



EU Employment and Social Situation

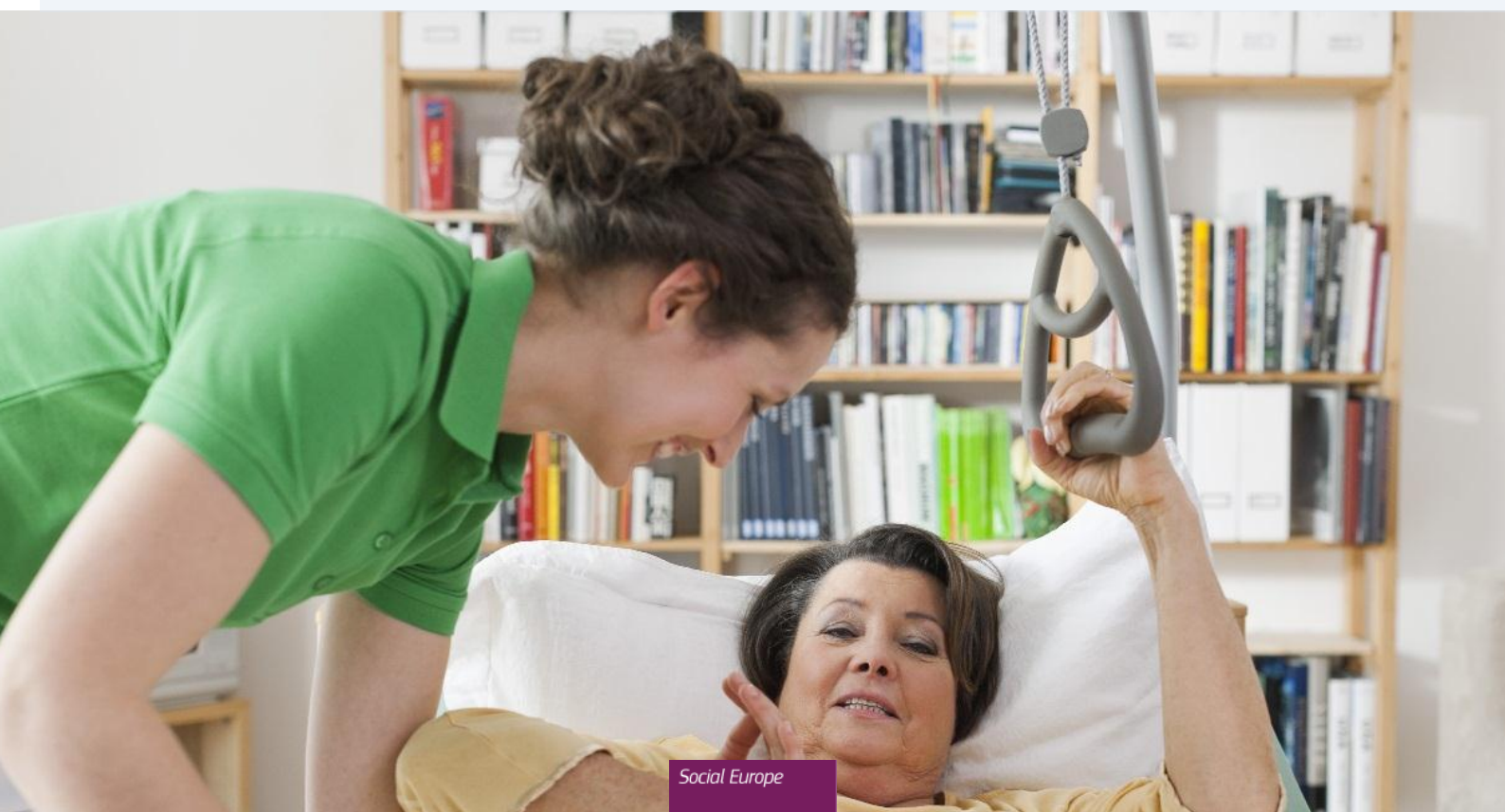
Quarterly Review

December 2014

With supplements on:

- Towards tax reforms that reconcile efficiency and equity concerns
- Health and social services from an employment and economic perspective
- Recent trends in job vacancies and hirings in Europe

With regularly updated data and charts downloadable [here](#)



This Quarterly Review provides in-depth analysis of recent labour market and social developments. It is prepared by the Employment Analysis and Social Analysis Units in DG EMPL. This review was prepared under the supervision of G. Fischer (Director), R. Strauss (Head of Unit) and R. Maly (Head of Unit). The main contributors were: D. Arranz, L. de Dominicis, M. Grzegorzewska, E. Joseph, G. Lejeune, and E. Meyermans. The supplement on *Towards tax reforms that reconcile efficiency and equity concerns* was a special contribution by G. Lejeune, J. Lüttge, and V. Maestri. The supplement on *Health and social services from an employment and economic perspective* was a special contribution by L. de Dominicis, J. Lüttge, and B. Steppe; the box on *Working conditions and job quality in the human health, residential care and social work sectors: main findings from the 5th European Working Conditions Survey* was prepared by Felix Wohlgemuth and Gijs van Houten from EUROFOUND. The supplement on *Recent trends in job vacancies and hiring in Europe* was a special contribution by E. Joseph. General reviewing support was provided by I. Maquet-Engsted and A. Xavier. Editorial support was provided by A. Ujj.

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Underlying regularly updated data and charts are available at:
http://ec.europa.eu/employment_social/employment_analysis/quarterly/quarterly_updated_charts.xlsx

Employment and social analysis portal: <http://ec.europa.eu/social/main.jsp?catId=113&langId=en>

Contact: empl-analysis@ec.europa.eu

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List of country codes

EU Member States

AT: Austria
BE: Belgium
BG: Bulgaria
CY: Cyprus
CZ: Czech Republic
DE: Germany
DK: Denmark
EE: Estonia
EL: Greece
ES: Spain
FI: Finland
FR: France
HR: Croatia
HU: Hungary
IE: Ireland
IT: Italy
LT: Lithuania
LU: Luxembourg
LV: Latvia
MT: Malta
NL: The Netherlands
PL: Poland
PT: Portugal
RO: Romania
SE: Sweden
SI: Slovenia
SK: Slovakia
UK: United Kingdom

Further afield:

US: United States

Executive summary

The economic recovery which started in the EU in the spring of 2013 remains subdued and recent GDP forecasts for the EU and euro area have been revised down, as a result of, among other factors, weak domestic demand, particularly investment. In the third quarter of 2014, GDP increased by 0.3% in the EU and 0.2% in the euro area.

Against the weak macroeconomic background, employment has shown a small but consistent growth in the EU since mid-2013, increasing by 0.3 % both in the second and in the third quarters of 2014. In the third quarter of 2014, employment increased in the large majority of EU Member States, including in countries with very high unemployment rates such as Greece, Spain and Portugal. In the year to the third quarter of 2014, employment increased by 0.9% in the EU, although developments at the EU level hide marked differences between Member States.

In the third quarter of 2014, **employment improved across the large majority of the sectors. Employment expanded significantly in the services sectors**, in particular in the ICT, arts and entertainment sector and in the retail and wholesale sector. Employment in industry and in the construction sector registered a moderate quarterly increase. Nevertheless, compared to a year ago, employment decreased in the construction sector (-0.7% year-on-year change).

Recent figures show some reduction in labour market segmentation. While over half of the new jobs created in the year to the second quarter of 2014 continue to be temporary, permanent contracts are on the increase, a trend which has started in the first quarter of 2014. Also, the increase in part-time employment in the year to the second quarter of 2014 has been accompanied by an increase in full-time employment for the second consecutive quarter, after nine consecutive quarters of continuous deterioration.

The trend of falling unemployment rates which started in September 2013 appears to have lost pace and nearly stopped. The EU unemployment rate was 10.0% in November 2014 (or 24.4 million people), the lowest value since February 2012, but nearly unchanged compared to the period August to September 2014. It was stable in the euro area at 11.5%, with 18.4 million people out of work and actively seeking a job.

The lack of a more rapid return to the pre-crisis unemployment levels appears to be driven by a) the weak economic recovery and b) an increase in labour market participation driving up employment but keeping also unemployment at high levels.

Despite some overall improvements in EU employment many **challenges remain**, undermining the prospects of a stronger recovery in the EU labour market: human capital erosion, high unemployment with high incidence of long-term unemployment and low employment opportunities for youths aged 15-24 and young adults aged 25-39.

Long-term unemployment is a growing problem in the EU, although the latest data show some modest improvements. In the second quarter of 2014, a total of 12.4 million people (5.1% of the labour force and around half of total unemployment) had been unemployed for more than one year, and more than half of these had been unemployed for more than two years. Long-term unemployment rates have reached historic highs in Greece and Cyprus and, worryingly, they are not decreasing. They seem to have stabilised in Spain and are moderately decreasing in Portugal. It is a priority to ensure that the long-term unemployed do not become detached from the labour market and are swiftly brought back into employment.

The unemployment rates of young people show a significant fall in the EU as a whole and in most Member States **but remains very high**, at 21.9% in November 2014. Several

Member States with very high youth unemployment rates, such as Greece, Croatia and Spain, recorded significantly lower levels compared to a year ago. However, youth unemployment is very high and increasing in Italy. Worryingly, people aged 15-24, in particular females, appear to be significantly exposed to labour market discouragement.

The integration of adults aged 25-39 in the labour market appears to be another challenge. People aged 25-39 have not yet benefitted from the recent recovery. They have been hit hard by the crisis, and recent data continues to show a contraction in the employment for this age group, although less strong than in previous quarters.

The labour market matching in the EU paints a mixed picture. On the positive side, the ratio of unemployed people to job hirings has fallen in the year to the second quarter of 2014, indicating improving job prospects overall, although there are poor job opportunities in several Member States. The job vacancy rate also increased, albeit moderately, over the year to the second quarter of 2014 (+0.1 pp), with a higher rate recorded for services (2.1%) than for industry and construction (1.1%). The job vacancy rates and job hiring rates remain well below the pre-crisis levels for the majority of EU Member States (see supplement on vacancy statistics for more details).

Labour productivity growth remained weak in the euro area as a whole, while nominal compensation per employee growth stalled in several Member States and even contracted in Southern Member States of the euro area. On balance, **nominal unit labour cost continued to decrease in the periphery of the euro area, while it remained subdued in core euro area** Member States – thereby strengthening ongoing deflationary pressures across the euro area.

Weak economic recovery and challenges in the labour market impact on the modest developments in the situation of households and individuals. **The growth in household income (GHDI) in the EU continued, but at a slower pace.** The real GHDI growth slowed to 0.6% year-on-year in the second quarter of 2014, down from 0.9% in the first quarter. The recent growth has mainly been driven by income from work as employment started to pick up, while property income decreased. Other components saw rather minor changes, an increase in taxes and social contributions and an increase in social benefits. Among large Member States, household income continued to rise in France, Germany and the UK, while it fell further in Italy and Spain.

Financial distress remained unchanged in the EU in the third quarter of 2014, below the peak levels seen in mid-2013, but still far above the low levels of 2007. The easing in financial distress in low-income households, observed in the first half of 2014, appears to have halted in recent months.

Three supplements accompany this issue of the Quarterly Review.

The first supplement looks at tax reforms as an instrument to reconcile efficiency and equity concerns. The reduction of the tax burden on labour has been an essential part of the 2014 Country-Specific Recommendations. In a context of fiscal consolidation, the policy options recommended are the shift from taxes on labour to less growth-detrimental sources (notably, consumption) and enhancing the fight against tax evasion and avoidance in a number of Member States. Our analysis shows that up to 2012 (latest data available) in less than half of the Member States the tax burden on labour decreased, while only in few Member States was this accompanied by an increase in the tax burden in consumption. The fight against tax evasion and avoidance can contribute positively to budgetary and employment goals, while achieving social goals.

The second supplement analyses recent employment developments in the EU health care and social services sector. The health and social services sector is characterised by a

better skilled workforce than the rest of the economy but also by a higher gender pay gap, harder working conditions and a high rate of part-time work which might lead to challenges in attracting new workers into the sector. Nevertheless, the sector will generate an increased number of jobs due to an ageing labour force in the sector, increased demand due to the development of new needs driven by the demographic changes, the economic and social consequences of the crisis, growing inequalities, technological developments or changing social patterns. The economic and financial crisis has played a double role in relation to health and social services: on one hand, it has shown that these services can cushion the impact of the crisis; on the other, budget constraints have had an impact on the financing of health and social services through significant cuts in the spending on in-kind benefits.

The **third supplement** has more of a statistical nature and **analyses recent trends in vacancies and hiring in Europe**. General trends in recruitment activity are monitored at EU level on the basis of job vacancy and hiring rates. At the EU level, both indicators saw a modest improvement in the first half of 2014 but are still approximately 20–30 % lower than before the financial and economic crisis.

A tool is provided to facilitate access to regularly updated underlying data, charts and tables. Files in the Excel format, which are now available online, make it easy to access data and import charts and tables. Data will be refreshed shortly after their release by Eurostat - for instance unemployment will be updated at the beginning of each month, figures based on the Labour Force Survey - LFS will be updated in mid-April, July, October, and January. Data used in the current document are available at:
http://ec.europa.eu/employment_social/employment_analysis/quarterly/quarterly_updated_charts.xlsx

Latest labour markets and social trends in the EU28 (EA18 between brackets)

	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3
Real GDP					
(% change on previous quarter, SA)	0.3 (0.2)	0.4 (0.2)	0.4 (0.3)	0.2 (0.1)	0.3 (0.2)
(% change on previous year, SA)	0.2 (-0.3)	0.9 (0.4)	1.5 (1.1)	1.3 (0.8)	1.3 (0.8)
Employment growth					
(% change on previous quarter, SA)	0.1 (0.0)	0.1 (0.0)	0.2 (0.1)	0.3 (0.3)	0.3 (0.2)
(% change on previous year, SA)	-0.4 (-0.7)	-0.1 (-0.4)	0.3 (0.0)	0.7 (0.4)	1.0 (0.6)
Employment rate (15-64)					
(% of working-age population, NSA)	64.6 (63.9)	64.4 (63.7)	64.0 (63.2)	64.9 (64.0)	NA
(% points change on previous year, NSA)	0.1 (-0.2)	0.3 (0.0)	0.6 (0.2)	0.8 (0.4)	NA
Employment rate (20-64)					
(% of working-age population, NSA)	68.8 (68.1)	68.7 (67.9)	68.4 (67.5)	69.3 (68.3)	NA
(% points change on previous year, NSA)	0.0 (-0.2)	0.3 (0.0)	0.8 (0.3)	0.9 (0.5)	NA
Gross disposable households income					
(% change on previous year, NSA)	0.2 (0.1)	1.3 (1.8)	0.9 (0.3)	0.6 (0.1)	NA
Labour productivity					
(% change on previous year, SA)	0.6 (0.4)	1.1 (0.8)	1.1 (1.0)	0.6 (0.4)	0.3 (0.2)
Nominal unit labour cost					
(% change on previous year, SA)	-0.2 (1.3)	0.1 (1.2)	0.9 (0.7)	1.1 (1.0)	1.8 (1.1)
Long-term unemployment rate					
(% labour force, NSA)	5.0 (5.8)	5.3 (6.2)	5.3 (6.3)	5.1 (6.1)	NA
(% points change on previous year, NSA)	0.4 (0.6)	0.4 (0.6)	0.1 (0.4)	0.0 (0.2)	NA

	2013 Nov	2014 Aug	2014 Sep	2014 Oct	2014 Nov
Unemployment rate (SA)					
Total (% labour force)	10.7 (11.9)	10.1 (11.5)	10.0 (11.5)	10.1 (11.5)	10.0 (11.5)
Men	10.6 (11.8)	9.9 (11.3)	9.9 (11.3)	9.9 (11.4)	9.9 (11.4)
Women	10.8 (12.0)	10.2 (11.8)	10.2 (11.7)	10.2 (11.7)	10.2 (11.7)
Youth (% labour force aged 15-24)	23.2 (23.9)	21.7 (23.5)	21.8 (23.5)	21.8 (23.6)	21.9 (23.7)

Source: Eurostat; ECB Statistical Data Warehouse (labour productivity and nominal unit labour costs); DG EMPL own calculations (GDHI).

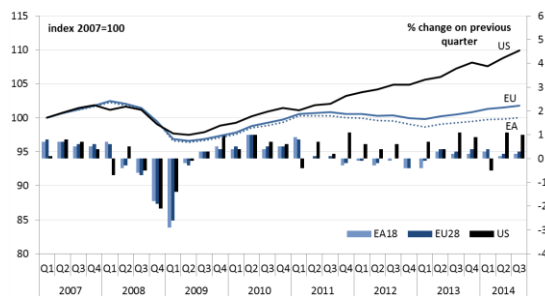
Note: SA = seasonally adjusted NSA = non-seasonally adjusted; NA: not available.

1. Macroeconomic and employment developments and outlook

The EU economy continues to recover though at a slow pace

Real GDP increased by 0.3% in the EU and by 0.2% in the euro area (EA) in the third quarter of 2014, meaning that output growth has been positive in both regions for six consecutive quarters. Among the larger Member States, the performance of the French economic activity was better-than-expected, while Germany and Italy were in line with expectations. Domestic demand, especially private consumption, contributed positively to output growth, while the contribution from investments was neutral. Compared with a year ago, GDP rose by 1.3% in the EU and by 0.8% in the EA. During the third quarter of 2014, GDP in the United States increased by 0.9% compared with the previous quarter (+2.3% compared to a year ago).

Chart 1: Real GDP in the EU, euro area and US (left axis), and percentage changes over the previous quarter (right axis)



Source: Eurostat, National Accounts, data seasonally adjusted [namq_gdp_k]
[Click here to download chart.](#)

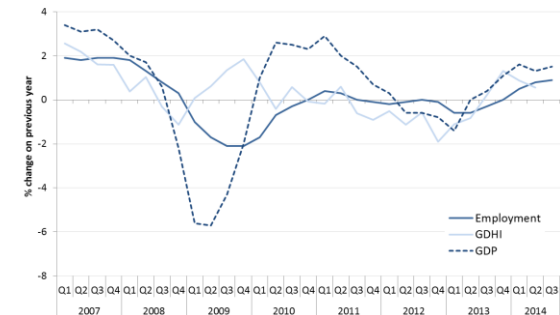
The growth in household income also continues but has decelerated, despite the timid improvements in the economy and the labour market.

On average in the EU¹, the growth in the gross disposable household income (GDHI)

¹ The real GDHI growth for the EU is DG EMPL estimation, and it includes Member States for which quarterly data based on the ESA2010 are available (13 Member States (CZ, DE, DK, EL, ES, FI, FR, IT, NL, PT, SE, SI, UK) which account for 85% of EU GDHI). 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.

in real terms continued in the second quarter of 2014 (+0.6% year-on-year), but at a slower pace. Employment is also improving, but not yet fast enough to compensate for the years of recession.

Chart 2: Real GDP growth, real GDHI growth and employment growth (number of persons employed) in the EU, year-on-year change.

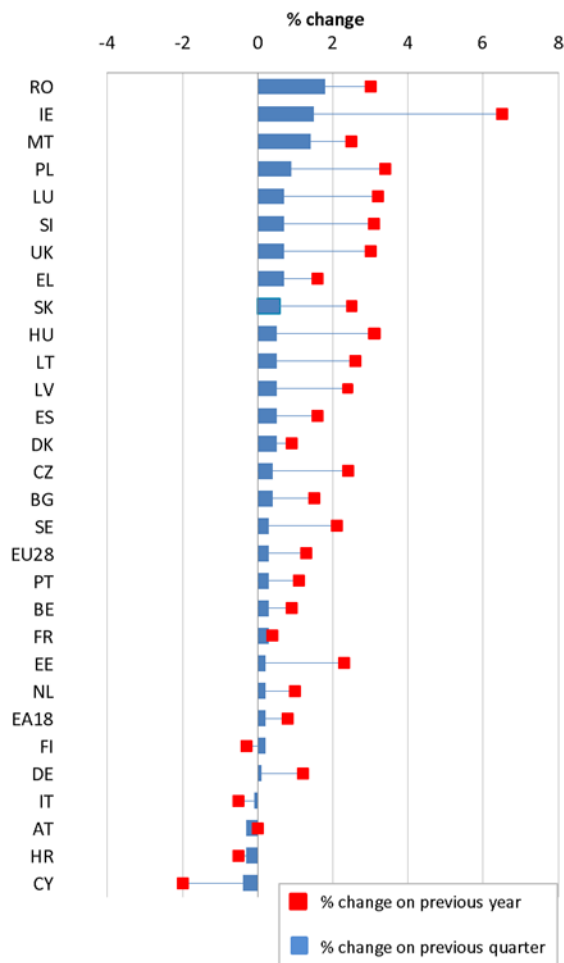


Source: Eurostat, National Accounts, data non-seasonally adjusted [namq_gdp_k, namq_aux_pem, nasq_nf_tr and namq_fcs_p] (DG EMPL calculations for GDHI)
[Click here to download chart.](#)

Positive GDP growth in the large majority of EU Member States was not enough to offset the weak performance of some of the largest EU economies

In the third quarter of 2014, GDP grew in all EU Member States, with the exception of Cyprus, Croatia, Austria and Italy. But worryingly, in the 12 months to the third quarter of 2014, GDP growth was well below 2% in the largest EU economies: Germany, Italy and France. Among the large economies, only the UK, outside the EA, recorded a year-on-year growth above 2%.

