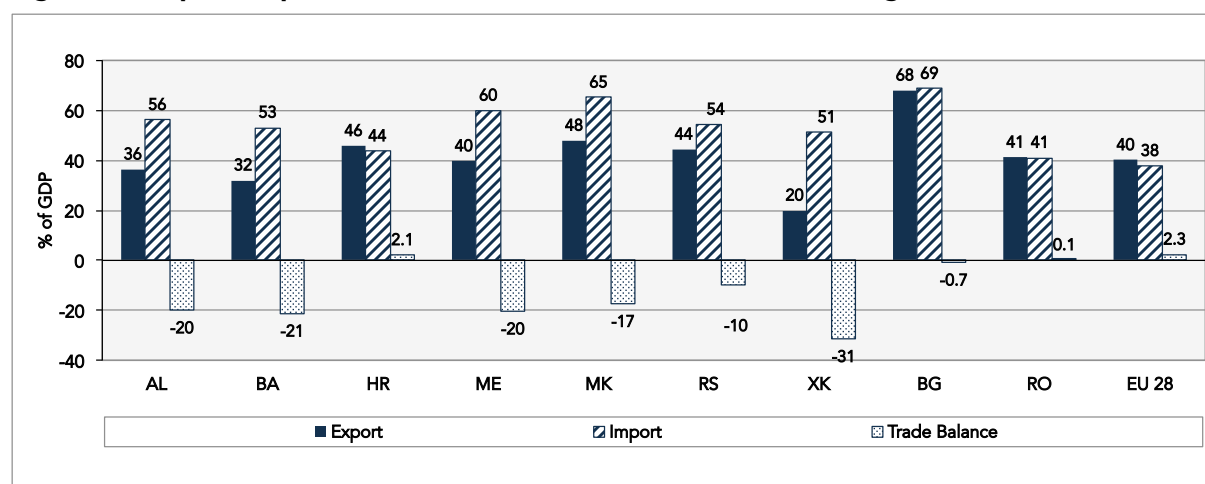


Source: IMF (2015, pg. 46)

## 2.6. Imports are dominated by non-tradable goods that do not support exports

All Western Balkan countries have a relatively low export rate and (except Bosnia and Herzegovina) a high import rate. This leads, on the one hand, to negative trade balances, which triggers increasing indebtedness and, on the other hand, to regional opportunities losses in terms of technological impulses resulting from foreign trade.

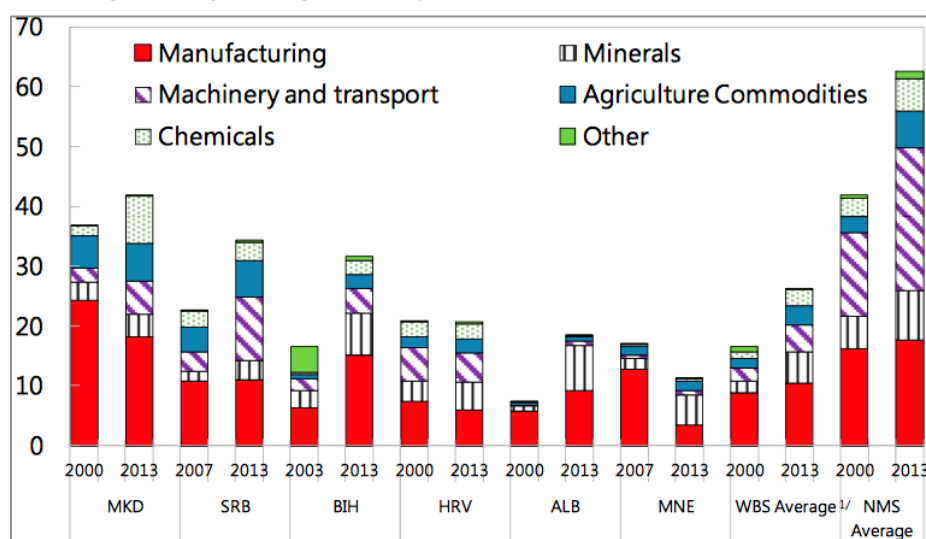
**Figure 10: Export, import and trade balance (2014, Bosnia and Herzegovina 2013)**



Source: World Bank (2015a)

The average share of exports in the Western Balkans is lower than half that of the NMS average of 60% of GDP (see Figure 11). This is one of the reasons for a lower competitiveness of products and services from the region in the EU28 markets.

**Figure 11: Total export of goods (percentage of GDP)**

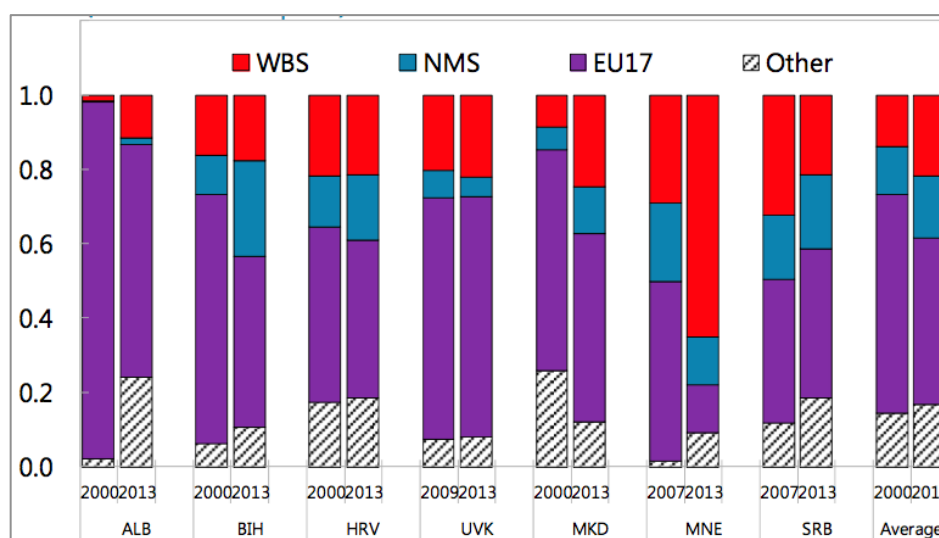


Source: IMF (2015, pg. 25)

EU28 imports from the Western Balkans accounted for EUR 15 billion in 2014, while exports accounted for EUR 23 billion (EC 2015a). EU28 remains (with 60% of total exports) the main trade partner for the region, even if the share decreased from 2000 to 2013 (see Figure 12).

According to IMF (2015, pg. 48), most of the imports were absorbed as consumption and had no effect on capital formation. Furthermore, FDI inflows take place mostly in non-tradable sectors, e.g. financial services, real estate, construction. As a result, FDI did not support development of export and competitiveness of the countries (ibid).

**Figure 12: Export of goods, share of export, (2000, 2013)**



Source: IMF (2015, pg. 24)

The outlook for export development gives reasons to hope. The Balkan Economic Forum (2014) states that after a recovery from the global economic crisis the Balkans export outlook is generally favorable. The first positive signs were the increasing exports in 2014 in Croatia (+ 9.3% YOY in 2014) and in the FYRO Macedonia (+17.4% YOY January-August 2014).

The intra-regional trade is relatively strong and resilient and includes product categories as iron and steel, steel products, aluminum, mineral fuels, electrical machinery and equipment, and beverages (Balkan Economic Forum 2014). Increasing intra-regional trade will help to stabilize economic growth in the whole region. Moreover, higher economic regional integration can help to overcome regional conflicts.

## 2.7. Remittance inflows in Western Balkan countries have a major economic impact

Emigration from Western Balkan countries since 1990 and especially at the beginning of the 2000s had, beside its negative effects on skill levels, positive economic effects due to remittance inflows. These remittances levels were up to 18% of national GDPs. On average



over the last decade, remittances share in the GDP was the highest in Bosnia and Herzegovina (18.6%), Kosovo (18.5%) and Albania (13.8%) (Sejdini, 2014, p. 103).

According to Sejdini (2014, pg. 112 based on World Bank data), the total amount of remittances for the Western Balkan countries was USD 92 billion between 2000 and 2011, which represents more than 22 percent of the amounts received in remittances by all Eastern Europe and Central Asian (EECA) countries over the same period.

High remittance inflows impact the current accounts of the countries. As described above, all countries have negative trade balances which lead to international indebtedness. Remittances reduced these effects significantly: the current account deficit has declined by up to 75% in most of the last decade in the region (Sejdini, 2014, pg. 104-105). Moreover, the inflow of remittances has exceeded the FDI inflows, which emphasize on the one hand the importance of this inflow and on the other the low FDI in the region. Considering that remittances are transfers at household level and are used mainly for consumption, they have positive growth effects mainly in the regions of their origin in the EU member states and not in the Western Balkans. However, these transfers increased living conditions in the Western Balkans by – following the data for the last decade – up to 180%.

