Productivity and Competitiveness of the Western Balkan countries

An Analysis Based on the wiiw Western Balkan Productivity Database

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Abstract

This policy brief provides results regarding productivity levels and dynamics in the Western Balkan countries in a comparative perspective, drawing on the newly established wiiw Western Balkan Productivity Database. The database provides time series of value added, gross output and intermediate inputs as well as labour productivity and unit labour costs, based on data collected from national statistical institutes. We present the most important indicators comparing productivity performance of the Western Balkan countries with Bulgaria and Romania (which became EU Members in 2007) and Croatia (which became an EU Member in 2013). Our results indicate that all Western Balkan countries have surpassed the level of productivity of Bulgaria in 2007 but productivity growth has stalled since the crisis. Unit labour costs growth has been low, though from a relatively high level (compared to neighbouring countries). These results make the case that advancing the EU accession process for the Western Balkan countries is both viable and necessary.

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Productivity and competitiveness of the Western Balkan countries

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1. INTRODUCTION

Productivity levels and growth are still seen as the most important indicators regarding a country's material well-being and its development. Moreover, these are important indicators of a country's competitive position and, together with wages (and exchange rates), of its cost competitiveness in international markets.

There are, of course, many further aspects concerning the discussion and assessment of a country's competitive performance, including institutional quality, public infrastructure and non-price indicators such as the quality of exported products. In a broad attempt to assess a country's competitiveness position, for example, the World Economic Forum's *Global Competitiveness Report*[1] lists 114 indicators grouped in 12 pillars and three sub-indices based on various data sources and collected for 137 economies. Table 1 provides the ranking and score of the World Economic Forum Global Competitiveness Index (GCI) available for the countries included in this report.

Table 1 / World Economic Forum Global Competitiveness Index (GCI)

| | GCI 2017-2018 | | GCI 2016-2017 | |
	Rank (out of 137)	Score 1-7	Rank (out of 137)	Score 1-7
Bulgaria	49	4.46	50	4.44
Romania	68	4.28	62	4.30
Croatia	74	4.19	74	4.15
Albania	75	4.18	80	4.06
Montenegro	77	4.15	82	4.05
Serbia	78	4.14	90	3.97
Bosnia and Herzegovina	103	3.87	107	3.80

Source: World Economic Forum.

Most of the countries from Southeast Europe rank in the middle range. All except Romania and Croatia have experienced some improvements in their ranking.

However, the existence of such broad-brush indicators does not mean that important detailed indicators for economic assessment and policy advice exist for these countries. Importantly, the reports within the

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[1]   https://www.weforum.org/reports/the-global-competitiveness-report-2017-2018

'EU enlargement package', in which the EU Commission each year provides a detailed assessment of the economic situation in the Western Balkan countries, does not include more detailed productivity information.

This Policy Note aims to provide such figures and therefore fills an important gap in assessing these countries' performance. The focus is on the level and development of productivity and unit labour costs in the Western Balkan countries that are candidate countries for EU accession (Albania, North Macedonia, Montenegro and Serbia)[2] and potential candidate countries (Bosnia and Herzegovina, and Kosovo).[3] The newly constructed wiiw Western Balkan Productivity Database underlying this report is based on a thorough attempt to calculate such indicators with a focus on productivity and unit labour costs at the total economy and industry levels.[4] Nonetheless, important data constraints and limitations remain, which are particularly important for cross-country comparisons and which are carefully documented.

This Policy Note first provides an overview of the collected data and constructed indicators in Section 2. Based on these data, the most important results are reported at the total economy level in Section 3 and at the industry level in Section 4. Section 5 provides a summary of conclusions.

2. THE WIIW WESTERN BALKAN PRODUCTIVITY DATABASE

To provide thorough information on productivity developments in the Western Balkan countries, the newly established wiiw Western Balkan Productivity Database provides a range of new indicators for Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia. These are candidate or potential candidate countries for further enlargements of the European Union, although the current status of their accession processes differs widely. Nevertheless, it is important to investigate their economic performance – also in comparison with former EU entrants such as Bulgaria, Romania and Croatia – and how these countries are developing with respect to productivity and competitiveness. This is important not only at the total economy level, and so trends in manufacturing and services industries are also analysed. The wiiw Western Balkan Productivity Database contributes to these aspects by compiling information – collected directly from the national statistical institutes – and providing access to industry statistics at the NACE Rev. 2 1-digit classification. These data are made as compatible as possible with existing sources of information, using the definitions of the AMECO indicators and making them comparable with the EU KLEMS data (www.euklems.eu), which provide such information for all EU Member States.

The data compiled here are compatible with the existing wiiw Annual Database and incorporate several new time series. The wiiw Annual Database already contains gross value added by NACE Rev. 2 industries, both in current and in reference prices 2010. In this database gross output and intermediate inputs[5] (again in current and reference prices 2010) for the same industry classification as gross value added are included. Furthermore, here we include labour productivity growth rates and unit labour cost

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[2]   Negotiations have not yet started for Albania and North Macedonia. Turkey is also a candidate country but is not considered here.

[3]   See https://ec.europa.eu/neighbourhood-enlargement/countries/check-current-status_en for the current status of negotiations.

[4]   Further important indicators will be included in the future.

[5]   Gross output and intermediate input time series are needed as a basis for a Multi-Country Input-Output database.

growth rates at the NACE Rev. 2 1-digit level. Concerning data on persons employed and employees, the wiiw Annual Database and this database achieve the same industry breakdown and time coverage.

2.1. Data availability

Table 1 gives an overview of the time series that were collected. Gross output, intermediate inputs and gross value added are the important indicators for economic and industrial development from which further productivity indicators are derived. Bosnia and Herzegovina, and Serbia report these three time series (both in current prices and previous-year prices) at a very disaggregated NACE Rev. 2 level (all 99 2-digit industries), while Kosovo provides information for only 21 industries. Albania, Montenegro and North Macedonia provide data on gross output and intermediate inputs only in current prices, but on gross value added in both current and previous-year prices. The industry classifications are very different: North Macedonia (like Bosnia and Herzegovina, and Serbia) provides NACE Rev. 2 2-digit information. Montenegro (like Kosovo) reports on NACE Rev. 2 1-digit level[6], i.e. 21 industries, and Albania reports on 41 industries.

The availability of data in previous-year prices is necessary for the calculation of chain-linked volumes in reference prices. As all countries provide data on gross value added in previous-year prices, this allows us to calculate proper indicators in a comparable manner.[7] In the case of missing previous-year price series for gross output and intermediate inputs for Albania, Montenegro and North Macedonia, chain-linked volumes have been computed by using deflators from the gross value added time series.

