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Brussels, 23.12.2016  
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PART 2/8

**COMMISSION STAFF WORKING DOCUMENT**

**Employment and Social Developments in Europe 2016**

**2/8**

**Main Employment and Social Developments**

# Main Employment and Social Developments

## INTRODUCTION

Following almost four years of economic recovery, total employment in the EU has risen to 232 million men and women, the highest level ever recorded <sup>(1)</sup>. However, in the second quarter of 2016, 21.1 million people in the EU were still without work, including almost 4.2 million young people. Nearly half of all unemployed people have been so for more than a year. Differences in socio-economic performance between Member States persist. Inequality within most Member States has increased in recent years and a significant part of the population is still at risk of poverty and social exclusion.

This chapter reviews recent socio-economic performance in more detail. The starting point for the analysis is that macro-economic developments have a direct impact on labour market and social outcomes, while economic and social progress can reinforce each other. Key employment developments within and between Member States are discussed (with a special focus on the most vulnerable groups). Recent developments in earnings, social protection, household income, poverty (including in-work poverty) and social exclusion are examined.

## 1. THE IMPROVING MACRO-ECONOMIC ENVIRONMENT

As the recovery reaches its fourth year, the ground has been laid for further job creation and decreases in unemployment. Nevertheless, several factors hold back a faster recovery including among others, subdued labour productivity growth (which hinders robust real wage growth), weak investment or access to finance by small and medium enterprises.

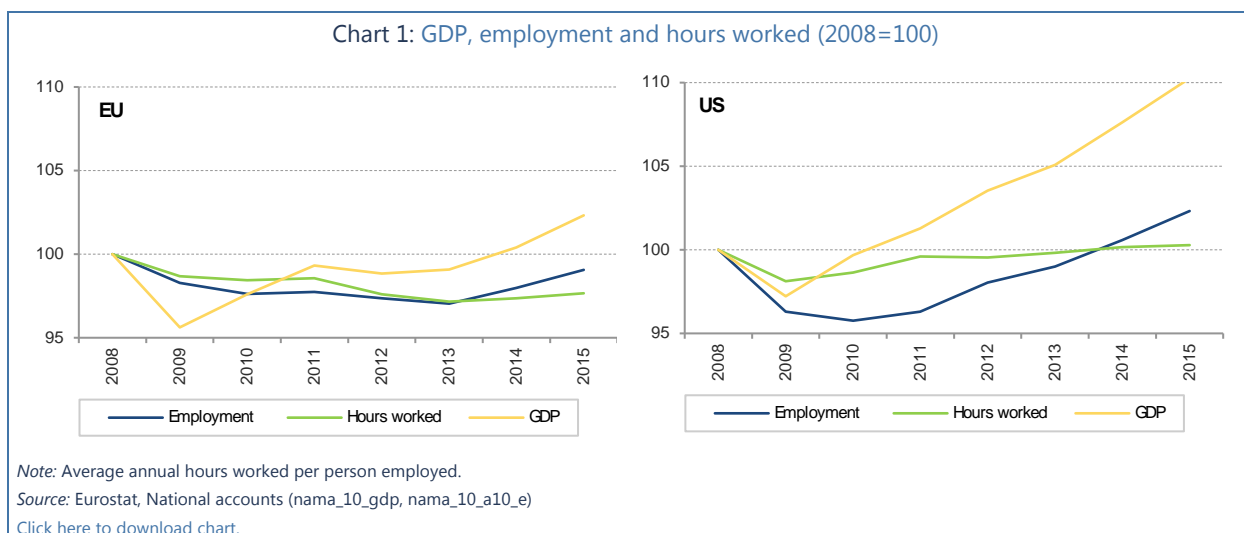
### 1.1. GDP, employment and hours worked continue to recover gradually in the EU

*GDP and employment increased in the EU in 2015, and further growth is expected over the next years. Hours worked increased too but more slowly than employment. These positive developments accentuate the evolution observed since 2013 when the economic recovery started.*

After the sharp contraction in 2009, EU GDP regained its pre-crisis peak in 2014 and has maintained growth momentum since, though at a weak pace.

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<sup>(1)</sup> Source: Eurostat, National Accounts [namq\_10\_pe]; total employment domestic concept, seasonally and calendar adjusted data.



According to the European Commission autumn 2016 forecast released on 9 November 2016, GDP growth over the forecast horizon is expected to remain fairly constant in the EU (euro area values in brackets) at 1.7% (1.8%) in 2016, 1.5% (1.6%) in 2017, and 1.7% (1.8%) in 2018 <sup>(2)</sup>. Over the forecast period, economic activity is set to increase further in all Member States, albeit at very different rates.

After being on a downward trend from the onset of the crisis until 2013, total employment in the EU rebounded moderately, reaching its pre-crisis peak by mid-2016 (Chart 1). Nevertheless, several Member States are expected to record employment levels more than 5% lower in 2016 than in 2008, most notably Greece with GDP a quarter below its 2008 level, followed by Croatia, Cyprus, Italy and Finland.

Overall, according to the European Commission autumn 2016 forecast, employment in the Euro area and the EU is expected to grow by 1.4% this year, faster than at any time since 2008, though slack remains in the labour market. Job creation is set to continue to benefit from domestic demand-led growth, moderate wage growth, as well as fiscal policy measures and structural reforms in some Member States. Employment growth is forecast to remain relatively solid, though slightly moderating in 2017 and 2018.

In the US, employment had already regained its pre-crisis peak in 2014 even though its initial employment contraction was stronger than in the EU despite a milder recession (Chart 1).

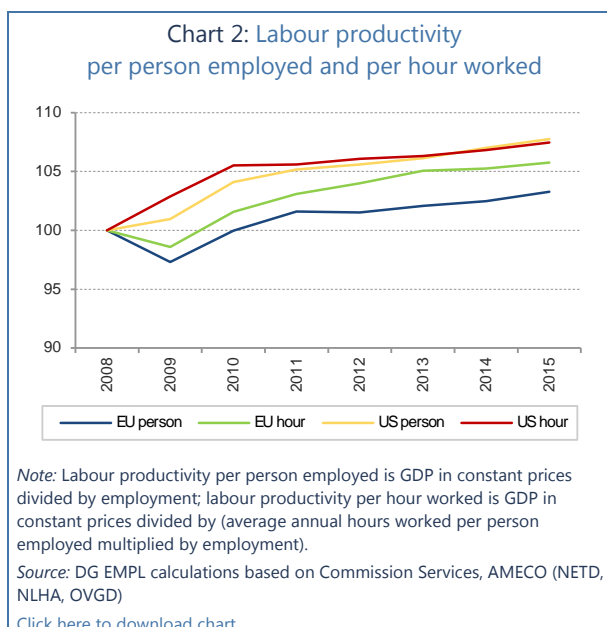
In both the EU and the US, part of the output contraction was absorbed by a decrease in average annual hours worked per person employed. However, in the EU hours worked recovered at a much slower pace than employment and were still below the pre-crisis peak in 2016, while in the US they had fully rebounded by 2014. Only Slovenia and the United Kingdom seem to have been able to increase the average annual hours worked per person employed above the 2008 level.

## 1.2. Labour productivity growth remains subdued

*Labour productivity in the EU increased in 2015, but slowly, continuing the evolution seen since 2013. Significant differences across Member States can be observed.*

These developments in GDP and employment also imply that from the onset of the crisis to 2015, labour productivity per employed person had increased more in the US (by about 8%) than in the EU (by about 3%) (Chart 2).

<sup>(2)</sup> More details available at [http://ec.europa.eu/economy\\_finance/eu/forecasts/2016\\_autumn\\_forecast\\_en.htm](http://ec.europa.eu/economy_finance/eu/forecasts/2016_autumn_forecast_en.htm),



Focussing on performance at Member State level, between 2013 and 2015 labour productivity growth varied widely across Member States, with strong growth in Romania, followed by Ireland and Luxembourg, and a contraction in Croatia and Greece for example (Chart 3).

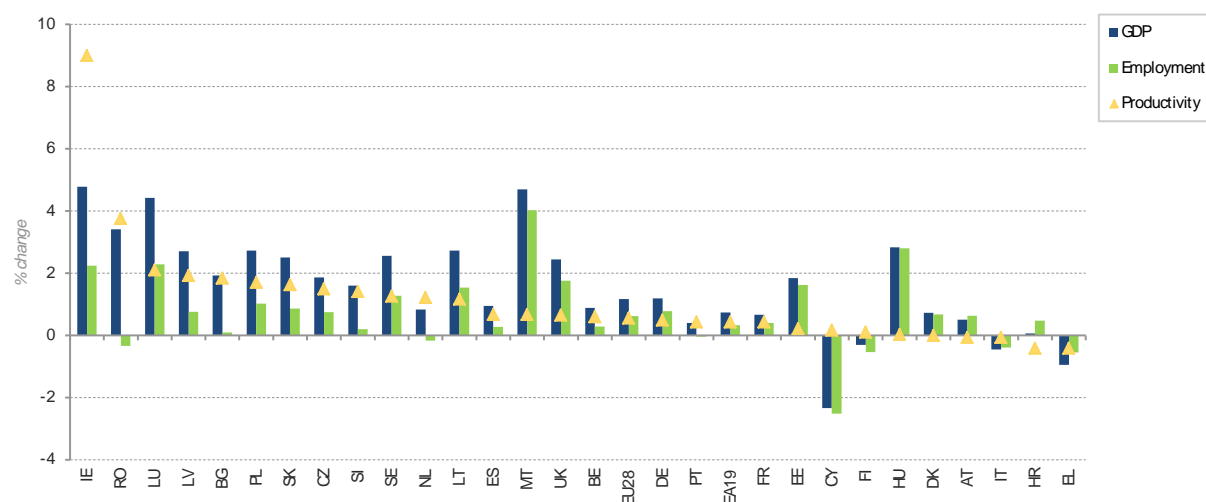
In the short to medium run labour productivity growth (measured as the percentage change in output per person employed) is affected by changes in output and employment <sup>(3)</sup>. In Romania between 2013 and 2015, labour productivity growth was driven by strong expansion of output combined with a small contraction in employment, while in Ireland and Luxembourg it was driven by an increase in employment matched by an even stronger increase in output <sup>(4)</sup>. In Croatia, labour productivity decreased as employment grew at a stronger pace than output, while in Greece it decreased because the decline in output was stronger than the decrease in employment. In Cyprus, labour productivity did not grow because the sharp contraction in output was matched by the slightly stronger decrease in employment <sup>(5)</sup>.

<sup>(3)</sup> Measuring productivity as GDP divided by the number of employed persons is an accounting rule, not a behavioural relationship that indicates causality. Causality may run from (predetermined) productivity and GDP to a (endogenous) number of employed persons, from (predetermined) productivity and number of employed persons to (endogenous) GDP, or from (predetermined) GDP and number of employed persons to (endogenous) productivity.

<sup>(4)</sup> In Ireland the strong output increase was to a large extent driven by a surge in gross capital formation, mainly reflecting the doubling (in constant prices) of intellectual property products. For Luxembourg the notable increase in productivity partly reflects a rebound from a sharp dip in productivity in 2012.

<sup>(5)</sup> The productivity developments described above capture short- to medium-term changes in which labour productivity is the outcome of fluctuations in output and employment. In the long run, however, the labour force becomes more productive in a sustainable way if it has more productive capital at its disposal (including tangible capital such as machines and intangible capital such as software), if it becomes more skilled and motivated, if production processes become smarter thanks to technological progress, and if economic activity is at its full potential. In the long run it is productivity and employment growth that drive output growth.

Chart 3: Labour productivity and its components – compound annual growth 2013-2015



Note: geometric average obtained by multiplying (1+ growth rates) of 2013, 2014 and 2015 and then taking the 3rd root and subtracting 1.

Source: DG EMPL calculations based on Eurostat, National Accounts (nama\_10\_ip\_ulc, nama\_10\_gdp)

[Click here to download chart.](#)

### 1.3. Investment remains weak

*Investment in the EU increased in 2015 in line with the increase in investment seen in 2014. However, it remains far from 2008 levels in most Member States and is only slowly returning to its pre-crisis share of GDP. Access to finance continues to be a major concern for businesses, especially small businesses.*

Low investment remains a drag on growth and job creation. Investment has been subdued in the face of poor prospects for sustained aggregate demand and the adverse legacy of the crisis, including the need for deleveraging in the context of high corporate indebtedness, financial constraints and policy uncertainty<sup>(6)</sup>. Weak investment slows economic recovery in the short term and productivity growth in the longer term, dampening in turn the prospects for sustainable real wage increases.

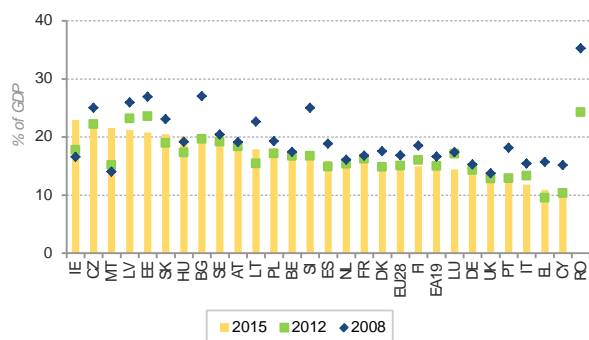
So far, gross fixed capital formation has failed to emerge as a strong driver of the ongoing recovery, despite a moderate rebound in recent years. Gross fixed capital formation in the EU (excluding dwellings and measured in constant prices) bottomed out at 13% below its 2008 level in 2013, while gross fixed capital formation in dwellings in 2013 fell almost 20% below its 2008 level. However, as of 2014 gross fixed capital formation (excluding dwellings) rebounded somewhat rising in 2015 to 6% below its 2008 level, while gross fixed capital formation in dwellings settled in 2015 at 16% below its 2008 level.

According to the European Commission autumn 2016 forecast, the investment environment is finally brightening. Investment is expected to pick up in 2016 in the EU, growing by 2.8% this year, 2.5% in 2017 and 3.1% in 2018, after having suffered from low demand growth and expectations of weak potential growth, from the ongoing corporate debt reduction in some Member States and heightened uncertainty.

Measured as percentage of GDP, gross fixed capital formation (excluding dwellings) reached 15.0% in 2016 in the EU compared with about 16.8% in 2008 and it reached 14.8% in the Euro area compared with 16.6% (Chart 4). At the same time, gross fixed capital formation in dwellings stood at 4.6% in 2015 in the EU (5.7% in 2008) and at 5.0% (6.4% 2008) in the Euro area (Chart 5).

<sup>(6)</sup> See, for instance, Barkbu et al; (2015), 'Investment in the Euro Area: Why Has It Been Weak?', IMF Working Paper, WP/15/32, doi: <http://www.imf.org/external/pubs/ft/wp/2015/wp1532.pdf>.

Chart 4: Gross fixed capital formation excluding dwellings

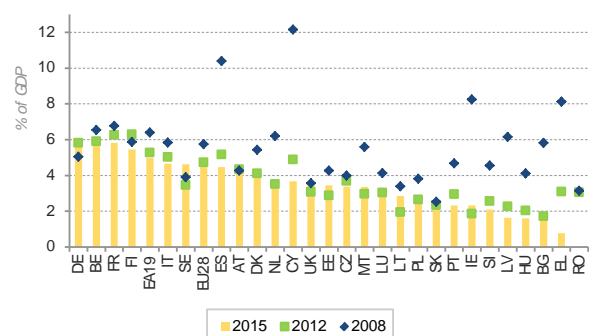


Note: HR data missing for both 2007 and 2015, RO missing for 2015, BE and HU 2014 instead of 2015

Source: DG EMPL calculations based on Eurostat, National Accounts (nama\_10\_an6, nama\_10\_gdp)

[Click here to download chart.](#)

Chart 5: Gross fixed capital formation: dwellings



Note: HR data missing for both 2007 and 2015, RO missing for 2015, BE and HU 2014 instead of 2015

Source: DG EMPL calculations based on Eurostat, National Accounts (nama\_10\_an6, nama\_10\_gdp)

[Click here to download chart.](#)

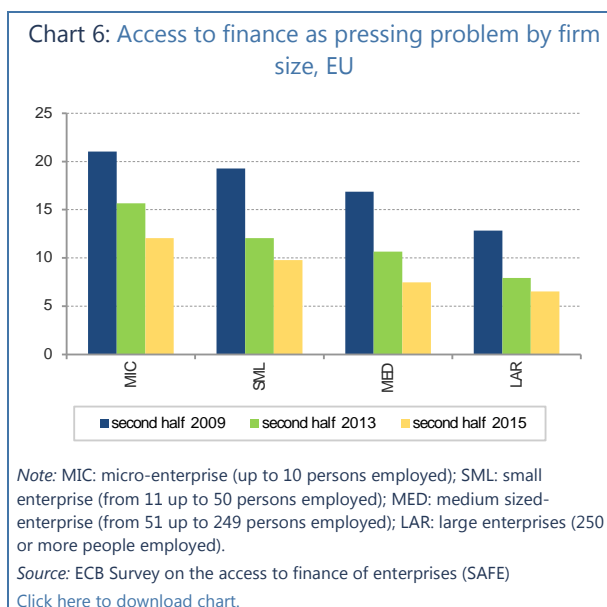
Between 2008 and 2012 the strongest decreases in gross fixed capital formation (excluding dwellings and measured as a percentage of GDP) were observed in Romania, Slovenia, Bulgaria, Cyprus, Lithuania, Greece and Portugal – down by between 5 and 11 percentage points (pps). Only Ireland and Malta recorded gross fixed capital formation in 2012 above its 2008 level.

