A Changing Europe Monitor

Revisiting wage convergence and its impact

Where do we stand on income convergence in Europe? Looking at the GDP per capita would imply that a huge gap still exists between east and west, and north and south. In reality, a great deal of convergence has already taken place, especially for the poorest 40% of the population, between the eastern and western peripheries. The gap between eastern Europe and Italy in our view is likely to close by the end of the decade for that segment of the labour market. On the other hand, the gap between north and south instead appears still significant, across income levels, and is actually widening.

We show the changes of the past 20 years or so in the income distribution in Europe, using the Eurostat estimates, both in current Euro terms and PPP-adjusted. Taking the cut-off points of the various chunks of the income distribution allows us to map the income changes of various segments of society, regardless of their labour contracts (employed, self-employed, part-time workers and so on are all captured) and adjusted for the tax burden, which is very diverse across the EU.

Undoubtedly, convergence favours the small and the poor, and the big and "expensive". Those sitting in the middle are squashed and, in our view, will continue to experience stagnating to falling incomes.

Contrary to the last business cycle, which was fuelled by too much credit everywhere (east and west), this phase of convergence is "credit light", but showing strong gains in the industrial bases in eastern Europe. The more companies headquarter or operate in the east, the more profitable these businesses become, and the more it is justified that workers across the income spectrum earn more. So, incomes are rising through the income distribution on average in the east, while the west sees the lower bracket gaining modestly compared with the highest income segment.

Convergence does not "have to happen". In fact, we are quite surprised by the poorest segments of Romania claiming not to have seen much improvement since the EU accession, notwithstanding the high wage growth and a booming corporate sector.

France and Germany have fared well in the past decade – but how much longer can this last? The lower 40% of the French income distribution earns well above most in the EU. We suspect this cannot last forever as labour laws are being loosened and a phase of public sector austerity appears to be ahead. The data for Germany suggest that the poorest quintile is actually much better off than most; however, the continuing rise of the far right (AfD) in the approval ratings tells us that these numbers do not fully reflect the reality on the ground.

Mapping the wage changes of the past 10 years

Convergence of incomes, a cornerstone of the widespread perceived promise of the European Union, has changed in the past 10 years, more subtetly than what most have realised. For many years, Europe (east and west) experienced a seemingly uniform increase in workers compensation. This trend has clearly broke down in the past 10 years, after the 2007 financial crisis, although the seeds of change were planted in 2004, in our view, with the accession of the new member states (Czech Republic, Poland, Hungary, Slovenia, Slovakia, Malta, Cyprus and the Baltic states initially, followed by Romania and Bulgaria in 2007).

In this report, we give an overview of where we stand, and we sketch some broad implications of what is ahead.

To start with, let us discuss how we can monitor income changes. A simple chart of GDP per capita would not show many problems at all, aside from revealing the sharp drop experienced by Greece in the past seven years and a rather sideways trend in Italy. GDP per capita in Euros would imply a large convergence gap still in place within the Eurozone and between the western and the eastern peripheries of the Euro area.

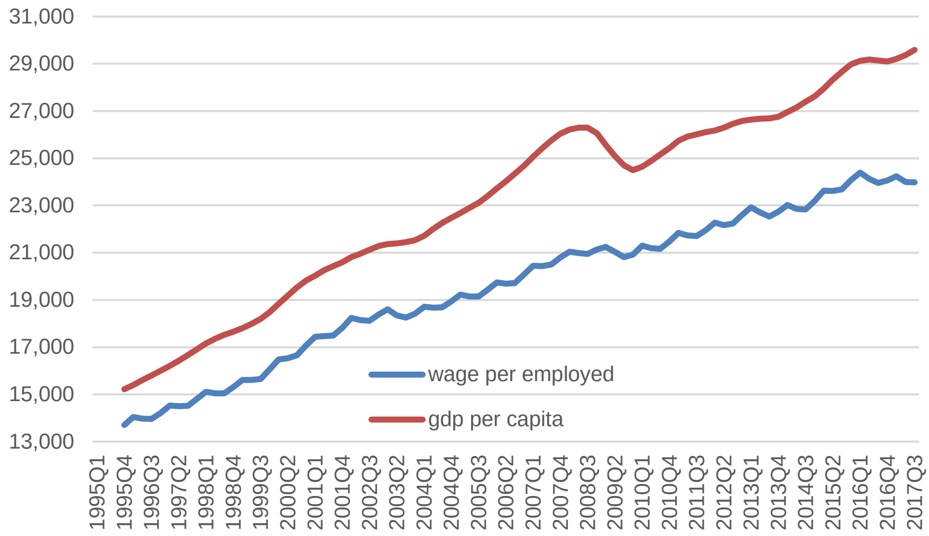
However, mapping GDP per capita and wages per employed person already begins to paint a slightly less upbeat picture, as wages on average seem to have stagnated since the beginning of 2016, even at the EU average level – which is surprising, as the EU average should show more dynamism than most indicators, given the tight labour markets in central Europe.