The second important data source for the calculation of (labour) productivity is data on labour inputs. Unfortunately, the availability of such labour market statistics – for example, the number of employees or the number of people employed[8] ('employment' in Table 1) – is rather mixed: Albania reports employment numbers for only six industries, but other countries have employment data for at least 20 industries. Bosnia and Herzegovina does not report the number of persons employed at all, but only the number of employees, which include sole proprietors and their employees (individual farmers are missing). Lack of data on persons employed prohibits us from calculating labour productivity. Thus we have to use the number of employees instead of the number of employed persons in the case of Bosnia and Herzegovina. As, however, the number of employees is lower than the number of employed persons, labour productivity would be reported at a higher level and hence not comparable to the levels in other countries. For Bosnia and Herzegovina, therefore, we report only labour productivity growth.

To calculate unit labour costs, wage data are needed. These are taken from administrative sources in all cases apart from Albania and Kosovo. In Kosovo[9] the available data on wages cover only nine NACE activities (these data are based on Structural Business Statistics, where parts of the service sector and public administration activities are missing). Because of these omissions, we cannot report any figures on unit labour costs for Kosovo.

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[6] In the NACE Rev. 2 1-digit classification, there is only one manufacturing industry sector – under which, for example, manufacture of food and manufacture of cars are both subsumed.

[7] North Macedonia reports previous-year price series on a different industry aggregation, thus we can compute reference prices only on this level of aggregation.

[8] Number of people employed comprises the number of employees plus self-employed persons.

[9] Kosovo has data on employment, but not on employees.

Table 2 / Overview of data availability

		Output		Intermediate input		Gross value added		Employment (incl. self-employment)	Employees (for wages)	Compen-sation	Gross monthly wages per employee	Productivity database Version I Nov 2019
	Unit	CP, NCU mn	PYP, NCU mn	CP, NCU mn	PYP, NCU mn	CP, NCU mn	PYP, NCU mn	persons	persons	CP, NCU mn	CP, NCU per person/month	Industries
	Code	GO	GO_PYP	II	II_PYP	VA	VA_PYP	EMP	EMPE	COMP	WAG_M	
Albania	Time	2000-17		2000-17		2000-17	2000-17	Total: 2007-18			2014-2018	
	NACE	41		41		41	41	6			21	total economy
	Source	NA		NA		NA	NA	LFS			TAX	
Bosnia and Herzegovina	Time	2005-18	2005-18	2005-18	2006-17	2005-18	2005-18		2008-12/2013-18	2005-17	2008-11/2012-18	
	NACE	99	99	99	99	99	99		21/99	99	21/99	21
	Source	NA	NA	NA	NA	NA	NA		ADM	NA	ADM	
Montenegro	Time	2006-18		2006-18		2006-18	2007-18	2010-18	2010-18/2011-17		2010-18/2011-17	
	NACE	21		21		21	21	21	21/99		21/99	21
	Source	NA		NA		NA	NA	LFS	ADM		ADM	
North Macedonia	Time	2000-17		2000-17		2000-17	2011-16	2000-18	2010-18	2000-16	2005-10/2011-18	
	NACE	99		99		99	21	21	99	99	21/99	21
	Source	NA		NA		NA	NA	NA	ADM	NA	ADM	
Serbia	Time	2000-18	2000-18	2000-18	2000-18	2000-18	2000-18	2008-18	2000-18		2000-18	
	NACE	99	99	99	99	99	99	21	99		99	21
	Source	NA	NA	NA	NA	NA	NA	LFS	ADM		ADM	
Kosovo	Time	2008-18	2008-18	2008-18	2008-18	2008-18	2008-18	2012-18			2008-17	
	NACE	21	21	21	21	21	21	21			9	21
	Source	NA	NA	NA	NA	NA	NA	LFS			SBS	

Unit notes: CP = current prices; PYP = previous-year prices; NCU = national currency; mn = millions.

Sources notes: NA = National Accounts; ADM = Administrative Data; LFS = Labour Force Survey; SBS = Structural Business Statistics; TAX = Tax records

Source: wiiw Western Balkan Productivity Database.

Given these data constraints, to achieve the maximum country and time coverage, we chose to use the NACE Rev. 2 1-digit industry classification.[10]

Methodological changes in the data collection process often introduce breaks in the available time series which might impede comparability over time. Box 1 reports the most important cases of such breaks and how these have been dealt with.

BOX 1 / BREAKS IN THE TIME SERIES

Bosnia and Herzegovina

Bosnia and Herzegovina reports wage data from 2008 to 2017 from a survey on employment and wages. From 2017 onwards, the source of the wage data is tax records. As the levels of the two sources differ in absolute terms in 2017, we adjust the survey data to match the level of the tax data. We apply the same adjustment to the earlier years. This adjustment changes the level of the reported wages, but keeps the growth rates the same.

North Macedonia

Similarly, data on gross monthly wages from 2005 until 2017 are based on a survey, carried out once a year. In 2018 North Macedonia switched to tax office data. As the levels of the reported values are reasonable, there is no need to adjust this time series.

Serbia

Serbia made methodological changes in the earnings survey in 2001, 2002, 2009 and 2018. In 2001 the Labour Law changed the definition of earnings. In 2002 various allowances are included in the reported wages. This leads to a sudden increase in the figures for gross monthly wages. In 2009 the survey includes individual entrepreneurs and their employees. In 2018 the survey was stopped and gross monthly wages are now based on tax office data and include all employees.

2.2. Definitions and productivity indicators

According to the ESA 2010 (SNA 2008), data in National Accounts are provided in current and previous-year prices. Based on these time series, chain-linked volumes (for a specific reference year) can be calculated, providing information on developments controlling for price changes (see Box 2 for technical details).

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[10]   Table A2 in the Appendix gives an overview of the classification and the codes used.

BOX 2 / CALCULATION OF CHAIN-LINKED VOLUMES

We use the year 2010 as our reference year, thus $VA\_Q_{2010} = VA_{2010}$. For years after the reference year, the chain-linked volume series, VA_Q_t, is calculated in a sequential way as

$$VA\_Q_t = VA\_Q_{t-1} \cdot \left(\frac{VA\_PYP_t}{VA_{t-1}}\right)$$

For years before the chosen reference year, the chain-linked volumes are calculated as

$$VA\_Q_t = VA\_Q_{t+1} / \left(\frac{VA\_PYP_{t+1}}{VA_t}\right)$$

This section provides information on the way this is done and how the indicators are calculated.