Chart 3: Real GDP growth in the second quarter of 2014 or latest data available, by EU Member State



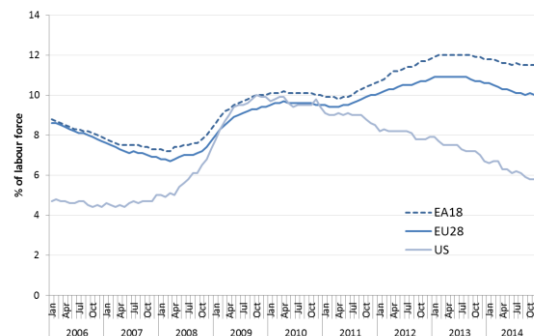
Source: Eurostat, National Accounts, data seasonally adjusted [namq_gdp_k]
 Notes: Data are consistent with the EUROSTAT press release of the 5th of December 2014, available [here](#).
 For IE and LU and MT data refer to the second quarter of 2014;

The latest figures for employment and unemployment suggest that the situation has been improving although it will take some time before we see a return to the pre-crisis levels. Recent output figures do confirm a moderate growth for the third quarter of 2014, which may induce a slow employment recovery and unemployment reduction. Increasing participation rates in the EU also partly explain the moderate reduction in unemployment, in particular if compared with the US, where recent sharp

decreases in unemployment have been accompanied by a fall in labour market participation.

The EU unemployment rate was 10.0% in November 2014 (11.5% in the EA), down from 10.7% in November 2013 (11.9% in the EA). The unemployment rate in the US was 5.8% in November 2014, down from 7.0% in November 2013.

Chart 4: Unemployment rates in the EU, euro area, and the US.



Source: Eurostat, series on unemployment, data seasonally adjusted [une_rt_m]
[Click here to download chart.](#)

Outlook

No recovery in confidence indicators (or PMI) in the fourth quarter of 2014

In the fourth quarter of 2014, the Commission's economic sentiment indicator stabilised slightly above the year-low observed in September. A modest improvement compared to September was seen in services, industry and construction, while the economic sentiment worsened among consumers and in retail.

In November 2014, the euro-area Purchasing Managers Index (PMI) composite output index fell to its lowest level in 16 months, but remained above the level which separates growth from contraction. Results continue to differ by Member State, with the French indicator in contraction territory for the seventh consecutive month. The trend in job creation remained muted, with employment rising only fractionally in the EA, while falling in France and Italy.

A modest outlook for growth this year and next, with only a modest decline in unemployment

Table 1 shows the most recent forecasts for EU-28 and the EA by the Commission and three international institutions.

Table 1: Recent forecasts for growth and unemployment in the EU and euro area.

	gr. '14	gr. '15	gr. '16	UR '14	UR '15	UR '16
euro area						
IMF	0.8	1.3	NA	11.6	11.2	NA
Commission	0.8	1.1	1.7	11.6	11.3	10.8
OECD	0.8	1.1	1.7	11.4	11.1	10.8
ECB	0.8	1.0	1.5	11.6	11.2	10.9
EU-28						
Commission	1.3	1.5	2.0	10.3	10.0	9.5

Source: Diverse forecast documents; "gr." is real GDP growth in %; "UR" is the unemployment rate, in % of the active population. Forecasts were published on 7 October (IMF), 5 November (Commission), 25 November (OECD) and 4 December (ECB).

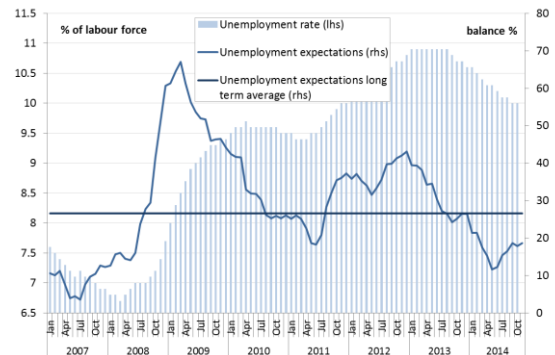
The recent forecasts concur on a modest outlook, with euro-area GDP growth respectively just below and just above 1% in 2014 and 2015, accelerating to at least 1.5% in 2016. From 2016 onwards GDP growth in the EU would be about 0.5 percentage points (pp) stronger each year, according to the Commission autumn forecast. Euro-area unemployment would decline only gradually, to just below 11% in 2016 while EU unemployment would decline to about 9.5% (Commission autumn forecast).

According to EU Business Surveys, in the fourth quarter of 2014, developments in employment prospects in the different sectors were mixed, with improvements in services and construction and a worsening in manufacturing.

European consumers uncertain about the pace of the fall in unemployment

The improvement in consumers' expectations for unemployment at EU level has reversed since June, in line with the movement in overall economic sentiment (Chart 5).

Chart 5: EU consumers' expectations for unemployment over the next 12 months and the unemployment rate (the scale varies)



Source: European Commission, Business and Consumer Surveys and Eurostat, LFS, data seasonally-adjusted [ei_bosco_m, une_rt_m] [Click here to download chart.](#)

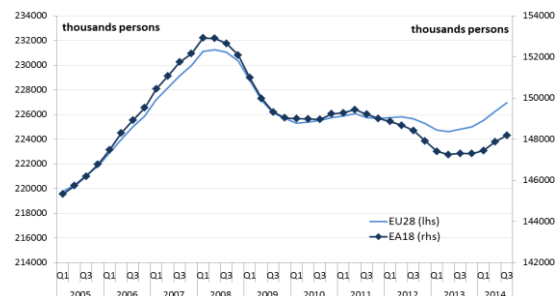
2. Employment in the EU and its Member States

Employment in the EU has increased since mid-2013

The level of employment in the EU has increased since mid-2013, accelerating moderately in the second and third quarter of 2014, with a growth of 0.3%. In the year to the third quarter of 2014, employment grew by 0.9%. However, it is still 1.8% lower than in the third quarter of 2008 (Chart 6).

In the euro area, employment increased by 0.2% in the third quarter of 2014, following a 0.3% rise in the second quarter of 2014. The level in the third quarter of 2014 was 2.9% lower than in the third quarter of 2008, but 0.2% higher than in the third quarter of 2013.

Chart 6: Employment in the EU28 and the euro area, 2006Q1 to 2014Q2

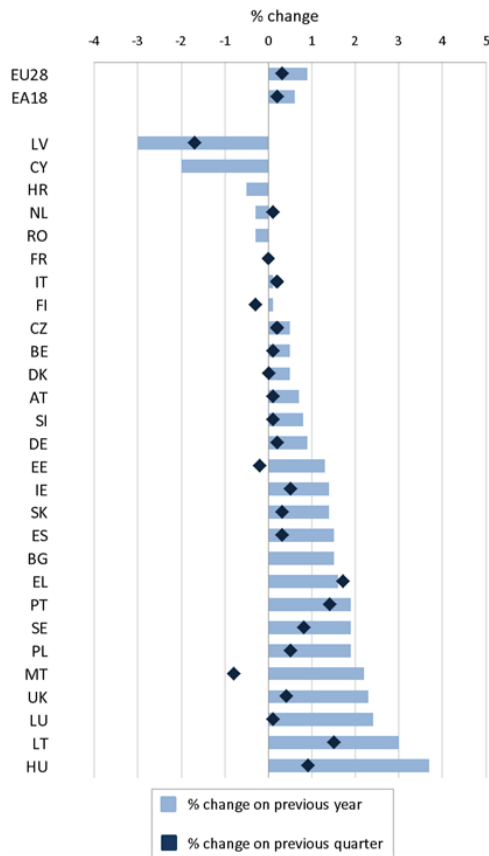


Source: Eurostat, National Accounts, data seasonally-adjusted [namq_aux_pem] [Click here to download chart.](#)

More jobs in most Member States in the third quarter of 2014

In the third quarter of 2014, employment increased in the large majority of EU Member States. The highest quarter-on-quarter growth were observed in MS hit hard by the crisis, such as Greece (+1.7 %) and Portugal (+1.4 %). Among the large Member States, third quarter change were positive in Poland (+0.5 %), Spain (+0.3 %), the UK (+0.4 %), and Italy (+0.4 %). Employment stagnated in France (+0.0 %). In around two-thirds of EU Member States employment increased in the year to the third quarter of 2014.

Chart 7: Employment change in the second quarter of 2014 (year-on-year change and quarterly change) in the EU28, the Euro area and the Member States



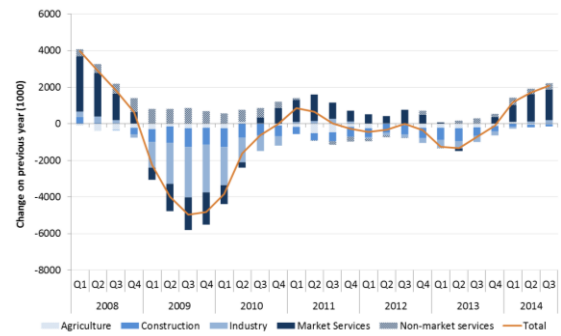
Source: Eurostat, National Accounts [namq_aux_pem].

Notes: Data are consistent with the EUROSTAT press release of 12th December 2014, available [here](#).
[Click here to download chart.](#)

Recovery in employment driven by services, while job destruction in construction and industry decelerates

The recovery in the EU labour market, which started in the third quarter of 2013, is mostly due to a regaining in employment in the service sectors, mainly in the market sector², but also in the non-market sector.

Chart 8: Employment change by sector, 2008-2014, in the EU

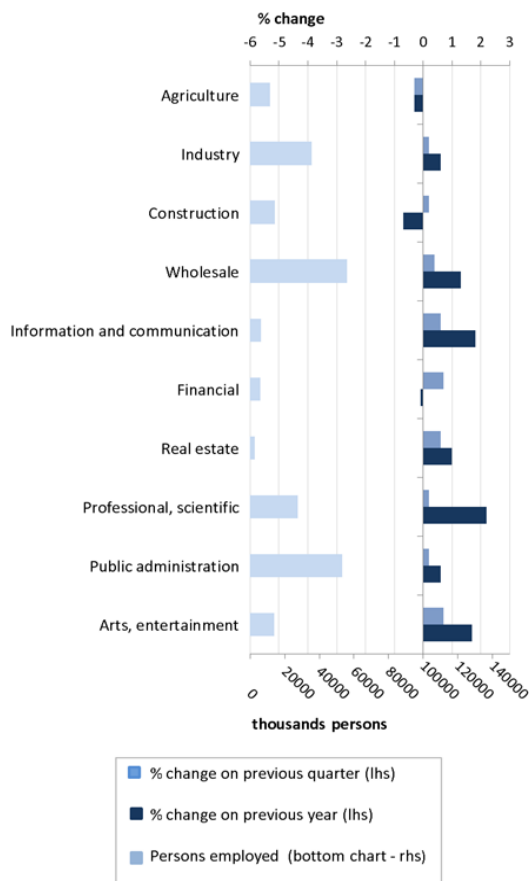


[Click here to download chart.](#)

In the year to the third quarter of 2014, employment increased in all sectors, with the exception of Agriculture and Construction. Employment is picking-up in the large majority of sectors in Spain and Portugal, but show only timid signs of improvement in Italy and Greece. Annex 4 reports in details change in employment in the third quarter of 2014, by 10 NACE branches and by Member State.

² Non-market services include in general sectors covering general public services, non-market services of education and research provided by general government and private non-profit institutions, non-market services of health provided by general government and private non-profit institutions, domestic services and other non-market services (Source: OECD, <http://stats.oecd.org/glossary/detail.asp?ID=1814>). In our analysis, they cover the three 1-DIGIT sectors O, P, and Q (NACE 2.0). Sectors J, K-M, R-U, are here considered market services.

Chart 9: Change in employment in the third quarter of 2014 (top axis) and number of people employed (bottom axis), by 10 NACE branches, in the

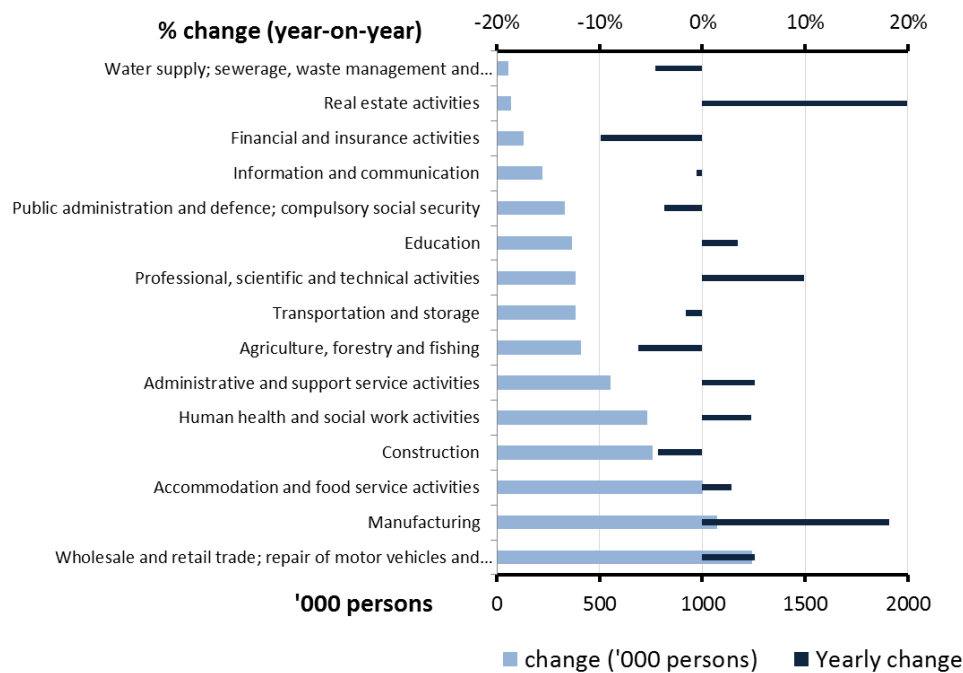


Increased hiring in the first half of 2014, in particular in services sectors

In the year to the second quarter of 2014, the number of people starting a new job increased by 3.8%, after a 3.2% year-on-year increase observed in the first quarter of 2014. Growing sectors included the wholesale and retail trade (+5.1%), manufacturing (+18.2%), accommodation and food service activities (+2.9%), administrative and support service activities (+5.1%) and education (+3.4%). In contrast, in the year to the second quarter of 2014, there was a drop in the number of people starting new jobs in the construction sector (-4.3%). See Chart 10.

Source: Eurostat, National Accounts, data seasonally adjusted (q-o-q) and non-seasonally adjusted (y-o-y) [namq_nace10_e]
[Click here to download chart.](#)

Chart 10: Number of persons starting a new job in the second quarter of 2014, by NACE economic activity, and year-on-year change.



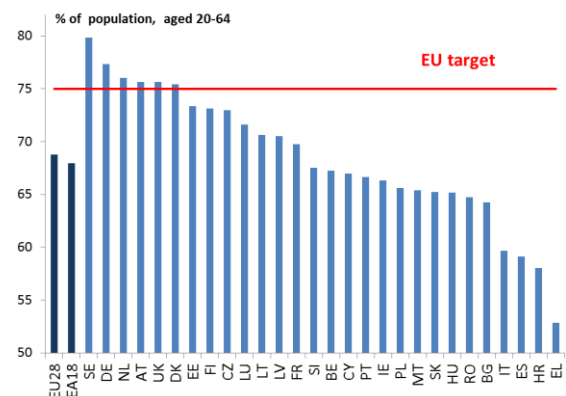
Source: Eurostat, LFS, data non-seasonally adjusted [lfsq_egdn2] (DG EMPL calculations)
[Click here to download chart.](#)

Employment rate³ in the EU and its Member States

EU employment rate rises in the first half of 2014

The employment rate for the 20 to 64 year-olds in the EU increased by 0.9 pp over the year to the second quarter of 2014 (after a year-on-year change of +0.8 pp in the first quarter of 2014), to reach 68.8 %, 1.5 pp lower than in 2008. The euro-area employment rate also improved, but more slowly (+0.5 pp over the year), to reach 68.0 % in the second quarter of 2014 (Chart 11).

Chart 11: Employment rate in the EU28, the euro area and in Member States, second quarter 2014



Source: Eurostat, LFS, data non-seasonally adjusted [lfsi_emp_q]
[Click here to download chart.](#)

The employment rate increased in most Member States in the year to the second quarter of 2014 ...

In the year to the second quarter of 2014, the employment rate increased in 23 Member States and decreased in five. The largest rises were recorded in Hungary

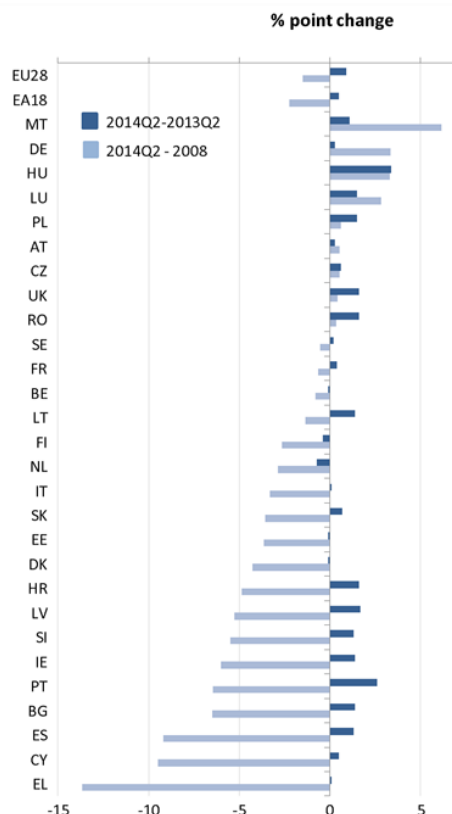
³ For the employment rate section, results for the quarter described are the average of the quarter in question and the three previous ones in order to smooth the seasonality effect.

(+3.4 pps) and Portugal (+2.6 pps), and the most significant falls in Finland (-0.4 pp) and the Netherlands (-0.7 pp).

... but remains below the 2008 level and further from the Europe 2020 target in two thirds of the Member States

Despite the recent increases, the employment rate is still below 2008 levels in two-thirds of the Member States. Spain, Cyprus and Greece have been particularly affected, with falls of 9.2 pp, 9.5 pp and 13.7 pp respectively between 2008 and the second quarter of 2014. Over the same period, the rate rose significantly in Germany (+3.3 pps), Hungary (+3.3 pps) and Malta (+6.2 pps). There is a 27 pps gap between the highest employment rate, in Sweden (79.9%), and the lowest, in Greece (52.9%).