From 2013 to 2015, gross fixed capital formation saw the strongest decrease in Estonia, down by almost 3 pps. However Malta and Ireland recorded very robust increases of about 7 pps. At the same time, investment in dwellings fell fastest in Greece, followed by Latvia and Finland, but experienced a notable rebound in Sweden, the Netherlands, Lithuania and Malta.

Although real interest rates have been at historic lows in recent years, access to finance has remained a major concern for businesses in several Member States since the onset of the crisis. This is especially the case for small businesses because they more often lack the capacity to provide collateral and may face more uncertain future earnings. However, compared with the situation at the onset of the crisis, access to finance has improved considerably (Chart 6). For example, while in the second half of 2009 getting access to finance was for 21% of the micro-enterprises (with up to 10 persons employed) the most pressing problem, it decreased to 16% in the second half of 2013 and 12% in the second half of 2015 <sup>(7)</sup>. This

<sup>(7)</sup> According to the ECB Survey on the access to finance of enterprises (SAFE) available at <https://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html>.

development (especially if combined with an improved outlook leading to higher expectations for demand) may support gross fixed capital formation and in turn job creation <sup>(8)</sup>.



#### 1.4. Nominal unit labour costs in the euro area in recent years

*Nominal unit labour costs in the EU as a whole increased slightly in 2013-2015. Nevertheless, outcomes varied strongly across Member States, with Ireland, Greece and Cyprus recording a notable reduction, and the Baltic Member States and Bulgaria showing strong rises. Employee compensation increased slightly for the EU but this masks wide differences across Member States including a reduction in some.*

The unfavourable international cost competitiveness position of certain Member States in the period before the crisis has seen some correction in recent years –primarily via adjustments in nominal compensation per employee and employment.

From 2013 to 2015, there have been notable declines in nominal unit labour cost in Ireland, Greece, Cyprus, and Croatia (Chart 7). In Greece, Cyprus, and Croatia the reduction was primarily due to a decrease in nominal compensation per employee, while in Ireland this primarily reflected a sharp increase in labour productivity. Nominal unit labour cost also decreased in Slovenia, Poland and Spain, because the growth in labour productivity was stronger than the increase in nominal compensation per employee.

In Germany, the increase in nominal unit labour cost was just below 6% between 2013 and 2015, primarily reflecting very weak productivity growth, while in Austria it slightly exceeded 6%, reflecting negative productivity growth in combination with strong growth in nominal compensation per employee. In Italy, nominal unit labour cost growth remained low despite a decrease in productivity.

The Baltic Member States and Bulgaria recorded strong increases in nominal unit labour cost from 2013 to 2015 as nominal compensation per employee increased at a much stronger pace than productivity.

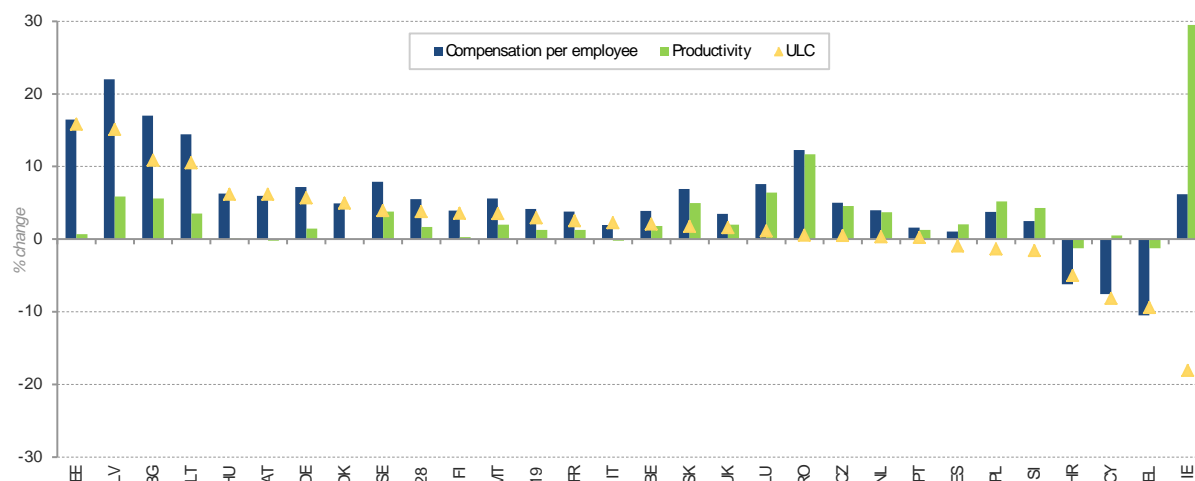
## 2. LABOUR MARKET DYNAMICS: STRUCTURAL BARRIERS PERSIST

*The gradual improvement in economic and labour market conditions that started in the second quarter of 2013 lasted throughout 2015 and the first half of 2016 in both the EU and the Euro area, with a steady*

<sup>(8)</sup> Nevertheless, while improved access to credit at low interest rates has the potential to boost investments and other interest-sensitive expenditures such as durable consumer goods, low capital cost may also give rise to more capital-intensive production (at least if increases in interest-sensitive expenditures such as investment and durable consumption goods are not offset by increases in savings to meet people's savings targets for retirement.) As a consequence, the job prospects for the low-skilled may be less strong than those of the highly-skilled – depending on the extent to which the low-skilled are substitutes for capital and highly skilled complements as is often suggested in the literature.



Chart 7: Nominal unit labour cost and its components – cumulative growth 2013-2015

**Note:**

1. Nominal unit labour cost (ULC) measures compensation per employee adjusted for labour productivity.
2. Employee compensation covers the total remuneration - including gross wages and salaries (before deduction of taxes and employees' social security contributions), employers' social security contributions, bonuses and overtime payments - that is payable, in cash or in kind, by employers to employees in return for work done by the latter during the accounting period.
3. EU28 aggregate is measured in euro. Some Member States outside the euro (i.a. the United Kingdom) experienced a strong appreciation of their currency vis-à-vis the euro.

Source: DG EMPL calculations based on Eurostat, National Accounts (nama\_10\_lp\_ulg, nama\_10\_gdp)

[Click here to download chart.](#)

*reduction in unemployment. Labour markets continued to recover in most Member States, but the improvements are gradual and substantial differences remain across Member States.*

Total employment in the EU reached its pre-crisis peak level in early 2016, spurred by an increase in domestic demand, mainly consumption. Employment in the Euro area as a whole remains below the 2008 level, with several Euro area Member States (Greece, Spain, Cyprus) expected to record employment levels in 2016 that are between 5% and 10% lower than in 2008.

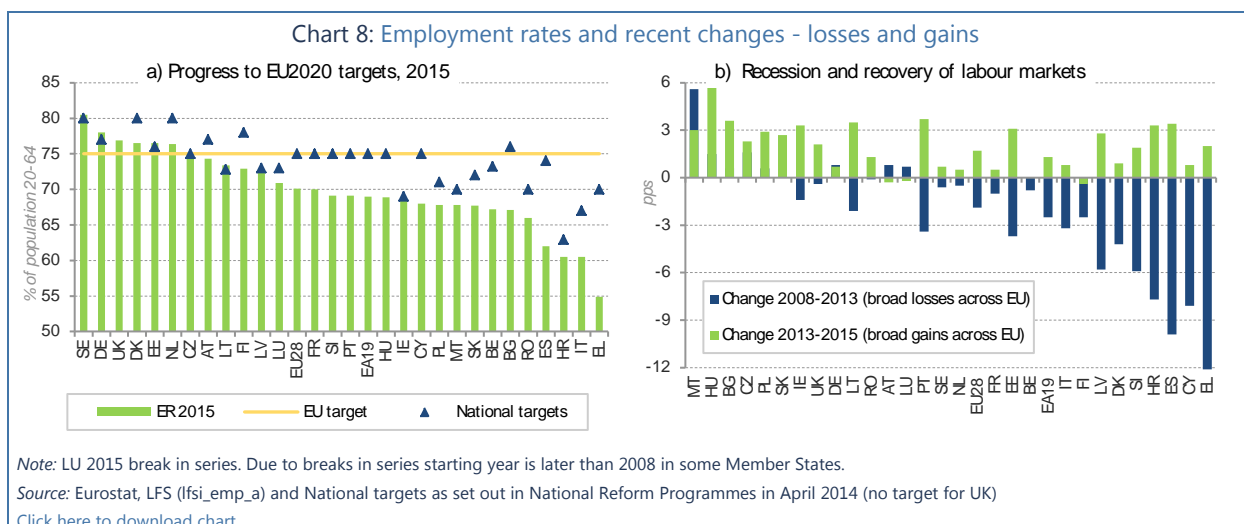
Labour market participation has increased over the last decade, mainly driven by the higher participation (and employment rate) of women and older workers. This partly reflects active ageing policies, reductions in financial disincentives to work longer (e.g. in the tax or pension systems) and as women have become better educated in comparison with previous generations and higher education is correlated with higher labour market participation. Tapping the underused potential of female labour supply in some Member States as well a successful integration of migrants can further help to sustain labour supply.

The observed reduction in unemployment is mainly due to a decline in job separation rates, while job-finding rates improved but remain below the historical average. Low job-finding rates are coupled with persistently high rates of long-term unemployment (see 2016 Labour Market and Wage Developments, forthcoming).

## 2.1. Total employment recovering but substantial differences across MS remain

*Employment further increased in 2015 following the expansion seen in 2014 and 2013. As a consequence, employment is now above the 2008 levels and at the highest level ever recorded (232 million men and women in the EU, National Accounts). The EU employment rate increased in 2015, following the rises recorded in 2014. By mid-2016 it stood at 71%. It improved in nearly all EU Member States in 2015 though some Member States saw a reduction. However, the employment rate varies significantly across Member States from 56.3% in Greece to 81.2% in Sweden by mid-2016.*

Since spring 2013, employment has expanded by 7.8 million in the EU, including by 4.3 million in the Euro area (by the second quarter of 2016). It regained its peak level of spring 2008 in the EU, and is still 0.7% lower in the Euro area, representing 1 million fewer people in employment than in spring 2008. Employment has been broadly increasing in most Member States, but employment recovery is not fully grounded in some.



Between 2008 and 2015, Malta (up by 8.6 pps) and Hungary (up by 7.4 pps) recorded the strongest increases in their employment rate, while Greece (down by 11.4 pps) and Cyprus (down by 8.6 pps) recorded the strongest decreases. Spain (-6.5 pps), Croatia (-4.4 pps) and Portugal (-4.0 pps) also experienced decreases of 4 pps or more.

Employment rates improved in nearly all EU Member States in 2014 and especially in 2015. From 2013 to 2015, all Member States except Luxembourg, Austria and Finland recorded an increase in their employment rate, with Hungary showing the strongest increase of 5.9 pps. Nevertheless, the deterioration experienced over several recession years hampered progress towards the Europe 2020 national targets in most EU Member States (Chart 8).

In 2015, about 70 percent of the total population (aged 20 to 64 years) was in employment in the EU rising to 71% in the first half of 2016. If this trend continues, the EU could still reach its employment rate target of 75% in 2020. Sweden (80.5%) and Germany (78.0%) recorded the highest employment rates in 2015, while Greece (54.9%), Italy (60.5%), Croatia (60.5%) and Spain (62%) recorded the lowest.

### 2.1.1. Rising female employment

*The employment rate of women in the EU in 2015 is still significantly below that of men (64.3% compared with 75.9%) but the gap has decreased since 2008. Wide differences can be seen across Member States.*

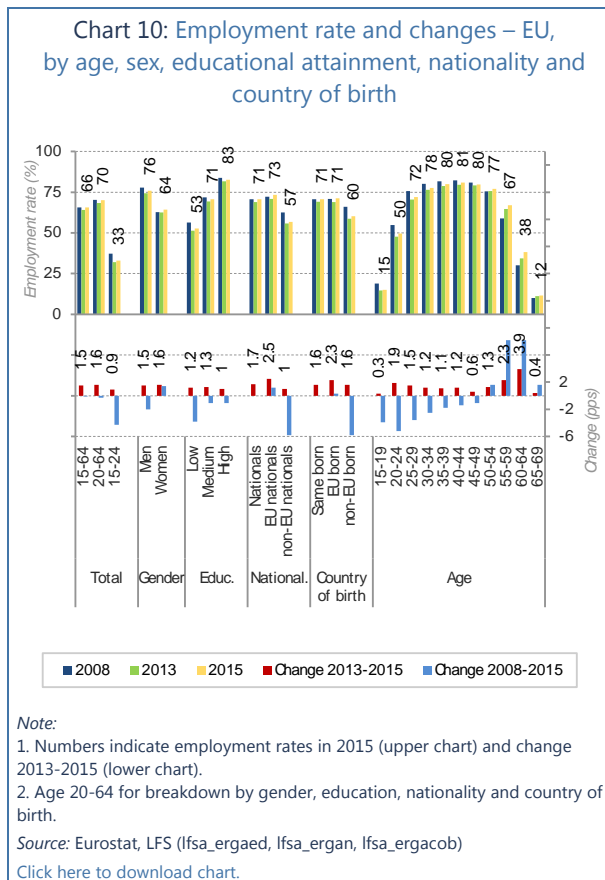
After the severe economic crisis, female employment showed positive growth in most Member States between 2008 and 2015. Nevertheless, the employment rate of women in the EU in 2015 is still significantly below that of men (64.3% compared with 75.9%), but the gap has diminished since 2008 in all Member States except Romania. Since 2011, the gap has increased in Lithuania, Latvia, Bulgaria, Denmark, Estonia, Slovenia, Hungary, Ireland and Romania: though in all of these except the last three, the gap remains smaller than the EU 28 average (Chart 9).

The biggest gap is in Malta (female employment rate 27.8 pps lower than male employment rate), followed by Italy (20 pps lower), Greece (18 pps lower), Romania (17.5 pps lower) and the Czech Republic (16.6 pps lower). The smallest difference is to be found in Finland (female rate 2.1 pps lower), Lithuania (2.4 pps lower), Latvia (4.1 pps lower) and Sweden (4.2 pps lower).

While Sweden (78.3%) and several other Member States (particularly Northern and Baltic Member States) recorded employment rates for women above 70%, Greece (46%) and several other Southern European Member States had employment rates below 60%. Nevertheless, between 2013 and 2015, all Member States (except Finland) showed increases in the employment rate of women, with the highest recorded for Hungary (+5.2 pps). Such geographical differences reflect different policy-mixes to reconcile work and family responsibilities<sup>(9)</sup>.

<sup>(9)</sup> The latter include paid maternity leave, paternity leave, parental leave, quality and affordability of child care, elderly care and flexible working arrangements. See, for instance, ESDE 2015, chapter III.2.

Furthermore, apart from these structural factors, the severe economic downturn may, for example, also have provided strong incentives for women to accept a job to offset income loss when their partner became unemployed.



### 2.1.2. Increasing participation of older workers, especially women

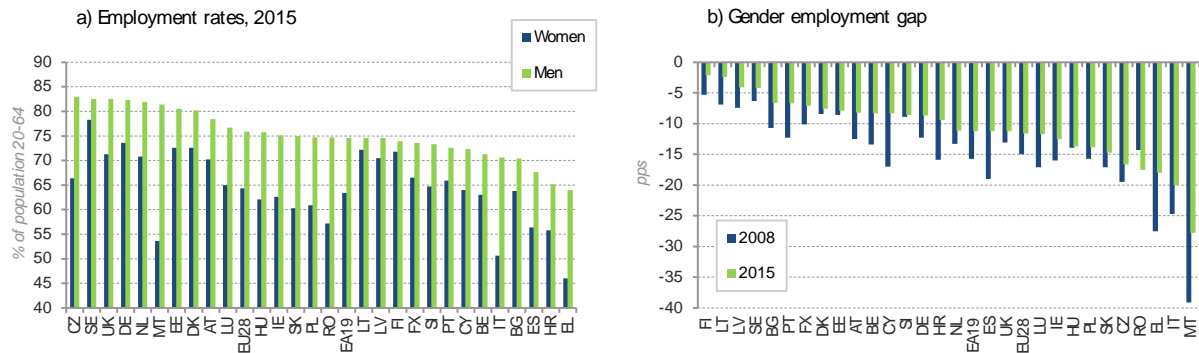
*The labour market participation of women and especially older women continued to increase in 2015.*

Female older workers are becoming the main driving force behind the employment growth of older workers, for whom the employment rate has been on a rising trend across the EU - despite the severe economic downturn.

Apart from the above-mentioned developments that affected women's labour market participation in general, this higher participation of older women reflects also that they have become better educated in comparison with previous generations, and higher education is correlated with higher labour market participation and later retirements.

For example, in 2015 the share of higher-educated women exceeded that of higher-educated men for all age groups up to 54 years, while the gap for older cohorts diminished. Employment of medium- and higher-educated older women aged 55-74 doubled between 2005 and 2015; at 13 million in 2015 they accounted for 6.1% of total employment (compared with medium- and higher-educated older men who, at 16.6 million, accounted for 6.6% of total employment).