Productivity

Productivity is defined as value added in reference prices divided by the number of persons employed

$$PROD\_VA = \frac{VA\_Q}{EMP}$$

where $PROD\_VA$ is (value added-based) productivity, VA_Q is value added in reference prices 2010 as calculated above and EMP is the number of employed persons. Employed persons are the sum of employees and self-employed.

Unit labour costs

Finally, unit labour costs (ULC) are defined[11] as

$$ULC = \frac{COMP/EMP}{PROD\_VA}$$

where $COMP$ is total compensation for employees, and the other variables are defined as described above. Owing to missing data on total compensation for employees, we calculate it by using data on gross monthly wages, which are available for most countries in our sample (as discussed above). Compensation is computed as

$$COMP = (WAG\_M \cdot 12) \cdot EMP$$

where WAG_M are the gross monthly wages. The data we obtained on gross monthly wages and number of employees are estimated from administrative data or tax records. Calculating compensation in this way does not necessarily lead to an estimate that is consistent with National Accounts data. In particular, the data on compensation for Croatia, Romania and Bulgaria include social contributions, which is not the case for the remaining countries.

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[11] This is the definition that is also used in Eurostat's AMECO database:
https://ec.europa.eu/economy_finance/ameco/HelpHtml/plcd.html

3. DEVELOPMENTS AT THE TOTAL ECONOMY LEVEL

Figure 1 shows the development of value added per capita in the Western Balkans as well as Bulgaria, Croatia and Romania.[12] We present the values relative to Bulgaria in 2007, i.e., when Bulgaria (the 'poorest' of the three most recent EU Member States) joined the European Union.[13]

3.1. Value added per capita

We can see that Croatia's and Romania's value added per capita are considerably higher than those of the other countries in this set. With respect to the Western Balkan countries, only Montenegro (2009) and Serbia (2017) have moved beyond the value added threshold of Bulgaria in 2007. Bosnia and Herzegovina, and North Macedonia have gradually come close to this threshold, whereas Albania and Kosovo continue to lag it by about 40-50%. Figure 1 also indicates that all countries are making progress in this indicator.

Figure 1 / Value added per capita index, total economy

Bulgaria (2007) = 100, based on reference prices 2010
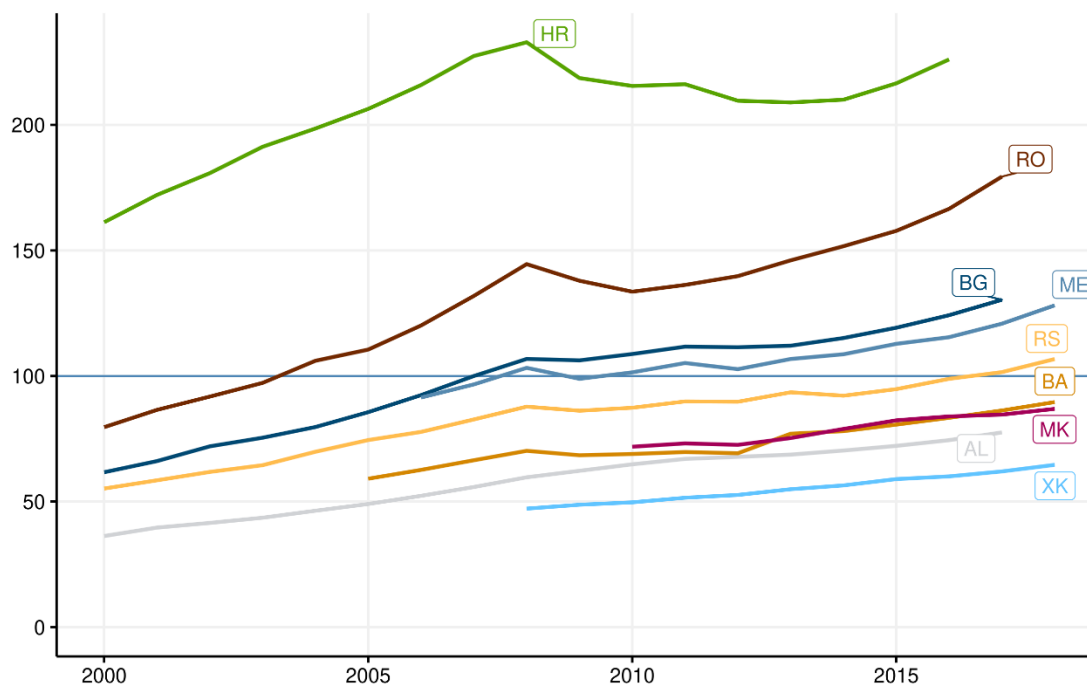
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Figure 2 displays the growth rates of our country sample. We see rather high value added per capita growth before the crisis in 2008/2009, and positive but reduced growth after 2009 (in line with an overall decrease of growth rates in Europe after the crisis). The average growth rate before 2009 is 6.5%, but only 2.8% after 2009 (not taking the negative growth rates in 2009 into account).

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[12]   We use the two-letter country codes from Eurostat (see Table A1 in the Appendix).

[13]   This is also shown through the horizontal line.

Figure 2 / Value added per capita growth, total economy, reference prices 2010, in %
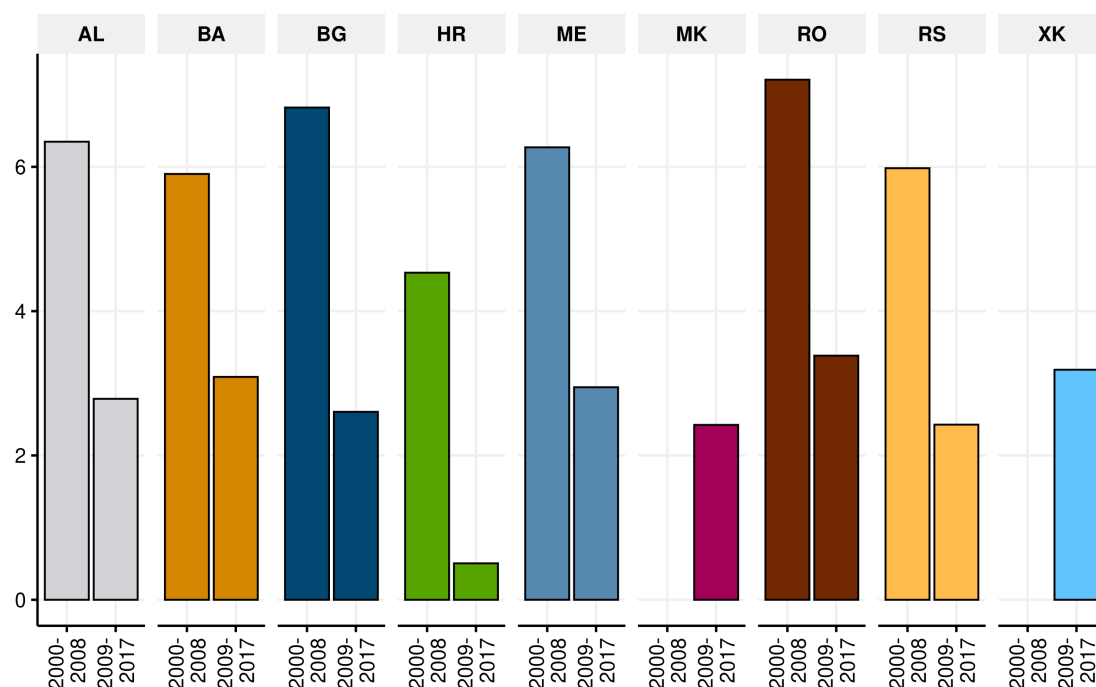
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