## 2.8. Credit growth and non-performing loan ratio increased

While the credit (YOY) growth rate in the Western Balkans reached values of nearly 50% early 2000s, the growth rate decreased down to 1% in the last years (Goldstein 2014, pg. 19) (see Figure 14). As a result, interest rates on credits have been falling since 2008 (see Table 3). However, average values are still up to a factor four higher than those in the Euro-Zone (ECB 2015).

**Table 3: Lending interest rates - short- and medium-term financing needs of the private sector**

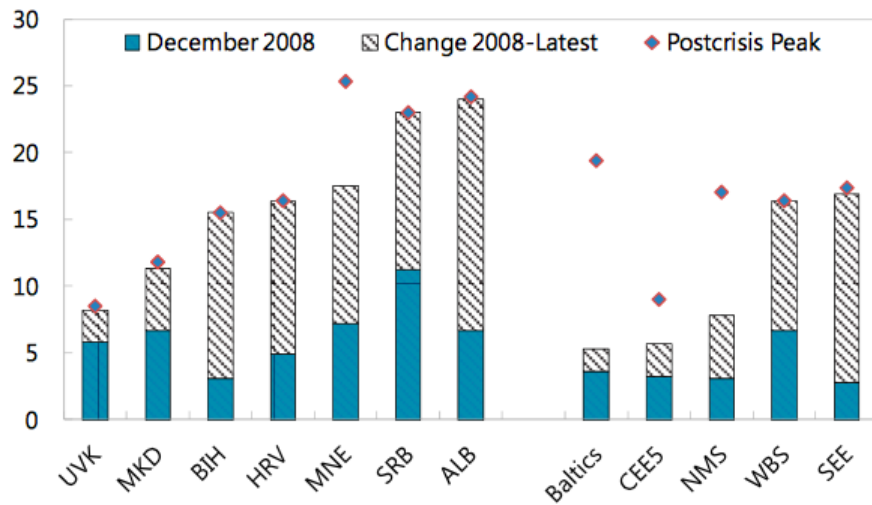
Country	2008	2009	2010	2011	2012	2013	2014
AL	13.0%	12.7%	12.8%	12.4%	10.9%	9.8%	8.7%
BA	7.0%	7.9%	7.9%	7.4%	10.9%	9.8%	8.7%
HR	10.1%	11.6%	10.4%	9.7%	9.5%	9.2%	N.A.
ME	9.2%	9.4%	9.5%	9.7%	9.6%	9.4%	9.4%
MK	9.7%	10.1%	9.5%	8.9%	8.5%	8.0%	7.5%
RS	16.1%	11.8%	17.3%	17.2%	18.2%	17.1%	14.8%
XK	13.8%	14.1%	14.3%	13.9%	12.9%	11.1%	9.2%
BG	10.9%	11.3%	11.1%	10.6%	9.7%	9.1%	8.3%
RO	15.0%	17.3%	14.1%	12.1%	11.3%	10.5%	8.5%

Source: World Bank (2016b)

An important problem all Western Balkan countries face is a high non-performing loan ratio. After the beginning of the economic crisis in 2007/8, the ratio increased in Western Balkan

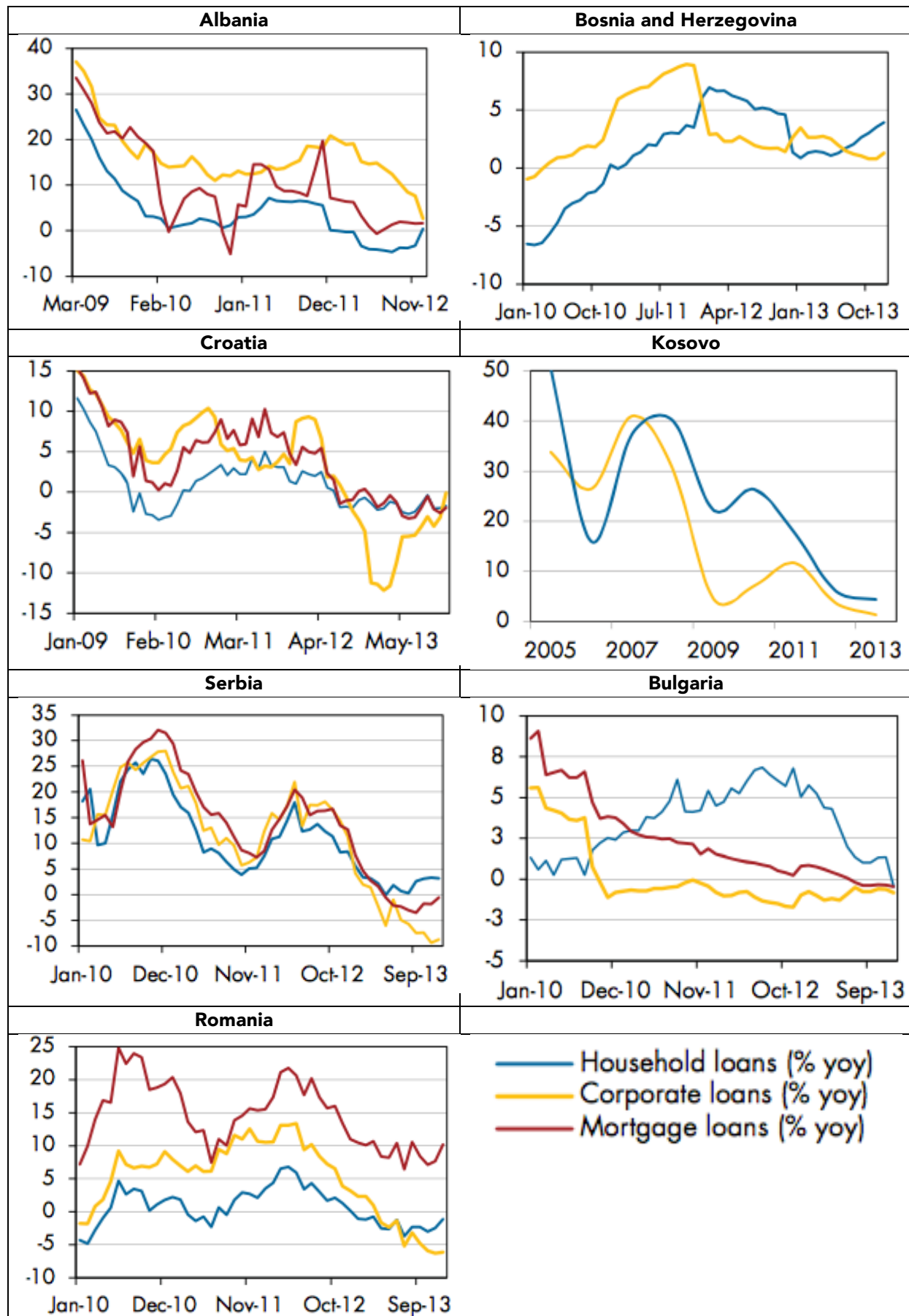
economies by more than 50%. High rate of non-performing loans increase the risk premiums on loans for investors and therefore have a negative effect on credit demand.

**Figure 13: Non-performing loans**



Source: IMF (2015, pg. 74), UKV - Kosovo, BIH - Bosnia and Herzegovina, SRB - Serbia, ALB - Albania, WBS - Western Balkans, SEE - South- East Europe, NMS - New Member States

**Figure 14: Lending growth YOY**



Source: Raiffeisen Research (2014)

## 2.9. R&D is underdeveloped in the Western Balkans

Related to the low education level of the labor force in Western Balkan countries, R&D expenditures and the number of researchers per million people are significantly lower than in the EU28. However, differences exist between countries. While Serbia shows expenditures that are ca. half of the EU28 average (Serbia 0.99% of GDP), all others lag behind with 0.02 - 0.2% of national GDPs. The same relation exists in respect to the number of researchers. Table 4 presents relevant dimensions from the Global Competitiveness Report (WEF 2015).

**Table 4: R&D related figures in Western Balkan countries in comparison to EU countries**

		AL	BA	HR	ME	MK	RS	BG	RO	FR	DE	GR
<b>Capacity for innovation</b>	<b>R</b>	115	108	124	115	91	130	108	68	21	4	109
	<b>V</b>	3.21	3.13	3.11	3.21	3.52	2.97	3.30	3.75	4.77	5.60	3.30
<b>Company spending on R&amp;D</b>	<b>R</b>	73	86	75	73	67	125	100	65	15	5	114
	<b>V</b>	3.08	2.95	3.07	3.08	3.12	2.45	2.83	3.13	4.71	5.46	2.62
<b>University-industry collaboration in R&amp;D</b>	<b>R</b>	135	37	81	135	60	95	113	71	29	10	111
	<b>V</b>	2.34	4.32	3.39	2.34	3.71	3.24	3.00	3.59	4.58	5.34	3.06
<b>Availability of scientists and engineers</b>	<b>R</b>	70	89	129	70	56	122	97	75	43	16	136
	<b>V</b>	3.46	3.35	2.65	3.46	3.64	2.88	3.15	3.41	3.75	4.19	2.56
<b>PCT patents, applications/million pop.</b>	<b>R</b>	84	54	36	84	91	55	48	56	15	6	39
	<b>V</b>	0.35	1.96	9.98	0.35	0.24	2.31	5.05	2.24	118.15	226.89	7.62

Source: World Economic Forum (2015); R – Rank, V – Value (1 – 7 best); data for Kosovo not available

A mistake often made in attempts to achieve catch-up growth is to focus too much on education and research in the context of academic institutions. Important as these are, the enhanced productivity that results from good basic and vocational education in combination with work experience using state-of-the art equipment is usually much more effective. Building the Green Corridor envisaged in the present report offers plenty of opportunities in this direction.