Chart 9: Employment rates by sex, and gap between men and women



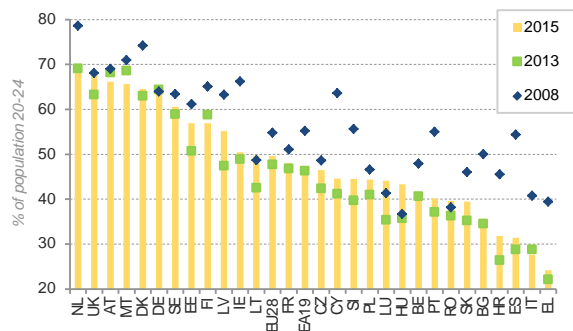
### 2.1.3. Youth employment rates vary widely across Member States

Youth employment (49.6% of people aged 20-24 in 2015) increased in the EU and many of its Member States in 2015, reinforcing the increase seen in 2014.

In 2015, 49.6% of people aged 20-24 were employed in the EU, down from 54.8% in 2008 (Chart 11). However, youth employment rates varied widely across Member States. The highest employment rates were in the Netherlands and the United Kingdom (recording rates just below 70%), while the lowest rates were in Greece (24%) and Italy (28%).

Most Member States have seen the youth employment rate drop from 2008 to 2015, with the biggest falls in Spain (by 26 pps), Ireland (by almost 21 pps), Cyprus (by almost 19 pps) and Greece (by 15.5 pps).

Chart 11: Employment rates of young people (20-24 years)

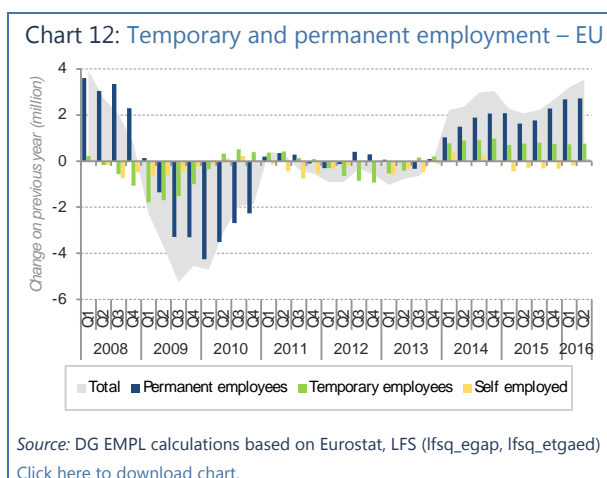


Nevertheless, since 2013 most Member States have recorded increases in their youth employment rates, with strong rises in Luxembourg, Latvia, Hungary and Lithuania (increases of about 8 pps from 2013 to 2015). Among the seven Member States that did not record an increase, Malta, Austria and Finland recorded the strongest decrease.

#### 2.1.4. Non-standard jobs continue to increase

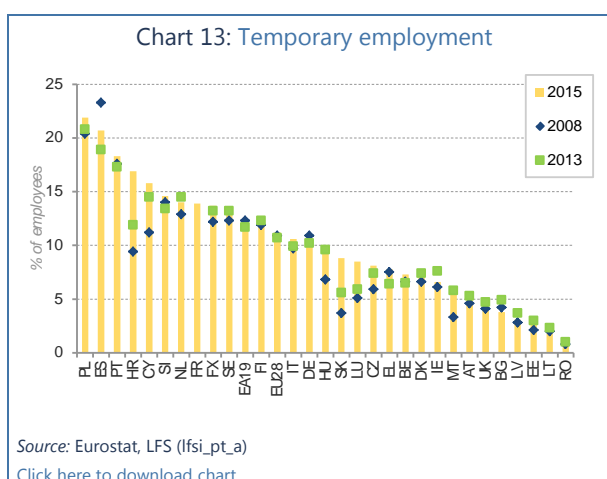
Permanent and temporary employment continued to increase in the EU in 2015 just as in 2014. The share of temporary employment in the EU is about 14% of total employment but varies significantly across the EU.

Employment of workers on temporary contracts started to decline in mid-2008 - one year ahead of the reduction in jobs with permanent contracts - but also began to recover earlier (in mid-2013). However, since 2014 an increase in permanent employment has significantly outnumbered the increase in temporary jobs, leading the recovery (Chart 12). Temporary employment now accounts for about 14% of total employment.



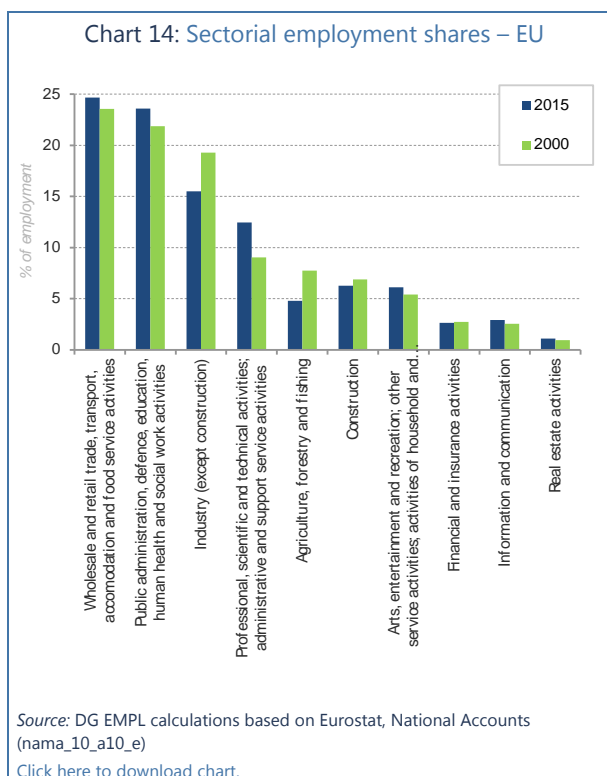
The use of temporary contracts differs considerably across Member States. Poland, Spain and Portugal record the highest proportion, while Romania and the Baltic Member have the lowest (Chart 13).

The number of employees with temporary contracts was higher in 2015 than in 2008 in almost all Member States (except Spain, Germany, Bulgaria and Lithuania).



#### 2.1.5. Industry's declining share of total employment

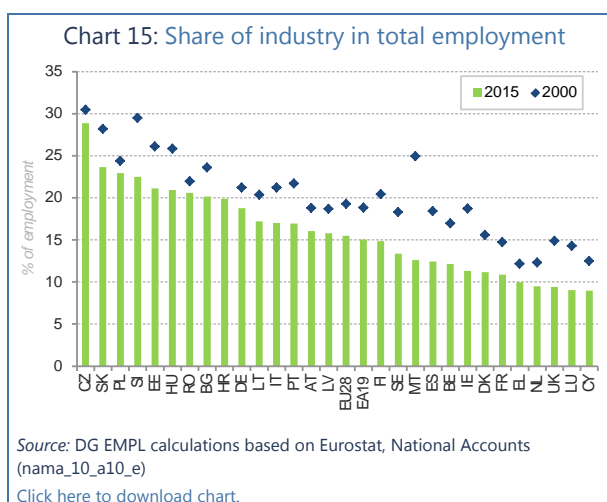
The employment shares of agriculture and industry experienced a sharp decrease in the EU between 2000 and 2015, down from about 19% in 2000 to about 15% in 2015 (Chart 14).



Industry's share of total employment is by far the highest in the Czech Republic, followed by Slovakia and Poland, while Cyprus, Luxembourg and the United Kingdom recorded the lowest share of employment in industry. In all Member States this share is decreasing – see Chart 15.

A major part of the decrease in the employment share of the construction sector (which is a very labour-intensive sector) after 2008 can be attributed to the state of the business cycle and the collapse of the real estate bubble in some Member States.

The decrease in the employment shares of agriculture and industry was caused by a number of structural drivers, including a strong increase in labour productivity in these sectors (compared with services and construction), a shift from the primary and secondary sectors to the tertiary sector (such as professional services and entertainment), changes in business models such as the increased tendency for manufacturers to outsource services (such as logistics, marketing or legal advice) to enterprises in the service sector, and the low income elasticity of demand for goods and services provided by the agriculture sector.



While traditional industrial sectors such as agro-food and textiles are on a declining trend in the EU, employment in activities related to key enabling technologies (KETs) seem to have a strong potential for the creation of high-quality jobs: specific activities with strong employment potential are to be found in

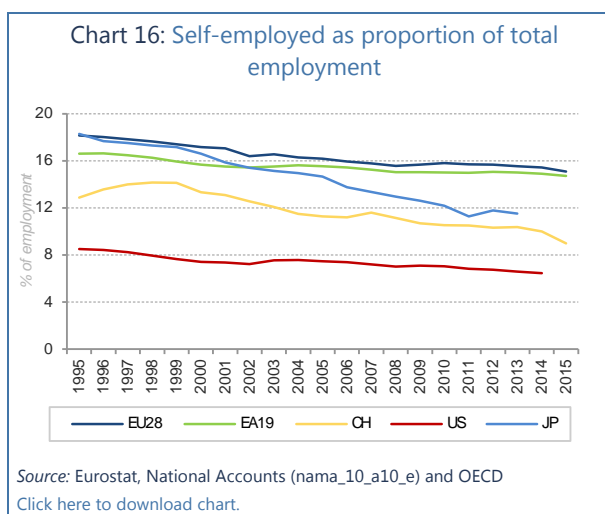
photonics, industrial biotechnology, advanced materials, advanced manufacturing techniques, micro- and nanoelectronics as well as nanotechnology <sup>(10)</sup>.

IDEA Consult et al. (2015) estimate that in the EU about 3.3 million employees were employed in KETs in 2013 – with most of them related to activities in advanced manufacturing technology and micro- and nano-electronics. The largest part of this employment is to be found in Germany, followed by France, Italy and the United Kingdom.

## 2.2. Self-employment fails to keep up with the overall improvement in labour market developments of recent years

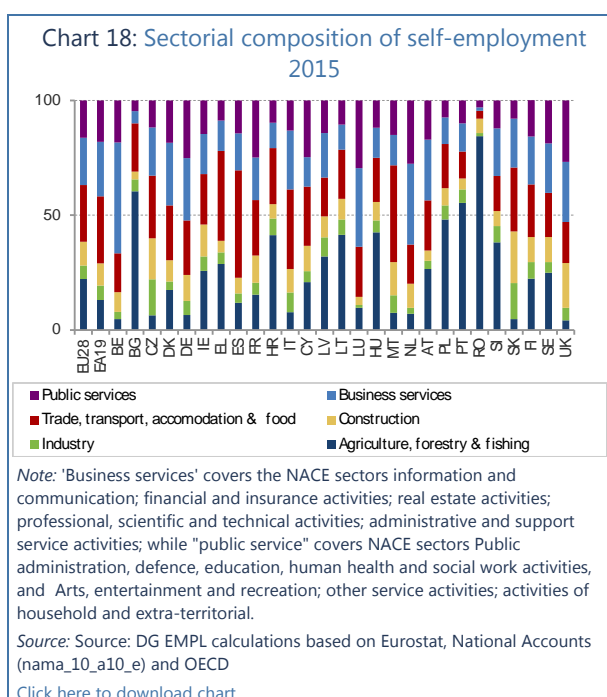
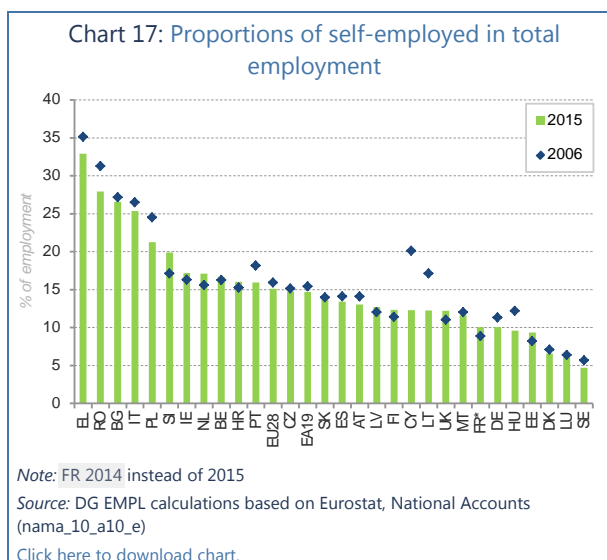
*Self-employment continued to decline in 2015. Wide differences can be seen across Member States and sectors and between men and women. Women represented about one third of all self-employed in 2015.*

Self-employment as a proportion of total employment has been on a declining trend in the EU and the Euro area, but this trend seems to be less pronounced than in other developed countries such as the US, Switzerland and Japan (Chart 16).



While self-employment accounted for about 15% of total employment in 2015, there was a wide range of self-employment rates across EU Member States, ranging from just below 5% in Sweden to more than 30% in Greece (Chart 17). Cyprus and Lithuania recorded the strongest decrease in the share of self-employed in total employment between 2006 and 2015, while Slovenia recorded a notable increase.

<sup>(10)</sup> See, for example, European Commission (2012), COM(2012) 341 final, 'A European Strategy for Key Enabling Technologies – A bridge to growth and jobs', doi: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0341:FIN:EN:PDF>.



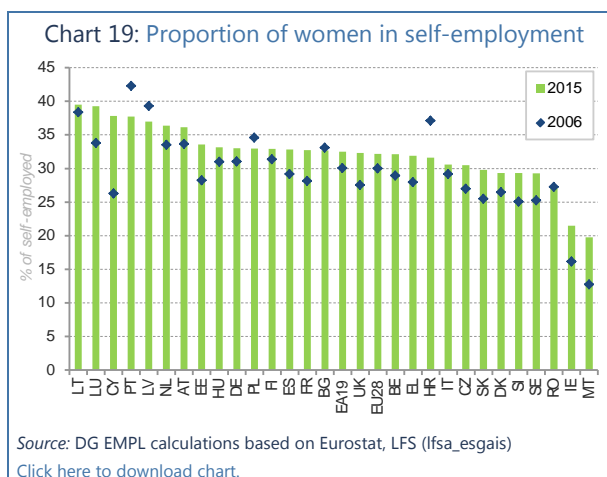
There is also a strong diversity in the proportion of sectoral self-employment (Chart 18). Most striking are the very high percentages of the self-employed in agriculture in Romania (84%) and Bulgaria (60%) - which often involve subsistence farmers. On average the wholesale and retail trade, transport, accommodation and food service sectors record the highest proportion of self-employed in total employment, with the highest in Spain, Malta and Greece whereas the lowest are found in Romania and Portugal. The proportion of self-employed in total employment in the sector covering business services <sup>(11)</sup> is highest in Belgium and the Netherlands, but lowest in Romania and Bulgaria.

Only one third of the self-employed were women in 2015, with the highest percentages (just below 40%) in Lithuania and Latvia and the lowest (around 20%) in Malta and Ireland (Chart 19).

Most Member States recorded a small increase in women's share of self-employment between 2006 and 2015, with Cyprus recording by far the strongest increase, followed by Malta and Luxembourg. Croatia and Portugal recorded a notable decrease in both the total number of self-employed and women's share of that total.

<sup>(11)</sup> In this chapter "business services" covers the NACE sectors information and communication; financial and insurance activities; real estate activities; professional, scientific and technical activities; administrative and support service activities.

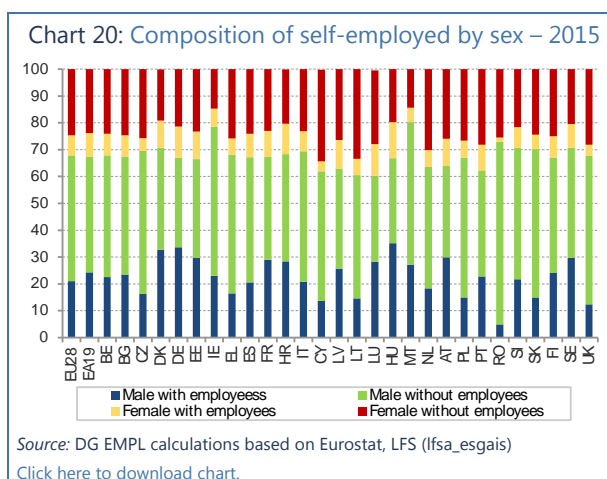




Men who do not employ anyone constitute the largest group of the self-employed: about 47% for the EU as a whole, but ranging from just above 31% in Hungary and Luxembourg to 68% in Romania (where the self-employed are often subsistence farmers). Self-employed men with employees accounted for about 21% of the total number of self-employed in the EU, ranging from just below 5% in Romania to 35% in Hungary (Chart 20).

Women who have employees constitute the smallest group of self-employed at just below 8% for the EU as a whole, ranging from less than 5% in Romania, Cyprus, the United Kingdom and the Czech Republic to 13% in Hungary. Women who have no employees constitute about a quarter of self-employed in the EU, with the largest proportions in Cyprus and Lithuania at about one third of total number of self-employed, and the smallest in Malta and Ireland with less than 15% of the total number of self-employed.

Specific barriers that hinder self-employment of women include the need to maintain a good work–private life balance, low participation rates in science, technology, engineering and mathematics (STEM) education, the strong male orientation of business networks and less favourable credit terms (e.g. ESDE, 2015).