3.2. Productivity performance

Value added growth is, however, just one part of the puzzle. We also have to explore the development of productivity and unit labour costs, which are better measures of countries' cost competitiveness and performance. Figure 3 provides the trends of two kinds of productivity indicators. In the left panel, we show productivity based on employees for all countries[14] except Albania and Kosovo (owing to lack of data). Similarly, productivity based on the number of employed persons (i.e. employees plus self-employed persons) can be calculated for all countries except Bosnia and Herzegovina[15] and is shown in the right panel. As before, in both panels we use Bulgaria at the time of its EU entry as our base value.

The first striking fact is that – unlike value added per capita (see Figure 1) – productivity is in (almost) all cases above the productivity level of Bulgaria in 2007 (i.e. when entering the European Union). Romania's productivity indicators are considerably higher than those of the other countries. Productivity indices for Montenegro and Serbia are – for most of the charted period – higher than those of Bulgaria (although lower than for Romania).

However, it seems that trends are different. Serbia's slowdown in employment productivity from 2013 onwards (relative to Bulgaria) can be explained by high growth in employment and relatively low growth in value added. As we see a stagnating productivity of employees, we conclude that the growth in

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[14]   We omit Croatia from this comparison because of its distortive effect: Croatia's productivity values lie consistently above 250.

[15]   Data for Albania are available only at the national level.

employment must have come from self-employed persons. Similarly, Montenegro's productivity indicators declined in 2012 but have subsequently risen.

Figure 3 / Productivity levels, total economy

Bulgaria (2007) = 100, based on reference prices 2010
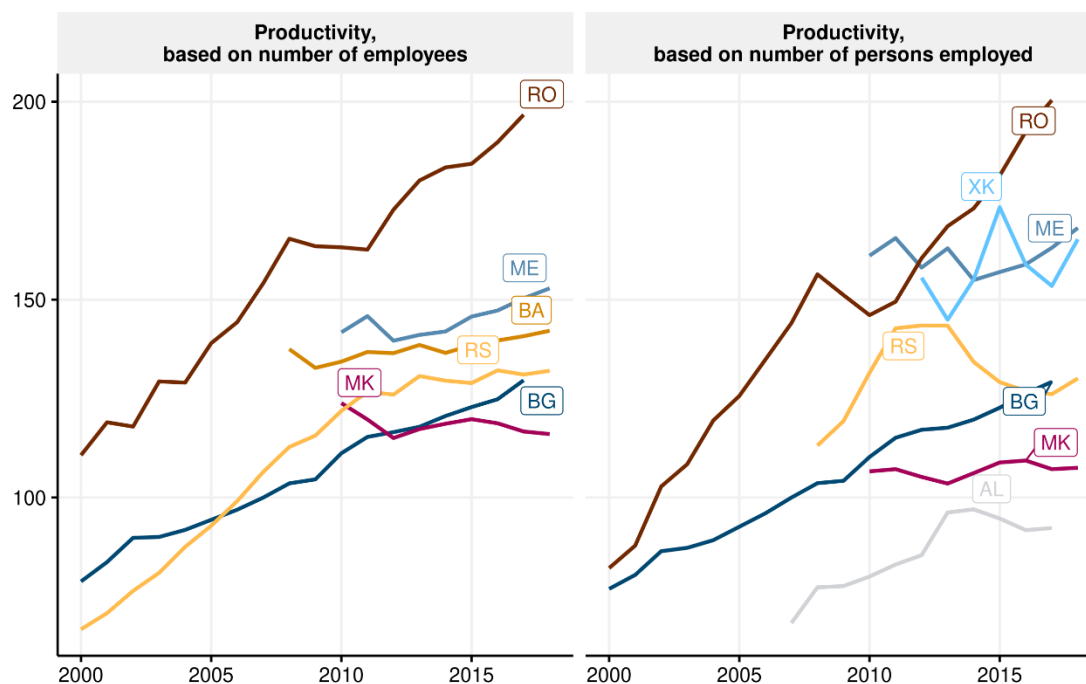
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Productivity in North Macedonia seems to have been relatively stable since 2010. Productivity of employees in Montenegro was similar to the productivity of Bulgaria until 2015. After that, the gap between the two nations has widened slightly. For productivity of employment, however, we see that North Macedonia's numbers have been lower than those of Bulgaria over the whole timeframe.

We can measure Albania's productivity – owing to a lack of reliable data – only at national level and only for productivity of employed persons. It is considerably lower than that of the other Western Balkan countries and has stagnated in recent years.

Figure 4 shows the patterns of productivity growth for the two types of indicators. We chose the year 2012 as a split, in order to have two roughly equal periods for the Western Balkan countries that started reporting employment numbers between 2008 and 2010. For countries where we have data on both indicators, we can see that they tend to show similar patterns.