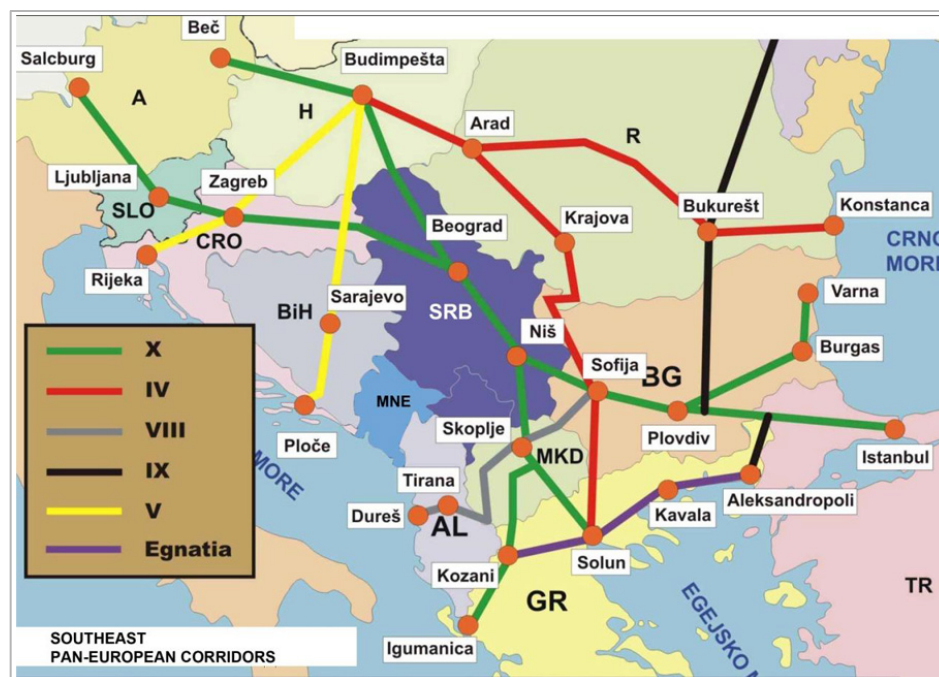
When considering the socio-economic status quo in the Western Balkans, it is essential to distinguish two very different time scales. On the one hand, there are the severe conditions resulting from the aftermath of the global financial crisis of 2007-2009. On the other hand, there are institutional and cultural conditions resulting from a history dating back at least to the Ottoman Empire and its complex relation to the rise of Western Europe.

### 3. The Infrastructure Situation – Room for Improvements

#### 3.1. Transport infrastructures massively lag behind EU standards

The Balkan countries are connected substantially through the Pan-European Transport Corridors 5 (V), 8 (VIII) and 10 (X) with Central and Eastern Europe (see Figure 15) both by road and rail. This connection enable the Western Balkans to have a strategic position as transit region for the East-West trade, on the one hand, and create the precondition for exports towards the EU28, on the other. However, the freight volume in the region is relatively low.

**Figure 15: Corridors in South-East Europe**



Source: RailwayPro (2014)

According to the IMF (2015, pg. 19), one reason for a slower economic convergence of the Western Balkan countries towards EU28 compared to NMS is their physical distance to Western countries and inadequate infrastructures. Therefore, well-developed transport infrastructures are necessary for stronger economic cooperation between the Western Balkans and EU28. The density and quality of the transport network is very heterogeneous in the Western Balkan countries. Table 5 summarizes the assessment of transport infrastructure qualities compared to EU28 countries based on the Global Competitiveness Report (WEF 2015) while Table 6 shows the density of roads and railways in the region.

The railway infrastructure in Western Balkans is very old in most of its parts and requires renovation. The train speed is limited to less than 200 km/h and in large parts to less than 120 km/h. The situation is comparable with that of Bulgaria and Romania and some extend

of Greece. The road transport is the dominating transport mode in Europe to the detriment of the rail. While the freight transport on railways is relatively constant since 1995 in the EU28 (440bn ton-kilometers), freight transport on road has increased from 1995 to 2011 from ca. 1.300 to 1.700bn ton-kilometers (EUC 2013, pg. 35). While Serbia has a densely developed network of railways comparable to the EU28 average, in the other countries the density is significantly below the EU28 average, both in terms of area (m per km<sup>2</sup>) and population (km per 1 000 inhabitants). Albania and Kosovo are outliers in terms of quality and density.

The quality of road infrastructures is better than that of Bulgaria and Romania but lags behind France, Germany and Greece. The density of the network lags behind EU28 average (see Table 6). According to Holzner et al (2015, pg. 10), motorways and railways density is up to three times higher in neighboring countries like Austria, Bulgaria, Hungary and Romania compared to the Western Balkans.

**Table 5: Quality of infrastructure in Western Balkan countries in comparison to EU countries**

Quality of:		AL	BA	HR	ME	MK	RS	BG	RO	FR	DE	GR
Overall infrastructure	R	127	127	44	84	87	111	100	88	10	11	57
	V	3.11	3.11	4.91	3.91	3.80	3.35	3.59	3.79	6.05	6.03	4.58
Roads	R	104	104	17	91	71	114	106	121	4	13	55
	V	3.05	3.05	5.62	3.38	3.94	2.93	3.14	2.75	6.17	5.88	4.32
Railroad infrastructure	R	55	55	58	86	104	83	51	59	6	8	57
	V	3.04	3.04	2.86	1.97	1.13	2.13	3.03	2.86	5.89	5.66	2.87
Port infrastructure	R	147	147	51	102	89	127	68	104	32	14	49
	V	1.76	1.76	4.60	3.41	3.74	2.60	4.18	3.39	5.20	5.67	4.72
Air transport infrastructure	R	148	148	76	59	68	112	69	105	17	13	40
	V	1.99	1.99	4.19	4.66	4.44	3.46	4.32	3.62	5.81	5.94	5.16

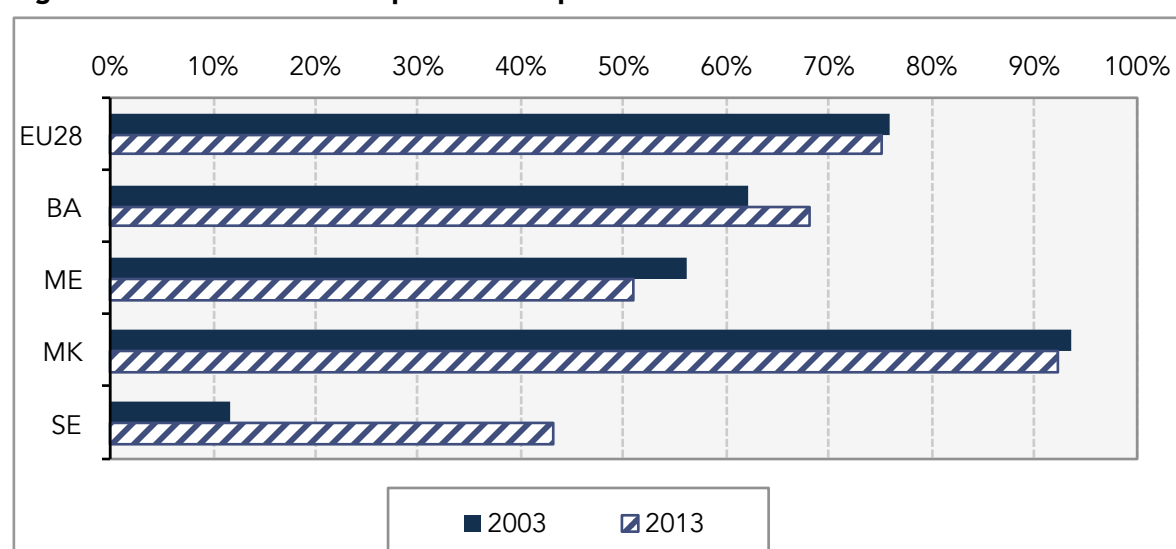
Source: World Economic Forum (2015); R – Rank, V – Value (1 – 7 best); data for Kosovo not available