In order to get a more granular view, we took the cut-off points of the income distribution provided by Eurostat. This approach has the advantage that it gives good insight on how the various income segments in society have performed over the years and it also adjusts for the tax burden, so it becomes easy to compare the eastern and western parts of the Eurozone, notwithstanding the large changes in tax rates. Bear in mind that the cut off points signal the maximum annual compensation of that quintile – it is not an average or a median income level.

Below, we show the income distribution based on quintiles, so each threshold represents 20% of the population: the 1st quintile is the upper limit of how much the poorest 20% of the country earns (post-tax, on an annual basis); and the 2nd quintile shows the upper limit of how much a further 20% of the population earns and so on. There is no 5th threshold as there is no limit to how rich the richest person in a country can be.

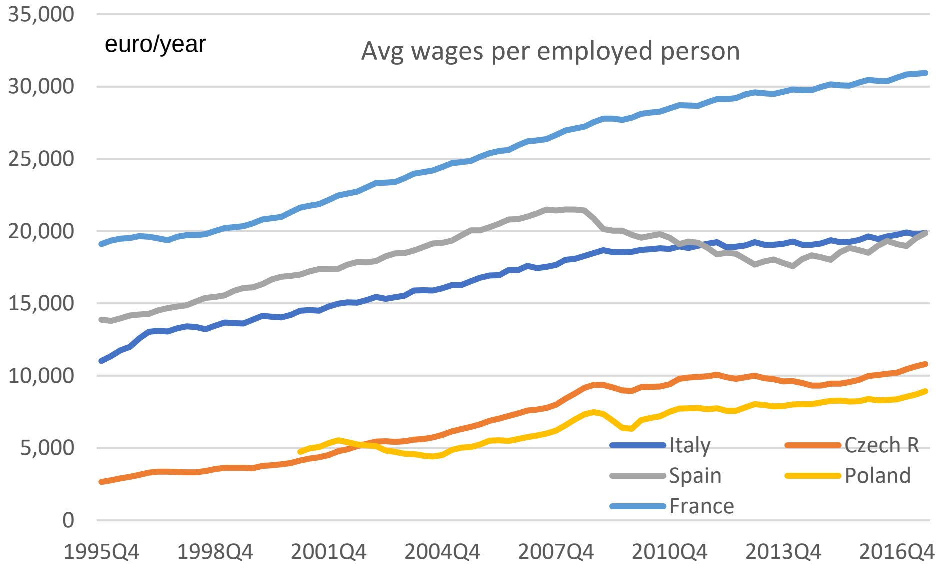
To ease the comparison, we show the income limits in Euro terms, as well as in purchasing power standard terms (PPS). Purchasing power standards means that the Euro amount has been adjusted using PPP exchange rates, or put more simply: the data has been transformed such that we can compare the actual purchasing power across countries. The PPP exchange rates are based on a wide set of goods and services (3,000), including services, such as the healthcare and education provided by the state. Please bear in mind that this measure most likely faces similar shortcomings to the CPI basket on calculating the pace of change in housing costs *(for a discussion on the shortcomings of how we measure inflation please refer to our piece from January 2018: A closer look at inflation and why it is not low).*

There is a widening gap between GDP per capita and wage per person employed



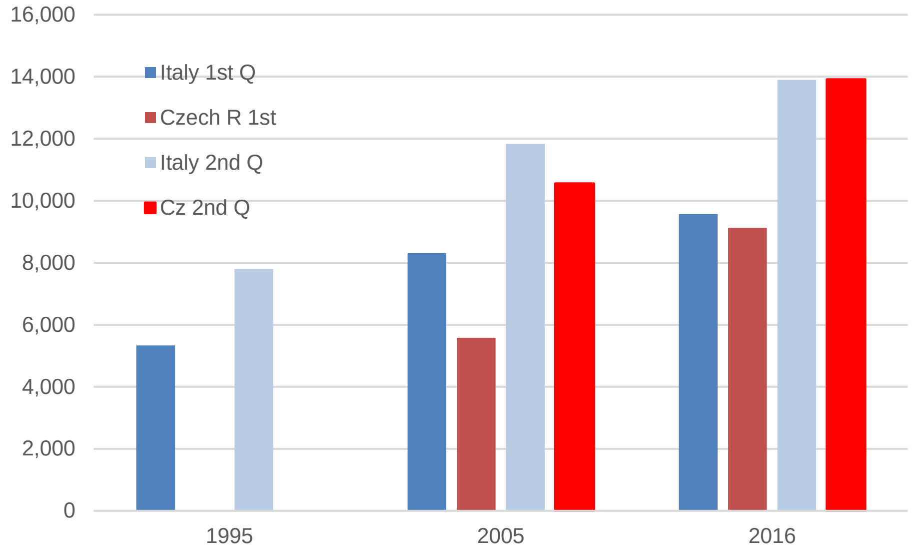
Source: Eurostat, data showing for EU28, ADA Economics Ltd., %