Figure 4 / Productivity growth, total economy, in %
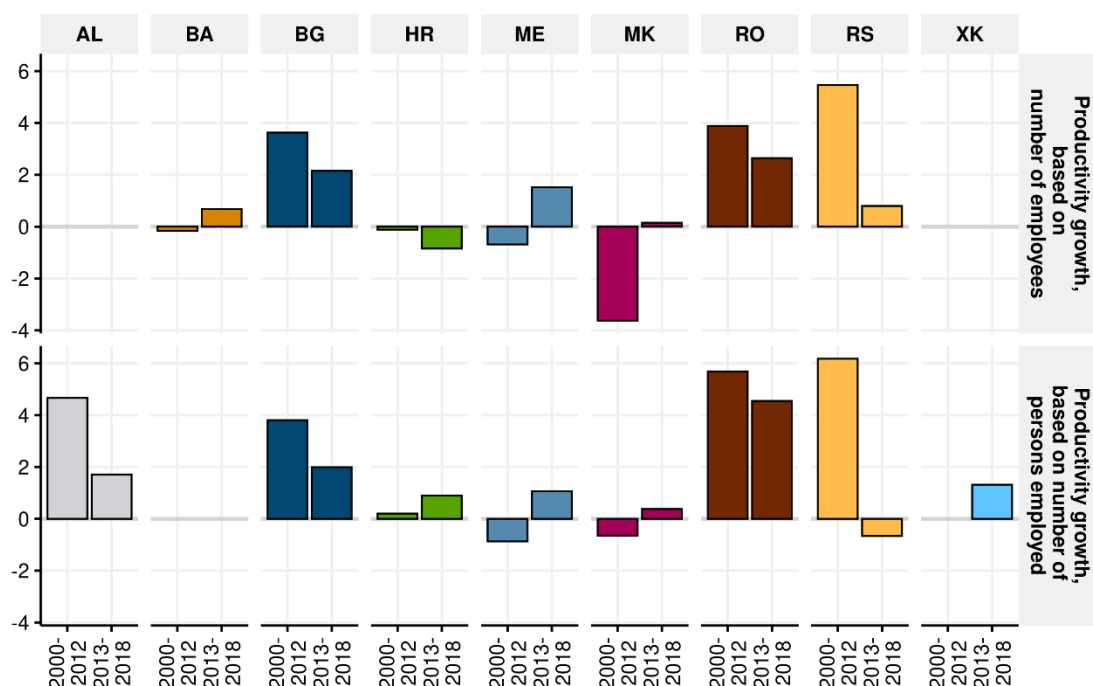
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Bulgaria, Romania and Serbia have performed at higher productivity growth rates in general, but – in line with overall trends – are characterised by higher growth rates in the first period than in the second. Serbia, in particular, shows very low productivity growth – compared with Bulgaria and Romania – in the second period.

The other countries (with the exception of Albania) are characterised by much lower productivity dynamics. For North Macedonia and Montenegro, the pattern is the other way round: low growth in the period from 2000 to 2012, followed by an acceleration in growth. Croatia shows different trends (depending on the indicator used).
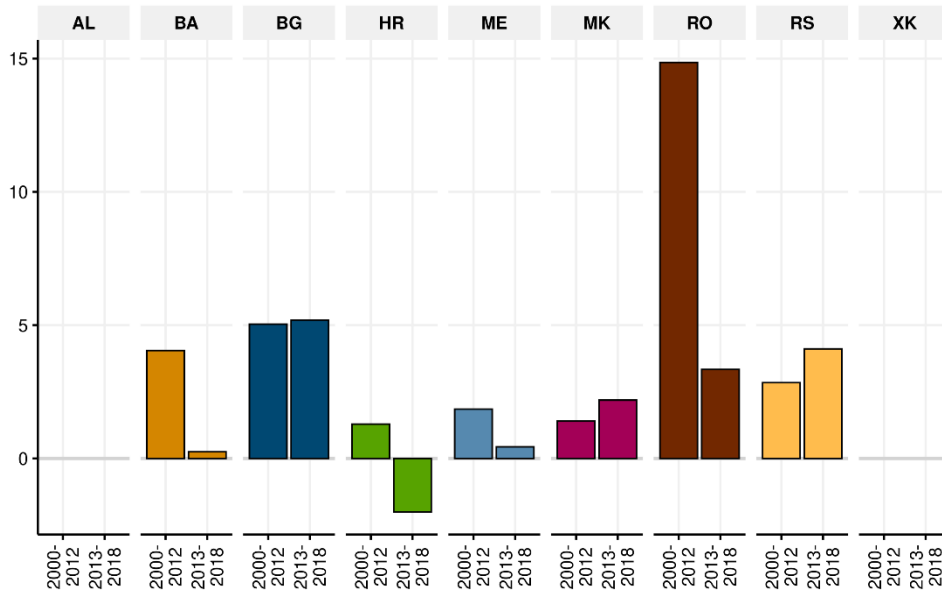
3.3. Unit labour costs

An important indicator of a country's development with respect to cost competitiveness is the change in unit labour costs. Growth of unit labour costs is shown in Figure 5.[16]

Unit labour cost growth was mostly positive in the Western Balkan countries. Romania stands out with a very high unit labour cost growth in the first period, of about 15% on average (three times that of any other country) – despite its high productivity growth. Unit labour cost growth was also strong in Bulgaria, at an average of 5% for both periods, and in Serbia, at an average of 3.6%. Unit labour costs increased only modestly in Bosnia and Herzegovina, Montenegro and North Macedonia, by an average (over both periods) of 1.7%, 0.8% and 2%, respectively. Interestingly, Croatia's unit labour costs declined in the second period, by 2% (after 1.3% growth in the first period).

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[16]   Owing to lack of data on employees, we cannot compute compensation for Albania and Kosovo.
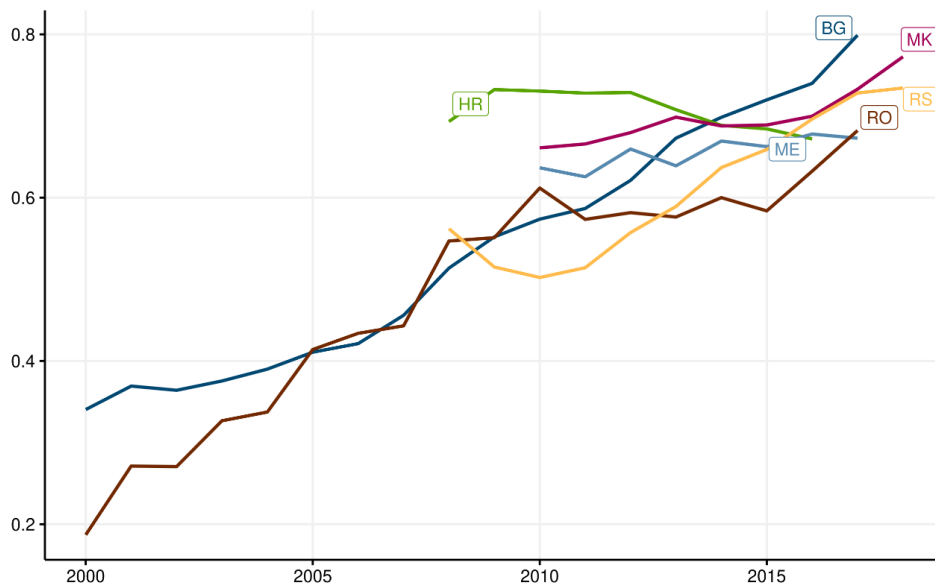
Figure 5 / Unit labour cost growth, total economy, in %