**Table 6: Density of transport networks, 2013**

	Roads		Railway lines	
	(km per 1,000 km <sup>2</sup> )	(km per 1,000 inhabitants)	(km per 1,000 km <sup>2</sup> )	(km per 1,000 inhabitants)
<b>EU-28</b>	1,061	9.4	48.3	0.43
<b>AL</b>	130	1.3	12	0.12
<b>BA</b>	342 <sup>(1)</sup>	4.6 <sup>(1)</sup>	20.1	0.27
<b>HR</b>	N.A.	N.A.	55 <sup>(*)</sup>	N.A.
<b>ME</b>	577	12.8	18.1	0.4
<b>MK</b>	551	6.9	27.2	0.34
<b>RS</b>	185	1.1	30.6	0.18
<b>XK</b>	130	1.3	12	0.12

Source: Eurostat (2015b); (1) values for 2008

The share of road freight in the Western Balkans is (except for the FYRO Macedonia) lower than in the EU28. However, an increase is to be expected in the future, as it was observed in many countries in Central and Eastern Europe since the 1990 levels. In Serbia in particular, between 2003 and 2013 dramatic shifts occurred towards road transport. It is essential, in order to understand these trends that, inter alia, high and partly lacking investments in the railway infrastructure are needed and the density of railroad terminals is low (see Figure 16).

**Figure 16: Share of road transport on transport volumes**


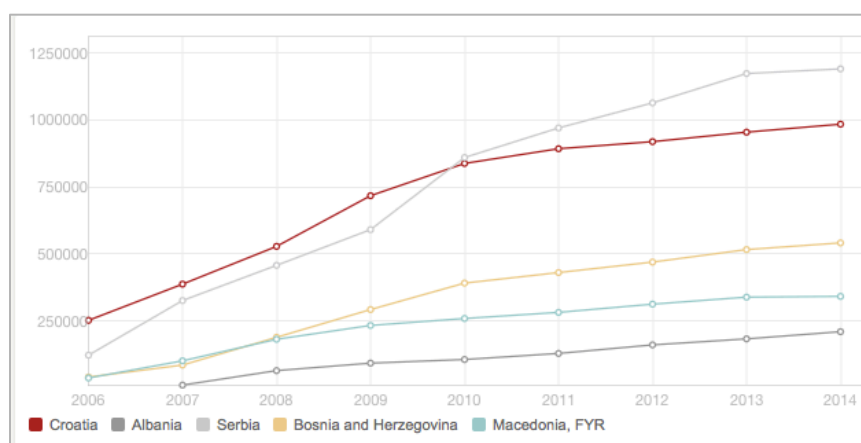
Source: Eurostat (2015b)



### 3.2. The cover with broadband Internet in the region is low

Broadband Internet is considered here in the dimensions of wired (DSL / VDSL) and wireless (LTE, HSDPA, UMTS) connection. The definition of "High-Speed Internet" given by the World Bank covers (wired) connections higher than a download rate of 256 Kbit/s. Figure 17 shows the number of users (contracts) of wired broadband connections in the Western Balkan countries of the Balkan region. Broadband connection covers about 25% of the population in Croatia, 10% in Albania, 15% in Serbia, Bosnia and FYRO Macedonia. In comparison, in Germany it covers about 37% of the population. In 2008, between 56% (Croatia) and 90% of firms in the ICT sector of Western Balkans (75% on average for the region) stated that telecommunication infrastructure is a barrier for their growth (OECD 2009, pg. 17). While the situation improved over the past 7 years, the interconnectivity in the region is still low and the connections to the EU28 are also low.

**Figure 17: Wired broadband users by country and year**



Source: World Bank (2015c)

As Table 7 shows, the share of internet users in the region is ca. 20 percentage points lower than in France and Germany but higher than that of Bulgaria, Romania and Greece. The bandwidth is significantly lower in all countries except Serbia.

**Table 7: ICT infrastructures in Western Balkans countries in comparison to EU countries**

		AL	BA	HR	ME	MK	RS	BG	RO	FR	DE	GR
Individuals using Internet, %	R	52	40	42	52	50	65	62	67	21	17	54
	V	60.1	65.4	66.7	60.1	61.2	51.5	53.1	49.8	81.9	84.0	59.9
Fixed broadband Internet subscriptions/100 pop.	R	76	58	36	76	45	49	39	40	4	9	21
	V	5.8	10.8	21.5	5.8	15.7	13.9	19.0	17.3	38.8	34.6	26.2
Int'l Internet bandwidth, kb/s per user*	R	83	64	62	83	66	26	27	19	17	24	32
	V	21.0	24.5	40.5	21.0	36.4	108.9	107.2	136.6	141.5	112.4	84.8
Mobile broadband subscriptions/100 pop.	R	75	82	24	75	55	35	31	57	33	45	59
	V	24.7	10.9	65.3	24.7	38.3	54.8	58.3	37.6	57.1	44.7	36.1



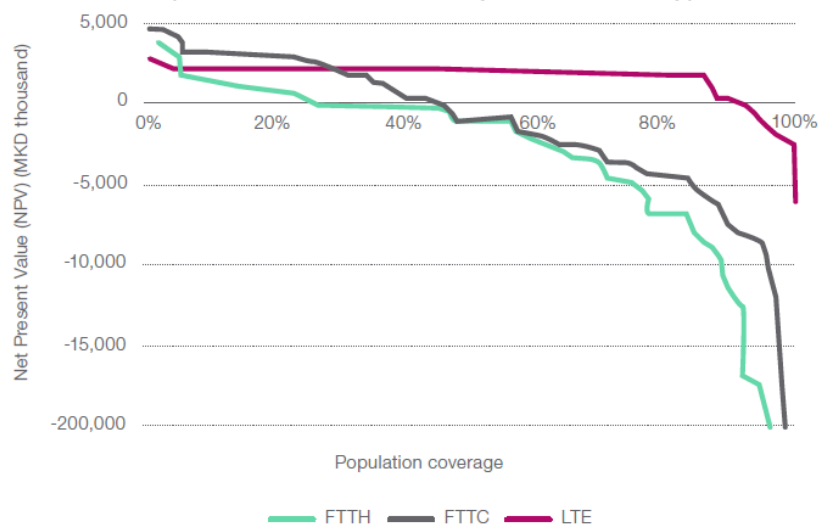
Source: World Economic Forum (2015); R – Rank, V – Value (see description in table); data for Kosovo not available

There are plans for further expansion of the Internet infrastructure in all the countries of the region. The following list identifies these plans, according to the Broadband Commission (2015):

- Albania: 2013: National Broadband plan
- Bosnia and Herzegovina: 2008: Decision On The Telecommunication Sector Policy of Bosnia and Herzegovina For The Period from 2008 to 2012
- Croatia: 2011: National Broadband Development Strategy in the Republic of Croatia, Strategy for Broadband Development in the Republic of Croatia for 2012-2015
- Macedonia: 2005: National Strategy for the Development of Electronic Communications with Information Technologies
- Serbia: Strategy for the Development of Broadband in the Republic of Serbia until 2012.

The connection of rural regions is particularly expensive. Figure 18 shows an example of how the market ability is affected (here in Net Present Values) by the coverage density. Wired systems are viable only up to coverage of about 40-50%.

**Figure 18: Marketability of the network coverage for technology in FYRO Macedonia**



Source: Broadband Commission (2015) - (MKD: Macedonian Dinar; 5.000.000 MKD  $\approx$  80.000 EUR)  
 FTTH and FTTC: Fiber-optic communication, LTE: wireless communication of high-speed data for mobile phones

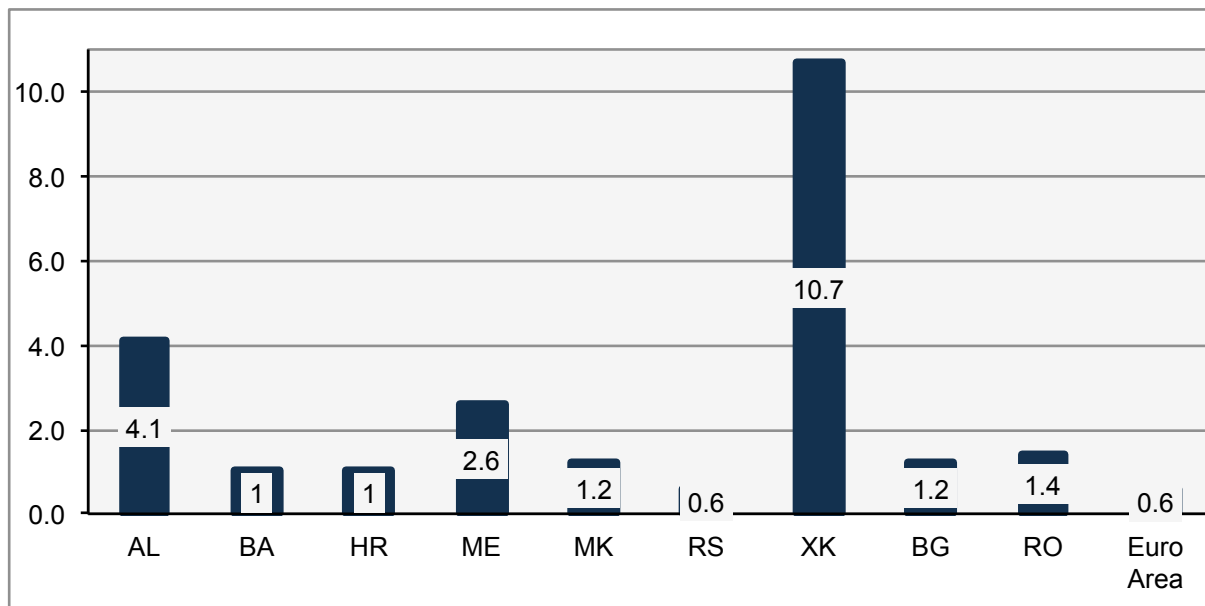
The consequence is that private investors will not invest in the wired infrastructure without government regulations or funding.