### 2.3. Persistently high unemployment with substantial differences across Member States

*The steady unemployment reduction that had started in 2013 continued up to the third quarter of 2016 when there were 20.9 million people unemployed in the EU.*

Unemployment is on a declining trend but still exceeds pre-crisis levels in most Member States. Indeed, in the third quarter of 2016, there were 20.9 million people unemployed in the EU, of whom 16.3 million were in the Euro area. This is about 5 million more unemployed people than in the second quarter of 2008. The number of people in underemployment<sup>(12)</sup> is nearly a quarter higher than before the crisis,

<sup>(12)</sup> i.e. those who currently work part-time and would like to work more hours than they currently are and are available to do so.

while the number of people available for, but not seeking, work has increased and youth unemployment remains very high in some Member States.

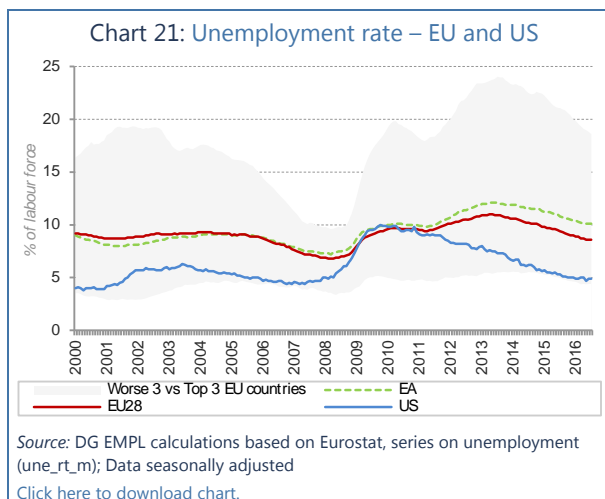
### 2.3.1. A steadily falling unemployment rate in the EU as a whole

*Despite the continuous decline, unemployment rates remain higher in the third quarter of 2016 than in 2008 for many Member States and the EU (8.5%) and Euro area (10.0%) as a whole, but further reductions are in sight.*

In 2008, the EU recorded its lowest unemployment rate in recent history at 7% of the labour force. However, with the financial and sovereign debt crisis the unemployment rate reached its peak in 2013, when for several months it was above 11%.

Since mid-2013, the unemployment rate has fallen steadily. In 2015 it was 1.5 pps below the 2013 rate, but still more than 2 pps above the pre-crisis level. The latest data available (third quarter of 2016) shows the same trend, with unemployment at 8.5% of the labour force. According to the European Commission autumn 2016 forecast, the unemployment rate in the EU is set to fall from 8.6% in 2016 to 8.3% in 2017 and 7.9% in 2018.

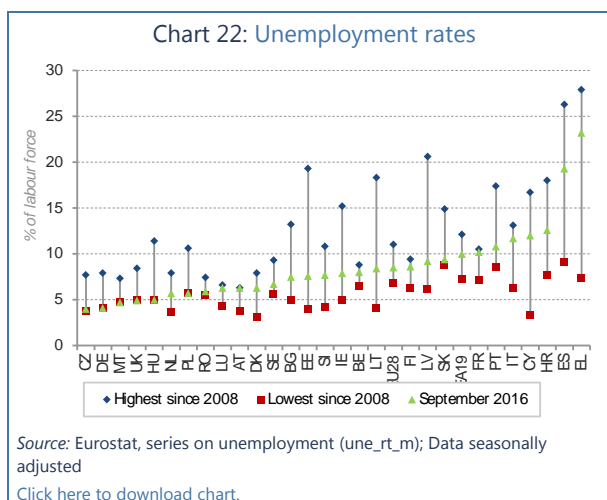
The evolution of unemployment in the EU and the Euro area was different from that of the US (Chart 21). The US suffered a much faster increase, doubling its unemployment rate from 4.6% to 9.3% in two years, but it did not experience a double-dip recession. After 2009 its unemployment rate declined steadily and returned to its pre-crisis rate in 2015. In contrast, Europe suffered a double-dip recession which increased unemployment for five years, especially in the euro area Member States.



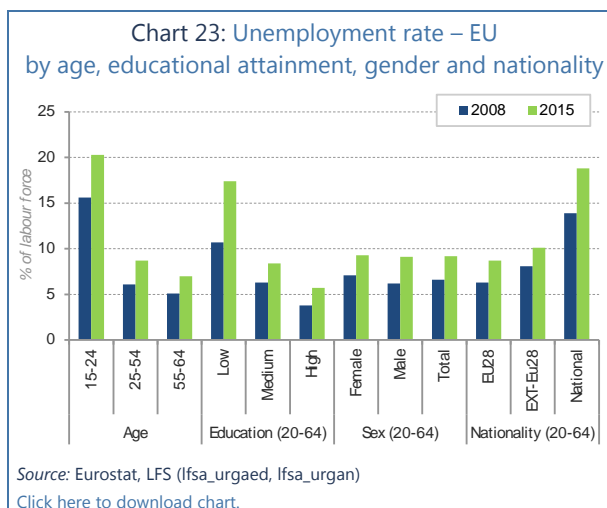
### 2.3.2. Cross Member State differences in unemployment rates persist

*The cross-country differences in unemployment rates remain striking, ranging from 4.5% in Germany to about 25% at the end of 2015 in Greece. In 2015, unemployment rates are higher for young people (more than 20% in the EU) and low-skilled (more than 15%).*

Only four Member States had a lower unemployment rate in 2015 than in 2008. Germany achieved the biggest reduction, about 3 pps, over this period (Chart 22). At the same time, several Member States, especially Greece, Cyprus, Spain and Portugal, were far from their pre-crisis rates, despite improvements in their labour market conditions over the last two years. Importantly, however, several Member States which suffered big increases in their unemployment rates at the depth of the crisis, including the Baltics and Ireland, have recorded strong reductions in recent years.



Young people, the low skilled and migrants from outside the EU have been the groups most affected by the crisis (Chart 23). The crisis affected men slightly more than women, so that currently the rates of unemployment are quite similar for men and women.



### 2.3.3. Long-term unemployment rate remains very high with strong differences across Member States

Long-term unemployment registered a decline in 2015 after a first reduction in 2014. About 10 million people in the EU today have been unemployed for more than one year. Important differences in long-term unemployment between EU Member States persist: from less than 2% in Sweden to 18% in Greece.

Despite progress in reducing unemployment generally, long-term and very long-term unemployment remain very high<sup>(13)</sup>. The long-term unemployment rate in the EU doubled during the crisis, peaking at 5.1% of the labour force in 2014, which corresponds to 12.3 million people (Chart 24).

Following the recovery in GDP and (with some delay) in employment, long-term unemployment started to decrease in 2014. Nevertheless, of the 21.1 million unemployed people in the EU in the second quarter of 2016, about 9.8 million (corresponding to 4.0% of the labour force and almost half of the total unemployed) had been unemployed for more than a year and the majority of these (more than 6 million) had been unemployed for over 2 years.

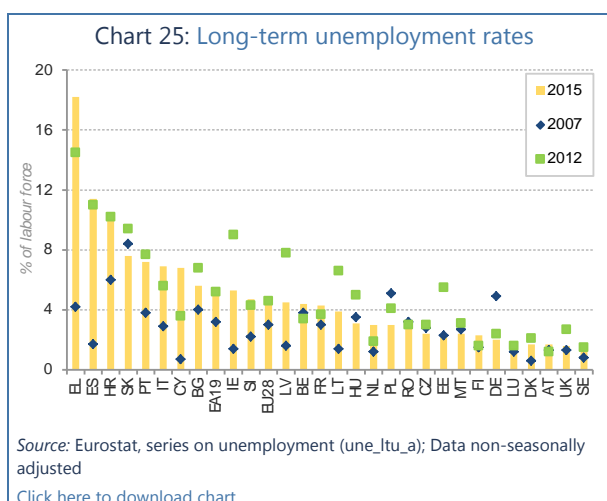
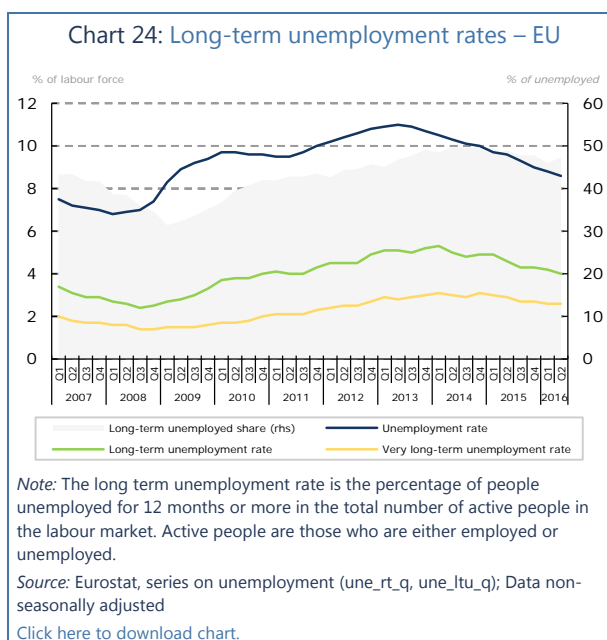
Important differences in long-term unemployment between EU Member States persist. In 2015, Greece recorded by far the highest long-term unemployment rate at about 18%, followed by Spain at about 11%

<sup>(13)</sup> Long-term unemployment refers to people who have been unemployed for 12 months or more. Very long-term unemployment refers to people who have been unemployed for 24 months or more.

and Croatia at about 10% (Chart 25). Sweden, the United Kingdom, Austria, Denmark and Luxembourg recorded long-term unemployment rates of less than 2%.

Compared with 2007, Germany and Poland recorded the biggest decreases in long-term unemployment in 2015. Slovakia, the Czech Republic, Hungary, Malta and Romania also recorded decreases – though of less than 1 percentage point. Greece and Spain recorded the biggest increases. Compared with 2012, Ireland, Latvia and Estonia recorded the biggest decreases in long-term unemployment.

Long-term unemployment reduces human capital and increases the probability of a move from unemployment to inactivity. Such developments are particularly worrying in view of the projected decline in the working age population driven by population ageing. Long-term unemployment and rising poverty can also disrupt social cohesion, affect health outcomes and contribute to undeclared work, crime and social unrest.



Since mid-2013 the number of unemployed who have found a job has exceeded the number of people becoming unemployed, but the growth in outflows from unemployment lost momentum and virtually stabilised in late 2014 and 2015. For more empirical evidence on labour market transitions in the European Union (EU) using the new flow statistics from the EU Labour Force Survey (EU-LFS) and micro-

data from the EU Statistics on Income and Living Conditions (EU-SILC), see for instance European Commission (2016) <sup>(14)</sup>.

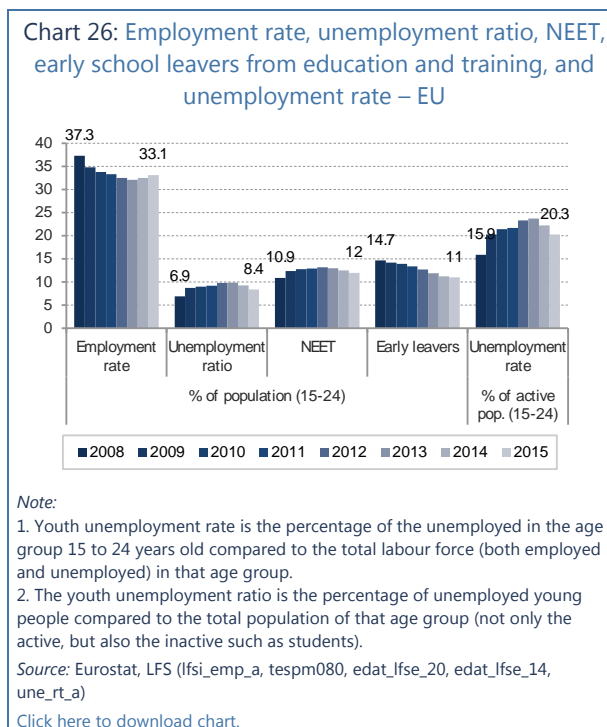
### 2.3.4. The situation of the young is improving but success is not experienced by all

*The youth unemployment rate declined again in 2015 (to 20.3%) in line with 2014 developments. This has been accompanied by an increase in the employment rate and in the share of young people in education.*

The slowdown in the EU economy that started in 2008 also had a significant impact on young people's previously-improving labour market performance. Indeed, young people are arguably one of the groups most affected by the crisis. In 2013, with the end of the double-dip recession, the economy started a modest recovery. However, it was also the first turning point in the labour market performance indicators for young people in the EU.

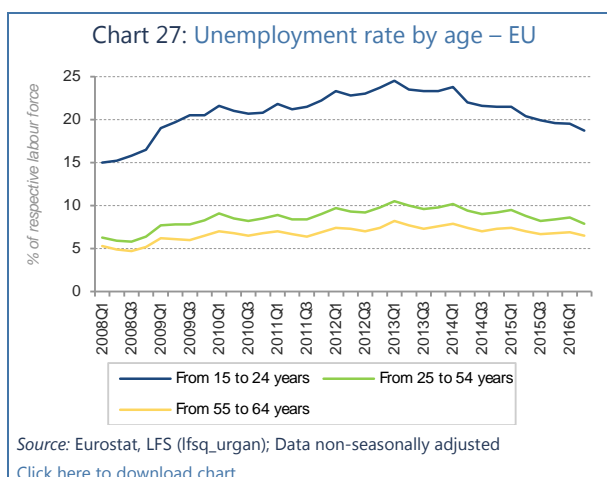
Chart 26 shows clearly the evolution of young people's labour market performance in the EU over the period 2008-2015. The EU youth unemployment rate - the percentage of unemployed 15-24 year-olds in the total labour force (employed and unemployed) in that age group - increased from 15.8% in 2008 to a historic high of 23.7% in 2013, falling to 20.3% in 2015.

The EU youth unemployment ratio - the percentage of unemployed young people in the total population of that age group (including both active and inactive young people such as students) - was 6.9% in 2008, rose to nearly 10% in 2013 and then fell to 8.4% in 2015. The EU youth employment rate was at its highest (37.3%) in 2008 and at its lowest (32.1%) in 2013. However, in 2015, the youth employment rate increased to 33.1%. The EU NEET rate - which measures the proportion of young people 15-24 years old who are not in employment, education or training - was 10.9% in 2008, rose to 13.2% in 2012 and fell to 12% in 2015. Steady reductions in the number of young people who are 'early leavers' from education and training, having attained at most lower secondary education and not been involved in further education and training, is declining. There was a 3.7 percentage point reduction between 2008 and 2015.



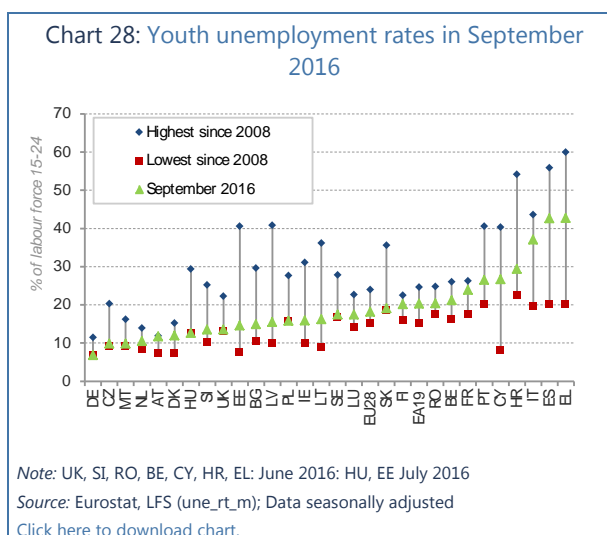
<sup>(14)</sup> See 'Labour Market Transitions', Analytical Web Note 1/2016, available at <http://ec.europa.eu/social/BlobServlet?docId=15716&langId=en>, as well as Chapter 2 of this report for transitions of people at the bottom end of the wage distribution.

Chart 27 shows how unemployment evolved for different age groups from 2008 to 2015. While trends are somewhat similar, the chart indicates that unemployment levels increased to nearly 25% for young people aged 15-24 compared with just over 10% for those aged 25 – 54 and around 8% for those aged 55- 64.



Young people's long-term unemployment (LTU) rates were also affected by the economic crisis and subsequent recovery. In 2008 the LTU rate for young people was 3.6%, increasing to 8% by 2013 and falling to 6.6% in 2015. Rising long-term unemployment rates may have seriously scarring effects on young people if their skills begin to erode.

There has been some convergence among Member States in their youth labour market performance between 2013 and 2015, as those Member States which saw a substantial worsening of the youth labour market during the crisis improved their situation (Chart 28). For example, in Greece, where in 2013 the youth unemployment rate was 60%, by 2015 it was below 50%. And between 2013 and 2015, the youth employment rate in Greece increased by 1.2 pps slightly above the EU average increase of 1 percentage point. Greece has also seen an important reduction in its NEET rate since 2013 (3.2 pps). Croatia, with the highest NEET rate in 2013, saw this rate fall by 0.8 pps by 2015 while the EU average over this period was 1 percentage point. Other large reductions in the NEET rate have been seen in Hungary (3.9 pps), Cyprus (3.5 pps) and Spain (3 pps). Latvia and Ireland saw their NEET rates fall significantly to 10.5% and 14.3% respectively.