Chart 12: Change (pp) in the employment rate (20-64) between 2008 – 2014Q2 and 2013 Q2 -2014 Q2 in the EU, the euro area and in the Member State



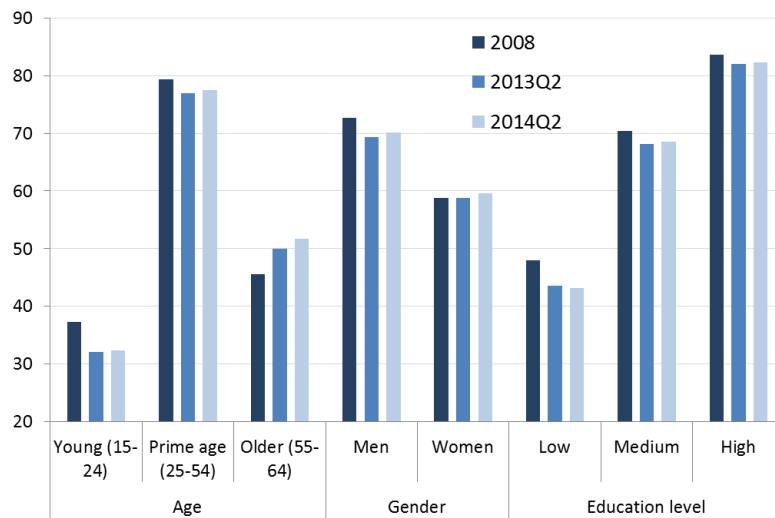
Source: Eurostat, LFS, data non-seasonally adjusted [lfsi_emp_q]
[Click here to download chart.](#)

Employment rates continued to fall among the less educated but increased moderately among the youngest workers in the second quarter of 2014

The 0.8 pp year-on-year increase in the EU employment rate observed in the second quarter of 2014 hides marked differences among population sub-groups, with young people and less educated workers having the lowest employment rates. Those aged 15 to 24 had the lowest rate (32.5%) of all population groups in the second quarter of 2014. Nevertheless, and for the first time since the beginning of the crisis, the employment rate increased moderately for young people aged 15-24 (up by 0.2 pp in the year to the second quarter of 2014). It increased more significantly for the 'prime-age' group aged 25-54 (+0.5 pp) and especially for those aged 55 to 64 (+1.7 pp). The employment rate among men went up by 0.7% in the year to the second quarter of 2014.

The employment rate decreased for the low-skilled (-0.4 pp), while it increased for the medium- and high-skilled, by 0.5 pp and 0.3 pp respectively (Chart 13).

Chart 13: EU employment rate in 2008, 2013 Q2 and 2014 Q2 by age group, gender and education level

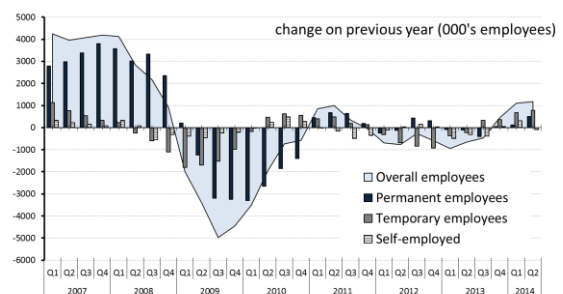


Source: Eurostat, LFS, data non-seasonally adjusted [lfsq_ergaed]
[Click here to download chart.](#)

Over half the new jobs in the second quarter of 2014 were temporary contracts

In the year to the second quarter of 2014, 780 000 more workers (+3.2 %) were taken on in temporary employment. Importantly, about 500 000 new permanent contracts were also generated (or 0.6 % more workers over the year to the second quarter of 2014), though still fewer than the temporary contracts. Self-employment fell slightly, by 0.3 % (around 100 000 workers). Starting from the first quarter of 2014, and differently from previous quarters, employment is growing not only for women, but also for men, showing a more balanced employment growth picture among genders (Chart A3.1. in the Annex).

Chart 14: Employees in permanent and temporary work in the EU, self-employment and total employment (15-64 years) (1 000 employees), 2007-14, year-on-year change



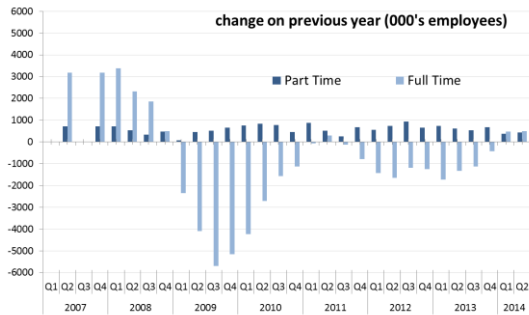
Source: Eurostat, LFS, data non-seasonally adjusted (DG EMPL calculations)
[Click here to download chart.](#)

A moderate increase in full-time work in the second quarter of 2014

In the year to the second quarter of 2014, the number of full-time workers in the EU rose moderately, by 500 000 or 0.4 % (the same rate as in the first quarter of 2014), while the number of part-time employees grew by 1.1 % (440 000) (Chart 14). There has been steady growth in part-time work in recent years, with an increase of 9.4 % since 2008, while full-time employment has fallen dramatically, by 5.0 %, in the same period. Again, recent data shows a more balanced picture among genders, contrary to the previous quarters when employment

increased mostly for female workers. (Chart A3.2. in the Annex).

Chart 15: Part-time and full-time employment in the EU (1000 employees), 2007-14, year-on-year change



Source: Eurostat, LFS, data non-seasonally adjusted (DG EMPL calculations). [Click here to download chart.](#)

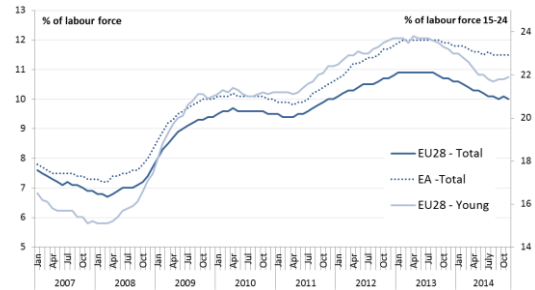
3. Unemployment in the EU and in Member States

The unemployment rate in the EU is gradually falling from a high level and may have stabilised in the euro area

The EU unemployment rate has gradually decreased since mid-2013, to reach a level of 10.0 % in November 2014. The fall in unemployment was larger in the EU (-0.7 pp in November 2014 compared to November 2013) than in the EA (-0.4 pp over the same period). The euro-area unemployment rate was 11.5%, stable since August 2014. This represents around half a million fewer unemployed people in the EA compared to November 2013 (Chart 16).

With 24.4 million people out of work and actively seeking a job in the EU, including 18.4 million in the euro area, the level of unemployment remains high, despite the recent positive developments.

Chart 16: Total unemployment rate in the EU and euro area (left axis) and youth unemployment rate (right axis): Jan 2007–November 2014

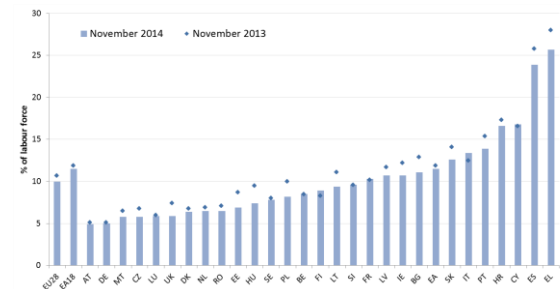


Source: Eurostat, series on unemployment, data seasonally adjusted [une_rt_m] [Click here to download chart.](#)

Unemployment rates falling in twenty-two Member States over the year to November 2014

Large differences exist among Member States, with the lowest rates in Austria (4.9%) and Germany (5.0%), and the highest in Greece (25.7% in September 2014, but -2.3 pp compared to September 2013), Spain (23.9%, but -1.9 pps compared to November 2013) and Cyprus (16.8%, +0.2 pp compared to November 2013). Around two fifths of EU Member States have unemployment rates above the EU aggregate level (10.0%).

Chart 17: Unemployment rates in the EU Member States in November 2014 and November 2013



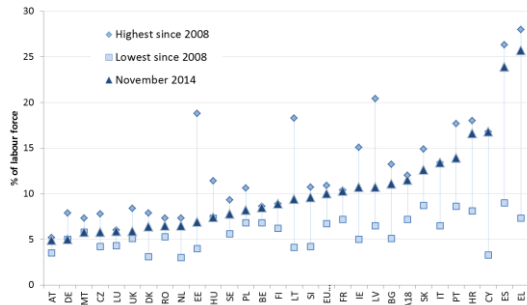
Source: Eurostat, series on unemployment, data seasonally adjusted [une_rt_m].

Note: EL, UK: September 2014, HU, EE: October 2014, LV: 2014Q3)

[Click here to download chart.](#)

Unemployment rates have decreased in most Member States in the year to November 2014 and, importantly, show a decrease also in Member States hit hard by the crisis and under tight budgetary constraints. Rates are nevertheless still high (Chart 18).

Chart 18: Unemployment rates in the EU Member States in November 2014 and the highest and lowest rates since 2008

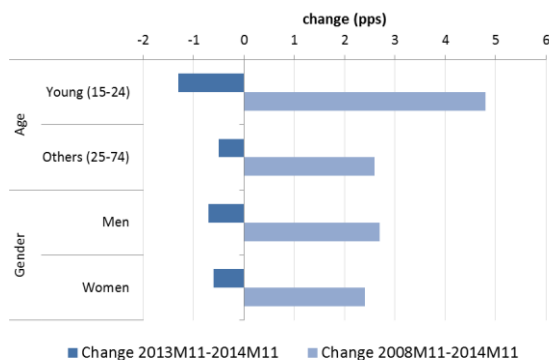


Source: Eurostat, series on unemployment, data seasonally adjusted [une_rt_m].
 Note: EL, UK: September 2014; HU, EE: October 2014, LV: 2014Q3)
[Click here to download chart.](#)

The unemployment rate has fallen for all population groups

In the year to November 2014, unemployment fell across all population groups, with a sharper decrease observed among the youth population (aged 15 to 24). Nonetheless, this recent changes are not enough to compensate for the increase observed since 2008.

Chart 19: Change in the unemployment rate in the EU in November 2014 since November 2013 (year-on-year change) and since 2008 change, by age and gender



Source: Eurostat, series on unemployment, data seasonally adjusted [une_rt_m].
[Click here to download chart.](#)

The labour market situation of young people in the EU continues to improve

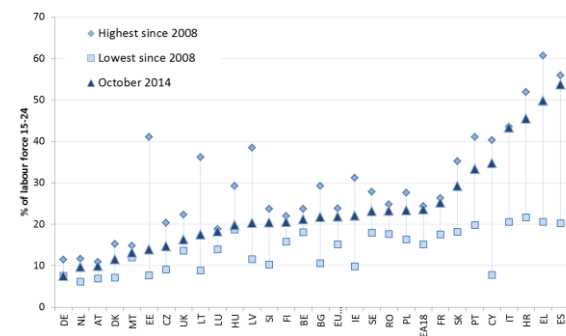
Monthly developments since mid-2013 indicate a fall in unemployment amongst the 15 to 24 year olds. In the year to November 2014 the youth unemployment rate fell to 21.9% in the EU (-1.3 pps) and to 23.7% in the EA (-0.2 pp). It decreased

in most EU Member States (year-on-year) but increased significantly in LU (+2.9 pps), IT (+2.5 pps) and FR (+1.8 pps). In November 2014, unemployment affected around 5.1 million women and men aged 15 to 24 in the EU (including 3.4 million in the EA).

However, disparities among Member States are large

Youth unemployment continues to vary widely between Member States. The youth unemployment rate ranges from less than 10% in countries little affected by labour market deterioration (i.e. Austria, The Netherlands and Germany), to more than half of the active population aged 15 to 24 in Greece and Spain, where it has almost tripled since 2008. In the large majority of Member States it is still very close to historically high levels.

Chart 20: Youth unemployment rates in the EU Member States in November 2014 and the highest and lowest rates since 2008

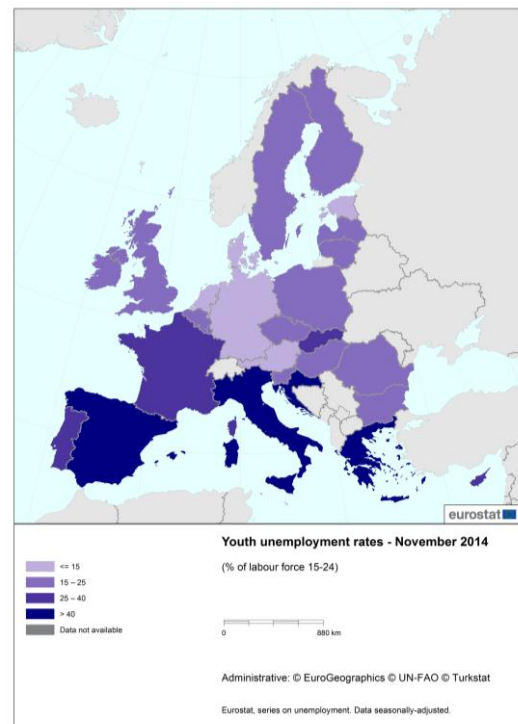


Source: Eurostat, LFS. Data seasonally adjusted.
 Note: EE, HU: October 2014; UK: September 2014; LV, HR, CY, RO, and SI: 2014Q3.

Table 2: Youth unemployment rates in November 2014 and year-on-year percentage points changes

	Youth unemployment rate	Percentage points change (year-on-year)
ES	53.5	-1.4
EL	49.8	-7.5
HR	45.5	-2.2
IT	43.9	+2.5
CY	34.8	-5.5
PT	34.5	-1.1
SK	29.2	-4.1
FR	25.4	+1.8
EA18	23.7	-0.2
RO	23.3	-0.4
PL	23.2	-3.9
SE	23.2	-0.7
EU28	21.9	-1.3
IE	21.8	-3.9
BE	21.6	-2.0
BG	21.4	-5.6
FI	20.7	+1.0
SI	20.4	-0.3
LV	20.3	-2.6
HU	19.8	-5.0
LU	18.4	+2.9
UK	16.3	-4.2
CZ	15.6	-3.6
LT	15.5	-5.5
EE	13.9	-3.9
MT	13.5	+0.8
DK	11.4	-1.5
NL	9.7	-1.7
AT	9.4	-0.3
DE	7.4	-0.5

Source: Eurostat, LFS. Data seasonally adjusted.
 Note: EE, HU: October 2014; UK: September 2014; LV, HR, CY, RO, and SI: 2014Q3.

Chart 21: Map youth unemployment rates in the EU, in November 2014


Source: Eurostat, LFS; Data seasonally adjusted.
 Note: EE, HU: October 2014; UK: September 2014; LV, HR, CY, RO, and SI: 2014Q3.

4. Long-term unemployment, additional potential labour force and underemployment⁴

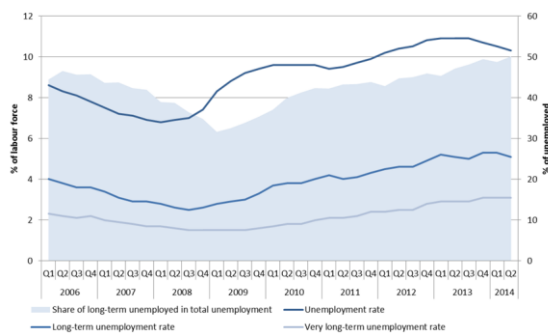
Long-term unemployment shows only a modest improvement in the EU

In the second quarter of 2014, long-term unemployment decreased by 0.2 pp compared to the first quarter of 2014 and reached the same level as in the second quarter of 2013 (5.1% of the labour force). This rate represents 12.4 million people who have been unemployed for at least one year. Despite this important improvement

⁴ Underemployment and additional potential labour force cover the three EUROSTAT supplementary indicators to unemployment: [1] underemployed part-time workers, [2] persons seeking work but not immediately available and [3] persons available for work but not seeking it (i.e. discouraged). See: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Underemployment_and_potential_additional_labour_force_statistics

(almost half a million fewer long-term unemployed than in the previous quarter), the very long-term unemployment rate (people in unemployment for at least two consecutive years) does not show any improvement and remains at its highest level (3.1% of the labour force). The improvement in long-term unemployment has not been as significant as the evolution of the total unemployment. For this reason the share of long-term unemployment over total unemployment has peaked in the second quarter of 2014 and for the first time has exceeded the 50% level (Chart 21). This may indicate some preference for the short-term unemployment and warrants some further investigation and specific policy action to tackle long-term unemployment.

Chart 22: Unemployment rate (left axis), long-term unemployment rate (left axis) and very long-term unemployment rate (left axis) and the long-term unemployment as a share of total unemployment in the EU, first quarter of 2006 to second quarter of 2014

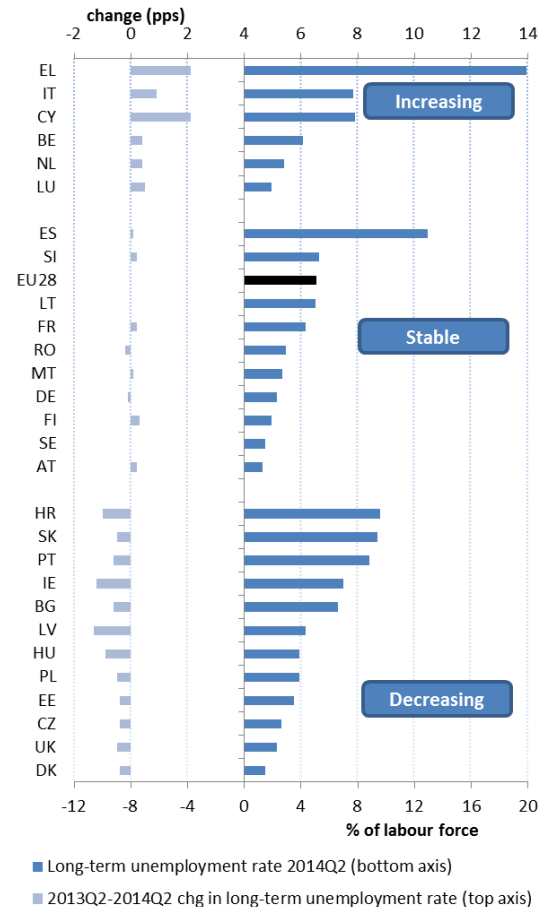


Source: Eurostat, LFS; data seasonally adjusted (unemployment rate) and non-seasonally adjusted (long-term unemployment rates) [une_rt_q and une_ltu_q]. [Click here to download chart.](#)

A number of Member States registered a significant decrease in the long-term unemployment rate during the year to the second quarter to 2014. For example in Latvia, Ireland or Croatia the reduction in long-term unemployment is above 1pp. In general, most of the countries show a stable or positive evolution. In contrast, the rate of long-term unemployment is still increasing in Greece, Italy and Cyprus. Greece also has the highest proportion of long-term unemployed in relation with the total unemployment (74.4% of the total unemployment and an additional 9.3pp increase over the year to the second quarter of 2014). Spain, Croatia, Slovakia

and Portugal all have a long-term unemployment rate higher than 8%.

Chart 23: Long-term unemployment rates and change in long-term unemployment rates in the EU and by Member State



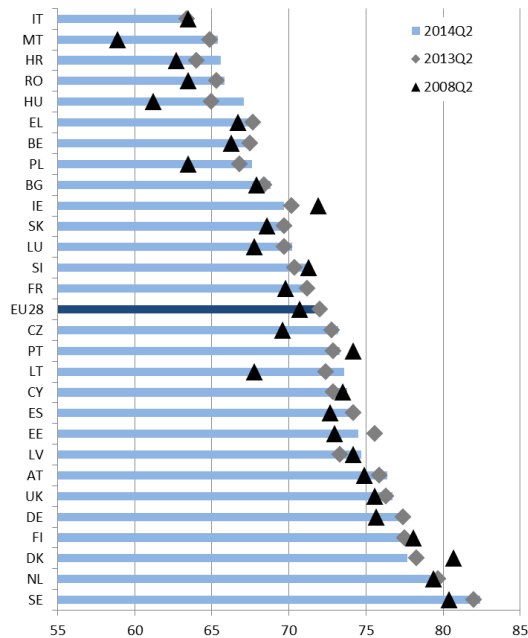
Source: Eurostat, LFS, data non-seasonally adjusted [une_ltu_q]. Note: (*) data from 2013Q4. [Click here to download chart.](#)

All EU Member States have activity rates above 65%, with the exception of Italy

In the second quarter of 2014, the activity rate in the EU stood at 72.2% for the 15 to 64 year-old population, representing a total of 243.2 million people. This represents an increase of 0.2 pp in the year to the second quarter of 2014 and of 1.5 pps since the first quarter of 2008.

Variations in activity rate are small in most Member States. Only Hungary and Croatia showed relevant positive changes over the year to the second quarter of 2014, whereas it decreased more than 1.0 pp in Estonia. In the second quarter of 2014, only Italy registers an activity rate below 65%.