### 3.3. Electricity generation and distribution infrastructures need to be improved

According to Holzner et al. (2015) the Western Balkan region faces four main problems regarding the electricity generation and distribution.

First, the power outages are up to twice more frequent than in the EU28, whereby countries like France or Germany face no outages for firms. Such outages lead to economic losses for firms up to 7% in Kosovo, 2.5% in Albania and ca. 1% in Montenegro (Holzner et al 2015, pg. 13).

**Figure 19: Power outages in firms in a typical month (number)**



Source: World Bank (2016c)

Second, power generation capacities per inhabitant are low. While Albania, FYRO Macedonia and Kosovo have capacities below 1 kW per inhabitant, most EU28 countries have capacities that are by a factor of 2-3 higher: EU28 1.9, France 2.6, and Germany 2.1 kW/inhabitant (EIA 2016).

Third, the electricity sector in the Western Balkans has a low density of 400 kV lines. According to Holzner et al. (2015, pg. 14), the density of 400 kV lines in the Western Balkans region is around 20 km per 1,000 km<sup>2</sup> land area and therefore half of the values in neighboring EU countries such as Austria, Hungary and Slovenia.

Forth, high losses of electricity in the distribution network lead to an inefficient use of electricity in Western Balkan countries (see Table 8).

**Table 8: Distribution losses as percentage of national electricity generation**

	2008	2009	2010	2011	2012
<b>AL</b>	51%	41%	25%	50%	73%
<b>BA</b>	14%	12%	10%	11%	11%
<b>HR</b>	15%	17%	15%	18%	19%
<b>ME</b>	27%	27%	17%	25%	25%
<b>MK</b>	24%	18%	18%	22%	22%
<b>RS</b>	17%	17%	17%	16%	18%
<b>XK</b>	20%	21%	19%	17%	17%
<b>BG</b>	11%	11%	10%	9%	10%
<b>RO</b>	12%	13%	12%	12%	13%
<b>EU28</b>	7%	7%	7%	7%	7%

Source: Authors' calculations based on EIA (2016)

One consequence of the situation described above is that all Western Balkan countries as well as Croatia are net importers of electricity (see Table 9).

**Table 9: Foreign trade balance electricity (2012 Ktoe)**

	Final Consumption	Import	Export	Import - Balance
<b>AL</b>	495	218	0	218
<b>BA</b>	954	385	-389	-4
<b>HR</b>	1,320	1,133	-477	656
<b>ME</b>	277	124	-20	104
<b>MK</b>	602	236	-6	230
<b>RS</b>	2,336	497	-464	33
<b>XK</b>	385	238	-225	13

Source: IEA (2015)

As a conclusion to the main challenges for the electricity sector(s) described in this section, all Western Balkan countries need to update and enlarge their national generation capacities. Such a need opens up options for higher renewable capacities and a "greening" of the energy sector in the region. Moreover, national as well as cross-border high voltage connections are needed, on the one hand, to satisfy higher national electricity generation needs and, on the other hand, to balance fluctuating generation of renewables and to open up the possibility for electricity exports in the future.

### 3.4. A deeper integration into the European electricity grid is planned

Presently, the Western Balkan region is a net importer of electricity. Integration into the European transmission grid is planned, to enable better connectivity of the various countries with EU countries and within the region for load balancing.

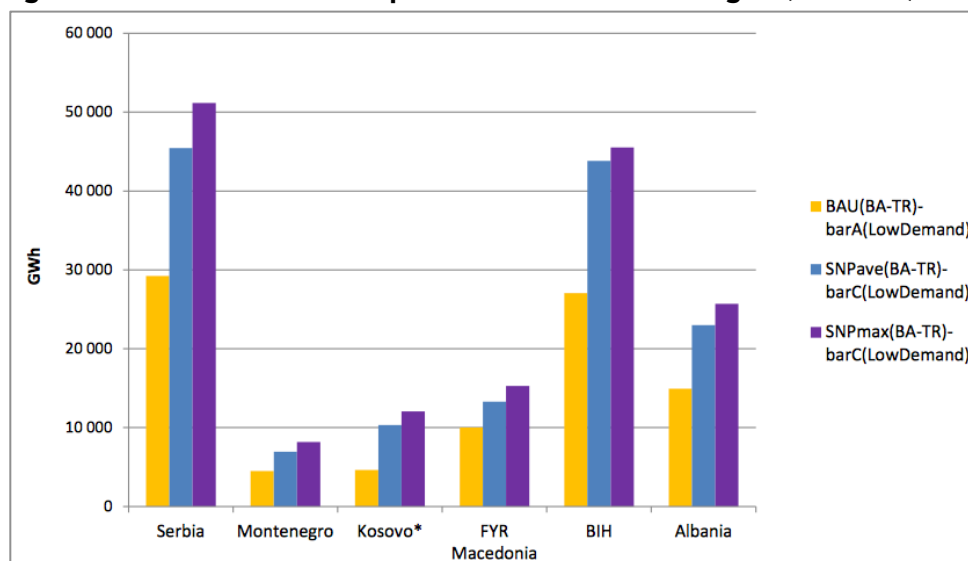
With the current plans for the expansion of energy infrastructure in the EU28, some Western Balkan countries are involved in the planning. In addition to these international investments, national and bilateral expansion of grid systems takes place. Serbia invested EUR 61 million in the renovation of a 220 kV line (conversion to 400 kV in the south) (Balkan Energy News (2014, p.50).

Moreover, the EU encourages the expansion of the Trans-Balkan Electricity Corridor. This will connect Serbia, Romania, Montenegro, Bosnia and Herzegovina, Bulgaria and Hungary and will require an estimated investment of EUR 150 million. The construction will start in the first half of 2016 with an interconnection from Romania to Serbia (Energy World, 2015).

### 3.5. The renewables potential of the region is high

According to Energy Transition (2014), the Balkans could become the "new Desertec" for Europe – while avoiding the pitfalls that bogged down several initiatives associated with that label. A relevant potential of hydropower, wind, solar PV, solar thermal and biomass, as well as existing fossil generating capacity would allow future exports of renewable-based electricity towards the EU28. According to Renewable Energy (2015), in many countries in the region the share of renewable energy in the overall generation is increasing. Figure 18 shows three scenarios for the potential development of renewable energy (including heat) for the region to 2030. In the short term, according to Tuerk et al. (2014), cooperation in the export of renewable electricity generated between the Western Balkans and the EU28 will remain insignificant. The maximum transmission is estimated to be 5 TWh / year.

**Figure 20: Scenarios for the expansion of renewable energies (incl. heat) 2030**



Source: Tuerk (2014)

Weishaar and Madani (2015) estimate the maximum export potential of the region in 2024 at about 380 TWh / year (see Table 10), when exports to the EU28, Turkey and Ukraine are

carried out. Electricity exports to EU28 could, in their scenarios, reach a maximum of about 40 TWh / year. This corresponds to about 1.3% of the electricity generation in the EU in 2012. The potential for renewable energy is of a maximum of 15% in Kosovo and 100% in Albania.