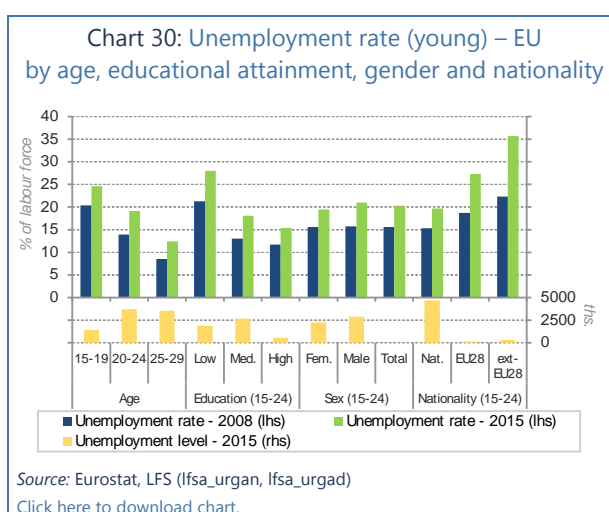
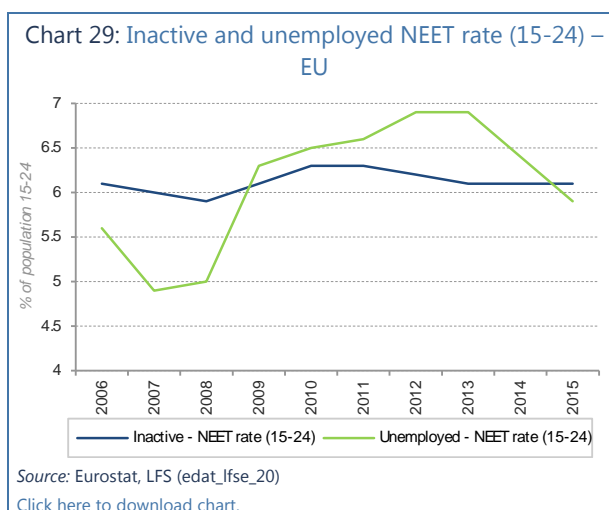
### 2.3.5. NEETs are a varied population

The share of people not in employment, education and training (NEET rate) declined in 2015, reinforcing the decline seen in 2014. This reflects a reduction in unemployed NEETs (those looking for work), while those inactive have remained fairly stable compared with 2014 and 2013.

The NEETs can be divided into two broad groups: the *inactive* NEETs, those not actively looking for work, and the NEETs who are *unemployed*. Overall NEET rates hide the different performance of these two groups.

As Chart 29 shows, the reduction observed in the NEET rate at EU level has been driven by a reduction in unemployed NEETs. The improvement in the unemployed NEET rate which started in 2013, continued through 2014 and 2015. The improved economic situation combined with dedicated policy interventions to help young people in the labour market have contributed to reducing the share of unemployed NEETs. By contrast, the percentage of inactive NEETs in the EU has not changed much. This pattern can be observed in almost all Member States, with the proportion of inactive NEETs ranging from just under 3% in the Netherlands, to around 12% in Romania and Italy and 14.3% in Bulgaria.

Inactive NEETs are not a homogenous group, as the Eurofound<sup>(15)</sup> report on NEETs shows. In some Member States with particularly high NEET rates, around 40% of inactive NEETs became discouraged after failing to find work. In Member States with more favourable labour markets, reasons for inactivity are more varied, ranging from caring responsibilities to personal health issues. Nonetheless, the large number of young people aged 15-24 who are not in employment, education and training and who are not even looking for work is a major policy challenge in all Member States. Greater efforts are needed to understand and remove the barriers – real and perceived – that prevent inactive NEETs from entering the labour market.



<sup>(15)</sup> Eurofound (2016), Exploring the diversity of NEETs, Publications Office of the European Union, Luxembourg <http://www.eurofound.europa.eu/exploring-the-diversity-of-neets-1>.

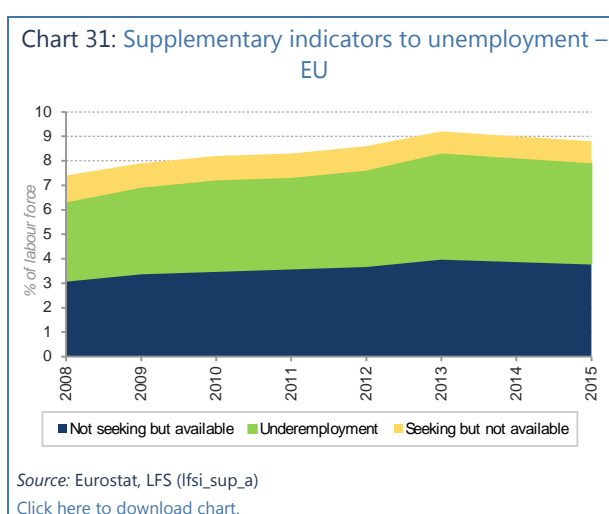
### 2.3.6. Tackling underemployment remains a challenge

*Underemployment also declined in 2015, accompanying the reduction in unemployment. It remains high especially for young people and above 2008 levels. Wide differences can be seen across Member States.*

While employment has been rising in recent years, some employed workers have been working fewer hours than they wished to work. Such underemployed workers include, for example, involuntary part-time workers <sup>(16)</sup>.

Underemployment has moved in a similar way to unemployment in the EU: it increased between 2008 and 2013 and has fallen since. However, the underemployment rate in 2015 remained above the pre-crisis rate of 2008, especially in the case of young people (aged 15 to 24) whose underemployment rate increased dramatically.

Developments in the group of people 'available for work but not seeking employment' <sup>(17)</sup> have shown a similar pattern to that of the underemployed (Chart 31), a modest 0.1 percentage point improvement in 2015 continuing the trend of 2014. The proportion of people 'seeking work but not immediately available' has remained fairly stable since the onset of the crisis, at around 1% of the labour force.



This fairly stable picture at EU level is not matched at Member State level. Chart 32 shows that Member States fall into two groups in which either 'available but not seeking' or 'underemployed' people predominate, plus a smaller neutral group in the middle.

Italy combines a high rate of 'Available but not seeking' (more than 13% of the active population) with a low rate of underemployment – which partly explains the low activity rate in Italy.

Cyprus, the Netherlands and Spain show a higher incidence of underemployment than 'available but not seeking'. However, the reasons behind this outcome differ. In the Netherlands the high underemployment rate represents unfulfilled needs for extra hours within the sizeable proportion of part-time jobs. In Cyprus and Spain, both with high shares of involuntary part-time work, underemployment represents the only way of avoiding unemployment.

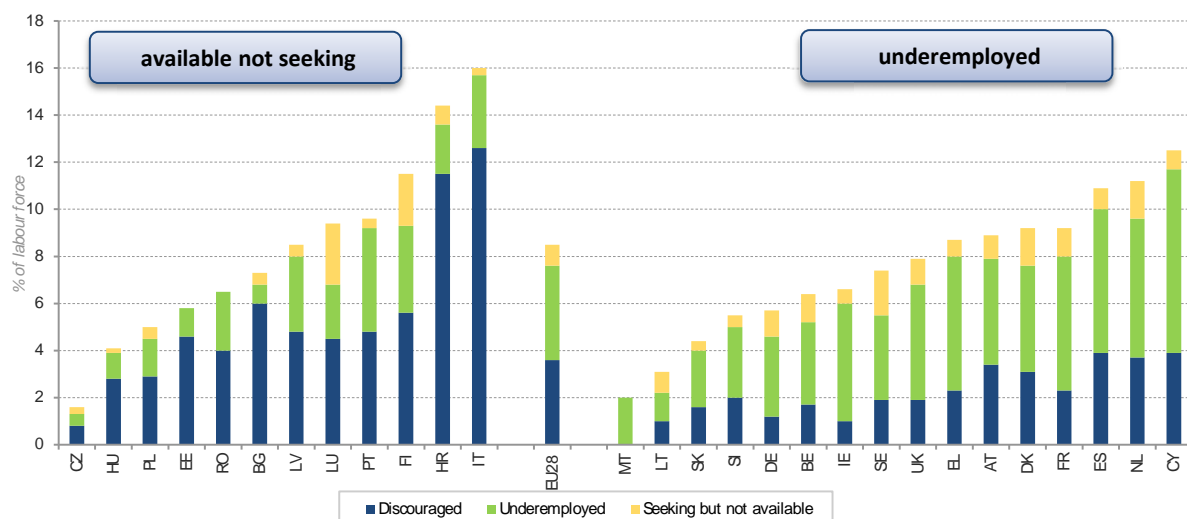
In Lithuania, Slovenia and France, percentages of underemployed people and those 'available but not seeking' are very similar.

<sup>(16)</sup> In LFS "Underemployment" is defined as part-time working by those who would like to work more hours and are available to do so. "Involuntary part-time" is the label given to those who, asked why they are in part-time work, say "Couldn't find full time work". There are important overlaps between these groups; it is important to choose the right indicator for the specific context. For instance, a person working part-time and wanting to extend their working hours (for example from 4 to 6 hours daily) but not take a full-time job, will be considered as underemployed rather than involuntary part-time employed. Therefore when looking at underutilisation of the labour force, using Underemployment gives a more complete picture than using Involuntary part-time.

<sup>(17)</sup> This group includes the discouraged people, those who are not seeking a job because they believe there are no jobs available.



Chart 32: Supplementary indicators of unemployment, by predominant characteristics – 2016Q1



Note: The label 'available not seeking' covers Member States where the percentage of people available for work but not seeking it exceeds the percentage of underemployed people; the label 'underemployed' covers Member States where the percentage of underemployed people exceeds the percentage of people available for work but not seeking it; and the label 'neutral' covers Member States where the two percentages are broadly similar

Source: Eurostat, LFS (lfsi\_sup\_q)

[Click here to download chart.](#)

### 2.3.7. The job vacancy rate is rising

*The job vacancy rate in the EU as a whole increased further in 2015, but with strong differences across Member States.*

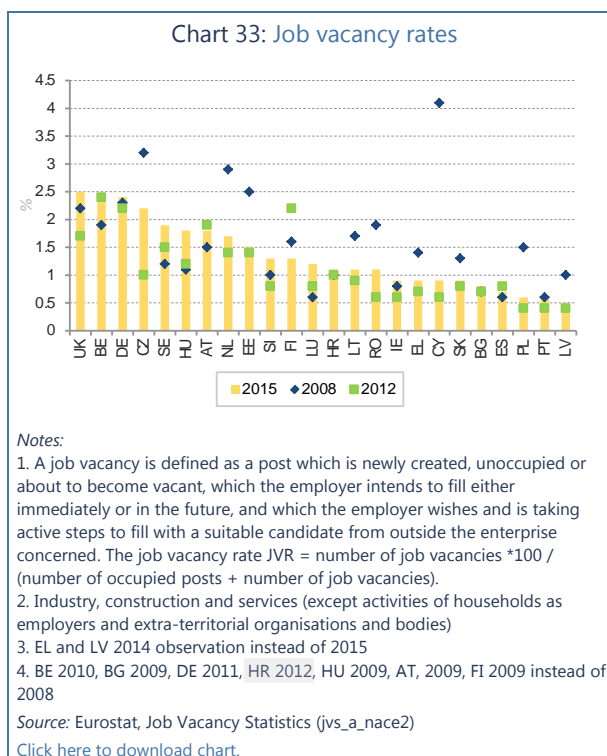
At the onset of the crisis, the job vacancy rate in the EU stalled at around 1.3%, compared with 1.5% in 2007 <sup>(18)</sup>. From 2014, this rate started increasing again, reaching 1.7% in 2015 <sup>(19)</sup>.

Job vacancy rates varied strongly across Member States in 2015, ranging from 2.5% in the United Kingdom, and 2.4% in Belgium and Germany to less than 0.5% in Latvia (in 2014). Cyprus recorded the sharpest decrease between 2008 and 2015, followed by the Czech Republic (Chart 33). Except for Finland, and to a lesser extent Spain and Austria, the vacancy rate in 2015 was higher than the vacancy rate in 2012.

Developments in the job vacancy rate are driven by structural as well as cyclical factors. During a downturn there will be fewer job vacancies: employers will have fewer incentives to post them (until there is a recovery in sight), while the unemployed will be more inclined to accept a job offer. Structural reforms may also affect the job vacancy rate where they improve workers' geographical or occupational mobility, increase the flow of information (such as under an enhanced EURES), and improve the quality and efficiency of public employment services. Nevertheless, while such structural reforms may increase the efficiency of matching people to jobs and thereby reduce the vacancy rates, better matching efficiency may also be an incentive for employers to post more vacancies.

<sup>(18)</sup> Not fully comparable as 2007 observation refers to NACE Rev. 1.1, and post 2007 data to NACE Rev. 2

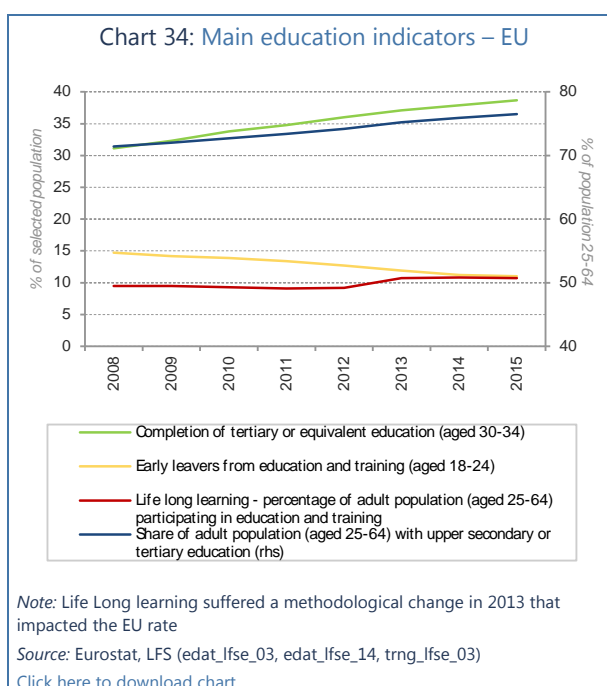
<sup>(19)</sup> A job vacancy is a paid post that is newly created, unoccupied, or about to become vacant: for which the employer is taking active steps and is prepared to take further steps to find a suitable candidate from outside the enterprise concerned; and which the employer intends to fill either immediately or within a specific period of time. Vacancies may be created because of an increase in the size of the workforce, the need to replace workers (retirement or new skills demanded) or because workers are changing jobs. Job vacancies provide information on the level and structure of labour demand. They may reflect unmet labour demand, i.e. the number of job vacancies increases when unemployment is also increasing.



## 2.4. Education and skill formation: some encouraging developments

*In 2015 the share of early leavers from education and training declined, in line with the trend observed in previous years. The share of the adult population with upper secondary and tertiary education also continued to increase in 2015, even if at a slower pace than in previous years. Outcomes differ strongly across Member States.*

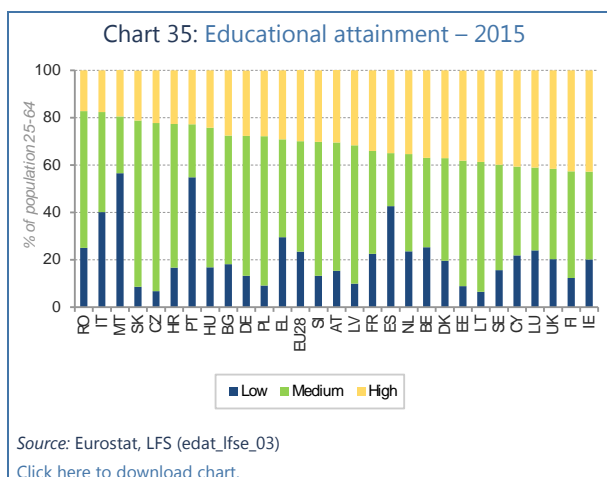
A skilled workforce is the key to sustained productivity growth and job creation. Education is the path towards higher levels of skills in the population. Lately there have been several positive developments in the main EU education and training indicators (see Chart 34).



In 2015 the EU average rate of early leavers from education and training was 11%, down by nearly 3 pps since 2010 and down from 17% in 2002. At the same time, the percentage of the population aged 30-34 who had successfully completed tertiary studies increased, up from 23.6% in 2002 to 38.7% in 2015.

Currently 40% of employers report difficulties in finding candidates with the right skills, many of them stressing a lack of transversal skills among job applicants (see the New Skills Agenda for Europe) <sup>(20)</sup>.

A broad set of skills is now deemed important, from as early as practicable in life. Language and communication skills, E-skills and entrepreneurial skills are some examples. Entrepreneurial skills are still quite low among the EU population: less than a quarter of students have had an entrepreneurship experience by the time they finish education. Socioeconomic background remains one of the main determinants of skills acquisition in schools <sup>(21)</sup>.



Initial Vocational Education and Training is a key source of skills and competencies for EU economies and can facilitate a smooth school-to-work transition. On average in the EU, 10.7% of adults aged 25-64 were in life-long learning in 2015. The gap in participation in adult education and training between low-skilled and high-skilled is large: 4.3% of low-skilled people are in education and training, compared to 8.8% of medium-skilled and 18.8% of high-skilled people.

