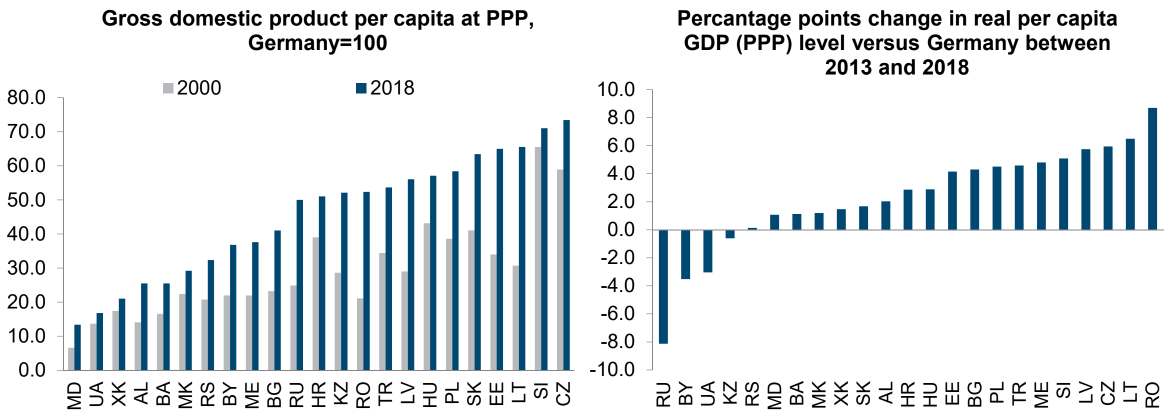
4. CESEE monitors

4.1. CONVERGENCE MONITOR: A LONG WAY TO GO

by Mario Holzner

Income convergence is a slow process: among the CESEE economies only the two most western countries – the Czech Republic and Slovenia – had surpassed a GDP per capita at PPP level above 70% of the German[21] level by 2018. Over a period of almost two decades they have improved their relative position by 15 and 6 percentage points, respectively. The next in the ranking (Figure 4.1, left panel) with values above 60% of the German level are Lithuania, Estonia and Slovakia. They improved vis-à-vis the situation in the year 2000 by about 30 percentage points. At the other end of the ranking are Moldova and Ukraine, with less than 20% of the German per capita income level in 2018. Against the situation of some two decades ago they only improved by a few percentage points.

Figure 4.1 / GDP per capita at PPP convergence against Germany



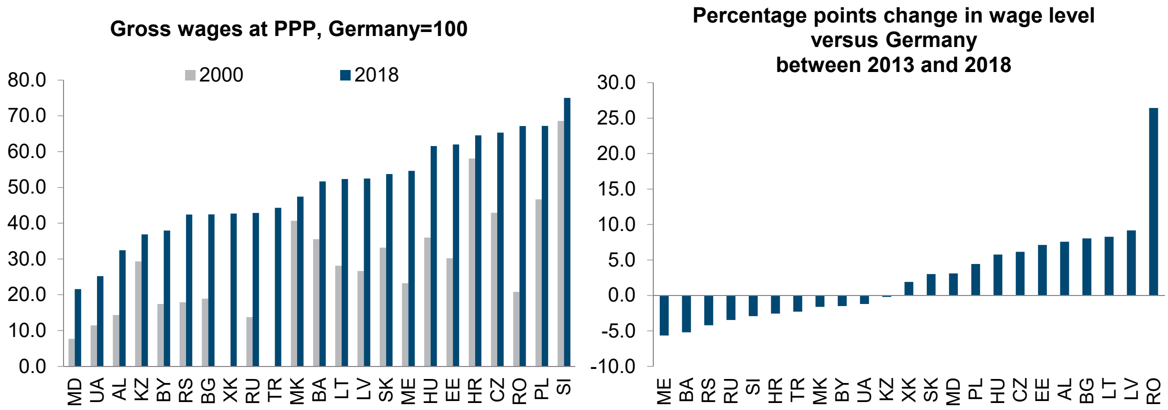
Source: wiiw Annual Database incorporating national statistics and Eurostat.

The most recent (2013-2018) income convergence dynamics were by far the strongest in Romania with an increase of almost 9 percentage points in GDP per capita at PPP relative to the German level. The Romanian result was only achievable through massive fiscal stimuli, the sustainability of which might be questionable over the longer run. About half of the CESEE economies converged in the same period by about 3 to 6 percentage points (Figure 4.1, right panel). At the same time Serbia, Ukraine and the CIS countries Kazakhstan, Belarus and Russia experienced a divergence or at best stagnation vis-à-vis Germany. The latter country dropped in per capita income by more than 8 percentage points between 2013 and 2018 – a consequence of the sanctions and oil price decline. The remaining (mostly Western Balkan) countries improved by a mere 1½ percentage points.

[21] We chose Germany as a benchmark country due to its position as the technological leader in Europe.