Chart 24: The activity rate and its evolution, by EU Member State



Source: Eurostat, LFS, data non-seasonally adjusted [lfsi_act_q]
[Click here to download chart.](#)

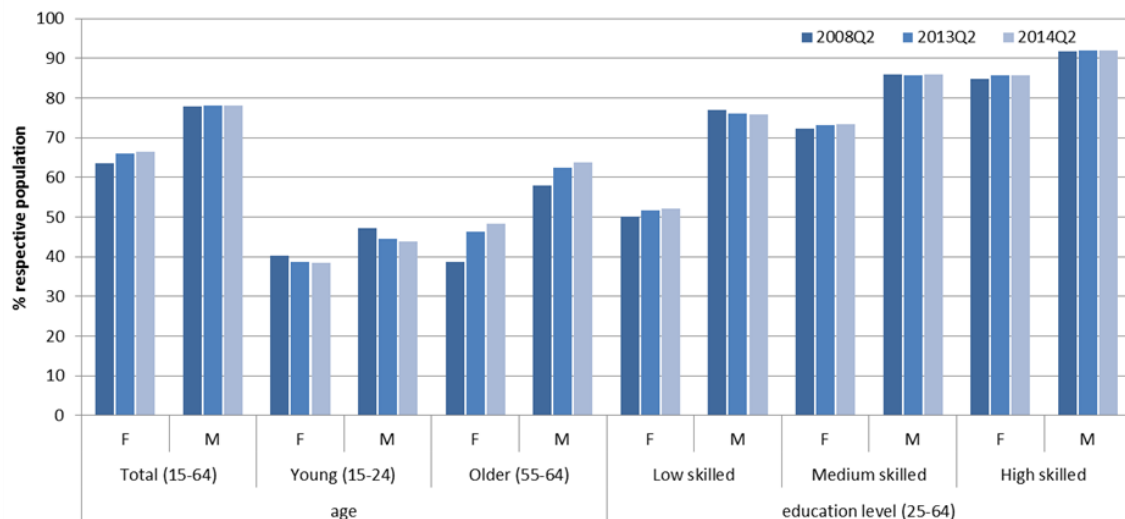
Women and those aged 55 to 64 years show the highest growth in activity rates

In the period between the second quarter of 2008 and the second quarter of 2014, the activity rate increased only slightly for men (to 78.1%, +0.3 pp), but more significantly for women (to 66.4%, +2.8 pps), though an important gender gap remains.

In the year to the second quarter of 2014, the activity rate increased among all age and skill groups, with the exception of young people and low-skilled male (Chart 24). Those aged 55 to 64 years are the age group with the stronger positive evolution. This trend should be confirmed in the following years, due to the reforms in the pension system that go in the direction of increasing the working life of the EU population.

Changes are especially important for women between 55 and 64 years, as the result of two main forces: longer working life and increasing women participation in the labour market in recent years. Slovakia and Belgium registered an increase of around 15 pps since the second quarter of 2008.

Chart 25: Activity rate in selected groups by gender in the EU



Source: Eurostat, LFS, data non-seasonally adjusted [lfsq_argaed]
[Click here to download chart.](#)

Discouragement in the EU increased in the year to the second quarter of 2014

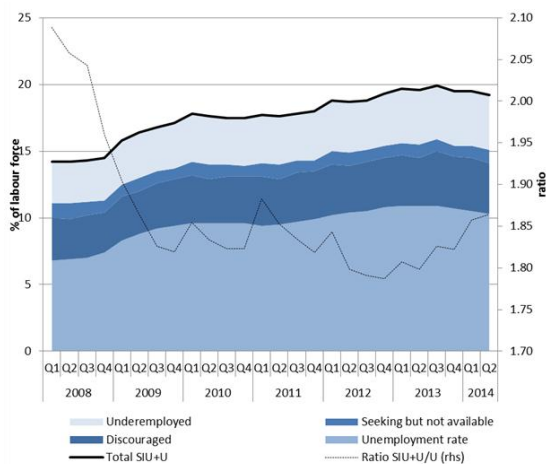
In the second quarter of 2014 'discouraged workers' in the EU (people available to work but not looking for a job) represented 3.8% of the EU labour force, a reduction of 0.2 pp from the first quarter of 2014. This could be the first sign of stabilisation in

discouragement following improvements in the unemployment rate and, more recently, in the long-term unemployment rate. Nevertheless, the year-on-year value is still growing (+0.2 pp).

The other main component of the potential additional labour force, the underemployment (those who would like to work full-time but cannot find a full-time

job), does not show any improvement for the moment: it remains 4.1% of labour force by the sixth quarter in a row. People looking for a job but not available (1% of labour force), remained stable over the year to the second quarter of 2014 and only some relevant seasonal change is found for Finland and Sweden.

Chart 26: Unemployment rate, potential labour force and underemployment in the EU (scale varies)

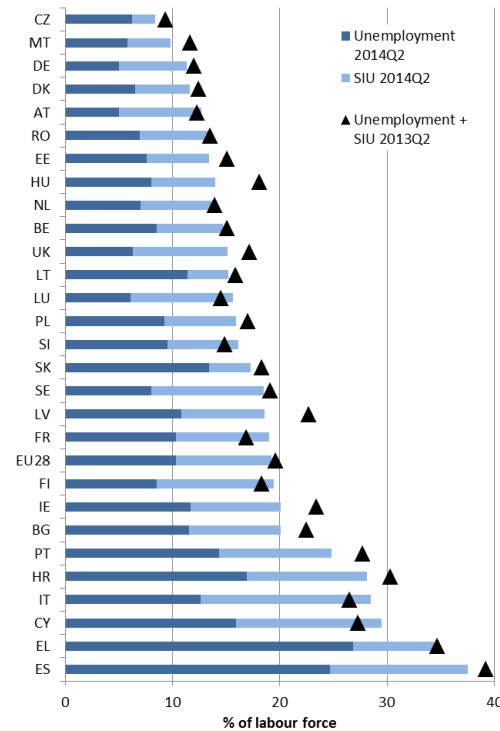


Source: Eurostat, LFS, data seasonally adjusted (unemployment rate) and non-seasonally adjusted (other indicators), [une_rt_q and lfsi_sup_age_q] (DG EMPL calculations) [Click here to download chart.](#)

Most Member States improved their level of unemployment and supplementary indicators

Twenty Member States show better rates of unemployment and supplementary indicators (discouraged workers, underemployed and job seekers temporarily not available for work) in the second quarter of 2014 than in the second quarter of 2013. Italy (15.9% of labour force) and Cyprus (13.6%) are the Member States with the highest aggregate shares of supplementary indicators while Slovenia experienced the largest increase in the aggregate share over the year to the second quarter of 2014 (+2.2 pps). Meanwhile, Latvia (-3.1 pps) and Croatia (-2.0 pps) registered the largest decreases over the same period. Latvia combined this positive evolution with a reduction in the unemployment rate (-1.0 pp) (Chart 26).

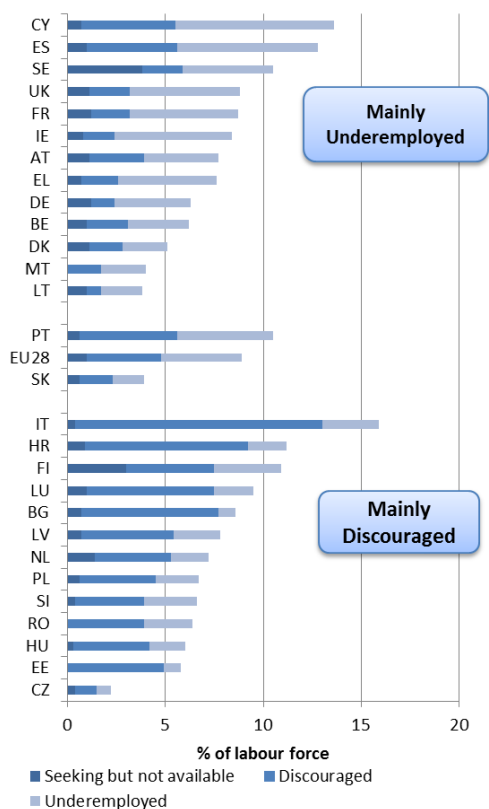
Chart 27: Unemployment and the three supplementary indicators of unemployment by Member State in the first quarter of 2014, in the EU and by Member State



Source: Eurostat, LFS, data non-seasonally adjusted [une_rt_q and lfsi_sup_age_q] (DG EMPL calculations). (*) FR "Discouraged" from 2012Q4. (**) LV "Looking but not available" from 2013Q3 [Click here to download chart.](#)

The division of Member States into those with mainly 'discouraged people' and those with mainly 'underemployed people' remain unchanged in the second quarter of 2014 compared to the first quarter of 2014 (Chart 28). Italy is still the country with the highest percentage of discouraged workers and the most recent developments are not optimistic (12.6% in the second quarter of 2014, +1.2 pps compared to the second quarter of 2013). Croatia remains the country with the second highest discouragement level though showing a significant improvement in the year to the second quarter of 2014 (-2.0 pps). In the second quarter of 2014, Cyprus has again the highest rate of underemployment and is the country with the highest increase in year to the second quarter of 2014 (+2.0 pps). Latvia on the other hand show the biggest reduction in underemployment (-1.2 pps).

Chart 28: Labour underutilisation in EU Member State in the first quarter of 2014



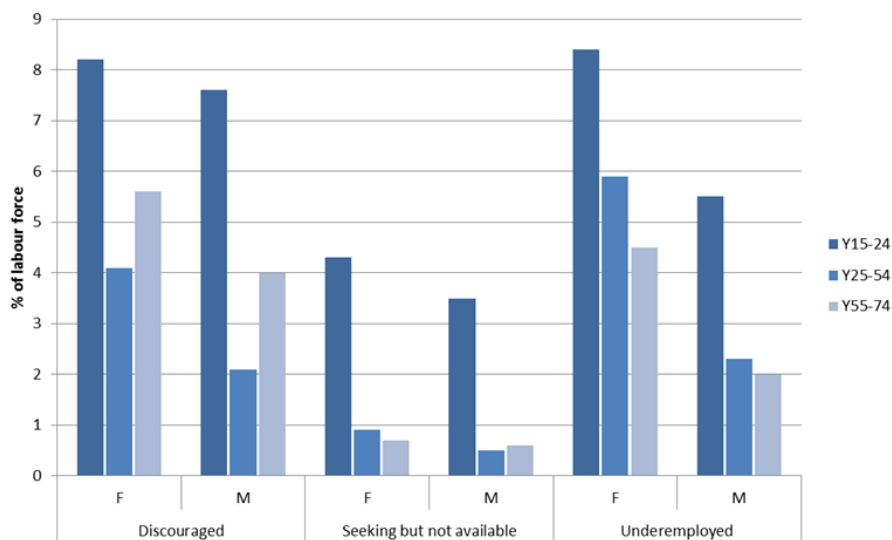
Discouragement increased slightly across different age gender groups but underemployment decreased

Young female workers (aged 15-24) are particularly affected by underemployment and discouragement.

Discouragement is increasing in all age groups with the exception of older workers (55-64 years). On the other hand, underemployment is stable or slightly decreasing in all age groups, especially young women (-0.4 pp over the last year). In Latvia discouragement among youngsters had a strong drop (-9.5 pps) and also in Croatia discouragement between women aged 25-54 decreased significantly (-3.0 pps).

Source: Eurostat, LFS, data non-seasonally adjusted [une_rt_q],[lfsi_sup_age_q] (DG EMPL calculations). Note: EE, RO and MT have no data for Seeking and not available
[Click here to download chart.](#)

Chart 29: Underemployment and potential labour force in the EU in 2014Q1, by age and sex



Source: Eurostat, LFS, [lfsi_sup_age_q]

[Click here to download chart.](#)

5. Household income and financial situation

The growth in disposable household income in the EU continues in the second quarter of 2014, but at a slower pace

On average in the EU⁵, the growth in the gross disposable household income (GDHI) in real terms continued in the second quarter of 2014, but at a slower pace (+0.6% year-on-year, down from 0.9% in the year to the first quarter of 2014). The trend in household income continued to lag GDP growth in the first two quarters of 2014. The moderation in GDHI growth raises concerns over the sustained recovery of household incomes, especially in view of a sluggish economic recovery (Chart 30). A stronger slowdown in the growth of real GDHI was recorded in the euro area.

GDHI is driven mainly by increases in income from work, while taxes, social contributions and social benefits remained stable, and income from properties declined

Over the year to the second quarter of 2014, the growth in GDHI was driven mainly by income from work. The compensation of both employees and self-employed increased, in line with the recent positive trend in employment (see Section 2), though less than in the two previous quarters. Meanwhile, a minor increase in taxes and social contributions, which followed the improvement in income from work, counterbalanced a minor increase in social benefits. Property income decreased. The modest developments across components contributed to the slowdown in the growth of GDHI.

With the economic recovery losing momentum in the second quarter of 2014, there is uncertainty as to whether the recent modest improvements in household income will be sustained.

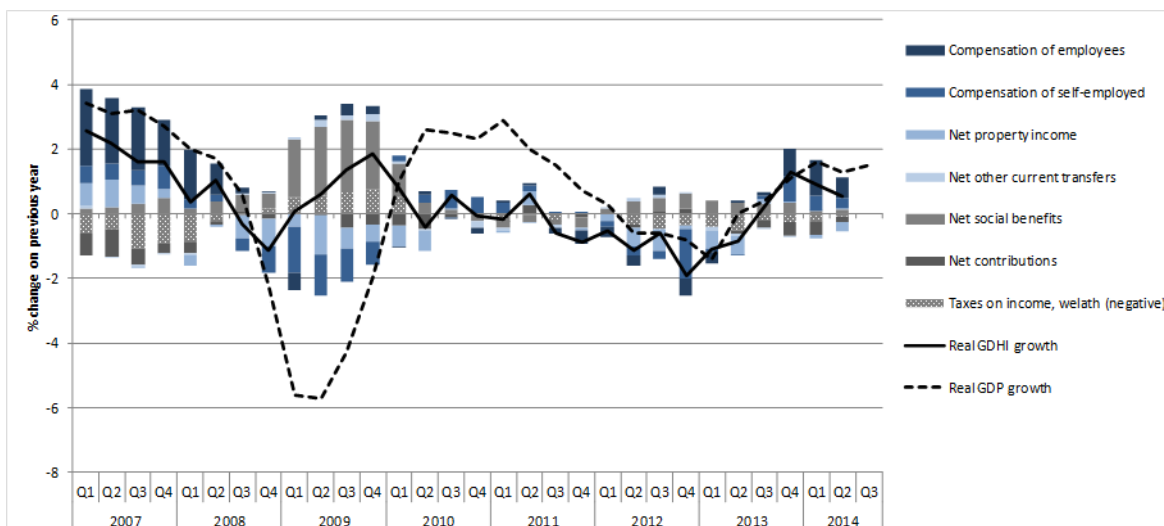
The EU aggregate GDHI was supported by development in several Member States, but household incomes continued to decrease in Greece, Italy and Spain

For the EU as a whole, GDHI increased moderately in real terms over the year to the second quarter of 2014, reflecting developments in the largest Member States. France, Germany and the UK continued to see improvements in household income which started in the second half of 2013. The decline in Italy and the continuous deterioration in Spain contributed heavily to the moderation of the EU growth in GDHI in real terms.

Greece again registered the largest GDHI decrease in the EU, albeit smaller than the reductions observed in 2010-2013. GDHI increased in Finland in the Czech Republic, the Netherlands, Portugal and Sweden (Chart 30 for the EU and charts in Annex 1 for the euro area and selected Member States).

⁵ The real GDHI growth for the EU is DG EMPL estimation, and it includes Member States for which quarterly data based on the ESA2010 are available (13 Member States (CZ, DE, DK, EL, ES, FI, FR, IT, NL, PT, SE, SI, UK) which account for 85% of EU GDHI). 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 30: Growth in household income in the EU weakened despite increased income from work as social benefits stagnated
Real GDP growth, real GDHI growth and its main components, EU, 2005-2014



Source: Eurostat, National Accounts, data non-seasonally adjusted [namq_gdp_k and nasq_10_nf_tr] (DG EMPL calculations)

Note: GDHI EU aggregate for Member States for which data are available, GDP for EU28.

[Click here to download chart.](#)

Households' financial distress remained unchanged in the EU, below the peak observed at the end of 2013

Financial distress⁶, defined as the need to draw on savings or to run into debt to cover current expenditures, remained unchanged in the third quarter of 2014, below the peak of mid-2013. There was little change compared to the second quarter of 2014 both in the share of the households reporting to run into debt, and those having to draw on their savings.

Financial distress remains near to historically high levels, well above the levels seen in the previous decade. It currently affects around 15% of the population. The higher rates seen in recent years have primarily been driven by the increasing reliance on savings, especially since mid-2010 (Chart 31).

Low-income households are those most strained, although they benefitted from a recent easing in financial distress

Financial distress for low-income households has eased since the end of

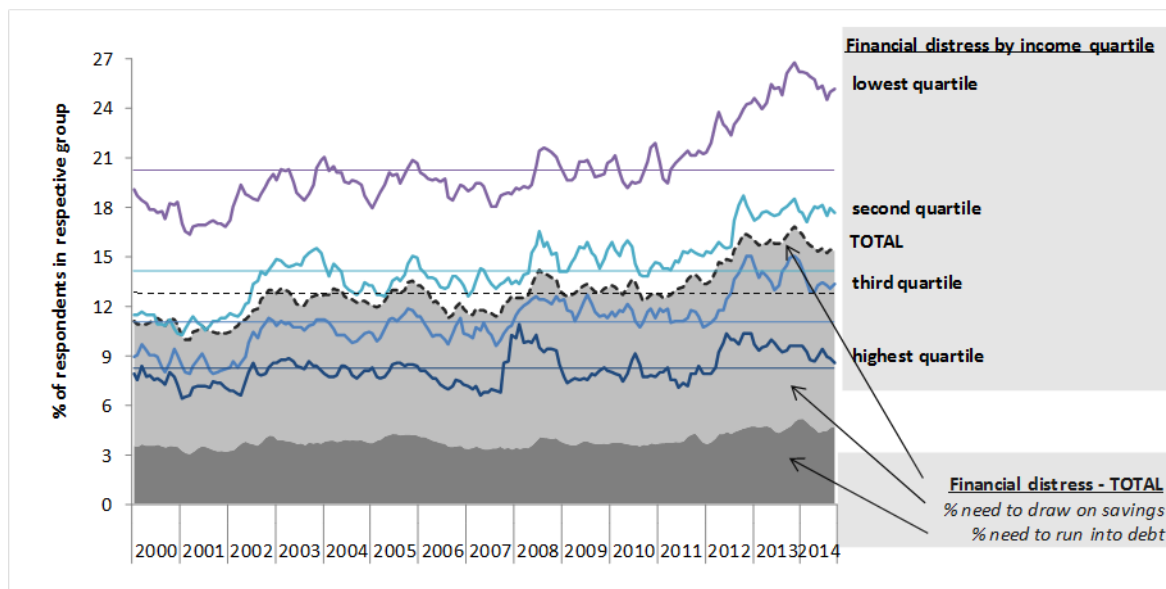
2013, but there may be signs this trend stopped in the third quarter of 2014. Financial distress remained stable for the second and third income quintile groups, and continued to decrease for the richest households. The gap in financial distress between low-income households and other households, which had narrowed in the first half of 2014, may therefore start widening again.

Overall, around 9% of adults in low-income households are forced to run into debt and a further 15% must draw on savings to cover current expenditure, compared to respectively 4% and 11% for the total population. This level of financial distress is far above the long-term average, following the rapid worsening between mid-2010 and the end of 2013. Financial distress also increased to levels above long-term averages since mid-2010 in other household income quartiles, with only the top quartile returning to the long-term average in recent months.

⁶ See previous editions of this report. For details on Business and Consumer Surveys, including consumer survey's question on the current financial situation of the households, see: http://ec.europa.eu/economy_finance/db_indicators/surveys/index_en.htm

Chart 31: Signs of easing of financial distress in the EU continue, including for low-income households

Reported financial distress by income quartile, and components of reported financial distress (share of adults reporting having to draw on savings and having to run into debt), EU28, 2000-2014



Source: European Commission DG ECFIN, Business and Consumer Surveys (DG EMPL calculations), data non-seasonally adjusted.

Note: Three-months moving averages. Horizontal lines show the long-term averages for financial distress for the population as a whole and for households in the four income quartiles. The overall share of adults reporting having to draw on savings and having to run into debt are shown respectively by the light grey and dark grey, which together represent total financial distress.