Note: Data unavailable for Albania and Kosovo.
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Figure 6 / Unit labour cost levels, total economy

Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Figure 6 depicts the levels of unit labour costs in our country sample.[17] Interestingly, in 2010, when the time series for Montenegro and North Macedonia begin, these are at higher levels than Bulgaria. But

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[17] As mentioned in Section 2, the levels of unit labour costs are not strictly comparable as these include social contributions for Bulgaria, Croatia, and Romania, whereas this component is not included for the other countries. As such, unit labour cost levels are biased downwards for the latter group.

owing to only modest growth, they end up at a lower level in 2017. From 2009 to 2013, Serbia has the lowest unit labour costs. However, its stable, strong growth from 2010 onwards sees Serbia end up with higher unit labour costs than Romania, although still lower than those of Bulgaria.

4. PRODUCTIVITY TRENDS AT THE INDUSTRY LEVEL

In this section, the most important findings at the industry level are presented. We highlight differences in the industrial structure and sectoral shifts and then show the trends in productivity and unit labour cost growth.

4.1. Value added

Figure 7 shows the shares of 20 industry sectors in each country.[18] As these tend to be relatively stable over the observed time period, we only report the *average* share over the whole timeframe. As the timeframes for which we have data vary considerably by country, we use for each country the longest timeframe possible.

Figure 7 / Average sectoral value added shares
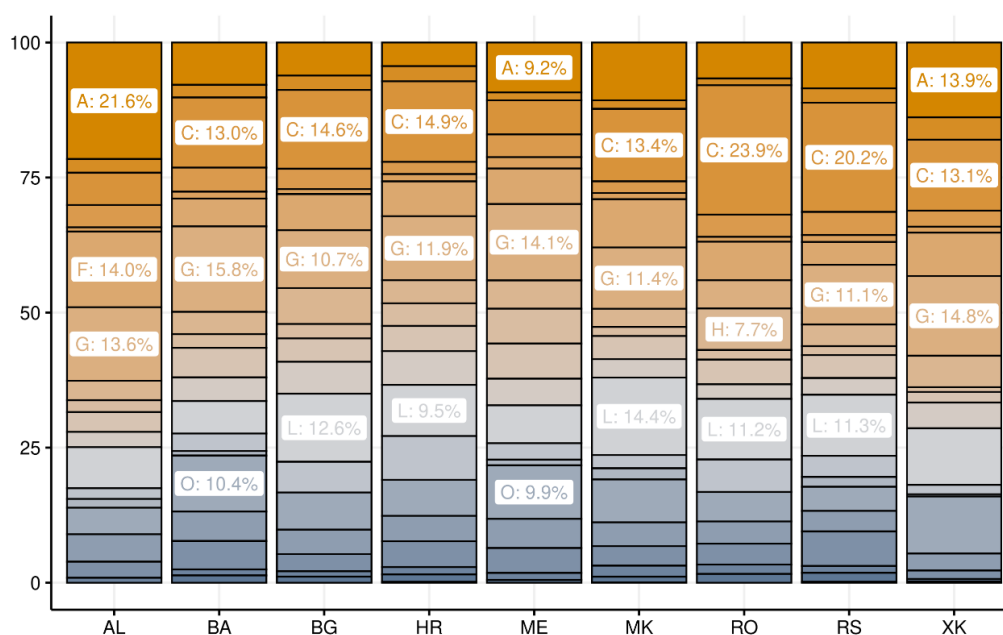
Note: Average industry shares over the whole period.
Industry codes: A = agriculture; C = manufacturing; F = construction; G = wholesale and retail trade; H = transportation; L= real estate; O = public administration.
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Albania's biggest sector is the agricultural sector (A), followed by construction (F), and wholesale and retail trade (G). The manufacturing sector (C) is, with 6%, only the fourth-largest sector.

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[18]   A list of the industry codes and their description can be found in the Appendix.

In Bosnia and Herzegovina, Kosovo and Montenegro the wholesale and retail trade sector commands the biggest share of value added, with around 15%. In Bosnia and Herzegovina the manufacturing sector ranks second, while in Montenegro the public administration sector (O) is responsible for one-tenth of value added. In Kosovo, agriculture is the second-largest source of value added.

North Macedonia stands out in this country sample, because its real estate sector (L) generates the biggest share of value added, with 14.4%. Manufacturing and the wholesale and retail trade sector come second and third, with 13.4 and 11.4% respectively.

EU Members Bulgaria, Croatia and Romania, and also Serbia, share some similarities. In all four of these countries, the manufacturing sector is the biggest source of value added. In Romania, manufacturing produces around one-quarter and in Serbia one-fifth of value added. The real estate sector and the wholesale sector are the second or third-largest sectors in all four countries, except in Romania, where the transportation sector (H) is in third place.