In terms of gross wages at PPP relative to the German level in 2018, only Slovenia surpassed the 70% threshold, indicating that GDP does not always correlate perfectly with income from labour. The Czech Republic is only in the group of countries that have surpassed the 60% threshold, together with Poland, Romania, Croatia, Estonia and Hungary (Figure 4.2, left panel). In these countries the average relative wage improved over the last two decades or so by about 25 percentage points against German wages. It has to be mentioned that the definition of average gross wages in the region is not homogenous and hence only the broad ranges and not single percentage point differences should be analysed. Most economies register wages that are around 40% to 50% of the German level. The downward outliers in this ranking are Albania, Ukraine and Moldova with shares of 30% to 20% of the German wage level in 2018. Still, these represent improvements of about 15 percentage points as compared to the year 2000.

Figure 4.2 / Gross wages at PPP convergence against Germany



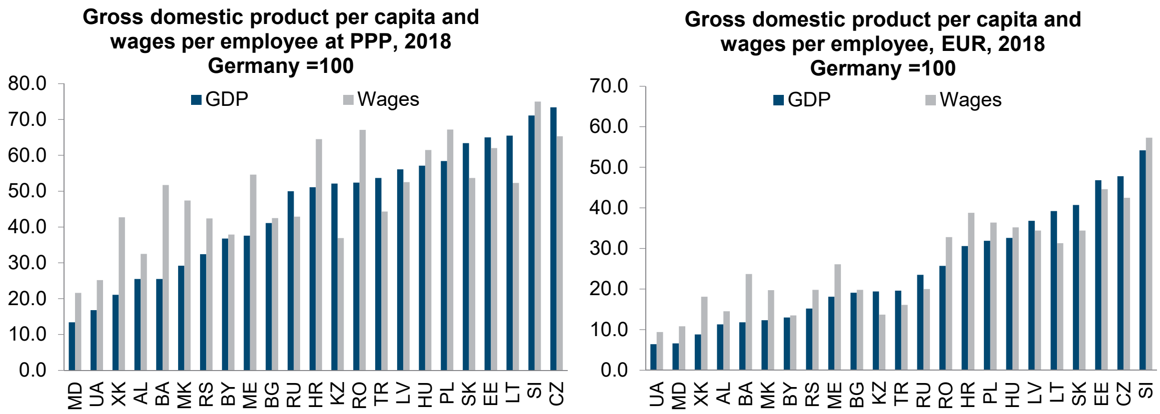
Note: Data based on wage or earning surveys. Germany refers to National Accounts data. Romanian wages include employers' social security contributions.
Source: wiiw Annual Database incorporating national statistics and Eurostat.

Again, between 2013 and 2018, Romanian gross wages at PPP grew the fastest relative to German ones, followed by relatively strong wage growth in the Baltic Republics, Bulgaria and Albania. The relative Romanian gross wage growth of 26 percentage points, however, is not only due to the economic boom but also due to the shift of social security contributions paid by employers to employees in 2018. It is, however, interesting to note that in half the countries of CESEE relative wages over the last couple of years grew by less than those of Germany (Figure 4.2, right panel). These countries are to a large extent from the Western Balkans and the CIS. This is certainly going to be an additional factor supporting further emigration from the European periphery towards the centre.

Comparing GDP and wage levels with those of Germany explains why it is still very profitable and productivity-enhancing to outsource labour-intensive production from Western Europe to the CESEE region. By and large productivity and wage levels are between 10% and 20% of the German level for the more peripheral regions and between 30% and 50% of the German level for the more Western countries that are already part of the EU and the German automotive cluster (Figure 4.3). It is also interesting to observe the differences between the relative wage and GDP per capita levels. Countries with higher relative wage than GDP per capita levels are more often than not from Southeast

Europe and have a recent track record of current account imbalances. In countries like the Baltic States, Slovakia and the Czech Republic it is the other way around.

Figure 4.3 / GDP and gross wages at PPP and in EUR at exchange rate relative to German levels



Note: Data based on wage or earning surveys. Germany refers to National Accounts data. Romanian wages include employers' social security contributions.
Source: wiiw Annual Database incorporating national statistics and Eurostat.

Table 4.1 / CESEE GDP per capita and gross wages per employee at PPP, 2018

	BG	CZ	EE	HR	HU	LT	LV	PL	RO	SI	SK		EU-CEE11
GDP per capita	15,600	27,900	24,700	19,400	21,700	24,900	21,300	22,200	19,900	27,000	24,100	.	22,000
Gross wages	13,928	21,420	20,330	21,163	20,178	17,158	17,208	22,027	22,011	24,602	17,613	.	20,742
	AL	**BA**	**BY**	**KZ**	**MD**	**ME**	**MK**	**RS**	**RU**	**TR**	**UA**	**XK**	**non-EU12**
GDP per capita	9,700	9,700	14,000	19,800	5,100	14,300	11,100	12,300	19,000	20,400	6,400	8,000	17,000
Gross wages	10,645	16,947	12,442	12,097	7,073	17,906	15,557	13,913	14,060	14,519	8,272	14,002	13,227

Note: Data based on wage or earning surveys. Romanian wages include employers' social security contributions.
Source: wiiw Annual Database incorporating national statistics and Eurostat.