Despite these positive developments at EU level, outcomes differ strongly across Member States (Chart 35). In some Member States - Malta, Portugal, Spain and Italy - 40% or more of the working age population have low educational attainment, with lower secondary school education or less: though the position is improving in younger cohorts (25-34 years).

### 3. SOCIAL COHESION REMAINS A CHALLENGE

*The share of the EU population living at risk of poverty or social exclusion decreased in 2015. Nevertheless, important downside risks remain stemming from persistent high unemployment rates and rising long-term unemployment inherited from the severe economic downturn. This is especially the case when households have low incomes and social protection transfers are insufficient.*

#### 3.1. Sources of household income

While total labour income in the EU, i.e. the compensation of employees and the income of the self-employed, had been on an increasing trend before 2008, it declined in 2009. This decline continued until the end of 2013, as a result of the decrease in employment and increase in unemployment. In 2014, labour income resumed its growth, which continued throughout 2015 thanks to the recovery in the labour market <sup>(22)</sup>.

Persistent high unemployment rates and rising long-term unemployment carry the risk of exacerbating social exclusion among both jobless and employed people, where households have low incomes and social protection transfers are insufficient.

<sup>(20)</sup> At <http://ec.europa.eu/social/main.jsp?catId=1223&langId=en>

<sup>(21)</sup> Idem at <http://ec.europa.eu/social/main.jsp?catId=1223&langId=en>

<sup>(22)</sup> See also Chapter 1 of this report for a description of the impact of the tax benefit system on household income.

### 3.1.1. Net earnings across EU Member States vary strongly

*The latest available data show that net earnings increased in most EU Member States in 2014 just as in 2013. Strong differences across Member states persist.*

The latest available data show that while net earnings (of a single person without children, earning the average wage and adjusted for price differences) have been rising in most Member States since 2012, strong differences across Member states persist. In 2014, net annual earnings in Bulgaria and Romania were only about one quarter of net annual earnings in Luxembourg (Chart 36). However, in Bulgaria earnings almost tripled between 2001 and 2014 (despite a small decrease (-0.5%) in 2014), while in Romania they more than doubled (growing by about 4.5% in 2014).

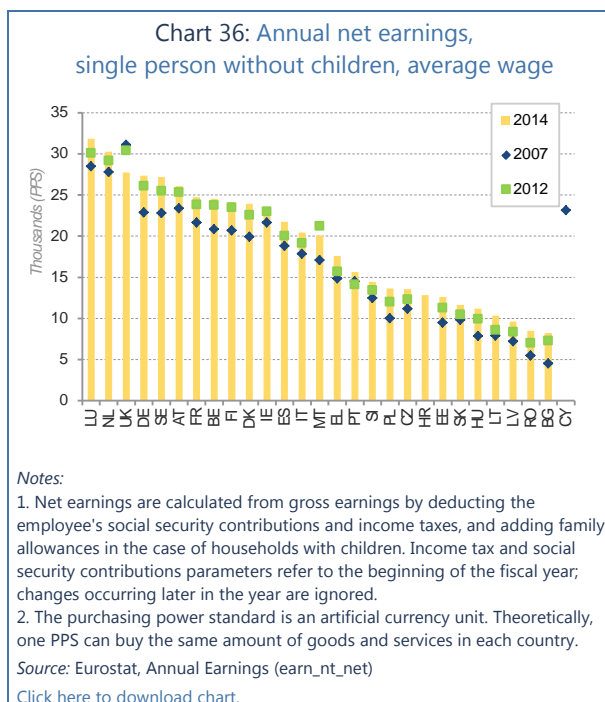
Within the Euro area <sup>(23)</sup>, net earnings in the Baltic Member States in 2014 were about one third of net earnings in Luxembourg and the Netherlands; in Portugal, Slovenia, and Slovakia they were less than half that level. Net earnings were lower in Ireland and Malta in 2014 than they had been in 2012, down by respectively 1.3% and 5.3%.

Outside the Euro area, net earnings were highest in the United Kingdom followed by Sweden – although in the United Kingdom these earnings were almost 9% lower in 2014 than in 2012. Between 2012 and 2014, Romania recorded the strongest increase at around 20%, followed by Poland and Bulgaria at around 13%.

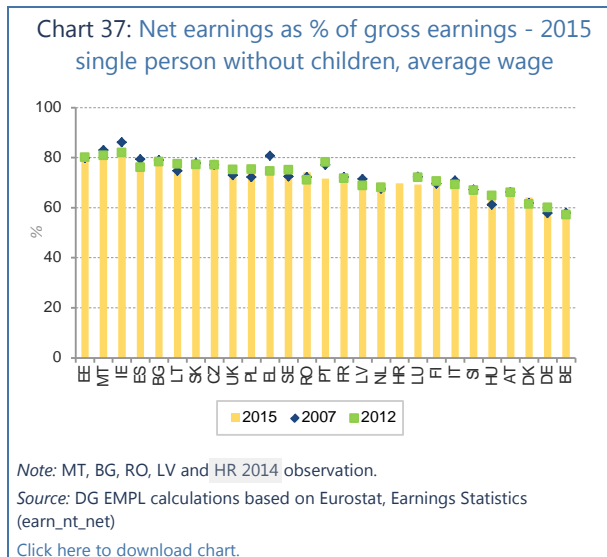
### 3.1.2. Labour income taxes differ considerably across Member States

*The gap between gross and net earnings remains wide in several Member States.*

Annual net earnings (of a single person without children earning the average wage, after deductions of social security contribution and taxes) were less than 60% of gross earnings in Belgium in 2015 but more than 80% in Estonia and Malta (in 2014) (Chart 37). Among the Member States for which data are available, Sweden recorded the biggest increase between 2006 and 2015 (up by about 6 pps), while Greece and Portugal recorded the biggest decreases (down by about 6 pps).



<sup>(23)</sup> No recent data for Cyprus available.



### 3.1.3. The contribution of social protection to household income

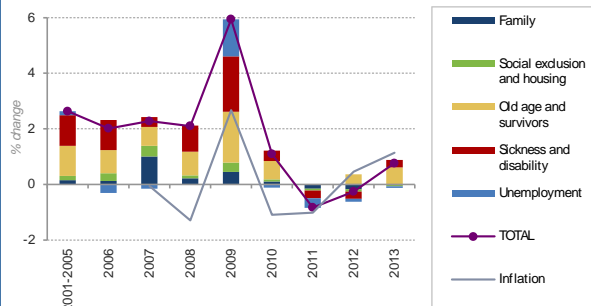
*Social protection expenditure increased in real terms in the EU in 2015, following the rise seen in 2014 and 2013. Large differences can nevertheless be seen across EU Member States. As a share of GDP public social expenditure declined or remained unchanged reflecting the improvements in economic activity.*

The latest available data on detailed expenditure show that social protection expenditure <sup>(24)</sup> in the EU played a major role in stabilising incomes between 2007 and 2009 (Chart 38). In 2011-2012, however, all categories benefiting from social protection experienced cuts in real terms <sup>(25)</sup>, except people receiving old-age pensions in 2012. The available data suggest that social protection expenditure in the EU increased again in 2013, although not significantly. The 2013 increase was mainly due to a further increase in spending on old-age pensions, in part driven by demographic factors, and an increase in spending on health. At the same time, expenditure on families, housing, combatting social exclusion and unemployment stabilised.

<sup>(24)</sup> Social protection expenditure generally helps to stabilise the economy in bad economic times, since social benefits partly compensate for the decline in households' market income. Unemployment benefits typically have a stabilising function, as do means-tested benefits of various sorts (related to social exclusion, family or housing). Health and pensions expenditure play a role too, but generally to a lesser extent, as this spending does not respond directly to a decline in market incomes.

<sup>(25)</sup> To reflect on trends in real social expenditure, the HICP is used as deflator. It allows for estimating the trend in the overall real value or purchasing power provided by social expenditure. Indeed, the HICP is a price index that reflects changes in a basket of goods and services, which appears closer to the actual expenditure on consumption of households in comparison to the deflator of household consumption from the National Accounts (which also for instance includes imputed rents).

Chart 38: Overall social protection expenditure trends (2001-2013) in the EU



Notes:

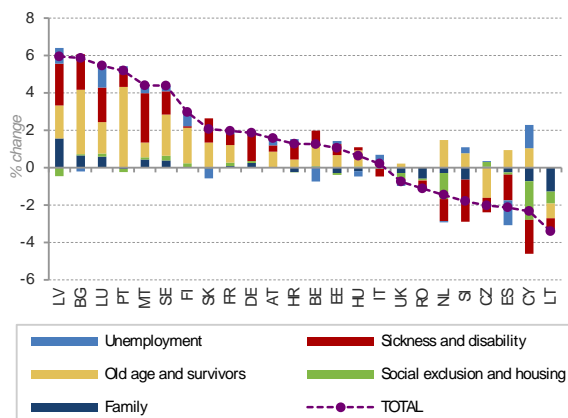
1. HICP used as deflator. Inflation reflects the differential in HICP (Harmonised Index of Consumer Prices) growth from one year to the other. When inflation is constant it has no impact, when inflation is declining it contributes positively, when inflation increases it contributes negatively.
2. 2013 EL not available kept constant and PL excluded since no data available.

Source: DG EMPL calculations based on ESSPROS (spr\_exp\_sum) and Price Statistics (prc\_hicp\_aind)

[Click here to download chart.](#)

At the level of individual Member States (Chart 40) social protection expenditure continued to decline in one-third of the Member States for which 2013 data are available.

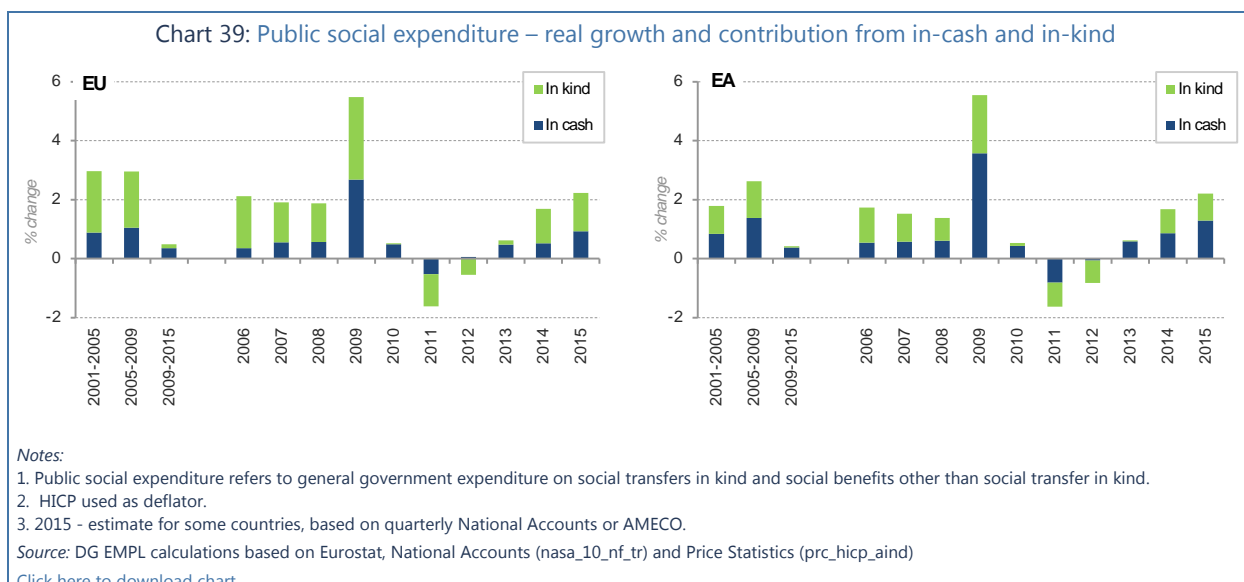
Chart 40: Social protection expenditure real growth in 2013 and its components



Note: HICP used as deflator.

Source: DG EMPL calculations based on Eurostat, ESSPROS (spr\_exp\_sum) and Price Statistics (prc\_hicp\_aind)

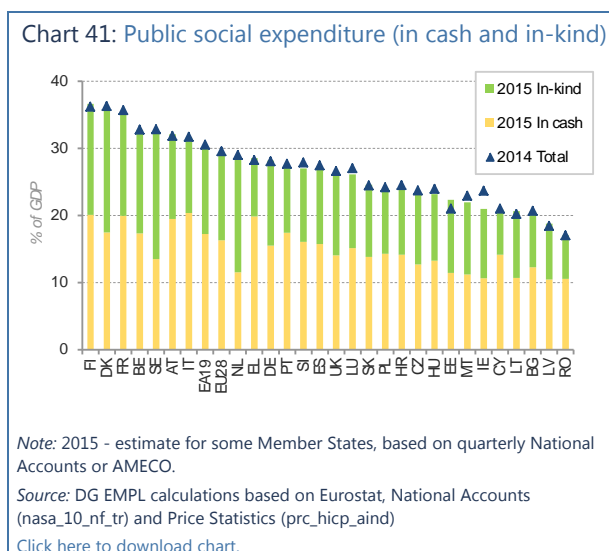
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The latest available data based on national accounts (but not disaggregated by expenditure) show that in 2014-2015 <sup>(26)</sup>, while the economic environment continued to improve, both cash and in-kind public social expenditure increased in the EU and Euro area at a faster pace than in 2013. The increases in both types of expenditure in 2013-15 compensated for the declines observed between 2011 and 2012. While overall growth in 2014 and 2015 was similar for the EU and Euro area, in-kind expenditure was the major component of public social expenditure in the EU, while social transfers in cash contributed more in the Euro area (Chart 39).

Most Member States registered increases in public social expenditure in 2015, except Cyprus, Ireland and the Netherlands. However, in-kind benefits declined in Greece, the Netherlands and Ireland, while in-cash benefits declined in Hungary and Cyprus.

In the EU as a whole, social protection expenditure as a percentage of GDP increased significantly in 2009 from around 26% to around 30%, but then showed smaller variations, remaining around 29-29.5% until 2015. Over the same period, the orientation of social protection expenditure by functions changed. Last year's report described in details the reasons for the changes in public spending on pensions, unemployment and families, up to 2012.



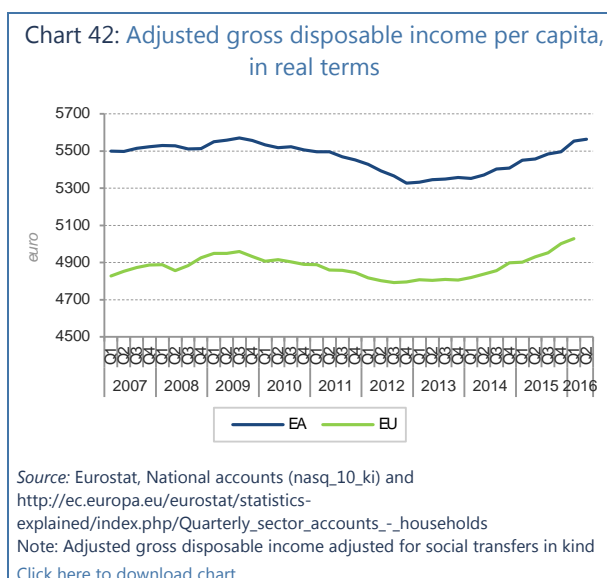
With the expansion in economic activity in 2014 and 2015, social benefits as a percentage of GDP declined or remained unchanged in most Member States (Chart 41). Only Ireland saw a significant decline, as the government limited both in-kind and in-cash expenditure.

<sup>(26)</sup> National Accounts data is more timely than ESSPROS data, but it does not differentiate among expenditure functions.

### 3.2. Disposable household income

*In the EU, disposable household income, which measures market income adjusted for taxes and social transfers, increased again in 2015 as in 2014, benefitting from expansion in economic activity and improved labour market circumstances. In the second quarter of 2016, adjusted gross disposable income per capita (in real terms) of the Euro area was still 0.14% below the peak value recorded in third quarter of 2009.*

Having reached a peak in the third quarter of 2009, household gross disposable income in constant prices started to decrease, bottoming out in the third quarter of 2012 in the EU and in the fourth quarter of 2012 in the Euro area (Chart 42). Subsequently, household gross disposable income increased again, reaching its previous high for the EU as a whole in the third quarter of 2015, while it was still 0.14% below its peak in the Euro area in the second quarter of 2016 (latest available data).



On average in the EU <sup>(27)</sup>, real growth in gross disposable household income (GDHI) remained above 2% in real terms in the year to the first quarter of 2016, reflecting improvements in nearly all Member States.

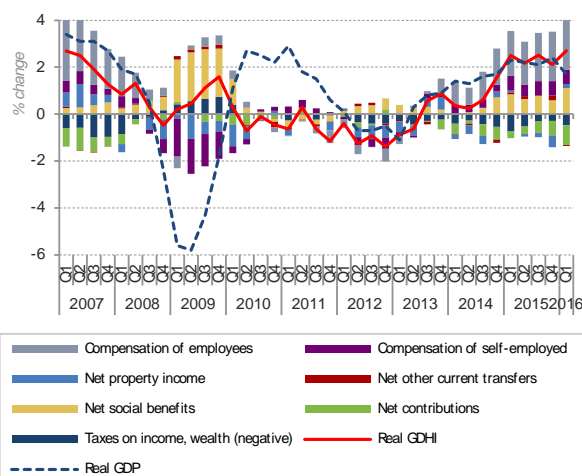
In 2014, labour income resumed its growth, mainly due to a recovery in the labour market which continued until mid-2016. Meanwhile, increases in social benefits supported the disposable income of households, while higher social contributions (together with taxes that have been increasing consistently except in the 2009 downturn) weighed down on it. The contributions of property income and other transfers have been mixed in that period (Chart 43).