[Click here to download chart.](#)

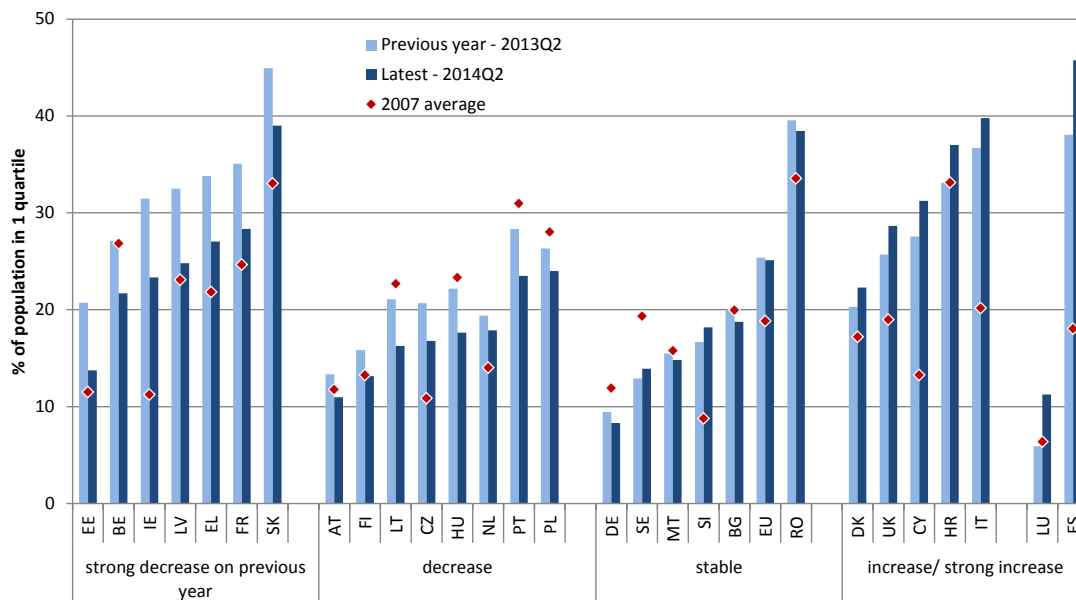
Financial distress has eased in most Member States, but variations persist

The overall level of financial distress fell in the majority of Member States over the year to the third quarter of 2014. In most cases, however, it remains higher than in 2007, ranging from less than 4% in Germany and Sweden to over 25% in Croatia, Cyprus, Greece and Italy. Financial distress declined or remained stable among households in the lowest income quartile in most Member States, but rose markedly in

Croatia and Ireland. However, in comparison with 2007, financial distress for the poorest households is higher in all Member States. In the third quarter of 2014, it affected around 10% of households in the lowest income quartile in Austria and Germany, reaching 40% of the population in Italy, Romania, Slovakia and Spain (Chart 32).

Chart 32: Financial distress eased in most Member States, but variations persist

Reported financial distress in lowest income quartile households, EU Member States, 2007, 2013Q3 and 2014Q3



Source: European Commission DG ECFIN, Business and Consumer Surveys (DG EMPL calculations).

Note: Three-months moving averages

[Click here to download chart.](#)

6. Productivity, wages and hours worked

Labour productivity growth remained weak in the euro area ...

In the third quarter of 2014, labour productivity growth was unequally distributed among the EU Member States (for which the data are available).

Within the euro area as a whole, labour productivity growth (measured as output per person employed) remained very weak, i.e. up by 0.2% for the second quarter in a row (if compared with the same quarter in 2013, and neither seasonally nor working day adjusted). Austria, Portugal and Italy recorded a fall, while several core euro area Member States (including Germany and France) showed productivity growth less than 0.5%. These adverse developments reflect primarily weak growth in aggregate demand. At the same time, however, Ireland, Slovenia and, notably, Latvia recorded productivity growth above 2% - as their economies regained some growth momentum (compared to the third quarter in 2013).

Outside the euro area, with the exception of Lithuania and to a lesser extent Sweden and Denmark, labour productivity growth was fairly robust, with especially strong growth in Romania (+3.5%) and the Czech Republic (+2.1%), followed by the United Kingdom and Poland.

... while increases in nominal compensation per employee were very modest, especially in the euro area ...

Within the euro area, nominal compensation per employee decreased in Portugal (-2.8%), Greece (-1.8%) and to a lesser extent also in Spain (-0.2%) in the third quarter of 2014 (compared with the same quarter in 2013, and neither seasonally nor working day adjusted). While the rate of decreases is decelerating in Greece, it is strengthening notably in Portugal (i.e. from -0.3% in the second quarter to -2.8% in the third quarter).

At the same time, Belgium showed very weak growth in nominal compensation per employee - followed by Italy, Slovenia and France. Nevertheless, growth in Germany was fairly strong if compared with other core euro area areas, i.e. up by 2.5% compared to 1.7% in France and 1.1% in Italy. By contrast, in Latvia and Estonia nominal compensation per employee

increased very sharply (respectively up by 9.6 and 8.2% if compared with the third quarter of 2013).

Outside the euro area, most Member States (for which the data are available) recorded growth in their nominal compensation per employee above 2%, except for the United Kingdom (+0.6%), Denmark (+1.4%) and the Czech Republic (+1.8%).

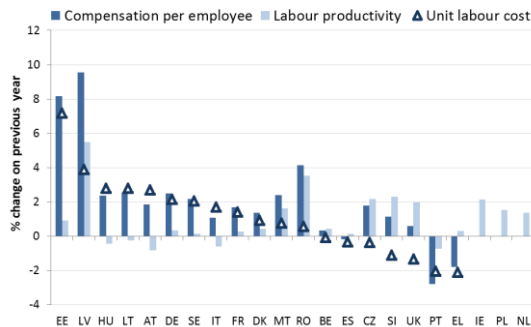
... so that unit labour cost continued to decrease in several Member States ...

In the third quarter of 2014 (if compared with the same quarter in 2013), several Member States of the euro area recorded a decrease in their unit labour cost (which measures nominal compensation per employee adjusted for productivity, and which is also a measure of cost-push inflationary/deflationary pressures in the economy). See Chart 33.

In Greece, nominal unit labour cost decreased at a decelerating pace (down by -2.1% in the fourth quarter, compared to -5.2% in the second quarter), while in Portugal downward pressures regained growth momentum (down by -2.1% in the third quarter compared to a 0.7 rise in the second quarter). In both Member States it was further decreases in nominal compensation that was the main driver behind this development. At the same time, nominal unit labour cost also continued to decrease in Slovenia while stalling at a rate just below zero percent in Spain and Belgium (i.e. -0.3 and -0.1% respectively); but in Germany and Austria nominal unit labour cost growth exceeded 2% - primarily reflecting weak productivity growth in these Member States. By far, the strongest growth in nominal unit labour cost was recorded by Estonia -following a very sharp increase in nominal compensation per employee growth.

Outside the euro area, nominal unit labour cost decreased in the United Kingdom and the Czech Republic in the third quarter of 2014 (if compared with the same quarter in 2013), while it remained strong in Romania.

Chart 33: Nominal unit labour cost and its component, 2014Q3, year-on-year changes



Source: DG EMPL calculation based on Eurostat ESA2010 TP (retrieved from ECB Statistical Data Warehouse)

Note: Note: 2014Q3 data for compensation and ULC not available for IE, PL and NL

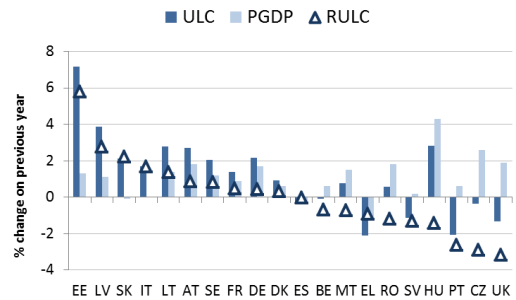
... and real unit labour cost developments were also affected by weak price inflation.

Real unit labour cost developments showed also a divergent pattern across Member States (for which the data are available) in the third quarter of 2014. The real unit labour cost measures nominal unit labour cost adjusted for productivity (or real compensation per employee adjusted for productivity) - which is also a measure of the labour income share.

The strongest increase in real unit labour cost is to be found in Estonia, i.e. up by 5.8% if compared with the third quarter of 2013 - mainly reflecting a sharp increase in nominal compensation per employee in combination with low productivity growth and small increases in the GDP deflator). Latvia and Slovakia recorded also notable increase in real unit labour cost, while increases in Germany and France were rather modest.

Several Member States recorded a decrease in real unit labour cost. In the United Kingdom the decrease in real unit labour cost was rather sharp (i.e. down by 3.2% if compared with the third quarter of 2013), mainly reflecting weak growth in nominal compensation per employee and a moderate increase in the GDP deflator (+1.9%). Within the euro area, Portugal recorded the sharpest decrease, down by -2.6% (despite only a modest 0.6% increase in the GDP deflator). In Spain, and especially Greece, the decreases in real unit labour cost were tempered by decreases in the GDP deflator (Chart 34).

Chart 34: Real unit labour cost and its component, 2014Q3, year-on-year changes (estimates)

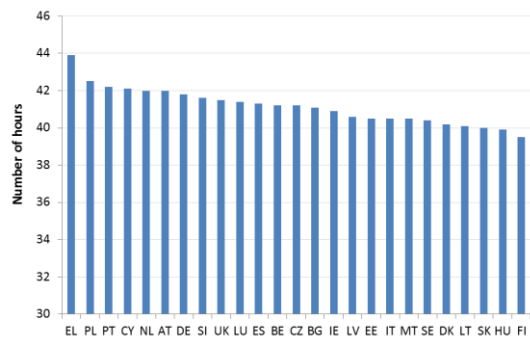


Source: DG EMPL estimates based on Eurostat (namq_10_gdp) and ECB Data Warehouse
Note: ULC based on ESA2010, GDP deflator based on ESA95

Average hours worked remained robust in the third quarter of 2014

The average weekly hours worked (including extra hours, but excluding travel time and main meal breaks) by full-time employed persons remained robust in the third quarter of 2014⁷. Greece (at 43.9 hours), followed by Poland and Portugal, continued to show the highest number of hours worked, while Finland (at 39.5 hours), followed by Hungary and Slovakia showed the lowest number of hours worked (Chart 35).

Chart 35: Average number of actual weekly hours of work in main job, full-time, 2014Q3



Source: Eurostat [lfsq_ewhais]
Note: 14Q3 observation available for FR, HR and RO

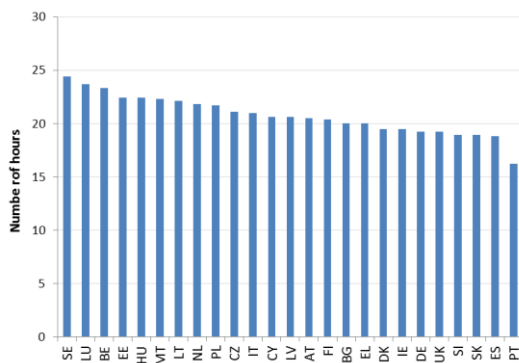
In the third quarter of 2014, the average weekly hours worked by part-time employed persons remained also robust. Hours worked by part-time employed persons was especially high in Sweden (at 24.4 hours), followed by Luxembourg and

⁷ For the Member States for which the data are available. 2014Q3 observations not available for FR, HR and RO.

Belgium, while in Portugal (16.2 hours), Spain and Slovakia hours worked remained low (Chart 36).

The number of hours worked has a direct impact on productivity per employed person, as more hours worked generates more output. However, the impact of an increase in hours worked on productivity measured per hour worked is not unambiguous as workers' performances may get adversely affected by increased stress, fatigue, etc. associated with rising hours worked.

Chart 36: Average number of actual weekly hours of work in main job, part-time, 2014Q3

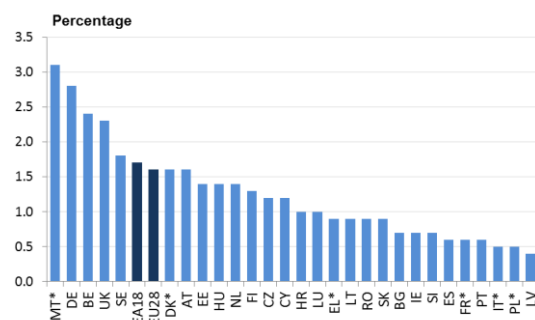


Source: Eurostat (lfsq_ewhais)
Note: 14Q3 observation available for FR, HR and RO

largest increases were recorded in the UK and Cyprus (both +0.4 pp), the Czech Republic, Germany and Luxembourg (all +0.3 pp), while Greece and Spain saw the biggest drops (by 1.3 pp and 0.3 pp respectively).

At EU-28 level, the JVR remains higher in services (2.1%) than in industry and construction (1.1%). In the year to the second quarter of 2014, the JVR rose slightly in services and in industry/construction, by 0.2 pp.

Chart 37: Job Vacancy Rates in the EU, NACE Rev. 2 sections B to S, 2014Q2



Source: Eurostat, Job Vacancy Statistics, data non-seasonally adjusted [jvs_q_nace2]
Notes: DK – only sections B to N covered; FR, IT – section O not included; FR, IT, MT – only business units with 10 or more employees covered; EL, PL – 2014 Q1 figures.
[Click here to download chart.](#)

7. Labour demand: vacancies, labour shortages and hiring activity

The EU job vacancy rate increased moderately over the year to the second quarter of 2014

The EU job vacancy rate⁸ (JVR) was 1.6% in the second quarter of 2014. Compared to the second quarter of 2013, the JVR increased by 0.3 pp in the EU as a whole and by 0.2 pp in the euro area (to 1.7%). Malta (3.1%), Germany (2.8%), Belgium (2.4%) and the UK (2.3%) had the highest JVRs in the first quarter of 2014, while Latvia (0.4%) had the lowest (Chart 37).

In the year to the second quarter of 2014, the JVR rose in 16 Member States, remained stable in 4 and fell in 8. The

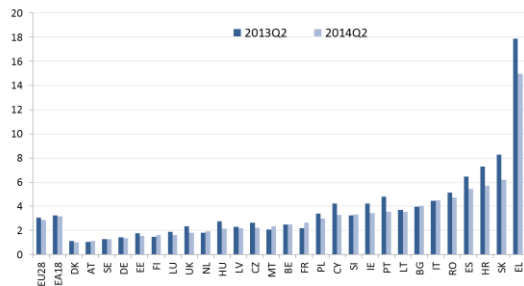
The ratio of unemployed to hiring has shrunk slightly at EU level, but job opportunities are still scarce in some Member States

The ratio of the number of unemployed people to the number of hiring⁹ fell slightly overall, by 0.2 pp, in the year to the second quarter of 2014. It varied between Member States, ranging from 1.0% in Denmark to 17.9% in Greece (Chart 38).

⁸ i.e. number of job vacancies / (number of occupied posts + number of job vacancies) * 100.

⁹ The ratio of unemployed to job hiring indicates the relative ease of hiring, or relative competition for jobs among unemployed jobseekers. For more details see the February 2014 issue of the European Vacancy Monitor.

Chart 38: Ratio of unemployed to job hiring in the EU and euro area and by Member states, 2013Q2 and 2014Q2

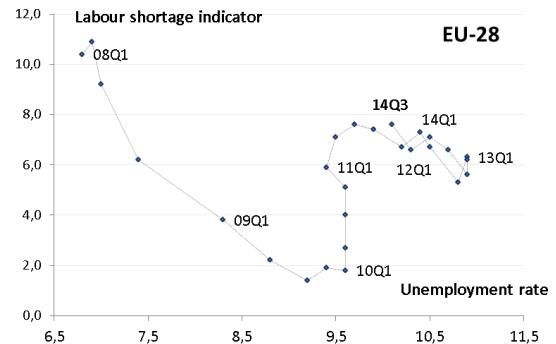


Source: Eurostat (lfsq_egdn2) LFS, data non-seasonally adjusted (DG EMPL calculations)

Job matching in the EU is still subdued

The upward shift in the EU Beveridge curve, which has occurred in the EU since 2008 (with a higher indicator for labour shortage for a given unemployment rate) suggests increasing mismatches in the EU labour markets. Recent data suggest both positive and negative developments in relation to the labour market matching process in the EU. The recent developments of lower unemployment and higher labour shortage are equivalent to the usual move along the Beveridge curve and confirm the recent improvements in the job vacancy rate. At the same time and up to the start of 2010, the Beveridge curve has shifted upwards relative to its general position, suggesting a structurally worse matching process in the EU (Chart 39). Annex 4 reports the Beveridge curves for EU Member States.¹⁰

Chart 39: Beveridge curve for the EU



Source: Eurostat [ei_bsin_q_r2, une_rt_q, une_rt_m].

Note: UR = unemployment rate (%); LSI = labour shortage indicator, derived from EU business survey results (% of manufacturing firms pointing to labour shortage as a factor limiting production).

¹⁰ With the exception of Ireland for which the Labour Shortage Indicator is not available.

Supplements to the EU Employment and Social Situation Quarterly Review

1. Supplement: Towards tax reforms that reconcile efficiency and equity concerns

2. Supplement: Health and social services from an employment and economic perspective

3. Supplement: Recent trends in job vacancy and hirings in Europe

Supplement: Towards tax reforms that reconcile efficiency and equity concerns¹¹

Introduction

In recent years, which have been marked by a deep and protracted economic downturn in most EU Member States, tax reforms were primarily focussed on fiscal consolidation. Looking forward, it is important that Member States undertake the necessary tax reforms to boost economic growth and employment. At the same time, it is important to take into account equity concerns when designing these reforms. Indeed, apart from affecting aggregate demand, tax reforms also have important direct labour market and social impacts, as they:

- affect employment, in particular through taxes on labour;
- are used to finance social protection, while people working undeclared may not be covered by social protection;
- affect poverty and inequality.

Tax reforms should try to balance concerns of efficiency (effects on employment and growth) and equity (effects on distribution and inclusion)¹². In an environment of constrained public finances, tax reforms should focus on making the tax structure more growth and job-friendly, for example through a shift from taxes which are more detrimental to growth (on labour¹³) to taxes which are less harmful to growth (consumption, green and recurrent property taxes). When designing tax reforms, it is important to consider equity concerns. This supplement recalls the conclusions from our previous analysis¹⁴. It adds the recent policy recommendations on tax shifts and elaborates on tax evasion.

Labour taxation affects employment

Labour taxation is made up of social security contributions paid by employers and workers and personal income tax paid by workers. Labour taxes affect the demand for and supply of labour. The effects occur through the difference between the net salary received by the worker and the total cost of the worker to the employer: this difference is the tax wedge.

On the demand side, higher social security contributions paid by employers, with constant wages, are a disincentive for companies to employ workers as it raises their cost. Higher employee contributions and/or higher personal income tax, if resulting in higher gross wage levels, can also be a disincentive to employment¹⁵.

On the supply side, raising labour taxation, particularly in combination with benefits, can produce a disincentive to work as workers find it less attractive to work (substitution effect). However, at the same time it can be an incentive to work more to make the same net income as before (income effect). Empirical evidence shows that the structure and design of tax and benefit systems can create disincentives to work for specific groups. These include low-income workers, single parents, second-income earners and, by extension (through pensions), older workers.

The financing of social protection

Social protection includes expenditure on healthcare, family, unemployment and old-age. It may be financed in two major ways: through social security contributions paid by the employee and the employer or general government taxation. The financing of social protection varies widely

¹¹ The views expressed are the authors' alone and do not necessarily correspond to those of the European Commission.

¹² Next to other concerns, such as the effects on the (ecological) sustainability of the economy.

¹³ We do not look specifically at corporate taxation in this supplement.

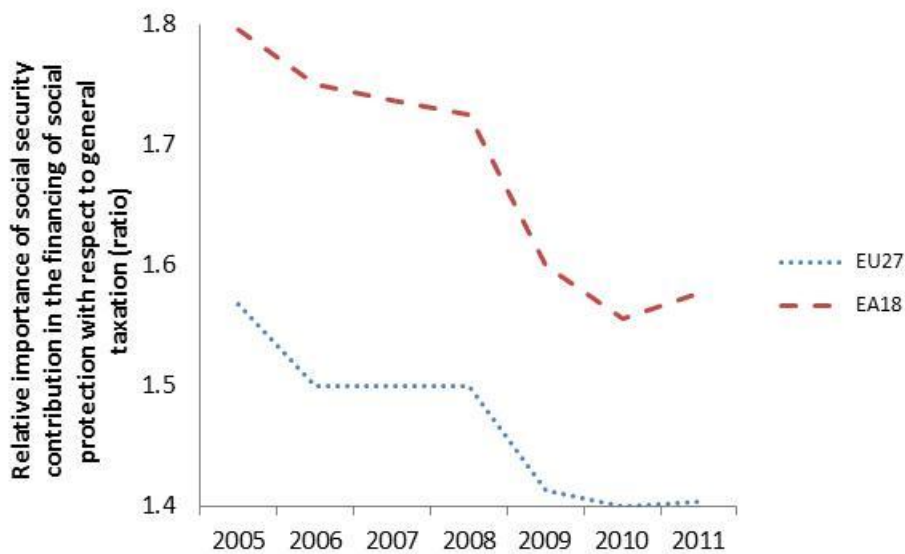
¹⁴ See Chapter 4 of European Commission (2013).