Table 4.2 / CESEE GDP per capita and gross wages per employee EUR at ER, 2018

	BG	CZ	EE	HR	HU	LT	LV	PL	RO	SI	SK		EU-CEE11
GDP per capita	7,800	19,500	19,100	12,500	13,300	16,000	15,000	13,000	10,500	22,100	16,600	.	13,400
Gross wages	6,965	14,973	15,720	13,666	12,416	11,040	12,120	12,841	11,572	20,179	12,120	.	12,524
	AL	**BA**	**BY**	**KZ**	**MD**	**ME**	**MK**	**RS**	**RU**	**TR**	**UA**	**XK**	**non-EU12**
GDP per capita	4,600	4,800	5,300	7,900	2,700	7,400	5,000	6,200	9,600	8,000	2,600	3,600	7,700
Gross wages	5,117	8,360	4,748	4,825	3,822	9,192	6,950	6,963	7,058	5,656	3,309	6,360	6,064

Note: Data based on wage or earning surveys. Romanian wages include employers' social security contributions.
Source: wiiw Annual Database incorporating national statistics and Eurostat.

Looking at the very long run since the beginning of transition, in roughly a quarter of a century, CESEE convergence outcomes are mixed, depending on the indicator observed: average compound annual GDP growth was almost identical to OECD growth. However, using the latest version of the Penn World Table (version 9.0) for the period 1990-2014 shows that GDP per capita growth was double and GDP per employed growth was three times higher than the OECD performance

(Table 4.3). The main reason for the difference was an increase of population and employment in the OECD countries of almost 1% per annum, and a stagnation of population growth and 1% annual drop of the number of employed in CESEE. This indicates the importance of outward migration as one of the channels for productivity increase in developing nations. This, however, is also related to a massive shrinkage of the working age population and connected social and political distortions.

The countries that have outperformed all the other CESEE (and thus OECD) economies in terms of long run GDP growth since 1990, with compound annual growth rates above 3%, were Poland, Turkey, Albania, Romania and Kazakhstan. However, if additional indicators of success of transition[22] such as stable income distribution and a consolidated democracy are applied to the above list, we end up with very few (if any) success stories, at least in terms of overall GDP growth. The number of successful transition economies in terms of annual GDP per capita growth above 3%, converging swiftly with Western productivity levels, is somewhat higher and includes: Poland, Albania, Romania, Kazakhstan, Estonia and Lithuania. It becomes even higher if annual growth of GDP per employed above 3% is looked at: Poland, Albania, Romania, Kazakhstan, North Macedonia, Estonia, Hungary, Serbia and Lithuania. However, for some of these countries this came at a massive loss of employment. Romania, Serbia and Lithuania lost more than 2% of the employed persons annually over the period 1990-2014, which includes particularly young families that have emigrated to Western Europe for good.

Table 4.3 / Long term catching up, compound annual growth rates, 1990-2014

	GDP	GDP per capita	GDP per employed	Population	Employment
UA	-0.8	-0.2	0.6	-0.5	-1.3
BA	0.0	0.7	1.1	-0.7	-1.0
MD	0.1	0.4	1.9	-0.3	-1.8
LV	0.3	1.5	2.6	-1.2	-2.3
BG	0.7	1.5	1.5	-0.8	-0.8
RU	0.7	0.8	0.5	-0.1	0.2
HR	1.1	1.6	2.5	-0.5	-1.4
CZ	1.5	1.4	1.8	0.1	-0.3
BY	1.5	1.8	2.1	-0.3	-0.6
ME	1.6	1.6	1.6	0.1	0.1
SK	1.8	1.7	2.4	0.1	-0.5
LT	1.9	3.0	4.2	-1.0	-2.2
RS	2.1	2.5	4.2	-0.4	-2.0
SI	2.2	2.1	2.8	0.1	-0.6
HU	2.3	2.5	3.2	-0.2	-0.9
EE	2.6	3.4	3.9	-0.7	-1.2
MK	2.8	2.7	3.8	0.2	-0.9
KZ	3.4	3.2	3.1	0.2	0.3
RO	3.7	4.5	6.2	-0.7	-2.3
AL	3.8	4.4	5.3	-0.5	-1.4
TR	4.4	2.8	2.5	1.5	1.8
PL	4.9	4.9	4.9	0.0	0.1
CESEE av.	2.2	2.4	3.1	-0.2	-0.8
OECD	2.0	1.3	1.1	0.7	0.9

Source: Penn World Table 9.0, wiiw Annual Database, World Development Indicators, own calculations.

22 http://glineq.blogspot.com/2014/11/for-whom-wall-fell-balance-sheet-of.html