Households in the lowest-income quartile have suffered the most from the intensification in financial distress over the crisis, as the need to draw on savings or to run into debt to cover current expenditures increased. Despite recent easing, about 9% of adults in low-income households are in debt and a further 15% draw on savings to cover current expenditure (this compares with 5% and 10% for the total population, respectively). Financial distress affects around 10% or less of households in the lowest income quartile in Austria, Estonia, Germany and Luxembourg compared with 30% or more of the poorest population in Belgium, Croatia, France, Greece, Italy, Slovakia and Spain.

<sup>(27)</sup> The real GDHI growth for the EU is a DG EMPL estimation. It includes Member States for which quarterly data are available (18 Member States: AT, BE, CZ, DE, DK, EL, ES, FI, FR, HR, IE, IT, NL, PL, PT, SE, SI and UK, which account for at least 90% of EU GDHI, PL and RO available up till 2012). The nominal GDHI is converted into real GDHI by deflating with the deflator (price index) of household final consumption expenditure. The real GDHI growth is a weighted average of real GDHI growth in Member States.



Chart 43: Gross disposable household income – EU real growth and its components



Notes:

1. Real GDHI growth for the EU is DG EMPL estimation, and it includes Member States for which quarterly data are available (19 Member States: AT, BE, CZ, DE, DK, EL, ES, FI, FR, HR, IE, IT, NL, PL, PT, RO, SE, SI, UK, which account for at least 90% of EU GDHI).

2. The nominal GDHI is converted into real GDHI by deflating with the deflator (price index) of household final consumption expenditure. The real GDHI growth is a weighted average of real GDHI growth in Member States.

Source: Source: DG EMPL calculations based on Eurostat, National Accounts (nasq\_10\_nf\_tr, namq\_10\_gdp)

[Click here to download chart.](#)

### 3.3. Risk of poverty and social exclusion

*The share of the EU population living at risk of poverty or social exclusion decreased to 23.7% in 2015 (23.0% in the Euro area). This rate corresponds to 118.8 million people at risk of poverty or social exclusion in 2015 (76.6 million in the Euro area). However, there are still 1.2 million more people living at risk of poverty or social exclusion than in 2008. The risk of poverty or social exclusion has decreased or stabilised since 2012 for most Member States, some at very high levels. In some Member States, poverty is still increasing, though some have also seen important declines <sup>(28)</sup>.*

After increases between 2009 and 2012, the share of the EU population living at risk of poverty or social exclusion stabilised at about 24.5% and then decreased to 23.7% in 2015 (23.0% in the Euro area), according to the latest available data <sup>(29)</sup>. This rate corresponds to 118.8 million people at risk of poverty

<sup>(28)</sup> Data for 2015 not available for Ireland, data as on 17 October 2016.

<sup>(29)</sup> The Europe 2020 target for reduction of poverty or social exclusion (AROPE) in the EU27 is set at 20 million compared with 2008 (which, assuming current population projections, would bring the AROPE rate down to around 19%).

The AROPE indicator corresponds to the sum of persons who are at least in one of the situations: at risk of poverty or severely materially deprived or living in households with very low work intensity. These are:

At risk-of-poverty (AROP) are persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income (after social transfers).

Material deprivation covers indicators relating to economic strain and durables. Severely materially deprived (SMD) persons have living conditions severely constrained by a lack of resources, i.e. they experience at least 4 out of the following 9 deprivations: they cannot afford i) to pay rent or utility bills, ii) to keep their home warm enough, iii) to face unexpected expenses, iv) to eat meat, fish or a protein equivalent every second day, v) a week's holiday away from home, vi) a car, vii) a washing machine, viii) a colour TV or ix) a telephone.

People living in households with very low work intensity (JLH) are those aged 0-59 living in households where the adults (aged 18-59, excluding students aged 18-24) worked not more than 20% of their total work potential during the past year.

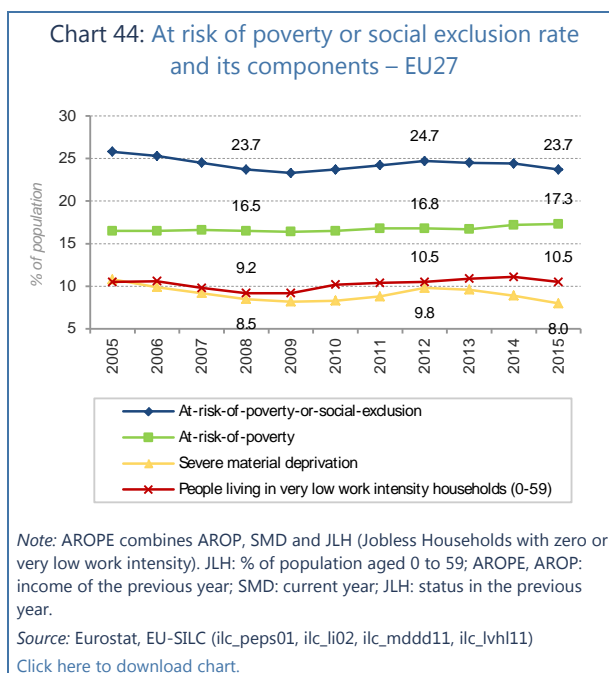
Note on the reference year: EU-SILC data, used in poverty and inequality indicators, reflect incomes of the previous year (except for the UK and Ireland where incomes refer to interview period). EU-SILC data reflect also activity status of the previous year. So the 2015 survey year reflects the 2014 income year and the activity status in 2014.

In this chapter the survey year is chosen as a reference year (not the income year). This choice is for consistency with indicators commonly used: Eurostat indicators and most of EMPL monitoring tools and reports use the survey year, moreover AROPE combines AROP, JLH (previous year) and SMD (survey year). The 2015 reference year is based on EU-SILC 2015 (2014 income data).

However, the analysis in chapters 1 and 2 uses the income year as a reference year. The 2014 reference year is based on EU-

or social exclusion. This level is almost 5 million lower than the peak of 123.6 million registered in 2012 but still 1.2 million above the 2008 level. In the Euro area, 76.6 million people were at risk of poverty or social exclusion in 2015, i.e. 1.2 million fewer than in 2014 when the Euro area registered its highest level, but still 5.5 million people above the level recorded in 2008. In summary, during the period 2008-2015 the number of people living at risk of poverty or social exclusion in the non-Euro area Member States decreased by 4.3 million whereas it increased by 5.5 million in the Euro area.

The improvement at EU level masks the different trends of the three components underpinning this indicator, i.e. relative poverty, material deprivation and joblessness.



First, relative poverty stabilised according to 2015 EU-SILC data (reflecting incomes in 2014), after having increased in the previous year. This increase reflected the weak economic and labour market situation until mid-2013, and the subsequent upward shift in the poverty threshold as household incomes started to recover in mid-2013. Second, while a weak labour market resulted in an increase in the number of people living in jobless households, the rebound produced a decrease in joblessness in 2015. Third, severe material deprivation has been declining since 2013, mainly driven by strong decreases in a few Member States, i.e. Bulgaria, Estonia, Hungary, Italy, Latvia, Lithuania, Poland and Romania (Chart 44).

Important differences in performance between Member States or groups of Member States persist (Chart 45). The risk of poverty or social exclusion has decreased or stabilised in most of the Member States since 2012. Notable declines were recorded in Hungary, Croatia, Latvia, Lithuania, Poland and Romania, while in Cyprus and the Netherlands the rates are still much higher than in 2012.

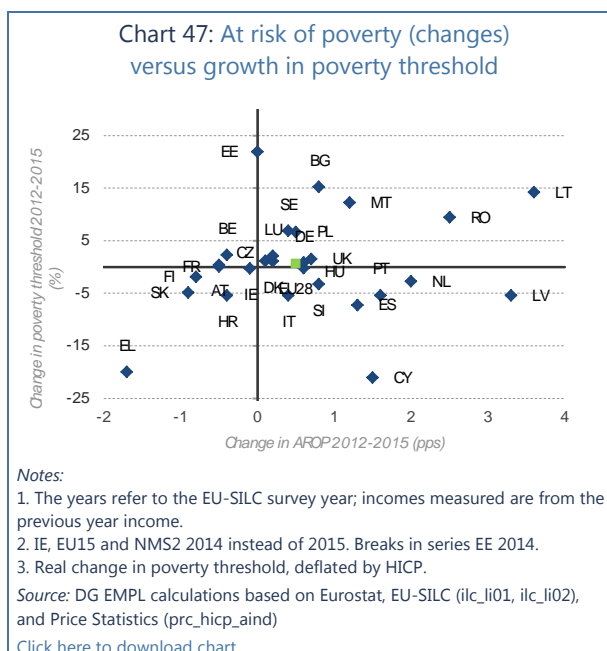
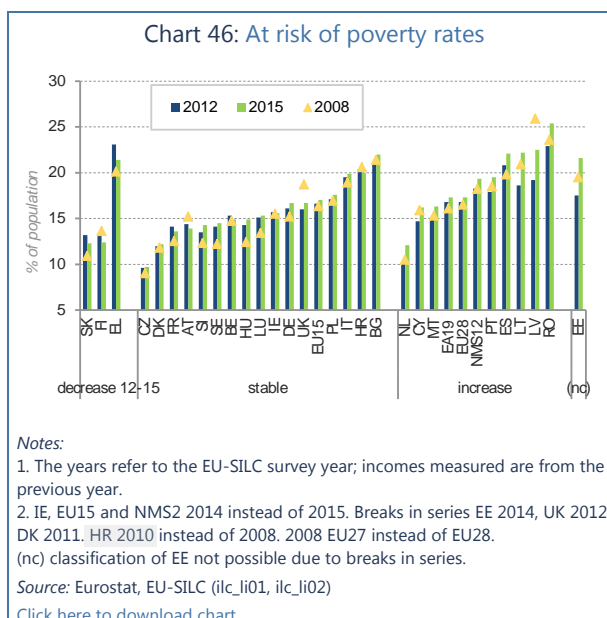
Overall, less than a quarter of the total population was at risk of poverty or social exclusion in 2015, with the highest proportions (about 40%) recorded in Bulgaria followed by Romania and Greece (more than one third). The lowest proportions of people at risk of poverty or social exclusion are to be found in the Czech Republic, Finland, the Netherlands and Sweden.

#### SILC 2015.

Note on equivalised income: The total equivalised disposable household income, used in poverty and inequality indicators, takes into account the impact of differences in household size and composition. The equivalised income attributed to each member of the household is calculated by dividing the total disposable income of the household by the equivalisation factor. This indicator gives a weight of 1.0 to the first person aged 14 or more, a weight of 0.5 to other persons aged 14 or more and a weight of 0.3 to persons aged 0-13.



Relative poverty intensified in several Member States since the 2012 EU-SILC survey, in particular in Latvia, Lithuania and Romania. This outcome must be seen in the context of the significant increase in the poverty threshold, especially in Latvia and Lithuania, reflecting improvements in the economic situation. Relative poverty was lower according to the 2015 EU-SILC than in 2012 in Croatia, Greece Finland and Slovakia (Chart 45). However, in Greece this decline must be seen in the context of a significant decline in poverty thresholds, reflecting an overall deterioration in overall economic performance (Chart 47).



### 3.3.2. Severe material deprivation: declines since 2013

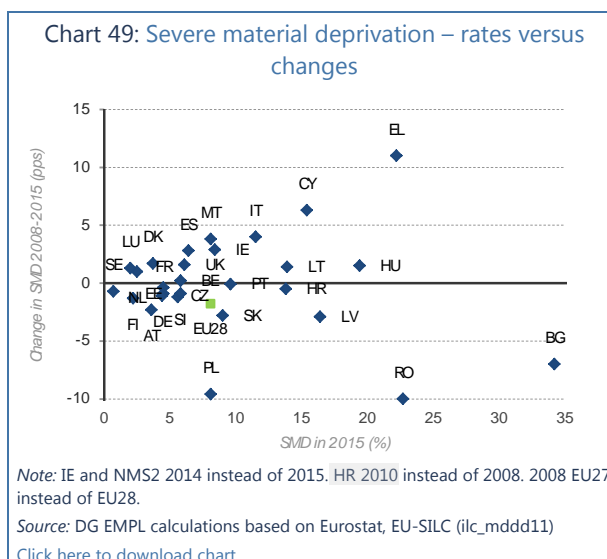
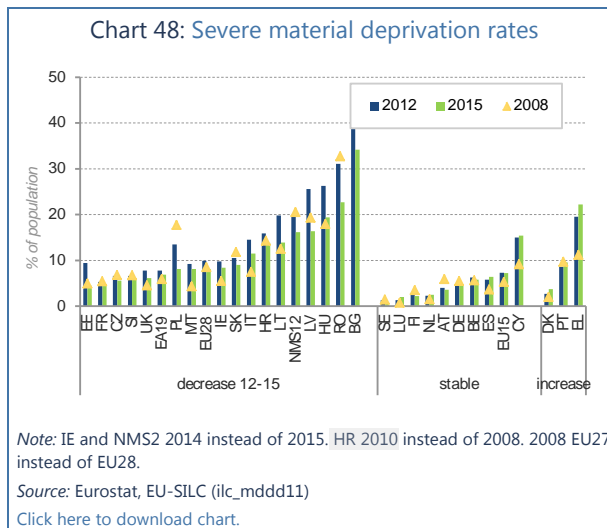
The share of people suffering from severe material deprivation in the EU decreased in 2015 to 8.1%, reinforcing the decline seen in 2013 and 2014. However, there were still 40.3 million people in the EU suffering from severe material deprivation in 2015. Severe material deprivation has increased in some Member States since 2012.

At the start of the economic crisis in 2008, severe material deprivation (SMD) surged. However, as the financial situation of households in the EU started to improve in 2013, SMD declined. The subsequent declines in the number of people suffering severe material deprivation were: 1.6 million in 2013, 3.4 million in 2014 and 4.3 million in 2015.

Most Member States recorded a decrease in the proportion of people facing severe material deprivation between 2012 and 2015, especially in Bulgaria, Estonia, Latvia, Lithuania, Hungary, Poland and Romania, which (except for Bulgaria and Lithuania) showed a strong decrease in 2015 (Chart 48). Several Member States have shown improvements only in recent years. Increases in 2013 or 2014 in Ireland, Portugal, Belgium, the Netherlands, Malta, Slovenia and Spain, the UK were followed by falls in 2015. Greece remained in the most serious situation, as severe material deprivation continued to deepen for several

years till 2015. Severe material deprivation in Denmark, Luxembourg and the Netherlands, although among the lowest in the EU, continued to increase for several years.

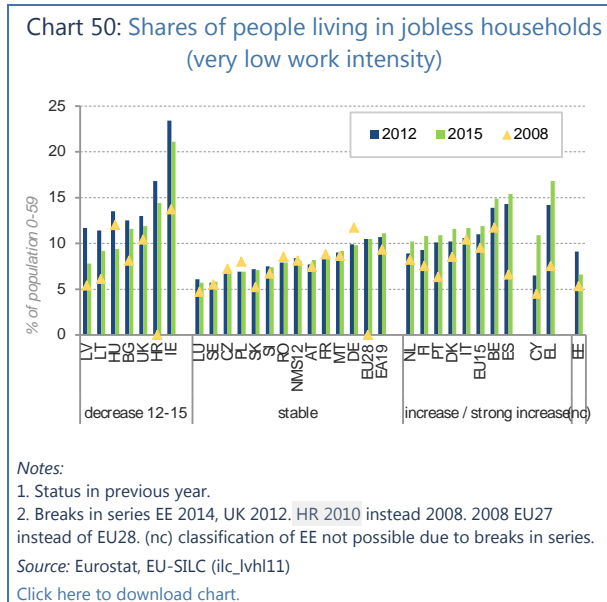
Also, some Member States - Cyprus, Greece, Italy and Malta - have yet to bring SMD rates back down to 2008 levels, even though those 2008 levels were relatively high. Only Bulgaria, Poland and Romania have recorded significant decreases (7 pps or more) since 2008 (Chart 49).



### 3.3.3. Jobless households: some declines in 2014

In 2015, 11.1% of people aged 0-59 reported that they belonged to a household with zero or very low work intensity. This was a return to rates observed in 2012.

The share of people aged 0-59 living in a household with zero or very low work intensity was 10.5% in 2015. The comparable figure was 9.2% in 2008-2009 and 10.5% in 2012 (Chart 50).



Nevertheless, strong differences across Member States persist. Joblessness intensified in several Member States between 2012 and 2015, in particular in Cyprus, and Greece – though Greece recorded a decline in 2015. Despite recent declines, around 15% of people aged under 60 live in jobless households in Greece and Spain and more than 20% in Ireland.