¹⁵ Note that in a perfectly competitive labour market with flexible wages, only the total tax wedge matters: different components of the tax wedge exert then identical effects on employment (Econpublica (2011)).

across Member States, with social security contributions accounting for between 20% and 30% of total receipts in Denmark and Ireland and around 60% for most Member States (Social Protection Committee, 2014). Social security contributions are a form of insurance payments for employees and, to a smaller extent, self-employed, although the correspondence between compensations for risks and payments is not straightforward.

Looking at the developments over the past years, social protection is increasingly financed by general government contributions, due to cyclical (e.g. the decline in employment in the recent years) and structural factors. This requires further investigations into the implications for the financing of social protection and for the entitlement to benefits of a tax shift such as a reduction in social security contributions compensated by an increase in consumption taxes.

Chart 40 - Trends in the financing of social protection



Sources: ESSPROS.

Tax recommendations in the European Semester

As tax reforms are high on the European policy agenda, most Member States received a 2014 Country Specific Recommendations (CSR) on taxation. CSRs on taxation generally concern reforming the tax system in a more growth- and employment friendly way as well as fighting tax evasion.

A shift of the tax burden away from labour was explicitly recommended to Austria, Belgium, the Czech Republic, Italy, Latvia, and Spain. For four out of these six countries, the recommendation specifies a lowering of the tax burden on low-income earners (Austria, the Czech Republic, Latvia, and Spain). Additional CSRs included labour taxation reform without explicit mention of a tax shift: France and Germany received a recommendation to reduce the tax burden on labour, Romania to lower the tax burden on low- and middle-income earners in a budget-neutral way, Hungary to reduce the tax wedge on low-income earners, and the Netherlands to reduce tax disincentives on labour. In the case of France and Germany the recommendation also included a broadening of the tax base in other realms (in particular on consumption).

Recommendations on the revenue side are included in many countries' CSRs. The recommendations to seven countries called for raising revenues via property taxes (Austria, the Czech Republic, Italy, Latvia, Lithuania, Spain, and Sweden); and to a further seven via environmental taxes or phasing out of environmentally harmful subsidies (Belgium, the Czech

Republic, France, Italy, Latvia, Lithuania, Spain). Six countries received a recommendation to broaden the consumption tax base (France, Germany, Italy, Luxembourg, Portugal, and Spain), while three countries received a recommendation calling for broadening the tax base without further specification (Belgium, Ireland, and the UK).

Twelve countries also received a recommendation to step up the fight against tax evasion, to improve tax compliance, to tackle the shadow economy or to address undeclared work (Bulgaria, Croatia, Czech Republic, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, and Spain). The Country Specific Recommendation for Belgium specifically includes a call to close tax loopholes, addressing tax avoidance

Box: Some simulation results for the impact of tax shifts

In this box, DG EMPL's Labour Market Model (LMM)¹⁶ is used to simulate the impact of a tax shift away from labour. LMM is a dynamic computable general equilibrium model providing an in-depth description of the labour market, distinguishing different age groups and skill levels so that it is possible to show what role those characteristics play in determining the long-run impact of such policy changes. LMM is a set of country-specific models, which cover 14 Member States. Results from LMM are country-specific to the extent that they take into account the country's labour market structure in terms of age and skills. However, elasticities are calibrated and are not country-specific.

The simulation assumes that the government lowers employers' social security contributions by an amount equivalent to 0.1% of GDP, financed by a shift in the value-added tax rate (VAT). We consider four different scenarios:

1. lowering the contributions for all workers ('all')
2. concentrating the measure on low-skilled workers ('low-skilled')
3. concentrating the measure on young workers, aged 15-24 years ('young')
4. concentrating the measure on older workers, aged 55-69 years ('older')

The results focus on the long-term effects (with a horizon of about 20 years), while initial effects, not presented here, can be different. The following describes the general impact on employment, productivity and GDP.

Table 1 – Impact of a tax shift away from labour on employment, productivity and GDP

	Employment (number of workers)				Labour productivity				Real GDP			
	All	low-skilled	young	older	All	low-skilled	young	older	All	low-skilled	young	older
Belgium	0.01%	-0.01%	0.05%	0.06%	0.00%	-0.03%	-0.05%	0.01%	0.01%	-0.07%	-0.05%	0.07%
Czech Republic	0.03%	0.04%	0.08%	0.08%	0.00%	-0.04%	-0.03%	0.01%	0.03%	-0.03%	0.05%	0.09%
Denmark	0.04%	0.01%	0.10%	0.05%	0.00%	-0.04%	-0.05%	0.01%	0.05%	-0.09%	-0.03%	0.07%
Germany	0.02%	0.04%	0.06%	0.02%	0.00%	-0.04%	-0.05%	0.01%	0.02%	-0.02%	-0.02%	0.04%
Spain	0.02%	0.02%	0.11%	-0.01%	0.00%	-0.03%	-0.06%	0.01%	0.02%	-0.07%	-0.08%	0.01%
France	0.02%	0.04%	0.13%	0.04%	0.00%	-0.03%	-0.08%	0.01%	0.02%	-0.02%	-0.03%	0.06%
Italy	0.02%	0.01%	0.07%	0.14%	0.00%	-0.02%	-0.03%	0.01%	0.02%	-0.04%	-0.03%	0.18%
Netherlands	0.02%	0.01%	0.07%	0.01%	0.00%	-0.05%	-0.07%	0.01%	0.03%	-0.08%	-0.06%	0.03%
Austria	0.02%	0.04%	0.05%	0.05%	0.00%	-0.04%	-0.04%	0.01%	0.02%	-0.02%	-0.01%	0.07%
Poland	0.02%	0.06%	0.10%	0.09%	0.00%	-0.04%	-0.05%	0.01%	0.02%	-0.01%	0.00%	0.10%
Slovakia	0.02%	0.04%	0.05%	0.04%	0.00%	-0.03%	-0.02%	0.01%	0.02%	-0.02%	0.02%	0.04%
Finland	0.01%	0.00%	0.11%	0.00%	0.00%	-0.02%	-0.05%	0.01%	0.01%	-0.06%	0.00%	0.00%
Sweden	0.01%	-0.03%	0.15%	0.00%	0.00%	-0.03%	-0.05%	0.00%	0.01%	-0.12%	-0.04%	0.01%
United Kingdom	0.02%	0.03%	0.06%	0.02%	0.00%	-0.04%	-0.04%	0.00%	0.03%	-0.03%	-0.01%	0.02%
median of 14 MS	0.02%	0.02%	0.07%	0.04%	0.00%	-0.04%	-0.05%	0.01%	0.02%	-0.04%	-0.02%	0.05%

Source: Outcome of LMM simulations by country of a lowering of employers' social security contributions by an amount equivalent to 0.1% of GDP, financed by a shift in the value-added tax rate.

The simulation results confirm that the outcome of this tax-shift policy measure depends very much on the skills composition of the workforce. As the different target groups' characteristics in terms of relative size, age and skills composition vary greatly across Member States, so too do the simulation results. There is, however a general message, namely that a targeted

¹⁶ LMM was developed for the European Commission, DG EMPL, by the Institute for Advanced Studies (Vienna) and the University of St. Gallen. See also Annex 2 to Chapter 2 of European Commission (2010), 'Employment in Europe 2010'

measure would be more effective than a non-targeted measure in employment terms, but at the cost of lower GDP in the case of the young and the low-skilled. This is because LMM allows for (and emphasises a lot) the educational choice at the beginning of one's career to be endogenous. As being low-skilled becomes relatively more attractive, more people would decide not to invest in higher education but stay in the low-education segment.

For these two groups, given their lower productivity and wage levels, a given tax stimulus will constitute a relatively strong positive incentive both from the demand side (lowering labour costs) and the supply side (raising net wages). On the other hand, it is mainly low-skilled, low-productivity employment that is produced in these scenarios. This may result in an overall reduction in average productivity owing to a shift in the skills mix of the workforce towards lower-skilled and hence less productive jobs.

In addition, it must be noted that additional low-skilled employment opportunities may not only draw workers exclusively from the already existing low-skilled workforce, but may also attract other skill groups attracted by the higher wages and better job prospects in the low-skilled sector who might decide not to undertake the costly process of acquiring medium-level skills.

Tax shifts can stimulate employment but may have adverse social effects

Shifting taxation away from labour is an important means of stimulating employment, particularly for the specific groups mentioned above, and long advocated by the EU in the European Semester.

Country-specific factors (level of progressivity, importance of tax expenditures, minimum wages, etc.) determine the extent to which a shift from labour to consumption taxes increases employment. Although reductions in labour taxation targeted at the most vulnerable groups (e.g. low-skilled) are more efficient in raising employment, the increased employment will come at the expenses of lower average productivity (European Commission, 2012 and box above).

Tax redesign calls for prudence when looking for sources to replace the lost revenues from lower labour taxes. While value added tax, green taxes and property taxation are obvious candidates, their increase can have immediate and unfavourable distributional effects and hinder the goal of fighting poverty. Indeed, specific categories of people such as unemployed and retired may not benefit from a reduction in labour taxes (European Commission, 2012).

Analysis demonstrates that tax shifts can result in trade-offs between employment and social effects, although an appropriate design will increase the desirability of some tax shifts. For example, the regressive effects of VAT could be mitigated by providing compensations to targeted groups (unemployed, retirees), and by focusing on standard rather than reduced rates and exemptions. Similarly, green taxes linked to car ownership represent a lower tax burden for the lower income groups than taxes on heating and energy, and in principle a proper taxation of imputed rent¹⁷ can achieve both employment and social goals (European Commission, 2012).

Finally, other measures, such as the reform of tax expenditure and the fight against tax evasion and avoidance, can positively contribute to achieving both employment and social policy goals.

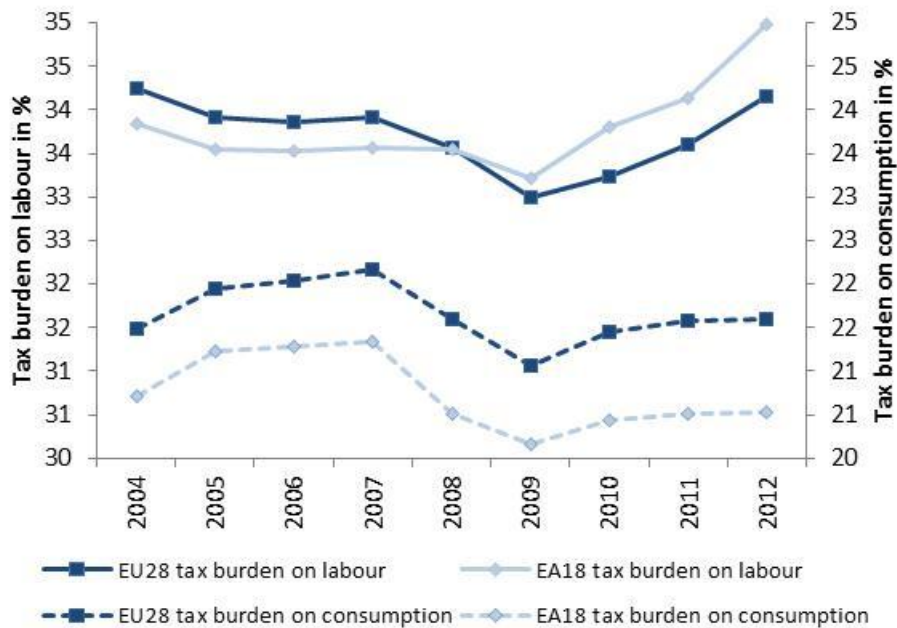
Tax reforms: shifting taxes from labour to consumption

The reduction of the tax burden on labour is high up on the policy agenda of several Member States. However, given fiscal consolidation efforts, Member State appear to have no room to reduce the tax burden on labour without shifting the burden elsewhere (European Commission, 2014b). While green or property taxes are valuable alternatives to shift taxes to, the following focuses on the shift to consumption taxes due to their relative prominence.

¹⁷ For instance, the taxation of imputed rent under the personal income tax base combined with a lump-sum tax credit.

Several Member States have a very high tax burden on labour and a relatively low level of taxes considered to be less detrimental to growth, such as on consumption, property and the environment. A shift of taxation from labour to consumption, property and the environment has been recommended to these Member States. Belgium, Germany, France, Italy, Latvia, Hungary, Romania and, to a lesser extent, the Czech Republic, Austria, Finland and Sweden have been identified as the Member States with need and potential for a tax shift (European Commission, 2014b). The first group of Member States has received a CSR on a shift of the tax burden away from labour or on a labour taxation reform without explicit mention of a tax shift (see above).

Chart 41 – Developments in tax burdens on labour and consumption, EU28 and EA18

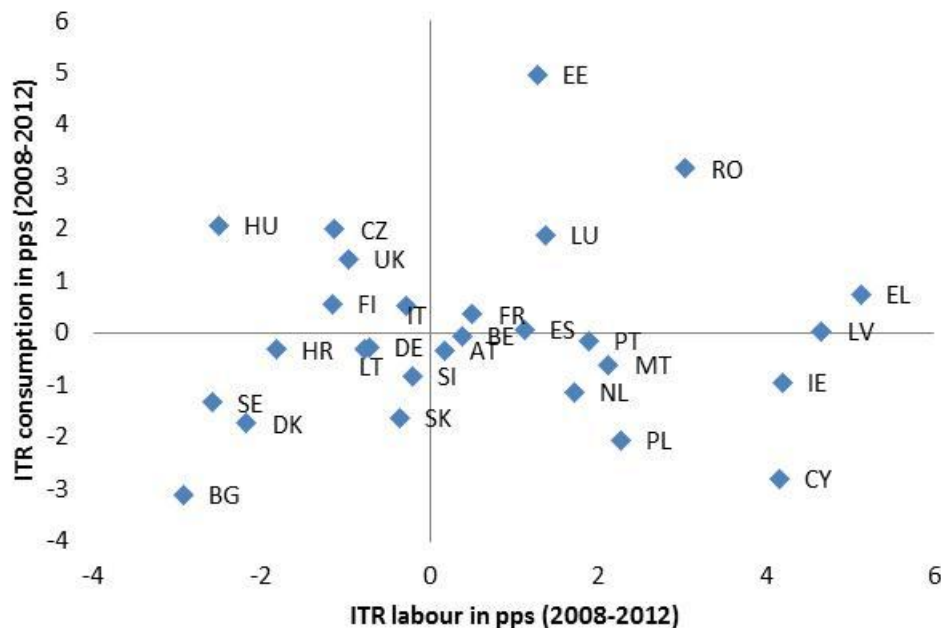


Source: 'Taxation trends in the European Union, 2014'. Notes: tax burden is measured by the implicit tax rate (on labour and consumption).

A tax shift from labour to consumption taxes was observed before the crisis. Due to the deep economic crisis, recent increases in consumption taxes (especially VAT) were aimed at addressing public finance concerns, not at reducing the labour tax burden¹⁸. Several Member States also increased labour taxes, in some cases for high income earners (while sometimes continuing to decrease the burden for low income earners): since 2008 the implicit tax rate on labour increased by 0.6 pp in EU-28 and 1.5 pps in EA-18 up to 34.2% and 35% in 2012, respectively (Chart 41).

¹⁸ In this supplement we measure the tax burden by the implicit tax rate. This measure expresses tax revenues of each tax category (labour, consumption) as a share of the corresponding tax base. Implicit tax rates are less sensitive to the economic cycle than other measures.

Chart 42 - Trends in labour and consumption tax burden, 2008-2012, percentage points



Source: Tax trends in the EU database.
Notes: see footnote 7.

In around half of the Member States the tax burden on labour increased between 2008 and 2012, especially in Greece, Latvia, Ireland and Cyprus (more than 4 pps), while it decreased particularly in Bulgaria, Sweden, Hungary and Denmark (more than 2 pps) (Chart 3). However, since 2012 two thirds of Member States have implemented targeted cuts in labour taxation. The tax burden on consumption decreased in most Member States between 2008 and 2012, also due to cyclical factors (shift from more to less heavily taxed consumption goods). The reduction of the tax burden on consumption was considerably high in Bulgaria, Cyprus, Poland (more than 2 pps), while Estonia experienced a sharp increase in the tax burden on consumption (5 pps).

The top left quadrant of Chart 42 identifies the Member States (notably Hungary) where the tax burden on labour decreased, while the tax burden on consumption increased between 2008 and 2012. Member States in the bottom left quadrant (notably Bulgaria) the tax burden on labour fell, as well as that on consumption. On the other hand, in Austria, Belgium, France, Latvia, Romania, and Spain the tax burden on labour increased until 2012, although they received a recommendation on lowering the tax burden on labour.

While these Member States did not all manage to reduce the tax burden on labour due to a lack of fiscal space, at the same time they lose a considerable amount of taxes to the shadow economy.

Tax reforms: increasing revenues by fighting tax evasion

This section explores the issue of the fight against tax evasion. The aim of this analysis is to underline the importance of this challenge. The section provides a tentative estimate of the tax loss due to evasion. The results should be interpreted with caution as much uncertainty surrounds the indicators used. Furthermore, it is important to stress that not all lost revenues would be captured in a situation of full compliance as certain activities would not be carried out if required to oblige with all legal obligations. Fighting tax evasion is not a straightforward process and can only be expected to yield gradually increasing results over time. In this context, fighting tax evasion may be seen as a complement, not necessarily an alternative, to existing tax policies (i.e. labour and consumption taxation).

In several Member States a relevant share of tax revenues is lost to tax evasion. If part of these revenues could be realised, they may be used to contribute to a variety of aims, depending on country-specific circumstances, including strengthened public finances and support to reach the employment and social targets in the Europe 2020 strategy. The fight against tax evasion and avoidance is an issue that goes beyond national boundaries. The power to levy taxes is central to the sovereignty of the Member States, which have assigned only limited competences to the EU in this area¹⁹. At EU level, tax policy is geared towards the smooth running of the single market; EU efforts to pursue harmonisation in this area are therefore mainly focused on indirect taxation. Alongside these efforts, the EU is stepping up its fight against tax evasion and avoidance, which constitute a threat to fair competition and are the cause of a major shortfall in tax revenues. As tax evasion does not stop at the border of the EU, measures must also look beyond the borders of the EU in order to be effective, in co-operation with international organisations such as the OECD and the UN.

The 2015 Annual Growth Survey states that "addressing tax fraud and tax evasion is essential to ensure fairness and allows Member States to collect the tax revenues due to them" and added that "broadening tax bases, simplification and enhanced transparency can also help increase the efficiency of the tax system and improve tax compliance as well as the fight against aggressive tax planning".

Tax evasion and social issues are closely related. Higher levels of inequality are associated with a higher probability of tax evasion while tax evasion affects the level of inequality and poverty. Indeed, the probability of tax evasion is seen to vary between different income groups, with those at the bottom and the top of the distribution having greater opportunities to evade tax than those in the middle (European Commission, 2012). While tax evasion can be fuelled to some extent by weak labour demand and rising levels of poverty, it undermines public finances, social cohesion (European Commission, 2014) and may also increase inequality. In Greece, for instance, tax evasion is estimated to increase inequality as measured by the Gini coefficient by 3 pps with respect to a situation of full compliance (Leventi et al., 2013).

The shadow economy includes those economic activities and the income derived thereof that circumvent or avoid government regulation or taxation. A large share of the shadow economy is undeclared work which refers to the wages that workers and businesses do not declare to evade taxes or labour market regulation. The rest is represented by business underreporting income to evade taxation. Estimating the size of the shadow economy, undeclared work and of their corresponding tax loss is complex. Eurostat does not provide official estimates of the shadow economy and estimates are scarce²⁰. However, CASE and CPB (2014) provide data on the VAT gap, which is the difference, in any given year, between the VAT Collections (as recorded by EUROSTAT) and the amount theoretically due, i.e. VTTL (VAT Total Tax Liability). The latter is the total amount of estimated VAT payments on the basis of national accounts aggregates and the existing structure of rates and exemptions (TAXUD, 2013)²¹.