**Table 10: Export potential of the Western Balkans**

			Albania	Bosnia and Herzegovin a	Kosovo	Macedonia	Montenegro	Serbia	
Demand in 2024	Min	GWh	10.985	13.800	7.135	10.083	3.381	36.120	
	Max	GWh	13.834	16.294	8.622	12.269	4.999	42.298	
Supply in 2024	Min	GWh	6.292	15.583	4.114	8.356	2.429	34.127	
	Max	GWh	12.779	33.061	9.611	14.617	5.393	52.796	
Net Position in 2024	Min	GWh	-7.542	-3.028	-4.508	-3.913	-2.570	-8.171	
	Max	GWh	1.794	19.260	2.467	4.534	2.013	18.671	
Peak Demand in 2024	Min	MW	2.266	2.315	1.456	1.892	586	6.600	
	Max	MW	2.746	2.734	1.679	2.302	815	7.354	
Supply Capacity in 2024	Min	MW	711	2.096	523	636	460	5.064	
	Max	MW	1.003	4.475	1.332	1.975	643	7.893	
Export Potential	Western Balkan Region	Min	GWh	-46.955	-29.488	-46.273	-44.215	-46.736	-30.078
		Max	GWh	22.191	26.706	25.225	25.820	27.163	21.563
		Min	GWh	-20.702	-3.235	-20.019	-17.961	-20.483	-3.824
		Max	GWh	48.445	52.959	51.479	52.074	53.417	47.816
	W. Balkan and EU	Min	GWh	-64.710	-47.243	-64.027	-61.969	-64.491	-47.832
		Max	GWh	4.437	8.951	7.471	8.066	9.409	3.808
	incl. UKR and TU	Min	GWh	-40.324	-22.857	-39.642	-37.584	-40.105	-23.447
		Max	GWh	60.318	64.832	63.352	63.947	65.290	59.689
Grid and Distribution Losses 2013		%	≈47	≈13	≈36	≈18	≈23	≈17	
Renewables Share in 2024	Min	%	93	30	3	17	64	30	
	Max	%	100	41	15	28	75	34	

Source: Weishaar and Madani (2015), S. 7; number notation: point is thousands separation)

Frieden et al. (2015) emphasizes that cooperation between EU28 member states and Western Balkan countries can help, on the one hand to expand renewable electricity supply and on another hand to reach their 2020 renewable energy targets in a cost-effective way.

It is essential to look at the development of infrastructures in the Balkans not only in terms of facilitating growth, but also of fundamentally changing the growth model that has led to today's global economy. The fact that China intends to link its "one road, one belt" initiative to Europe via the greater Balkans means that the Green Corridor offers the opportunity for a far-reaching dialogue between Europe and China about a shift towards green growth on the Eurasian continent.

## **4. EU – Western Balkan Cooperation**

### **4.1. Cooperation within the enlargement agenda**

In the EU28, the key role of the cooperation with the Western Balkans for promoting peace, stability and prosperity in the region has been emphasized for several decades. Many of the challenges the Western Balkan countries are facing are not only common to them, but also have a cross-border dimension, which involves their regional neighbors, the South-Eastern Europe and the EU28 altogether.

Since the enlargements of 2004 and 2007, the EU and the Western Balkans have become even closer neighbors, the entire Western Balkans region being surrounded by member states of the European Union. Therefore the situation in the countries of the region, their progress on the road to European integration and their present and future relations with the EU are of immediate concern to the EU itself.

The main political and economic project designed to assure stability and development in the region is the integration of the Western Balkan countries into the EU<sup>3</sup>. Countries of the region are in various stages of advancement regarding their accession. Accession negotiations have been underway with Montenegro since 2012 and with Serbia since 2014. Albania was granted candidate status in 2014 and is addressing a number of key priorities before the Commission can recommend the opening of accession negotiations. The EU accession process with the FYRO Macedonia – a candidate country since 2005 – remains at an impasse. A Stabilization and Association Agreement (SAA) with Bosnia and Herzegovina entered into force in June 2015 and an SAA with Kosovo was signed in October 2015 (EC, 2015). Within the enlargement agenda, regional cooperation between the Western Balkans countries is a policy priority for the EU. The different set of reasons — political, economic and security — for which regional cooperation in the Western Balkans is crucial, are closely interlinked: regional stability and security are needed for economic development, which in turn favors stability and security in the region.

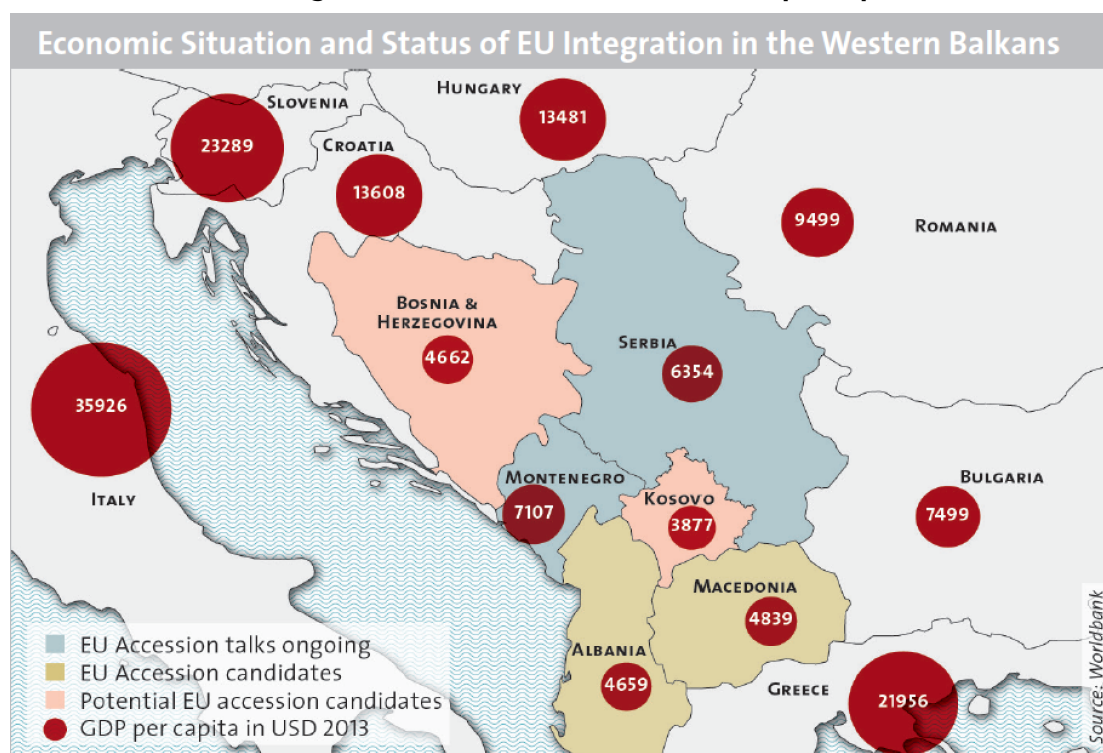
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<sup>3</sup> At the Council meeting in June 1993 under the Greek Presidency, Ministers adopted "The Thessaloniki agenda for the Western Balkans: Moving towards European Integration".

Figure 21 shows the current status of EU integration and economic situation (GDP per capita in USD2013) in the region (Bieri, 2015).

Within the enlargement agenda, regional cooperation between the Western Balkans countries is a policy priority for the EU. The different set of reasons — political, economic and security — for which regional cooperation in the Western Balkans is crucial, are closely interlinked: regional stability and security are needed for economic development, which in turn favors stability and security in the region.

**Figure 21: Status of EU integration and economic situation (GDP per capita in USD2013)**



Source: Bieri (2015)

Regional cooperation corresponds to commitments to resolve bilateral disputes made by the countries in the region at the EU — Western Balkans Summits of Zagreb (2000) and Thessaloniki (2003) and most recently of Berlin (2014) and Vienna (2015). Since 2000, the Western Balkans experienced a significant economic transformation, accompanied by an even more significant political stabilization. While a lot still needs to be done, also in terms of regional reconciliation, countries now concentrate more on their common European future rather than on what divided them in the past.

In the final declaration of the Vienna Western Balkans Summit, the Western Balkan countries agreed to refrain from “misusing outstanding issues in the EU accession process” and welcomed the EU pledge to support them in resolving bilateral disputes. Several concrete agreements were reached as the conference progressed: the conclusion of four important agreements in the EU-led talks between Serbia and Kosovo, and the signature of a border agreement between Bosnia and Montenegro.

In addition to the bilateral disputes in the Western Balkans, the ongoing refugee crisis, which is affecting several Western Balkan countries, invites itself to the EU - Western Balkans Summits agenda. Ahead of the Vienna Summit in August 2015, the European Commission released an additional EUR 1.5 million in humanitarian funding to assist refugees and migrants in Serbia and the FYRO Macedonia. Moreover, in Vienna, Austrian and German leaders announced support for key infrastructure projects and pledged solidarity with the Western Balkan countries to tackle the refugee crisis.

In November 2015, when presenting the annual Enlargement Package, Commissioner Johannes Hahn said: "The current refugee crisis shows how crucial close cooperation between the EU and the countries in south-east Europe is. The EU enlargement process, covering the Western Balkans and Turkey, is a powerful tool to strengthen the rule of law and human rights in these countries. It also boosts the economy and promotes regional cooperation. A clear European perspective gradually transforms our partner countries and strengthens stability around our Union. Our firm commitment to EU enlargement, and to the conditions it involves, is therefore a long-term investment in Europe's own security and prosperity". (IP/15/5976).