…and it would appear that there is still plenty of convergence gap in terms of GDP per capita



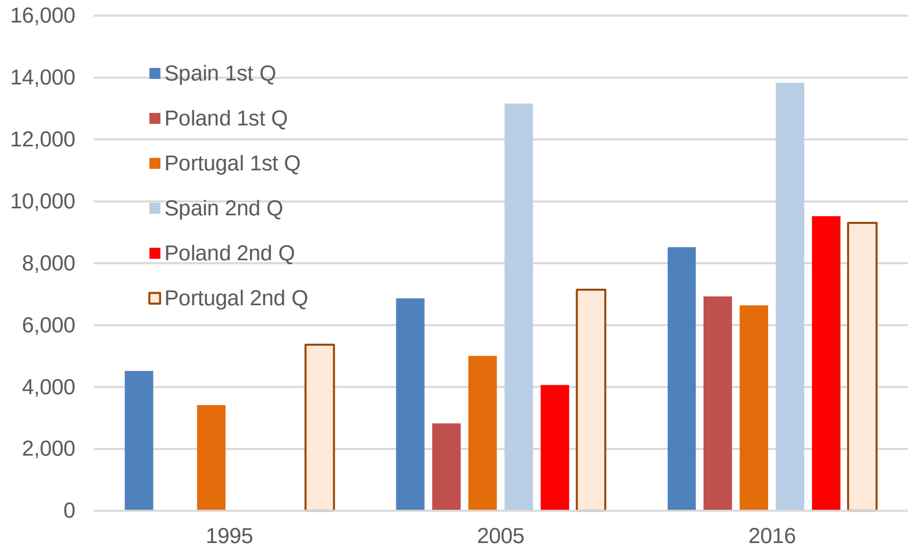
Source: Eurostat, nominal GDP (annualised) per person, ADA Economics Ltd., %

…but convergence has already happened between Italy & Czech R (in PPS terms in the lower part of the income distribution)



Source: Eurostat, cut-off points for the 1st and 2nd quintiles in Euro @ purchasing power standards, ADA Economics Ltd.

Poland has reached Portugal in the 1st and 2nd quintiles (PPS)



Source: Eurostat, cut-off points for the 1st and 2nd quintiles in Euro @ purchasing power standards, ADA Economics Ltd.

So what did we discover? Convergence between east and west is almost done

Here are the 10 most telling things we noted during this exercise (the full tables are available at the end of this document, showing the various thresholds in Euros and PPS for 1995, 2005 and 2016 for all countries in the EU).

The most important message that we believe is eluding most is that eastern Europe has, *de facto*, converged (or will soon get there) to the income levels of the western periphery for the poorest 40% of the population and convergence is happening rapidly for the "middle class" as well. In our view, this process will be widespread and may have also overshot in a matter of two-to-three years ahead. It is equally important to notice that convergence is not just happening because the east is getting richer, but rather also because the western periphery is stagnating. In general, convergence seems to have a tendency of leading the initially cheaper country to overtake its neighbouring country, rather than simply reaching the same income level and staying there.

The core of the Eurozone, on the surface, does not seem to be affected by this process, but it is doomed to be, in our view, in reality. French incomes in the lower brackets are much too high compared with most other member states, and the loosening of labour laws that have just begun are likely to compress wages, just as they have in other countries. In Germany, the poorest quintile, even in PPS terms, appears much better off than most in the EU. Yet, recent polls showing the far right overtaking socialists in terms of approval ratings imply otherwise. In fact, when we polled people in Germany, we frequently picked up that parts of society were earning well below the upper income limit of the 1st quintile *(see our piece from Sept 2017: A lingering feeling of unhappiness).*

Our top-10 highlights from this exercise

#1 Among the large member states, Germany had the highest cut-off point for the poorest quintile in 1995: the poorest 20% in Germany was 9% better off than France at the time, 34% above the equivalent of the Eurozone 12 average back then and 3x Greece, which was the poorest of the block back then. In PPP terms, the picture was fairly similar: Germany was 8% above France and over 2x Greece. Since then, the leading position for the highest 1st quintile flipped to France among the large countries in 2008/09. The 1st quintile in France was 7% better off relative to Germany in 2016 (3% in PPS terms) and 11x the poorest in the EU, which was Romania (6x in PPP terms).