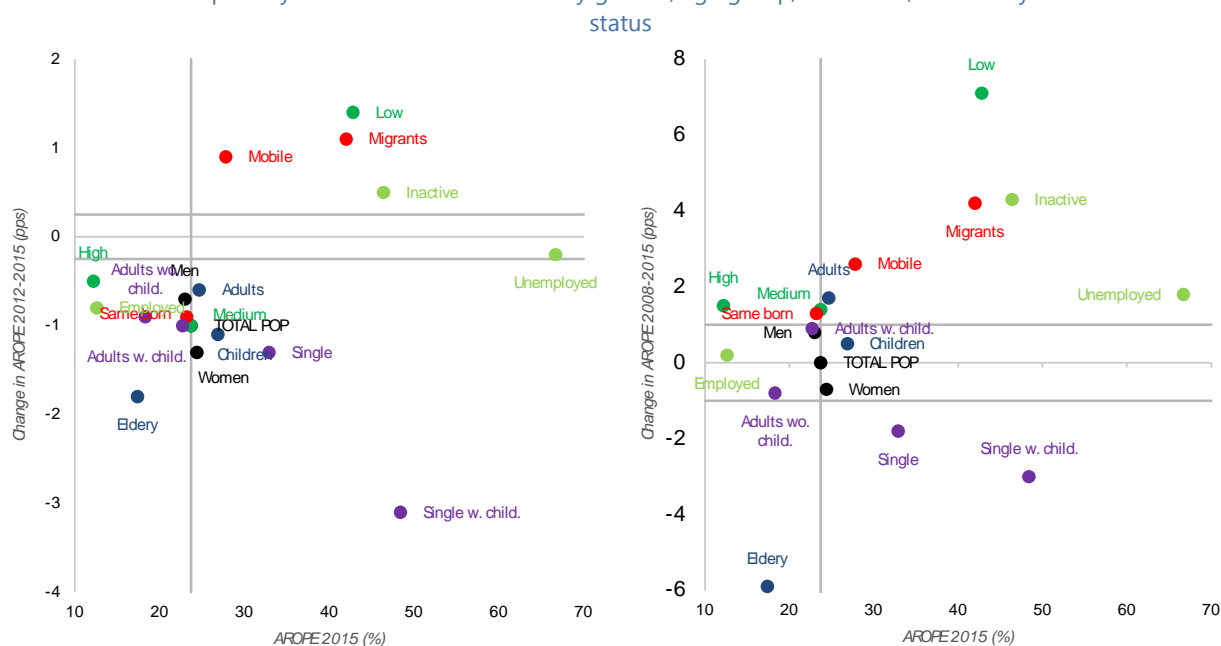
### 3.3.4. Groups most affected by poverty and social exclusion

*The risk of poverty or social exclusion declined in the EU between 2012 and 2015, with declines across most population groups.*

In terms of the risk of poverty or social exclusion,, some population groups have approached their 2008 level (Chart 51, left panel). While the AROPE decreased for the elderly, adults without children and single people, some other groups have been severely affected by the crises (low-skilled, migrants, inactive) (Chart 51, right panel).

Among migrants (the non-EU born residents), almost half of those aged over 18 (40% in 2015) are at risk of poverty and social exclusion. This is almost double the rate of native-born people. The same is true of severe material deprivation which affects 15% of the non-EU born residents in the EU compared with 7% of native-borns in 2015. Even when in employment, 22% of all non-EU borns still find themselves at risk of poverty, considerably more than the native-born (8% according to 2015 EU-SILC data). This persistent adverse outcome is at least partly attributable to the fact that the share of early leavers from education and training amongst the non-EU born is double the share amongst native-born young people aged 18-24 years and that the non EU-born population shows lower-than-average activity and employment rates, with an activity gap of 4.2 pps on average compared with the native population (age class 20-64). For more details on migrants see Chapter 3 of this report.

Chart 51: At risk of poverty and social exclusion rate by gender, age group, skills level, nationality and labour market status



## Notes:

1. AROPE combines AROP, SMD and jobless households with zero or very low work intensity (JLH). JLH: % of population aged 0 to 59; AROPE, AROP: income of the previous year; SMD: current year; JLH: status in previous year.
2. Age 18-64, except 'Total pop', elderly (65+) and children (under 18).
3. 2008 EU27 instead of EU28.

Source: DG EMPL calculations based on Eurostat, EU-SILC (ilc\_peps01, ilc\_peps02, ilc\_peps03, ilc\_peps04, ilc\_peps06)

[Click here to download chart.](#)

### 3.4. Inequality

*Income inequality, both before and after transfers, has stabilised according to the latest EU-SILC data. The significant gap between income inequality before and after tax and transfers reflects the important role that tax-benefit systems play in the EU in reducing market income inequality.*

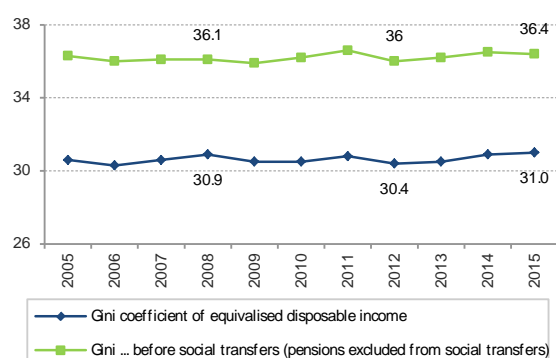
Income inequality can refer either to market incomes or to disposable incomes. The former refers to the gross incomes earned by individuals or households before any redistribution via taxes and transfers, while the latter refers to final outcomes taking into consideration the effects of redistributive policies (possibly also including the availability and provision of in-kind benefits and services) <sup>(30)</sup>. The redistributive effects of the tax/benefit systems in the EU contributes strongly to reducing market income inequalities <sup>(31)</sup>.

An increase in the risk of poverty or social exclusion may indicate an increase in income inequality. Income inequality before transfers grew slightly according to EU-SILC results from 2012 to 2014, stabilising in the last year for which data are available. The redistributive effects of taxes and transfers play an important role in significantly reducing inequalities (Chart 52). Their impact was strong in 2012 but weakened thereafter. However, the previously-observed convergence in levels of income inequality across the EU stopped with the crisis.

<sup>(30)</sup> It should be noted that inequality can be measured for different outcomes (such as income and wealth) and opportunities. See for instance, Maquet (2015), 'High and rising inequalities; what can be done about it (at EU level)?', Analytical Web Note 6/2015 available at <http://ec.europa.eu/social/BlobServlet?docId=14556&langId=en>

<sup>(31)</sup> See also Chapter 1 of this report.

Chart 52: Income inequality before and after social transfers – EU27  
Gini coefficient of disposable income



Notes:

1. The years refer to the EU-SILC survey year; incomes measured are from the previous year income.
2. The Gini-coefficient is an indicator with value between 0 and 1. Lower values indicate higher equality. In other words a value equal to 0 indicates everybody has the same income, a value equal to 1 indicates that one person has all the income. Gini is based on total equivalised disposable household income.

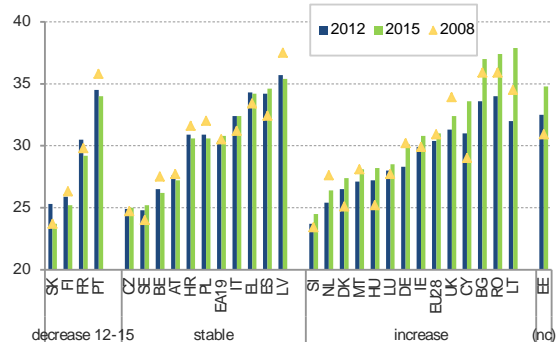
Source: DG EMPL calculations based on Eurostat, EU-SILC (ilc\_di12, ilc\_di12b)

[Click here to download chart.](#)

### 3.4.1. Inequality grew in many Member States

Inequality grew in around half of the Member States between the 2012 and 2015 EU-SILC surveys, most strongly in Estonia, Cyprus, Bulgaria, Romania and Lithuania. Over the same period, the most notable decreases could be observed in Slovakia and France. Compared with the 2008 EU-SILC results, there has been little change in inequality for the EU as a whole, with roughly the same number of countries experiencing increases in inequality as there were experiencing less inequality (Chart 53).

Chart 53: Income inequality after social transfers  
Gini coefficients of disposable income



Notes: 1. The years refer to the EU-SILC survey year; incomes measured are from the previous year.

2. The Gini-coefficient is an indicator with value between 0 and 1. Lower values indicate higher equality. In other words a value equal to 0 indicates everybody has the same income, a value equal to 1 indicates that one person has all the income. Gini is based on total equivalised disposable household income.

3. IE 2014 instead of 2015. Breaks in series EE 2014, UK 2012, DK 2011. HR 2010 instead of 2008. 2008 EU27 instead of EU28. (nc) classification of EE not possible due to breaks in series.

Source: DG EMPL calculations based on Eurostat, EU-SILC (ilc\_di12)

[Click here to download chart.](#)

With a Gini-coefficient close to or below 0.25, Slovakia, Slovenia, the Czech Republic, Sweden and Finland are the countries with the lowest inequality; Belgium and the Netherlands are slightly above that level, but



still far below the European average. The high-inequality Member States include those where inequality rose fastest over recent years, but this was not necessarily a linear trends since the crisis. Indeed, Bulgaria, Romania and Lithuania had first experienced declining inequality before a steep increase over the latest years for which data are available.

### 3.4.2. Distribution of household incomes

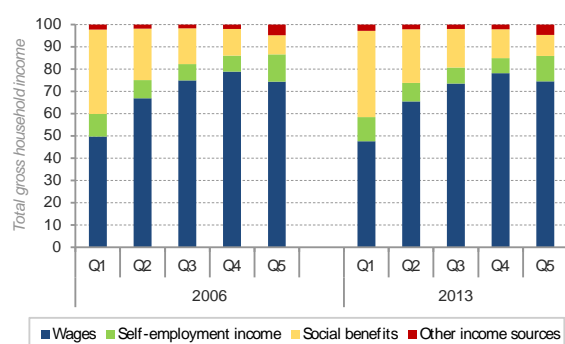
*Wages represented the largest share of household income in all income quintiles among the working age population.*

Between 2006 and 2013, the wage share slightly declined in all quintiles except for the top quintile (Chart 54). At the same time, the wage share increased as part of total income, while the share of social transfers gradually decreased.

The share of wages in total income of the bottom quintile differs strongly across Member States. In most Member States, wages represent more than 50% of all household income in the bottom income quintile. In Ireland, Greece, Romania and Belgium, the wage share of total gross household income is below 40%.

In Greece and Romania this is mainly due to the high importance of income from self-employment (Chart 55).

Chart 54: Income composition by income quintiles – EU



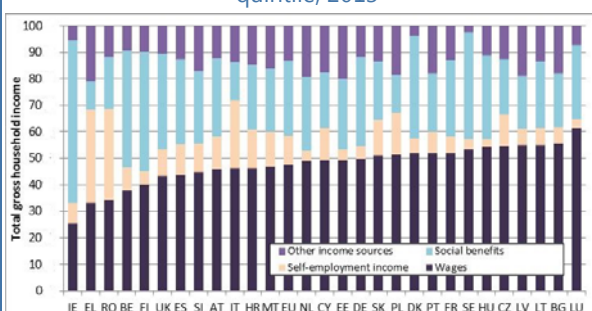
**Notes:**

1. Working age population (20-64 years old).
2. Income quintiles based on equivalised disposable income of working age population. "Other income" (around 10% of total income) includes: (1) interests, dividends and profit from capital investments (above "capital"); (2) private pension plans; (3) income from rental of a property or land; (4) intra-household transfers; (5) alimonies; and (6) income received by people less than 16 years old.

Source: DG EMPL calculations based on EU-SILC cross-sectional data 2007 and 2014 (UDB)

[Click here to download chart.](#)

Chart 55: Income composition of bottom income quintile, 2013



Note: Working age population (20-64 years old). Income quintiles based on equivalised disposable income of working age population.

Source: DG EMPL calculations based on EU-SILC cross-sectional data 2014 (UDB)

[Click here to download chart.](#)

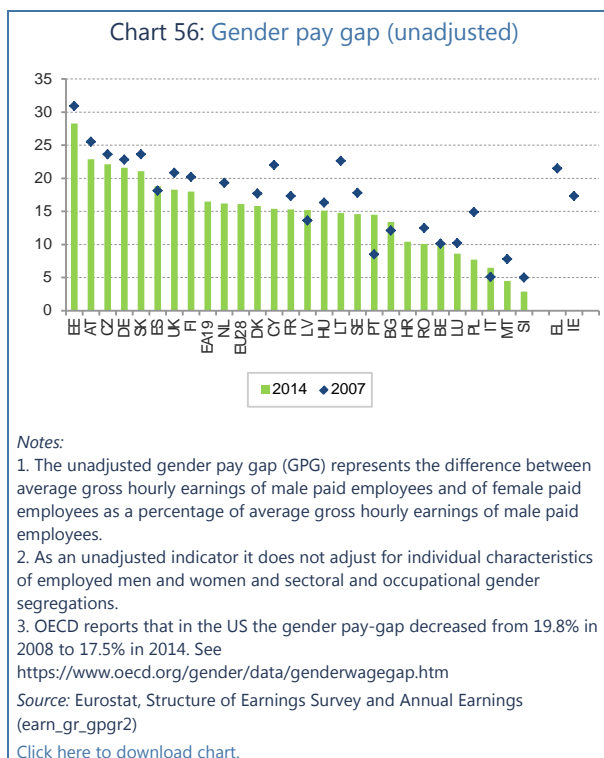
### 3.4.3. The gender pay gap persists

For the EU as a whole, average gross hourly earnings of male employees were about 16% higher than those of female employees in 2014. The gender pay gap has nevertheless declined since 2007. At the same time, the gap in average weekly working hours between men and women decreased from about 7 hours in 2008 to about 6 and a half hours in 2014 and 2015.

Strong gender differences in pay persist across EU Member States <sup>(32)</sup>. This is due to a number of factors which include the fact that management and supervisory positions are more likely to be held by men, while women are more likely to take time off work to take care of dependent family members or relatives for example <sup>(33)</sup>.

In 2014, Estonia recorded the widest gender pay gap (among the Member States for which the data are available) at 28%, though this gap is less than in 2007 (Chart 56). Slovenia recorded the smallest gender pay gap (just below 3%), followed by Malta, Italy, Poland, Luxembourg and Belgium. In Austria, the Czech Republic, Germany and Slovakia the gender pay gap was above 20%.

In most Member States (for which the data are available) the gender pay gap decreased in 2014, with the strongest decrease to be found in Lithuania, Poland, and Cyprus (at more than 6 pps). Portugal recorded by far the strongest increase (up by 6 pps), followed at some distance by Latvia, Italy and Bulgaria.



## 4. CONCLUSION

As economic recovery reaches its fourth year, the ground has been laid for further job creation and a continuing, albeit slow, fall in unemployment. Total employment (232.1m) in the EU now exceeds pre-crisis levels and is at a record high; it is expected to continue to increase. Unemployment is on a declining trend, although at 8.6% in the second quarter of 2016 it is still above the pre-crisis level of 7%. The labour market participation of women and older workers has continued to increase. The employment rate of

<sup>(32)</sup> Not taking into individual or sectoral characteristics. See also Chapter 2 of this report for an analysis that highlights that women are most likely to be over represented at the bottom of the wage distribution compared to men.

<sup>(33)</sup> The gender overall earnings gap stood at 41% in the EU in 2010 (i.e. the most recent observation). The gender overall earnings gap measures the impact of three combined factors on the average earnings of all women of working age - whether employed or not employed - compared to men. The three factors are: average hourly earnings, the monthly average of the number of hours paid (before any adjustment for part-time work) and the employment rate.

women (although still significantly below that of men: 64.3% compared with 75.9% in 2015) has continued to rise. Imbalances in cost competitiveness caused by wage developments are being corrected, and access to credit is improving, especially for small and medium enterprises which are an important source of job creation.

Despite these positive developments, important challenges remain. The number of people available for but not seeking work is nearly 25% higher than before the crisis, while underemployment has increased and youth employment (at 20%) remains very high, as do long-term and very long-term unemployment. Furthermore, although labour markets have continued to recover in most Member States, there are substantial differences between Member States: for example, unemployment at the end of 2015 was 4.5% in Germany and the United Kingdom but 25% in Greece.

Persistently high unemployment and rising long-term unemployment carry the risk of exacerbating social exclusion among both jobless people and those in precarious or part-time employment, where households have low overall incomes and social protection transfers are insufficient. Net earnings are rising in most Member States but, again, strong differences persist between Member States. Disposable household income, although increasing, was in the second quarter of 2016 still 0.14% below the peak value recorded in the Euro area in the third quarter of 2009.

The proportion of people living at risk of poverty or social exclusion (23.7% in 2015) has been decreasing or stabilising in most Member States, but remains at very high levels in some Member States. Overall, in 2015, about 119 million people were at risk of poverty or social exclusion, down from its peak in 2012 by about 4.8 million people. Income inequality was higher in 2014 (latest EU-SILC data available) than in 2012, with substantial differences across Member States both regarding levels and recent trends.

The risks to social cohesion therefore remain significant. Reducing those risks depends crucially on securing further improvements in labour market performance across all Member States.