#### **4.2. Investment Instruments**

The main instrument for investment in the region is the Western Balkans Investment Framework (WBIF). It was created in 2009 by the EU together with international financial institutions (IFI), bilateral donors and the governments of Western Balkans countries as a regional tool to deliver funding for strategic investment projects in beneficiary countries, to support the reform process and ultimately the EU enlargement. KfW and the World Bank subsequently joined the Framework.

The WBIF is a blending instrument, which combines grant resources and loans. Its investment targets projects in environment, energy, transport, social infrastructure and private sector development. It seeks to maximize the impact of its grant financing and



promotes a harmonized approach in the identification, prioritization, development, and financing of the projects.

Its two main objectives are:

- pooling grants, loans and expertise together to prepare and finance a common pipeline of priority infrastructure and socio-economic development projects; and
- strengthening coordination among parties in order to improve the positive impact and visibility of these priority investments in the beneficiary countries.

The WBIF works on the principle of leverage. Each grant should help bring additional investment and eligible projects must be supported by a lead Financial Institution (Lead IFI) that coordinates project implementation and provides debt finance whenever necessary. This approach is intended to reduce transaction costs and builds on each financial institution's specificities, expertise and experience.

Grants can fund technical assistance to prepare investment projects, co-finance investment costs, helping to bridge a financing gap and enable an investment's realization.

The EU grant funding is provided by the European Commission via the Instrument for Pre-Accession (IPA), the Council of Europe Development Bank (CEB), the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB). Additional grant funding is provided by bilateral donor contributions (through the European Western Balkans Joint Fund - EWBJF) and IFI grants.

Loans are provided by multilateral institutions (CEB, EBRD, EIB and the World Bank Group) and bilateral institutions (CMZRB, KfW, MFB, OeEB and SID Bank).

The WBIF proved to be a rather effective instrument. Since its creation and as of December 2014, it funded 159 projects (while 38 other projects were under construction) by providing 197 grants for a total amount of EUR 307.8 million. The identification, prioritization, development, and financing of the projects are done in two rounds every year since 2011 (one round before 2011). As of end 2014, five projects were completed and fully operational. The loans signed over the same period amount to EUR 2.8 billion, while the total investment amounts to EUR 13 billion.

Figure 22 shows the WBIF Grant allocations by beneficiary (value as of 31 December 2014). The bilateral donors involved are: Austria, Canada, Czech Republic, Denmark, EU, Finland, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

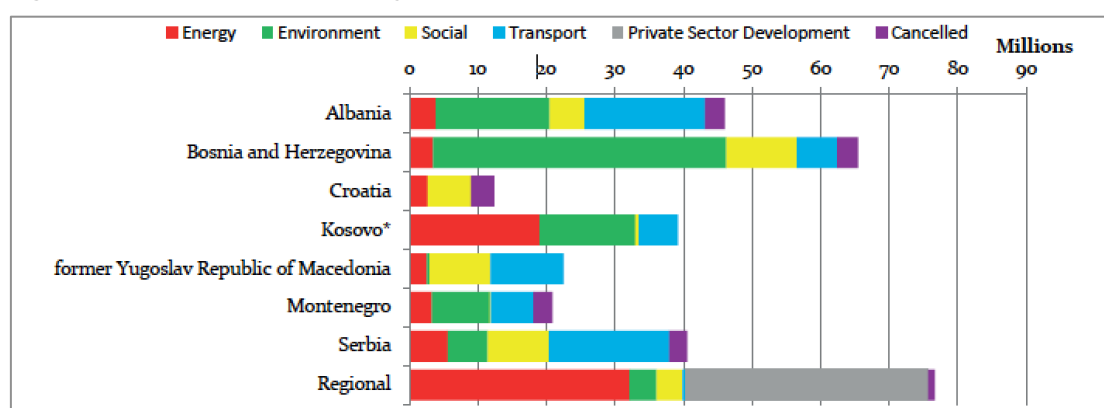
**Figure 22: WBIF Grant allocations by beneficiary (2014)**



Source: WBIF (2014, pg. 10)

In terms of sector priorities, the allocated grants are distributed as follows: while regional projects focus mainly on energy and private sector development, country projects target transport, environment and social issues. For a detailed description of the grant allocation, see WBIF annual report 2014 (pages 21-22).

**Figure 23: Grant distribution by sector**



Source: WBIF (2014, pg. 20)

### 4.3. Connecting Europe Facility and the Western Balkans Connectivity Agenda

The **Connecting Europe Facility** (CEF) is the new integrated instrument for investing in EU infrastructure priorities. It was established in 2013 with the goal to promote growth, jobs and competitiveness through targeted infrastructure investment at European level. The CEF

is the follow-up of Trans-European Network of Energy (TEN-E), Trans-European Network of Transport (TEN-T) and Information Society and Media (INFOS) orientations.

CEF supports the development of high performing, sustainable and efficiently interconnected trans-European networks in the fields of transport, energy and digital services by the implementation of Projects of Common Interest. CEF investments fill the missing links in Europe's energy, transport and digital backbone. It was created to make travel easier and more sustainable, to enhance Europe's energy security while enabling wider use of renewables, and to facilitate cross-border interaction between public administrations, businesses and citizens.

The CEF program budget amounts in total to EUR 30.4 billion for 2014\_2020: EUR 24.05 billion for Transport, EUR 5.35 billion for Energy, and EUR 1.04 billion for Telecom.

In addition to grants, the CEF offers financial support to projects through innovative financial instruments such as guarantees and project bonds. These instruments should create significant leverage in their use of EU budget and act as a catalyst to attract further funding from the private sector and other public sector actors.

During the Western Balkans Summit held in Berlin in 2014, the Western Balkan countries agreed on the regional priorities for infrastructure investments, under the '**Connectivity Agenda**', designed in coherence with the Connecting Europe Facility discussed above. These priorities were reinforced at the Vienna 2015 Summit. The Connectivity Agenda has the goal of improving connectivity within the Western Balkans, as well as between the Western Balkans and the European Union, as a key factor for growth and jobs for the region's countries. At the 2014 Berlin Summit, Western Balkan countries agreed on the establishment of National Investment Committees (NIC), established as platforms through which the six countries discuss funding plans for each step of the projects related to the prioritized infrastructure projects.

The Connectivity Agenda became one of the highest priorities of the region with a special emphasis on the preparation and financing of concrete regional infrastructure investment projects, but also on the implementation of technical standards and soft measures such as aligning/simplifying border crossing procedures, railway reforms, information systems, road safety and maintenance schemes, unbundling and third party access.

Regarding **Transport Connectivity**, at the 2014 and respectively 2015 Summits, countries agreed on the regional core transport network corridors to be implemented by 2030, a series of projects to be implemented by 2020 and on a set of regulatory and capacity upgrade measures. The Western Balkan countries have agreed on the list of six transport infrastructure investment projects reflecting core priorities and the necessary maturity for

imminent implementation. They include an intermodal terminal, two bridges and three railway projects. The Western Balkan countries have agreed to a priority list of 'soft measures' in transport, which have been prepared by the SEETO in cooperation with the Transport Ministers. They also recognized the importance of an efficient project for implementation in cooperation with the concerned lead IFI.

Regarding **Energy Connectivity**, at the 2015 Vienna Summit the Western Balkan countries have agreed to a short list of four investment projects including power interconnectors and reinforcement to the region's electricity transmission system. They have also decided to establish a regional energy market by establishing power exchanges and a regional balancing market and agreed on the priority list of 'soft measures' in energy covering specific national issues to implement the Energy Community *acquis*.

The IPA 2 regional funds are in 2015 and 2016, exclusively made available to co-finance projects covered by the Connectivity Agenda (transport and energy). The available IPA 2 funding is about EUR 100-150 million per annum for both, technical assistance and grant co-financing for a total of approximately EUR 1 billion over the 2015-2020 period.

Under the Connectivity Agenda, the EU – via the WBIF – co-finances mature energy projects from the Projects of Projects of Common Interest. The two co-financing lines started in 2015 are for mature Projects of Energy Community Interest (PECI) and mature transport projects from the Trans-European Transport (TEN-T) Core Network. Co-financing is provided through the Instrument for Pre-accession Assistance (IPA) and WBIF together with loans from the IFIs.

Projects of Energy Community Interest (PECIs) is a label attached to those projects, which have the highest positive impact in the largest possible number of Contracting Parties. See a full list and map of the Projects of Energy Community Interest (EC 2016).

The Trans-European Transport Networks (TEN-T) agenda reflects that rail, road, air and sea transport links need to be seen as key drivers not just for closer integration between Member States and their peoples, but also for increasing economic competitiveness. The TEN-T has two layers: the "core network", which carries the most important passenger and goods flows; and the "comprehensive network", which ensures access to the core network. The "core network corridors" facilitate the development of the core network (see Annex).