¹⁹ http://www.europarl.europa.eu/aboutparliament/en/displayFtu.html?ftuId=FTU_5.11.1.html

²⁰ Including illegal activities in GDP is not a requirement of the new ESA (ESA 2010). As before, all transactions involving mutual consent must be included in GDP, so this could cover prostitution, drugs trafficking and alcohol/tobacco smuggling. With the introduction of ESA 2010, Member States will have to provide at a later stage new inventories showing how they compile their national accounts, with an emphasis on the unreported economy

²¹ See also European Commission (2014b) on caveats on this indicator.

Estimates of undeclared work are generally based on surveys. The special Eurobarometer survey on undeclared work from 2007 and 2013 is the main available source at EU level. However, these estimates tend to under-report the extent of undeclared work, partly because irregular immigrants are underrepresented in the sample (European Commission, 2014a).

The size of the shadow economy is usually estimated with indirect methods. We report and use possible estimates of the shadow economy based on three different methodologies. Note that these estimates are not official estimates of the European Commission. For some Member States only estimates from one or two methodologies are available. The three sources for the estimates of the shadow economy are Schneider (2013), Onnis and Tirelli (forthcoming) and OECD (2014) which are based, respectively, on the following methodologies: the Multiple Indicators Multiple Causes model, which assumes a relationship between the unobserved shadow economy and a set of observable variables (notably monetary ones)²²; the electricity consumption approach, and the adjustments for the non-observed economy (NOE) in National Accounts. The first methodology is subject to significant caveats and tends to overestimate the level of the shadow economy (European Commission, 2014). Estimates produced by these three methods may potentially include illegal activity. However, for our measure of the non-observed economy (NOE), we only consider the underground economy and the informal sector and exclude illegal activities and statistical deficiencies.

Table 2 reports range estimates of the tax loss as a result of the shadow economy²³ in EU Member States, split into a part due to undeclared work and a part due to unregistered consumption transactions. The shadow economy and tax loss estimates in this supplement are only made for illustration purposes and should not be seen as official Commission estimates.

We estimate the tax loss due to the shadow economy by assuming that two thirds of the shadow economy is due to undeclared work and one third by business underreporting²⁴.

According to Eurobarometer data, respondents who declared to carry out undeclared work were mostly working in repairs and renovations, gardening, cleaning and, a smaller proportion, babysitting and working as waiters (European Commission, 2014). People working in these activities would be likely subject to a tax rate lower than the average tax rate on labour if they declared their labour income. Moreover, if these workers declared their activity and be subject to taxation, including social security contributions, they would be also potentially eligible for various benefits. Therefore, we apply the average tax wedge on low-income individuals²⁵ to the part of the shadow economy assigned to undeclared work, which takes into account both taxes and benefits. For the part of the shadow economy attributed to undeclared transactions between business and consumers we apply the implicit tax rate on consumption²⁶.

Although business underreporting includes in principle the evasion of all types of consumption taxes, we can compare these estimates with the data on VAT non-compliance as measured by the VAT gap (TAXUD, 2013). Chart 4 illustrates the comparison between our estimates of the tax lost due to tax evasion on consumption and the VAT gap estimates of CASE and CPB (2014). For most Member States (right end of the Chart), the VAT gap is larger than our estimates. This may be due to the fact that the actual share of business underreporting is larger than one third (our assumption for the composition of the shadow economy between labour and consumption). As the tax burden on consumption is generally lower than the tax wedge on low incomes, our estimates of the total tax lost due to the shadow economy for these countries may be an overestimate. In a few Member States, the VAT gap is smaller than the lower bound of our estimates. Therefore, for Denmark, Estonia, Finland, Luxembourg and Portugal our estimates of the total tax lost due to the shadow economy may be an overestimate. For the rest of the Member States, the value estimated for the VAT gap lies between our range estimates. Again,

²² The Inter-secretariat Working Group on National Accounts (ISWGNA), in which the Commission is represented next to other international institutes (OECD, IMF, UN, World Bank), warned users already in 2006 on "the limited value of [Schneider's] unofficial estimates in terms of reliability and accuracy"

²³ These calculations are not official estimates of the European Commission.

²⁴ This is just a rough assumption and different assumptions will naturally lead to different outcomes.

²⁵ The data are from the OECD/ECFIN tax benefit database (European Commission and OECD, 2014). The tax rate applied in the calculation is the tax wedge of a two-earner couple with two children whose principal earner earns 67 per cent of the average wage.

²⁶ Unrecorded transaction cannot be deducted by business for VAT purposes. The implicit tax rate on consumption takes into account the deductibility of input VAT.

one should be aware that addressing tax evasion would not necessarily recover the entire tax loss as additional revenue.

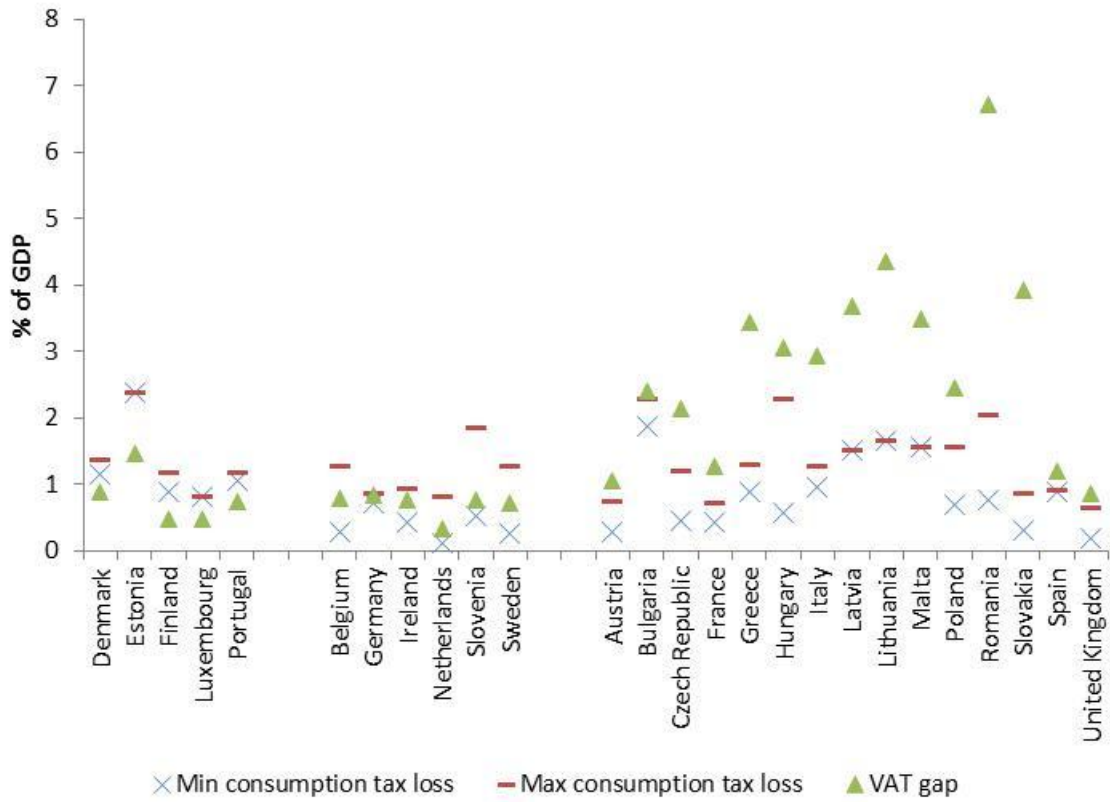
Table 2 – Range estimates of the potential tax loss as a result of the shadow economy as percentage of GDP

	A	B	C	D	E	F
	Estimate	Estimate	Tax rate applied	Tax rate applied	Estimate	
	Shadow economy labour % of GDP	Shadow economy consumption % of GDP	Tax wedge low-income households %	Implicit tax rate of consumption %	VAT Gap % of GDP	Total tax loss % of GDP
Austria	3-7	1-3	41	21	1	1-4
Belgium	3-12	1-6	49	21	1	2-7
Bulgaria**	17-21	9-11	29	22	2	7-8
Croatia*	20	10	29	20		8
Cyprus*	17	9	11	18		3
Czech Republic	4-11	2-5	34	23	2	2-5
Denmark**	8-9	4	34	31	1	4
Estonia*	18	9	37	26	1	9
Finland**	7-9	3-4	37	26	<1	3-5
France	4-7	2-4	45	20	1	2-4
Germany**	7-9	4	42	20	1	4-5
Greece**	11-16	5-8	43	16	3	6-8
Hungary	0-17	2-8	39	28	3	2-9
Ireland**	4-8	2-4	18	22	1	1-2
Italy	11-14	5-7	43	18	3	6-7
Latvia*	17	9	39	17	4	8
Lithuania*	19	9	39	17	4	9
Luxembourg*	6	3	23	29	<1	2
Malta*	17	8	19	19	3	5
Netherlands	1-7	0-3	32	25	<1	0-3
Poland	7-16	4-8	32	19	2	3-7
Portugal**	12-13	6	34	18	1	5-6
Romania**	0-13	4-10	42	21	7	4-10
Slovakia	0-4	2-5	34	17	4	1-4
Slovenia**	4-16	2-8	34	23	1	2-7
Spain**	13	6-7	38	14	1	6
Sweden	2-10	1-5	39	27	1	1-5
United Kingdom	2-7	1-3	28	19	1	1-2

Source: Schneider (2013); Onnis and Tirelli (2014); OECD (2014) for the estimates of the shadow economy in columns A and B; OECD/EC Tax-Benefits database for the tax wedge on low incomes (column C); 'Taxation trends in European Union' (2014) for the implicit tax rate on consumption (column D); CASE and CPB (2014) for the VAT gap (column E); own calculations for the estimate of total tax loss (column F).

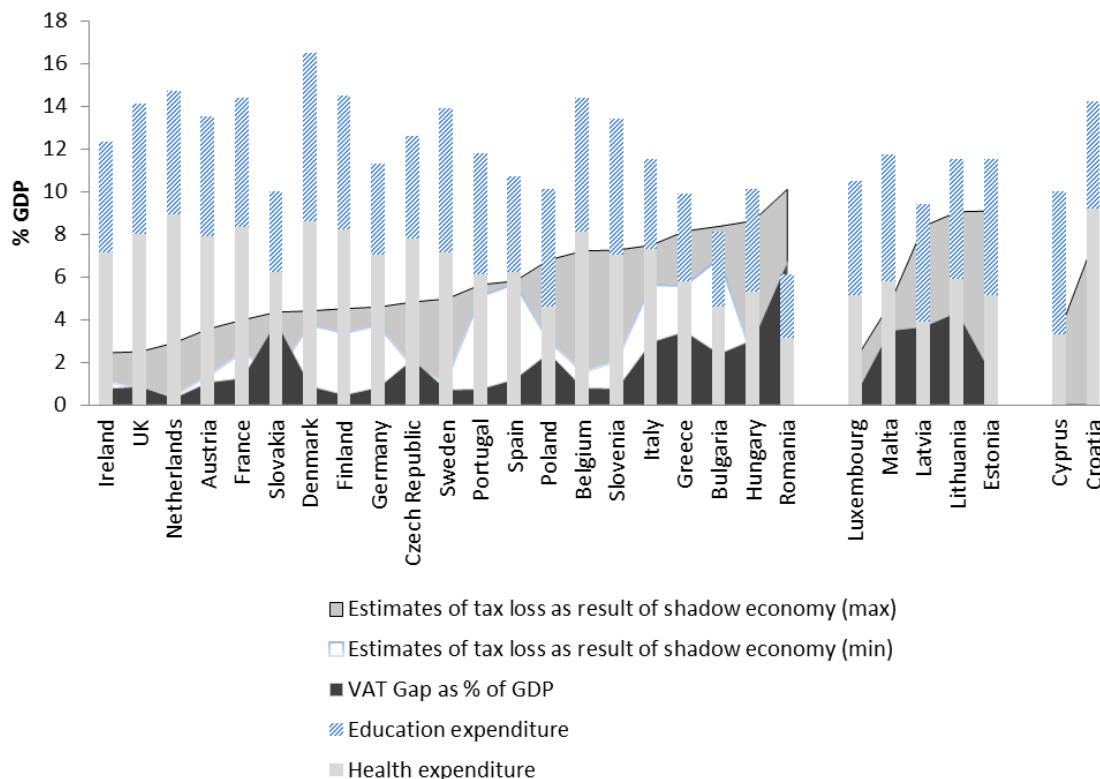
Notes: all data refer to 2012, with the exception of the estimates of the shadow economy from Onnis and Tirelli (2014) which refer to 2005. The total tax lost is calculated by applying the tax wedge on low incomes (column C) to the share of the shadow economy assumed to be due to undeclared work (two thirds of shadow economy estimate, column A) and by applying the implicit tax rate on consumption (column D) to the share assumed to be due to consumption (one third of shadow economy estimate, column B). The results are reported in per cent of GDP for the estimates of the shadow economy due to undeclared work and consumption and for the estimates of the tax loss. *The asterisk identifies countries for which only a single estimate is available. **Two asterisks identify countries for which two of the three estimates are available. Figures for the remaining countries are based on three shadow economy estimates.

Chart 43 - Comparison of the estimates of the tax loss due to business underreporting and VAT gap



Source: see footnote of Table 1 for the minimum and maximum estimates of the tax loss attributed to business underreporting; CASE and CPB (2014) for the VAT gap.

Chart 44 - Estimates of the tax loss as result of the shadow economy compared to health and education expenditure



Sources: Own calculation using Schneider (2013); Onnis and Tirelli (2014); OECD (2014) for the estimates of the shadow economy; CASE and CPB (2014) for the VAT gap; COFOG for education and health expenditure.

Notes: estimates of the tax loss due to the shadow economy report the maximum and minimum of our calculation reported in Table 1 and the VAT gap. Member States are sorted in ascending order according to the share of the tax lost in % of GDP. Data on the VAT gap are not available for Cyprus and Croatia.

Chart 5 shows that the range estimates of the tax loss as a result of the shadow economy are potentially large in many Member States. The estimated tax loss depends on the estimated size of the shadow economy, on the weight attributed to the share due to undeclared work and against business underreporting and on the level of the tax wedge on low incomes and on the implicit tax rate on consumption/VAT in each Member State. The VAT gap could represent a lower bound of the tax lost due to the shadow economy, as it only includes potential tax revenues from the fight to business underreporting, while undeclared work is left out.

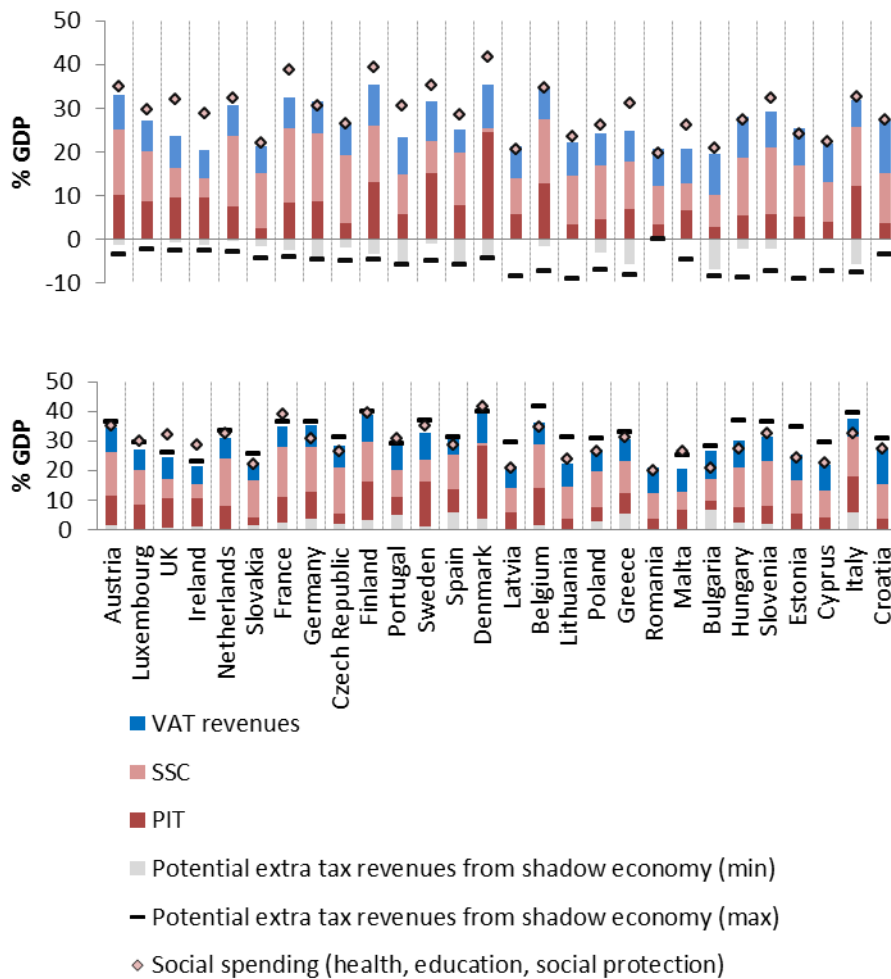
Nonetheless, the above estimates show that the fight against tax evasion could potentially result in a collection of extra tax revenues. Although the fight against tax evasion is not easy, collecting one tenth of the estimated tax loss could yield around 0.4-0.6% of GDP, according to the estimates reported in Table 2.

Fighting tax evasion is vital as the additional tax revenues could be used for:

- consolidation purposes (as for the increase in tax revenues);
- employment purposes (by reducing the tax wedge on labour);
- social purposes (by using these revenues to finance social expenditure);

depending on the urgency of needs of Member States (in view of the state of public finances, their tax burden on labour and their social needs). Indeed, the fight against tax evasion with the aim of collecting fiscal revenue formed part of the Economic Adjustment Programmes for Greece, Portugal and Cyprus, which were aimed at supporting fiscal consolidation (see for example ECFIN Occasional Papers 192, 202, or 209).

Chart 45 - Actual and potential tax revenues and social expenditure



Source: COFOG for social spending [gov_a_exp]; 'Taxation trends in Europe' for VAT and direct tax revenues; for the estimates of the potential tax revenues from the shadow economy see notes to Table 2.

Chart 6 shows the contribution of potential extra tax revenues from the shadow economy, on top of the revenues from personal income taxes, social security contributions and VAT, in matching social expenditure (health, education and social protection). In a context in which social protection, expenditure for health and investments in education are being cut in several Member States (European Commission, forthcoming; 2013), the fight against the shadow economy would enhance the revenues from personal income taxes, social security contributions and VAT, which could potentially support social spending expenditure.

Conclusions

The high taxation on labour may be an obstacle to job creation. Reducing it, and preferably shifting the burden to other sources of taxation such as consumption, is an essential part of the 2014 Country Specific Recommendations. At the same time, the implications of such a tax shift for the financing of social protection and for the policy goal of decreasing poverty call for a well-considered approach. From an integrated employment and social policy point of view, an appropriate design will increase the desirability of tax shifts.

The fight against tax evasion can also contribute positively to both employment and social policy goals. The fight against tax evasion may help increase government revenues, which, if realised, can contribute to a variety of aims including strengthened public finances and employment and

social policy goals. Indeed, fourteen of the 2014 Country Specific Recommendations call for fighting tax evasion.

While Eurostat is working alongside Member States on improving statistics on the informal economy, official data are currently not available. An estimate of the tax loss due to the shadow economy (tax evasion) may be obtained by applying ad-hoc tax rates to the estimates of the components of the shadow economy for each Member State. Using three different sources for the estimates of the shadow economy, it is suggested that the tax loss is potentially large in many Member States.

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Supplement: Health and social services from an employment and economic perspective

Introduction

This supplement provides an overview of relevant data and information showing the importance of health and social services in the European economy. It updates the supplement published in 2012, and analyses the developments in this sector since 2008, with a special focus on most recent developments, from 2011 to 2013.

Health and social services²⁷ are a fundamental part of social protection systems as they cover different types of risks which an individual can face during his or her life course. They play a pivotal role in ensuring effective and efficient social protection by promoting social inclusion and reducing the risk of poverty and inequalities as well as improving social cohesion. To achieve these goals, the quality, access, coverage, and affordability of social services are essential.