#2 In current Euros terms, the poorest quintile in the Czech Republic has earned more than the equivalent in Portugal and in Greece since 2011. In PPP terms, the poorest quintile in Hungary earns more than the equivalent in Greece and the poorest quintile in Poland is better off than the corresponding in Portugal.

#3 It appears that the poorest segment of society in Romania has barely experienced any income improvement, both in current Euro and PPP terms. Bulgarians have fared slightly better, but their trend also is remarkably flat.

#4 In current Euro terms, the second quintile sees Slovenia on a par with Spain, while Portugal is barely ahead of Greece and the Czech Republic. However, in PPP terms, Slovenia and Italy have been on a par since 2014, and the Czech Republic is 19% better off than Poland-Portugal (at equivalent levels since 2015) and 50% better off than Hungary-Greece (on a par since 2016).

#5 The third quintile – which is thus the poor half of what can be considered the middle class – shows the steadiest and steepest improvement in Poland since its EU accession in PPP terms. Czech incomes in this segment are 12% above those in Portugal, which was on a par with those in Poland as of 2016. Greece is only 7% better off than Hungary. Italy and Spain reached equivalent levels in 2008, but Spain has been lagging since, by around 6%.

#6 The fourth quintile exhibits a lot more convergence than the 3rd quintile. Since 2007, Italy and Spain have been on the same trajectory, which has been stagnant (but not falling!) and saw a jump in 2016. Portugal and the Czech Republic have converged and Poland is approaching quickly, lagging only 7% in PPS terms and 20% in Euro terms. A 20% gap may sound like a lot but, with wage growth approaching 10%, even without PPP adjustment, the convergence is already here (taking into consideration that the latest data we have is 2016 and Poland's middle class will get a bonus from the Brexit effect, which sees many back offices of the City relocating to Warsaw). Greece is up very very mildly, sitting in between Poland and Hungary, which is also picking up. Romania is far behind everyone: 23% below Bulgaria, 57% behind Slovakia, and 3% below Serbia (not an EU member state) in current Euros. It is mildly above Macedonia (not in the EU), but only in Euro terms; in PPP-adjusted incomes, Romania is below Macedonia as well.

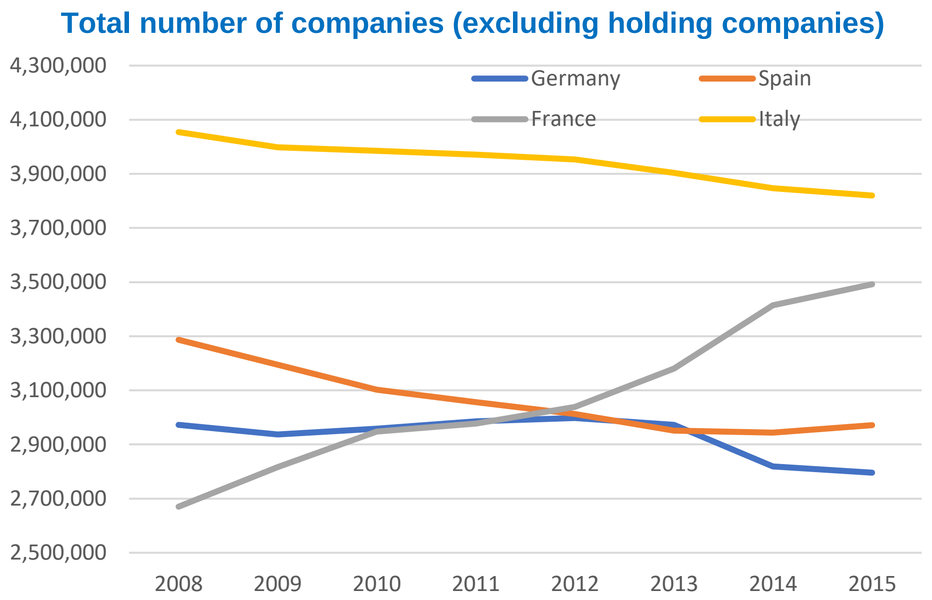
#7 The CE4 (Czech Hungary Poland Slovakia) has seen incomes double, more or less, in less than 15 years. The improvement is even higher for the Baltic States. A low starting point and a relatively small size are, in our view, key supporting factors to ride the (positive) side of convergence.