Figure 8 / Changes in the sectoral structure 2010-2016, in percentage points
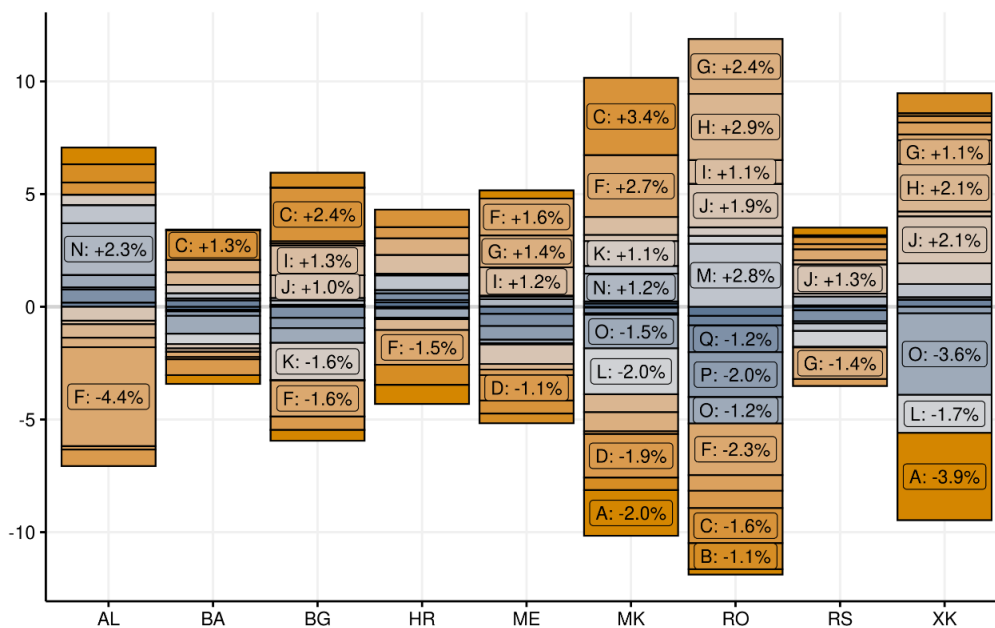
Note: Changes of 1 percentage point and above are indicated.
Industry codes: See Appendix, Table A2.
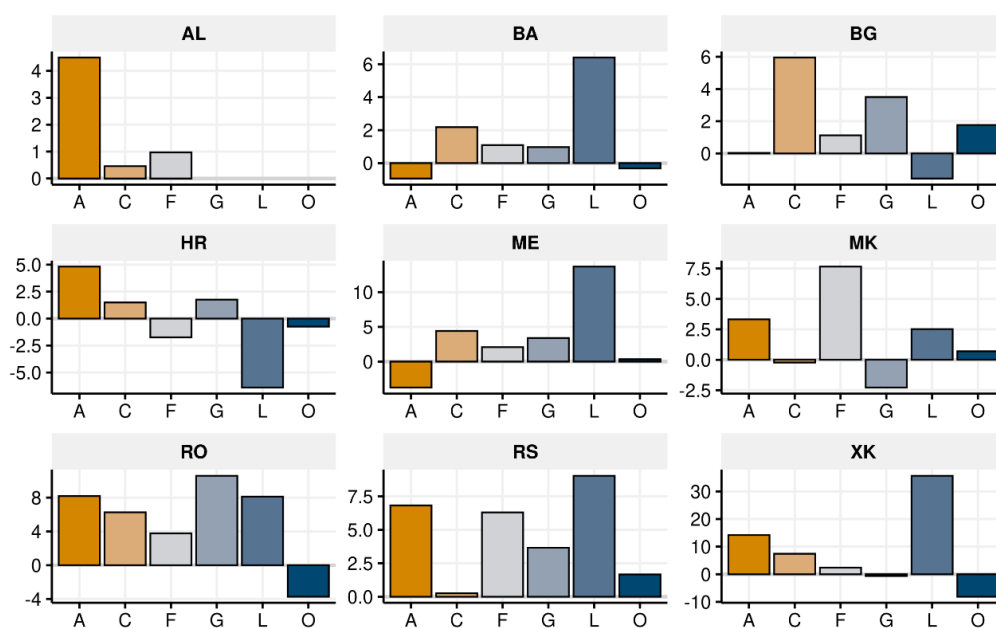Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Figure 8 highlights the most important structural changes in these countries. Structural shifts have been particularly strong in Romania, North Macedonia and Kosovo, and to a lesser extent in Albania. The share of the manufacturing industry (C) – which is often seen as the most important sector for driving productivity developments and in the focus of industrial policies – has increased in Bosnia and Herzegovina, Bulgaria, and North Macedonia. The share of agriculture (A) has strongly declined in North Macedonia and Kosovo (from rather high levels), but not, for example, in Albania (where this sector still accounts for more than 20%). There are heterogeneous developments with respect to the construction sector (F), despite the often emphasised gaps in infrastructure (for example, in transport and energy).

Structural shifts towards services industries are even more heterogeneous across countries. The most important changes are that some countries – Montenegro, Romania and Kosovo – have seen a rise in the share of wholesale and retail trade (G), and, in the latter two cases, transport and storage (H). Shifts towards knowledge-intensive business services[19] are significant only for Romania, and are far less apparent in the Western Balkan countries.

4.2. Productivity

Figure 9 presents the average productivity growth rates of the six most important sectors, based on the rankings that were presented in the previous section. Please note that each panel has a differently scaled vertical axis indicating the average growth rates. For the calculation of the average growth rate we use, for each country, the longest timeframe for which data is available.

Figure 9 / Average productivity growth in %, selected sectors

Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

In most countries real estate activities (L) show the highest productivity growth rates. Excluding this sector, productivity growth is on average at similar levels or slightly higher in goods-producing industries – agriculture (A), manufacturing (C) and construction (F) – compared with services (Romania is an exception to this). High rates of productivity growth in the real estate sector (L) and in the agriculture sector (A) in Kosovo can be attributed to a large drop (from 700 in 2013 to 200 in 2014) of the number of persons employed, while value added stayed relatively constant (a decrease of only 2%). This sharp fall in employment led to a threefold increase in productivity.

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[19]   These comprise: information and communication (J); financial and insurance activities (K); real estate activities (L); and professional, scientific and technical activities (M).

Comparing performance across countries, the largest productivity increases in manufacturing are observed in Bulgaria and Romania. Montenegro also shows high productivity growth in the manufacturing sector. Serbia has only meagre productivity growth in manufacturing. But Serbia is the only country that achieves positive average productivity growth in all six main industries.

4.3. Unit labour costs

Finally, Figure 10 reports trends in unit labour costs for the most important six industries. As already mentioned, we are unable to present trends of unit labour costs in Albania and Kosovo owing to lack of data on the number of employees. This figure is similar to Figure 9 on productivity growth in industries above. We see a mixed picture, but some tendencies are worth pointing out. As in Figure 9 we use for each country the longest timeframe for which data is available.

Figure 10 / Average unit labour cost growth, selected sectors
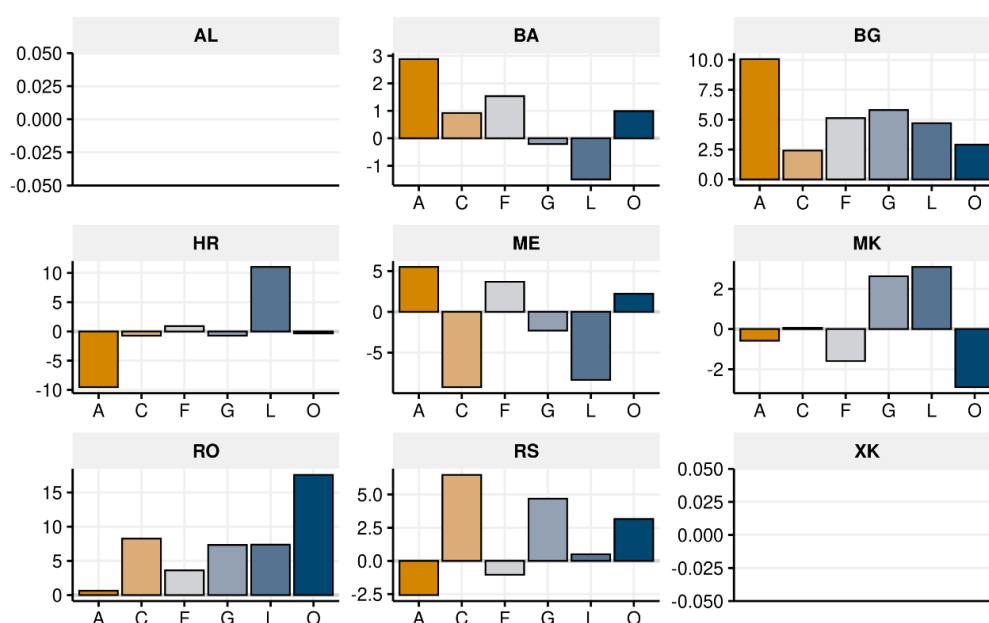
Sources: wiiw Western Balkan Productivity Database; EU KLEMS Release 2019.