In 2015 IPA and WBIF provided a co-financing amount of EUR 538.8 million in investment and EUR 144.9 million in grants. EUR 274 of the EUR 538.8 million in investment and 57.6 of the EUR 144.9 million in grants were provided to energy projects (Albania – FYRO Macedonia Power Interconnection (CVC and R2a), Trans-Balkan Electricity Corridor: grid sections in Montenegro and Serbia) while EUR 264.8 million in investment and EUR 87.3

million in grants were provided to transport projects (Mediterranean Corridor: Bosnia and Herzegovina – Croatia Road Interconnection, Orient/East-Med Corridor (R10): FYRO Macedonia – Kosovo – Serbia Rail Interconnection, (R4): Montenegro – Serbia Rail Interconnection, (CX): Serbia – the FYRO Macedonia Rail Interconnection and (CX): Intermodal Terminal in Belgrade, Serbia.

In conclusion, the Connectivity Agenda became one of the highest priorities of the Western Balkan region. Each country has established National Investment Committees and the priority transport and energy projects are reflected in both national investment planning and sector strategies. However, the Connectivity Agenda does not take into account existing opportunities for “greening” new and/or modernized infrastructures in the region. In our view, this is an opportunity, which needs to be highlighted. Often, economic recipes for growth, wealth generation and technological progress neglect such opportunities. While “greening” opportunities do not exist for all infrastructures and/or are not affordable for all countries, they have to be identified and taken into account for each infrastructure investment to ensure that environmentally sustainable alternatives are meaningful today or in near future.

It will make a fundamental difference, however, whether cooperation between the Western Balkans and Europe as a whole will develop with or without the focus provided by large-scale, mission-oriented investment. Only with such a focus can the difficulties rooted in a long, tormented history be overcome. The Green Corridor provides such a focus.

## **5. Elements for a Green Corridor**

An effective response to the actual socio-economical and infrastructural situation must be given within the short- to medium-term to allow economic development and promote social renewal, providing new perspectives for the young today and for future generations. The Green Corridor idea that formed the starting point for this report can become such a response. To re-iterate, it combines:

- A high-speed train track for passenger transport
- A freight train track for containers and goods
- A broadband Internet backbone
- A high-voltage direct-current backbone
- A chain of charging stations for zero emissions vehicles

*The idea of the Green Corridor is to induce a joint learning process of the Balkans and the rest of Europe, a learning process where both gradually outgrow unsustainable patterns of governance and economic development. This goal cannot be achieved by the myriad of initiatives presently undertaken in the Balkans. Many of these initiatives are highly valuable,*

*especially among those triggered by the EU's Connectivity Agenda. But the present initiatives may be insufficient in scale and lack a shared mission (Mazzucato and Penna, 2015) – two essential conditions in view of overcoming the long history of failures in the relation between the Balkans and Europe as a whole.*

A project like the Green Corridor can only be implemented in stages. There can and must be sections and components that are politically desirable or economically profitable on their own. It is particularly important that stages that can be implemented in the short run open up long-run perspectives of socio-cultural change. If, e.g., new technologies are used in real terms for a successful project, they would allow the possibility of concrete education initiatives, which would otherwise come to nothing.

The IMF (2015, pg. 19) is right to assert that a major reason for the economic difficulties of the Western Balkans region is the large physical distance to the German economy. The Green Corridor offers a remedy. But the IMF overlooks the fact that there is a cultural gap that cannot simply be overcome by technologically enabled markets. Rather the construction of the Green Corridor should create a situation in which the often-underestimated vocational training in the Western Balkans could be massively expanded. It offers the unique opportunity to overcome both the physical and cultural distance from the economic core of Europe.

The Green Corridor is of special significance with regard to the Chinese plans for "one belt, one road". These plans can lead the Eurasian continent to grow together much more intensely than at any time in history. An essential component of this development is the expansion of the sea route from China to India and East Africa through the Suez Canal into the Eastern Mediterranean. Considering that part of the port of Piraeus in Greece is already operated by a Chinese company, this Chinese presence is of strategic importance. With the Green Corridor, Europe can play an active role in shaping its relation to Asia in general and China in particular – and the Western Balkans become a pivot in this relation.

### **5.1. Trains and Roads for passenger and freight transport**

Modernization of the rail and road infrastructure would enable for the region a position of East - West freight transit corridor and the potential of better export opportunities into the EU28 in the coming years. While a focus on rail would generate environmental advantages compared to road, development over the last two decades shows a shift to road freight transport in Europe. It is foreseeable that efficient traffic systems will integrate different transport modes and allow efficient interconnections between road, rail and water as well as

air transport. Therefore, rehabilitation and enlargement of the transport infrastructure needs to consider all of these transport modes and a particular attention to be paid to interfaces between various modes (e.g. transport terminals).

An important aspect for the rail infrastructure is the electrification. Replacement of diesel-based haulage engines with electric ones reduces local pollution as well as CO<sub>2</sub> emissions, if the share of renewables-based electricity increases in the future.

The rehabilitation of roads is not necessarily in contradiction with a greening infrastructure. Obviously, road traffic is responsible for a significant proportion of CO<sub>2</sub> emissions so that a modernization of roads is not green by itself. However, rehabilitated roads might reduce traffic jams as well as wear and tear of trucks and cars. In the short run, a “positive” environmental effect is definitively minor, but in the long run changing mobility concepts and patterns towards a zero-emissions mobility is plausible.

### **5.2. Electricity based on renewables: High-Voltage transmission line**

If the region could exploit the renewables potential the development of a high-voltage transmission line between Central Europe and its neighbors in the Western Balkans, this could help to fulfill EU renewables targets and increase the share of renewables in the host countries. Such development could create investment opportunities, which need a comprehensive investment environment in the region. This includes advancement on property rights and enlargement and upgrade of workforce skills. Both would have positive effects on local socioeconomic conditions and stimulate national economies. In addition, new schemes for Europe-wide renewable tariffs, based on generation efficiencies and economic conditions would need to be considered. A high-voltage transmission line would help to bring to the front the idea of renewables-based energy production in the Western Balkans.

### **5.3. Communications: A broadband backbone option for the Western Balkans**

A high performance telecommunication and Internet infrastructure would have positive economic effects on the region. McKinsey (2010) estimated for Central and Eastern Europe positive GDP effects of EUR 80 billion. McKinsey further estimates that such investments could lead to the creation of 1.3 million new jobs. Considering the current low coverage density in the Western Balkans, the macroeconomic effects could be substantial. This involves two elements: higher performances of existing grids and a data highway between the EU28 and the region. According to Gelvanovska (2015), a broadband backbone network similar to that of the Baltic countries could be an answer. A number of preconditions to implementation need to be fulfilled first (Gelvanovska 2015):

- First, building awareness of the infrastructure-sharing benefits for utility companies;
- Second, establishment of a regional dialogue on the issue area; and
- Third, harmonization of the regulatory regime for infrastructure sharing.

Information technologies and relatedly broadband Internet and similar technologies help economies to evolve to a more service-orientated economy. Moreover, information technologies help to improve the efficiency of production and transport chains, contributing to emission reductions. Furthermore information technologies are essential for education and knowledge and capacity building in societies and can help to improve environmental and political awareness.

#### **5.4. Outlook**

Broadly speaking, the Western along with the greater Balkans presently face three possible futures:

- Near-stagnation with increasing social tensions.
- Catch-up growth along a conventional growth path
- A new pattern of green growth

The first scenario presently seems the most likely, and it is important to face this situation realistically rather than nurture counterproductive illusions. It comes with considerable risks for Europe as a whole, and it is all the more likely if the European Union does not find ways to overcome the erosion of its shared political will and economic dynamics that set in after the financial crisis of 2007-2009.

For the second scenario to materialize, external circumstances would need to change considerably. One way this might happen is if one day the Chinese “one belt, one road” initiative actually changes the economic dynamics of the Eastern Mediterranean. Whatever circumstances might trigger it, plain catch-up growth would likely be “brown growth”, of the unsustainable type already experienced in large parts of the world. Grow and pollute first, clean up later is a key pattern of this kind of growth. Natural amenities that allow selling tourist services on global markets are impaired, chaotic forms of urban development, driven by speculation on future land rents, mean that the quality of life in large parts of the region will stay much lower than it could be with more sustainable forms of development.

The third possibility would require that the widely used label of green growth be turned into a different socio-economic dynamics on the ground. This would probably be the most desirable alternative for a large majority of the population, but it is also quite unlikely without a coherent strategy by the EU and an actors' coalition including it. The Green Corridor that provided the starting point for the present report can become the fulcrum of such a strategy. If implemented, it will not only address some of the short- and long-term



problems of the Western Balkans. It can help to overcome the present difficulties of Europe as a whole and become a key element in the badly needed renewal of the European project.

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