#8 While the gap between the east and western peripheries is closing rapidly, the same is not true between the north and south, and, even within the northern countries, some things do not seem to be moving forward. We took the average of France-Netherlands-Belgium as a proxy for the "close core" vs. the average of Germany-Austria (Austria having higher cut-off points relative to Germany since the beginning of the sample we have). As time goes by, there is convergence and even overshooting of the close core relative to Germany-Austria in all the income segments (particularly strong in the 1st quintile) in Euros. However, there is no convergence in PPS terms for the 3rd quintile, and the 4th quintile actually saw a slight widening of the gap. So: converegence seems to have worked well for the poorest 40%, but not really for the middle class.

If we compare the average of Italy-Spain (loosely speaking, the large countries of the southern part of the EU) with France-Belgium-Netherlands, then we see that there is some improvement relative to the starting point in 1995, but the gap across quintiles as of 2016 was c.20% or more, in Euro and PPS terms. More worrying is that there is a clear divergence relative to what was achieved by 2005, and this is true for all four quintiles (the 2nd quintile, essentially, saw no change in the gap with France-Belgium-France).

#9 The steady outperfomance of France relative to Germany in the poorest segment of society is probably due, to a large extent, to stronger safety nets in the former, which is a feature of the French State that will be difficult to undermine significantly. That said, the introduction of greater labour market flexibility and the planned austerity phase in the second part of the Macron presidency, in our view, should put downward pressure on the first two quintiles.

#10 Upward convergence is not necessarily forever, so we should wonder whether France and Germany are destined to continue to lead for the next 10-20 years. When we look at the indicators of corporate balance sheet strenght, such as aggregate profits, the two countries fare equally well. However, in terms of company creation: the number of new companies registered, the balance between new companies and closures, and the total stock of companies regardless of their size, shows that Germany fares much worse than France. In fact, Germany has seen a net drop in companies since 2013, which is a highly worrying trend. (note: the number of companies is not the only indicators that matters for business sector's health state, but it is a good barometer of whether problems are brewing in the background)



Source: Eurostat, ADA Economics Ltd.,

OK, so let's sketch some implications

We list below the most important implications from these trends. We will not attempt to cover these issues in details here, but you are welcome to call us to discuss any or all of them.

Tough EU-budget negotiations

As convergence between east and west is taking place rapidly now, the willingness of today's large contributors to the EU budget is doomed to diminish. We don't believe in overly extreme scenarios such as no EU funds whatsoever going to eastern Europe, but the total pot of cash earmarked for project similar to what we saw in the last two EU budget cycles is doomed to go down – by 30% in our view (looks like a conservative/realistic assumption). That said, the western periphery does need some external support and some degree of solidarity, which at the end of the day is the underlying idea of the EU cohesion funds. As a result, new vehicles may be introduced to fund a wider range of member states for "productivity" enhancing projects, such as education, and SMEs development. So – the total EU budget in our view will remain close to 1.1% of GDP, but its allocation will become more skewed to the western side relative to what we saw in the past 15 years.

German competitiveness weakens, but eurozone's competitiveness gains

For Germany Inc. rapidly rising wages in eastern europe is not great news: surely its multinationals sell to the new member states and thus they are gaining purchasing power, but the plants of the German subsidiaries there also face fast wage pressures. We highlight Germany as it is the large eurozone member state that has most extensively embraced outsourcing production eastwards from the beginning, but of course other countries have done the same.

For the eurozone as a whole instead, this "new type" of convergence is a bonus. To put it cruelly: the western periphery has got cheaper, which together with other changes such as restructured corporate balance sheets and low interest rates motivate a higher valuation for the "fair value" of the euro. It used to be that the euro appreciation towards 1.30 against the dollar was reason for concern among companies and policy makers, but in our view these days actually the real pain threshold is only activated at 1.40/dollar or above.

Are house prices too high in France and Italy?

Cyclical developments of house prices are strongly dependent on credit growth and real GDP dynamics more broadly. However, with a very a long term perspective the income and wealth levels of the household sector should be linked to house prices, at least for the low/average quality segment. In this respect it appears to us that the stabilisation of house prices in Italy may prove transitory, the rapid gains in France may be reaching excessive levels while the pick up in central europe can run for much longer.