Given the high productivity growth in real estate activities (L), unit labour costs growth is in most cases smaller or even negative (with the exception of Croatia). Higher than average rates of unit labour costs growth in services are observed for North Macedonia, except for public administration O), and for Romania in public administration, as well as for Bulgaria in wholesale and retail trade (G) and real estate (L). Otherwise, the growth patterns are rather mixed across industries.

With respect to countries, the high growth rates of Romania are due to the years 2000 to 2002, when the number of employees and gross monthly wages grew substantially. These high growth rates allowed total compensation to rise rapidly and hence also unit labour costs in these years.[20] The second country

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[20]   If we exclude the years 2000 and 2001 from the calculation of the average unit costs growth rates for Romania, the averages are around 5 percentage points lower. In agriculture, the average would be 22% instead of 27%; in manufacturing, 6% instead of 11%; and in real estate, 12% instead of 21%.

with substantial unit labour cost growth is Bulgaria: the average growth rate was 10% in the agricultural sector and slightly less than 6% in the wholesale and retail trade sector. Montenegro, whose economy-wide unit labour costs have increased only very slowly, has experienced positive growth in agriculture and public administration, but negative growth in manufacturing, wholesale and retail trade and real estate activities.

5. SUMMARY AND POLICY RECOMMENDATIONS

This Policy Note and the underlying newly constructed wiiw Western Balkan Productivity Database fill an important gap for the assessment of productivity and unit labour cost performance of the EU candidate and potential candidate countries (excluding Turkey). They also allow for a comparison of the situation of these countries to the performance of Bulgaria and Romania, which became EU Members in 2007, and Croatia which entered the EU in 2013. The most important findings and related policy recommendations are outlined below.

› In terms of value added per capita, Montenegro and Serbia have already passed the 2007 level of Bulgaria (the poorest EU economy). Bosnia and Herzegovina, and North Macedonia are relatively close to this benchmark. Albania and Kosovo still lag behind.

› However, in terms of productivity measured as value added per person employed (or number of employees), the data suggest that most countries are above the benchmark of Bulgaria in 2007, and even show higher current levels (exceptions are Albania and North Macedonia). This result – compared to the one in the previous bullet point – might be explained by relatively low labour market participation in the Western Balkan candidate and potential candidate countries.

› Productivity growth has slowed down since the crisis, as in most countries (including all EU Member States). For the countries under consideration, this is more concerning, given their scope and need for convergence.

› Unit labour costs are typically higher in the Western Balkan countries than their neighbouring peers such as Croatia and Romania, indicating a less favourable cost competitiveness situation. In terms of growth, however, all countries show lower rates than Bulgaria and Romania.

› With respect to industry-level performance, only a few countries (notably Bosnia and Herzegovina, and North Macedonia) show a significant shift towards manufacturing in recent years (although in most cases, with the exception of Serbia, starting from a low base). In some cases there has been a shift towards wholesale and retail trade (Montenegro and Kosovo), construction (Montenegro and North Macedonia) and, to a lesser extent, knowledge-intensive business services (an increasing share for information and communication services is observable in Kosovo and Serbia).

› Overall, Western Balkan economies have reached average income levels of Bulgaria at the point of its entry into the EU. Productivity levels are even higher, albeit at the cost of low labour market participation. Also, unit labour costs are generally too high, which, together with the large structural current-account deficits, indicates a lack of competitiveness. Despite some pockets of modern economic activity in and around urban centres, and notwithstanding certain improvements in the industrial structure via increasing foreign direct investment (FDI) inflows (Adarov et al., 2019), the region's most important 'export article' remains labour migration.

› In the long run, continued outward migration will result in the loss of an important share of the human capital of these countries, which might affect their prospects for convergence towards Western European levels, including in wages (Astrov et al., 2019).

› One way to improve the economic situation in the Western Balkans, both in the short and the long run, is a co-ordinated 'big push' in investment in traditional – particularly transport and energy – infrastructure (Holzner and Schwarzhappel, 2018), as well as in non-traditional infrastructure sectors such as water, sewerage, waste, health, social affairs and education (Grieveson and Holzner, 2018). Given the financial constraints in the region, stronger support from the European Union's pre-accession instrument (IPA) would be desirable.

› Earlier cases of EU accession by economies from Central, East and Southeast Europe have shown the positive effects that the EU's institutional anchor and the Single Market have on attracting FDI and subsequently increasing trade and economic growth (Reiter and Stehrer, 2018). Thus, it can be taken as a positive sign that the General Affairs Council of the EU has allowed the opening of EU accession negotiations with Albania and North Macedonia. However, it has to be noted that even for the negotiating front-runners, Montenegro and Serbia, the European Commission's target date of 2025 for Western Balkan EU accession is not realistic (Grieveson et al., 2018).

› Nevertheless, EU accession is key for the region to improve its productivity and competitiveness in the long run and hence develop and converge. EU governments should support Western Balkan societies in this endeavour more strongly. Failing this, other global players, such as China (Bykova et al., 2018), will further increase their influence in the Western Balkans, which could have substantial long-term political repercussions.

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APPENDIX

Table A1 / Country codes

Country code	Country name
AL	Albania
BA	Bosnia and Herzegovina
BG	Bulgaria
HR	Croatia
ME	Montenegro
MK	North Macedonia
RO	Romania
RS	Serbia
XK	Kosovo

Table A2 / NACE Rev. 2 1-digit description

Code	Description
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration and defence; compulsory social security
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
U	Activities of extraterritorial organisations and bodies

Source: Eurostat.