Changing migration flows: the west will move east

Since the 2004 enlargement of the EU large lows of migrants have gone from eastern Europe to the UK, Germany and the more affluent parts of the EU. This process is partially stopping due to Brexit, but it is also changing in direction as it becomes increasingly appealing for young and low/medium skilled workers to go from Portugal/Spain/Italy and Greece to eastern Europe. This is a further factor reinforcing the house price changes we noted above.

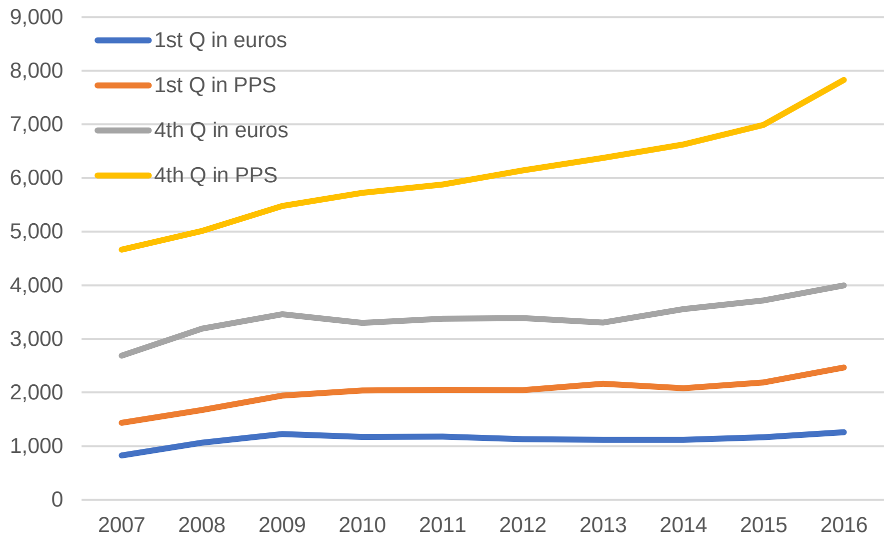
One union, but not one currency

There is one European Union, but not one single currency. This is an little but very important detail: as one maybe tempted to argue that as eastern europe "overheats" and labour costs baloon relative to those in Spain or Italy, companies will relocate back to the euro area and everyone will ultimately be happier: the Spaniards/Italians will get some re-shoring of companies, the Hungarians/Poles/Czech will not experience as much inflation and pressure on social services. Well, that may happen over the course of 10 years, but it isn't likely to happen quickly. Firstly, production facilities do not move that quickly. Secondly, as long as eastern europe (and don't forget the UK!) maintains an indipendent currency, there will be a strong policy incentive to influence the currency such that a competitive edge remains in place. So, in our view the Spaniards nor the Italians are likely to feel happier any time soon.

Raffaella Tenconi, 22nd February 2018

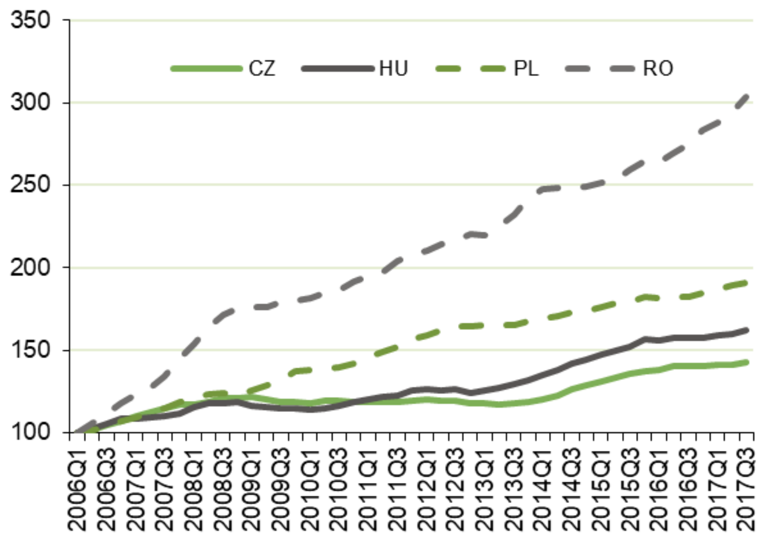
More charts and tables below…

The first 10 years in the EU do not seem to have benefited the lowest income bracket in Romania



Source: Eurostat, ADA Economics Ltd.

Aggregate profits soaring in the CEE suggest that higher incomes are justified



Source: Eurostat, 2006 Q1 indexed to 100, ADA Economics Ltd.,

Tables

Cut-off points for the 1st quintile

	Euro			PPS-adjusted		
First quintile	1995	2005	2016	1995	2005	2016
Euro area*	6,817	9,395	11,688			
Luxembourg	12,987	19,680	21,969	12,943	19,103	18,235
Austria	9,647	12,328	15,825	8,766	11,936	15,043
Germany	9,186	11,562	13,813	8,169	11,039	13,771
Belgium	8,624	10,848	14,551	8,211	10,164	13,588
France	8,276	10,832	14,850	7,537	9,852	14,192
Netherlands	7,948	12,064	15,606	7,527	11,368	14,412
Finland	:	12,123	16,438		9,794	13,738
Denmark		15,596	19,992		11,176	14,730
United Kingdom	6,202	11,345	13,740	6,885	10,338	11,389
Ireland	4,881	11,347	14,220	5,452	9,102	11,523
Italy	4,569	8,718	9,585	5,335	8,310	9,576
Spain	3,788	6,247	7,684	4,522	6,869	8,523
Malta		5,699	8,671		7,799	10,813
Cyprus		8,585	8,959		9,641	10,215
Slovenia		6,279	8,424		8,262	10,593
Czech Republic		3,094	5,719		5,585	9,130
Portugal	2,370	4,369	5,444	3,411	5,001	6,642
Estonia		1,853	4,972		2,939	6,822
Greece	2,986	5,707	4,320	3,843	6,515	5,085
Slovakia		1,980	4,900		2,791	7,407
Croatia			3,467			5,347
Latvia		1,263	3,662		2,375	5,292
Lithuania		1,216	3,226		2,274	5,303
Hungary		2,374	3,222		3,830	5,668
Poland		1,502	3,755		2,821	6,924
Bulgaria			1,767			3,782
Romania			1,260			2,467
Former Yugoslav Republic of Macedonia			1,280			2,808
Serbia			1,311			2,698
Sweden		12,805	16,193		10,548	13,325
Iceland		17,299			12,549	
Norway		18,444	28,044		13,643	20,280

Source: Eurostat, Eurozone averages showing for Eurozone 12 for 1995 and Eurozone 19 for 2005 and 2016. There is a lot of missing data, but we thought adding 1995 provides a useful sense of perspective of the pre-Euro period, ADA Economics Ltd.

Cut-off points for the 2nd quintile

	euro			PPS-adjusted		
	1995	2005	2016	1995	2005	2016
Euro area*	9,241	12,541	16,038			
Luxembourg	16,870	25,364	29,289	16,813	24,621	24,311
Denmark		19,982	25,700		14,319	18,935
Germany	12,095	14,818	18,758	10,756	14,147	18,701
Austria	12,585	15,958	21,062	11,436	15,451	20,021
France	11,166	14,197	19,639	10,169	12,913	18,768
Belgium	11,801	14,443	19,370	11,236	13,533	18,088
Netherlands	10,090	15,272	20,298	9,555	14,391	18,745
United Kingdom	8,939	15,977	18,303	9,923	14,559	15,172
Finland		15,665	21,260		12,656	17,769
Italy	6,684	12,419	13,913	7,805	11,838	13,900
Ireland	6,637	16,049	19,367	7,415	12,874	15,694
Cyprus		11,715	12,132		13,156	13,832
Spain	5,346	8,990	11,634	6,383	9,884	12,904
Malta		7,610	11,875		10,415	14,808
Greece	4,467	8,216	6,457	5,749	9,380	7,600
Slovenia		8,027	11,074		10,563	13,925
Portugal	3,730	6,238	7,628	5,369	7,141	9,306
Czech Republic		3,843	7,084		6,938	11,310
Estonia		2,583	7,194		4,095	9,871
Slovakia		2,555	6,302		3,601	9,527
Croatia			5,018			7,737
Latvia		1,771	5,330		3,330	7,702
Lithuania		1,783	4,783		3,333	7,862
Hungary		3,128	4,257		5,045	7,488
Poland		2,165	5,165		4,067	9,525
Bulgaria			2,664			5,702
Romania			2,049			4,012
Former Yugoslav Republic of Macedonia			1,920			4,212
Serbia			2,103			4,328
Sweden		16,009	22,189		13,188	18,258
Iceland		21,591			15,663	
Norway		23,471	36,211		17,361	26,185

Source: Eurostat, Eurozone averages showing for Eurozone 12 for 1995 and Eurozone 19 for 2005 and 2016. There is a lot of missing data, but we thought adding 1995 provides a useful sense of perspective of the pre-Euro period, ADA Economics Ltd.

Cut-off points for the 3rd quintile

	euros			PPS		
	1995	2005	2016	1995	2005	2016
Euro area*	11,888	15,898	20,605			
Luxembourg	21,283	31,679	39,070	21,211	30,750	32,430
Austria	15,590	19,628	26,386	14,167	19,005	25,082
Germany	15,193	18,053	23,920	13,512	17,236	23,847
Belgium	14,973	18,563	25,220	14,257	17,393	23,551
France	14,324	17,917	24,082	13,045	16,296	23,013
Netherlands	12,664	18,846	25,298	11,994	17,759	23,362
Denmark		24,246	31,920		17,375	23,518
United Kingdom	11,923	21,462	24,346	13,235	19,557	20,181
Finland		19,328	26,331		15,615	22,007
Ireland	9,350	21,550	25,644	10,445	17,286	20,781
Italy	8,968	16,330	18,742	10,472	15,565	18,725
Spain	7,243	12,096	15,869	8,648	13,300	17,602
Greece	6,080	10,833	8,633	7,825	12,367	10,162
Slovenia		9,670	13,624		12,725	17,130
Portugal	5,034	8,295	10,072	7,246	9,496	12,288
Cyprus		14,892	16,360		16,724	18,654
Malta		9,818	15,262		13,436	19,032
Czech Republic		4,707	8,673		8,498	13,847
Estonia		3,515	10,109		5,573	13,870
Slovakia		3,115	7,657		4,391	11,575
Croatia			6,567			10,127
Latvia		2,434	7,431		4,575	10,739
Lithuania		2,388	6,693		4,463	11,002
Hungary		3,826	5,378		6,171	9,461
Poland		2,891	6,666		5,431	12,294
Bulgaria			3,715			7,950
Romania			2,858			5,597
Former Yugoslav Republic of Macedonia			2,650			5,814
Serbia			2,963			6,100
Sweden		19,295	28,049		15,894	23,080
Iceland		25,916			18,801	
Norway		27,765	43,387		20,538	31,374

Source: Eurostat, Eurozone averages showing for Eurozone 12 for 1995 and Eurozone 19 for 2005 and 2016. There is a lot of missing data, but we thought adding 1995 provides a useful sense of perspective of the pre-Euro period, ADA Economics Ltd.

Cut-off points for the 4th quintile

	euros			PPS		
4th quintile	1995	2005	2016	1995	2005	2016
Euro area*	15,846	20,785	27,292	15,666		
Luxembourg	29,489	41,140	52,336	29,390	39,934	43,441
Austria	20,377	25,082	33,572	18,517	24,286	31,913
Germany	19,622	22,904	31,718	17,450	21,867	31,621
Belgium	19,320	23,491	32,059	18,395	22,011	29,937
France	19,044	23,290	31,368	17,343	21,184	29,976
Netherlands	16,836	24,099	32,594	15,944	22,709	30,100
United Kingdom	16,291	29,713	32,800	18,083	27,076	27,189
Finland		24,552	33,574		19,835	28,060
Denmark		29,653	40,296		21,250	29,689
Ireland	13,182	28,444	33,350	14,727	22,817	27,025
Italy	12,300	21,879	24,918	14,363	20,854	24,895
Spain	10,440	16,544	22,356	12,465	18,190	24,798
Cyprus		20,051	21,800		22,518	24,856
Greece	8,645	15,392	12,017	11,125	17,571	14,144
Slovenia		12,158	16,867		15,999	21,208
Malta		13,005	20,216		17,797	25,210
Czech Republic		6,132	11,076		11,070	17,683
Estonia		5,069	14,454		8,038	19,831
Portugal	7,263	12,091	14,388	10,453	13,841	17,553
Croatia			8,673			13,373
Latvia		3,469	10,355		6,521	14,965
Lithuania		3,528	9,611		6,594	15,799
Hungary		4,913	7,082		7,926	12,458
Poland		4,120	8,984		7,740	16,567
Bulgaria			5,230			11,194
Romania			3,998			7,829
Slovakia		3,987	9,478		5,619	14,327
Former Yugoslav Republic of Macedonia			3,621			7,943
Serbia			4,131			8,504
Sweden		24,129	35,727		19,876	29,398
Iceland		32,556			23,617	
Norway		34,092	53,642		25,218	38,790

Source: Eurostat, Eurozone averages showing for Eurozone 12 for 1995 and Eurozone 19 for 2005 and 2016. There is a lot of missing data, but we thought adding 1995 provides a useful sense of perspective of the pre-Euro period, ADA Economics Ltd.

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