The Social Investment Package (SIP) published in February 2013²⁸ emphasises the important role social services, highlighting that social services represent a smart and sustainable investment in that they do not only assist people but also have a preventive, activating and enabling function if well-designed.

The supplement is organised as follows. The first part of the analysis (Section 2) documents the fact that health and social services is a dynamic sector that constitutes a significant source of job creation in large parts of the EU and brings important added value to the economy. Section 3 highlights some of the structural challenges faced by the sector due to the particular characteristics of its jobs and its workforce. Section 4 deals with some of the difficulties of delivering adequate social services under the cross pressures from severe budget constraints and growing demand.

The statistical analysis in this text draws on data provided by EUROSTAT, notably the Labour Force Survey (LFS), but also the European System of Integrated Social Protection Statistics (ESSPROS), the European Union Statistics on Income and Living Conditions (EU-SILC) and the European Population Projections 2013 (EUROPOP2013). The LFS data covers 'human health and social work sector' that is composed of human health, residential care and social work activities.²⁹

²⁷ The term "social services" covers a large variety of services such as, for instance, early childhood education and care (ECEC, also known as childcare), long-term care for the elderly and for people with disabilities, social assistance, social housing, training and employment services. See also Communication on "Implementing the Community Lisbon programme: Social services of general interest in the European Union" (COM (2006) 177 of 26 April 2006).

²⁸ See Commission Communication "Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020" (COM (2013) 83 final of 20.02.2013).

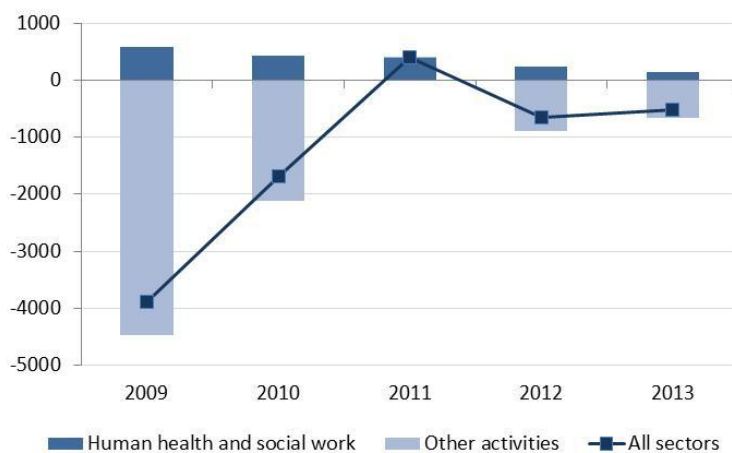
²⁹ Definitions provided by the Statistical Classification of Economic Activities (NACE) under Rev. 2. In a more detailed breakdown of economic activities, *Human health* (Q86) includes *Hospital activities*, *Medical and dental practice activities*, and *other human health activities*. *Residential care* (Q87) includes *Residential nursing activities*, *Residential care activities for mental retardation, mental health and substance abuse*, *Residential care activities for the elderly and disabled*, and *Other residential care activities*. *Social work activities* (Q88) include *Social work activities without accommodation*, *Social work activities without accommodation for the elderly and disabled*, and *Other social work activities without accommodation*.

1.1 Recent trends

- The number of workers in health and social services has increased steadily in recent years including during the economic crisis, when employment was decreasing in other sectors.
- The increase in employment is not shared equally across Member States, with some Member States showing an increase of over 20% and a few a fall in employment.
- In some Member States, employment in the health and social services sector is mainly concentrated on health services suggesting room for further employment developments in social work.
- The sector has an important economic weight counting for 7% of the total economic

From 2008 to 2013, total employment in the EU fell by 2.9% among the working-age group (15-64), leading to a net destruction of 6.3 million jobs. These developments were, however, not uniform across all sectors. The human health and social work sector performed relatively better than the rest of the economy. In 2013, the number of workers in this sector aged between 15 and 64 stood at 22.8 million, i.e. 10.7% of the total in all sectors. Unlike in the total economy, the number of workers in this sector had been steadily growing, and showed an increase even during the crisis years, amounting to a net creation of 1.3 million jobs between 2009 and 2013 (Chart 1).

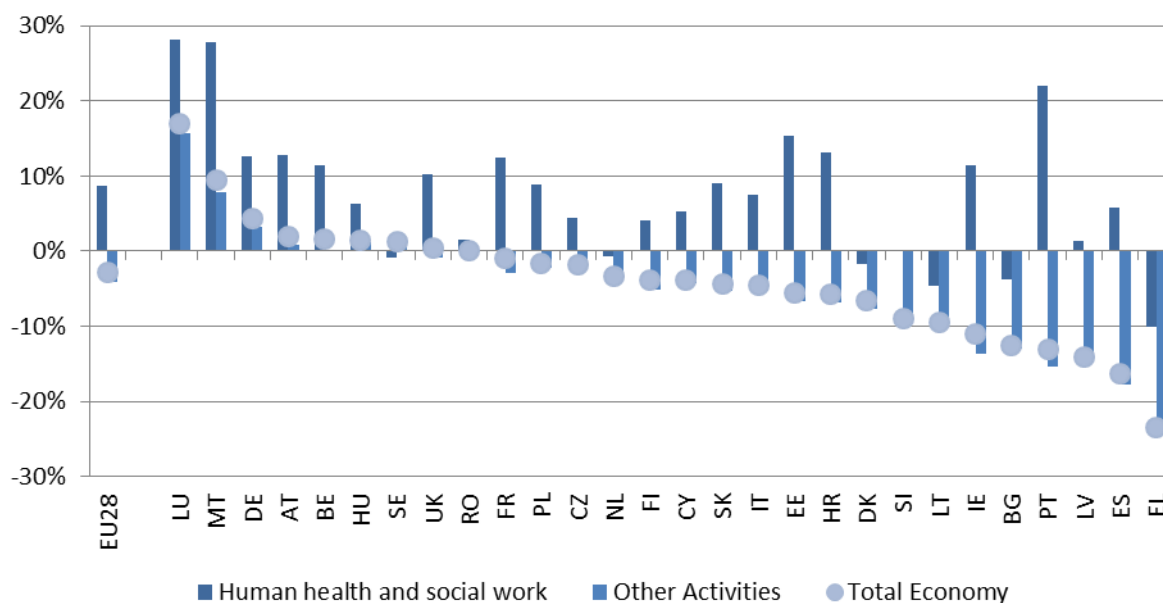
Chart 1: Employment changes by sector EU28, 15-64 year olds. Human health and social work, and other sectors, 2009-2013, changes on previous year in thousands.



Source: Eurostat, LFS

The EU average, however, masks significant differences between Member States (Chart 2). From 2008 to 2013, the highest growth in employment in the human health and social work sector was recorded in Luxemburg, Malta and Portugal (by over 20 per cent). On the other hand, employment in this sector fell in Greece (by 10%), Lithuania, Bulgaria (both by roughly 4 per cent), Denmark, Sweden and the Netherlands (by less than 2%).

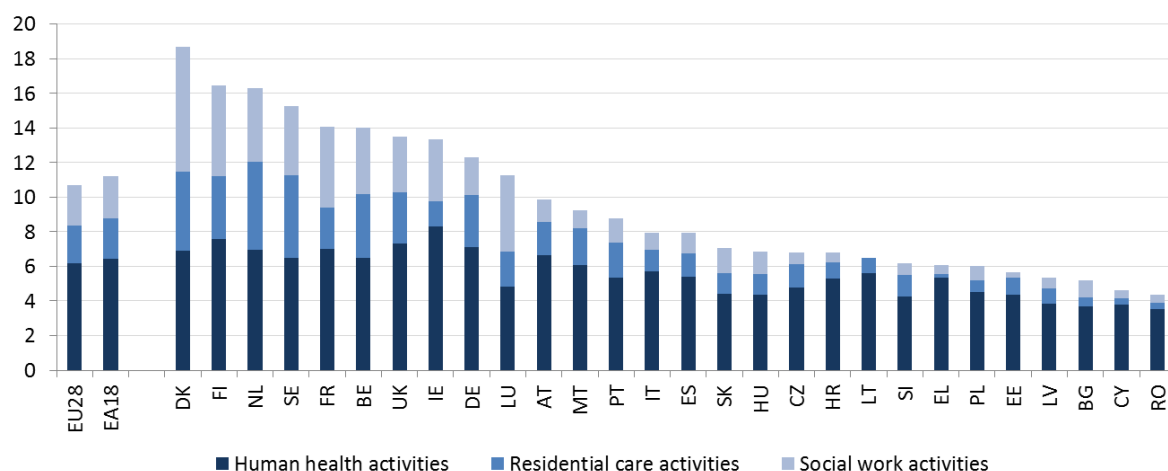
Chart 2: Employment growth of 15-64 year olds in human health and social work compared to other sectors, 2008 to 2013.



Source: Eurostat, LFS

Chart 3 shows the share of employment in the human health and social work sector in the 28 Member States. The share is the highest in the Nordic Member States (Denmark, Finland and Sweden) and the Netherlands, with between 15% and 19% of total employment, constant compared to 2011). Lower, but still above the EU average of 10.5%, are Belgium, the UK, France, Ireland and Germany. In 2013, the share of employment in the human health and social work sectors was the lowest (below 5% of total employment) in Romania, Cyprus, Bulgaria and Latvia. It was only slightly higher in Poland, Estonia, Greece and Slovenia (not higher than 6%). The Health and Social Services sector is composed of Human health, residential care and social work (see footnote 29 for a breakdown of the classification). In some Member States, such as Greece, Latvia, Cyprus and Romania, more than 80% of the employment in the health and social services is in human health activities because its other components are small. In contrast, in Member States such as Denmark, Finland and the Netherlands, residential care and social work are larger and thus employment is more equally spread across the three sub-sectors.

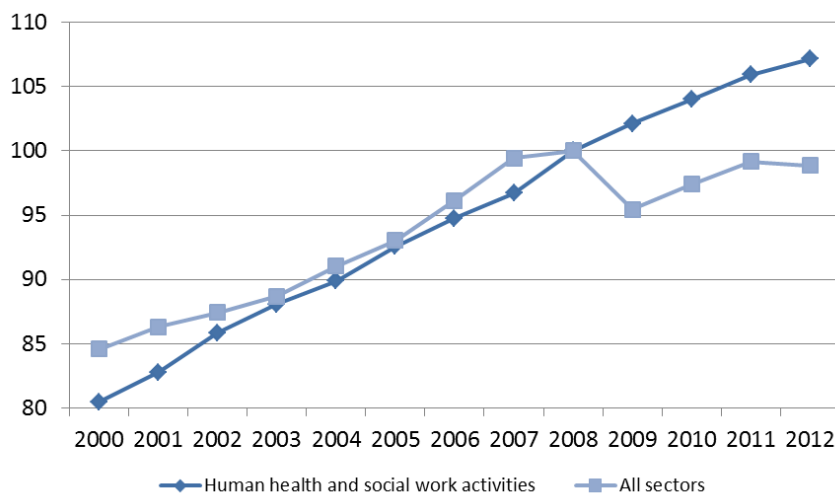
Chart 3: Share of employment in human health and social work sectors on total employment (in per cent, 2013).



Source: DGEMPL calculations, based on Eurostat, LFS

In addition to being an important source of job creation, the health and social services sector has an important economic weight, as it generates around 7% of the total economic output in the EU-28 and appears to have suffered from the crisis, as Chart 4 shows.

Chart 4: Evolution of output (gross value added) in all sectors vs. health and social work, 2000-2012, EU (25 countries, HR, IE, MT missing). 2008=100.



Source: DG EMPL calculations on Eurostat National Account

1.2 Structural features and challenges of the health and social services sector

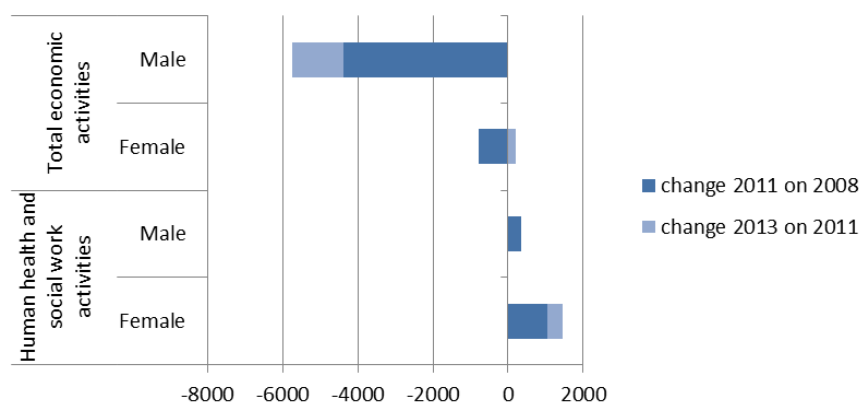
- The workforce in the health and social services is mainly female; with women representing 78% of all employment in the sector.
- 81% of the newly created jobs in the sector are occupied by women.
- The difference in earnings between men and women is higher than in other sectors.
- Workers in the health and social services sector are on average better skilled compared to the average in other sectors.
- Part-time work is more common in this sector than in the whole economy and the share of part-time work in the sector increased during the crisis.

The health and social services sector is confronted with several challenges. Its workforce is overwhelmingly female but facing an important gender pay gap. The workforce is ageing at a faster pace than the rest of the sectors. There are large imbalances in skill levels and working patterns and recruitment and retention are conditioned by demanding working conditions. These challenges are analysed in this section.

1.2.1 Gender bias

The workforce in health and social services is largely made up of women who in the EU make up nearly 78% of total employment in the sector (i.e. amounting to 17.9 million women in 2013 working in this sector). 81 per cent of the net 1.8 million new jobs created in the sector between 2008 and 2013 are occupied by women.

Chart 5: Employment changes in all sectors vs. health and social work, 2008-2013, in thousands.



Source: DG EMPL calculations based on Eurostat National Accounts.

The share of female employment in the human health and social work sector has been stable at around 78% in the period between 2008 and 2013. The largest increases in the period 2008-2013 were registered in Member States where the sectoral female employment share is among the lowest in the EU, such as Malta and Cyprus. On the other hand, the sectoral female employment share decreased slightly in Member States with an initially high share of women working in the sector, such as Estonia, Finland, Lithuania and Latvia (Chart 6).

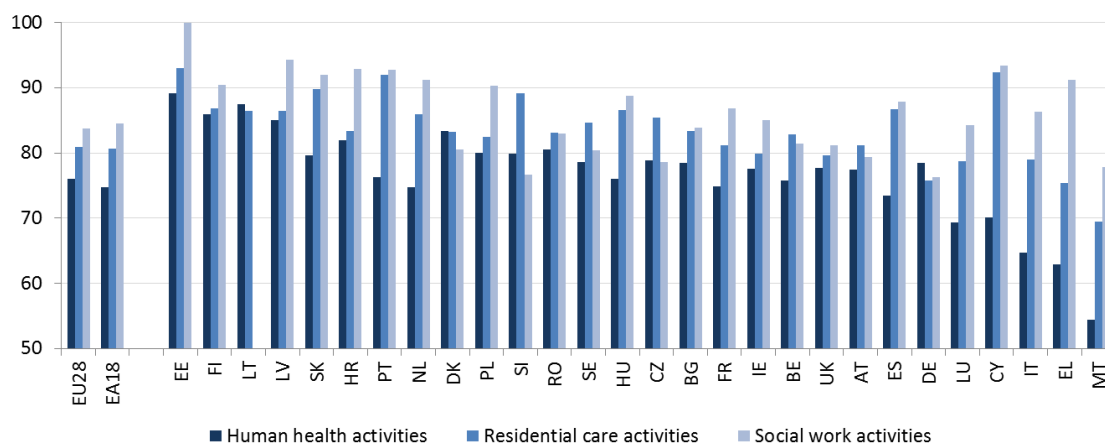
Chart 6: Female employment share in total employment in human health and social work sector, in per cent, 2008 and 2013.



Source: Eurostat, LFS

In the EU, in 2013, female workers constituted the large majority of the workforce in residential care (80.9%) and social work activities (83.7% of the workforce in the sector). Compared to their EU counterparts, female workers are less represented in the human health activities in some countries such as Malta, Greece, Italy, Luxembourg and Cyprus.

Chart 7: Female employment share in total employment in human health and social work sectors, in per cent, 2013.



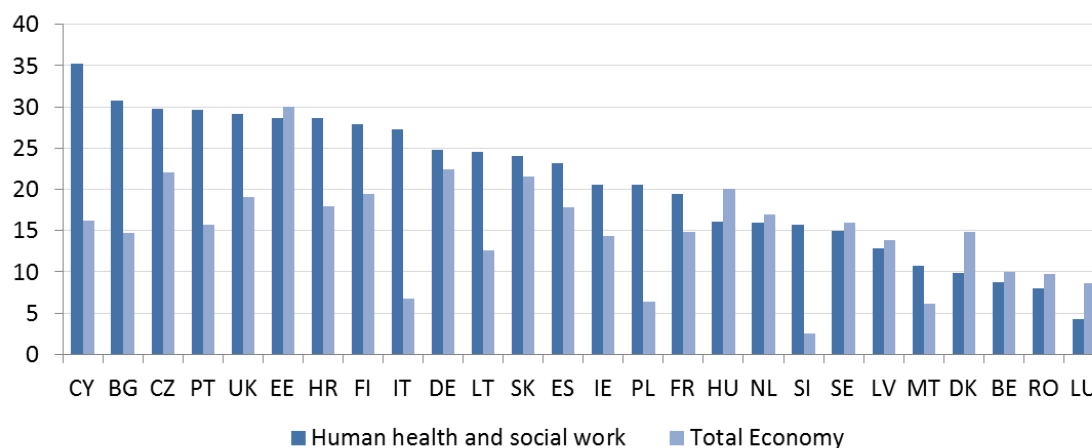
Source: DG EMPL calculations, based on Eurostat, LFS

Apart from this uneven gender balance, Chart 8 shows that in many Member States the difference in hourly earnings between men and women working in the health and social services sector is higher than in the whole economy. The difference between the (unadjusted) gender pay gap in the human health and social work sector and that in the whole economy is the largest in Italy (20.6 percentage points, pps), Cyprus (19.0 pps), Bulgaria (16.1 pps), Poland (14.2 pps), and Portugal (14.0 pps).³⁰

³⁰ The unadjusted Gender Pay Gap represents the difference between average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. Unadjusted means that it is not adjusted to individual characteristics that may explain part of the earnings difference (i.e. education, numbers of hours worked, sector of activity etc.).

On the other hand, in some Member States (Denmark and Sweden) the gender pay gap is actually smaller in this sector than in the whole economy. In Hungary, there is no significant difference.

Chart 8: Unadjusted gender pay gap in human health and social work and in total economy, 2013.

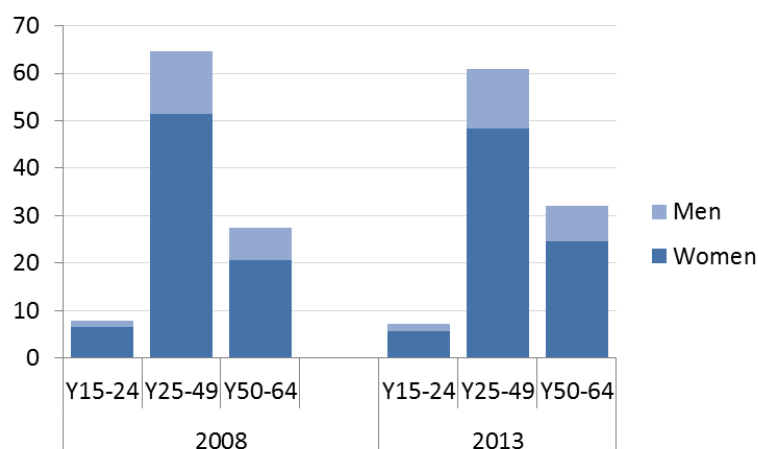


Source: Structure of Earnings Survey (SES)
Note: Data for AT not available.

1.2.2 Ageing of the workforce

The vast majority of the people working in human health and social work sector belong to the age group 25-49 years. However, the share of people above 50 years working in this sector increased from approximately 27% to 32% between 2008 and 2013 in the EU-28 (Chart 9), most likely due to demographic trends, which shows that the workforce in this sector is ageing. That it has been ageing faster than the workforce in the rest of the economy suggests, on the one hand, that this sector might have been an important source of employment of older workers, but also that for various reasons (i.e. regulation or employment constraints due to the crisis) there might be non-negligible barriers to entry for younger cohorts.

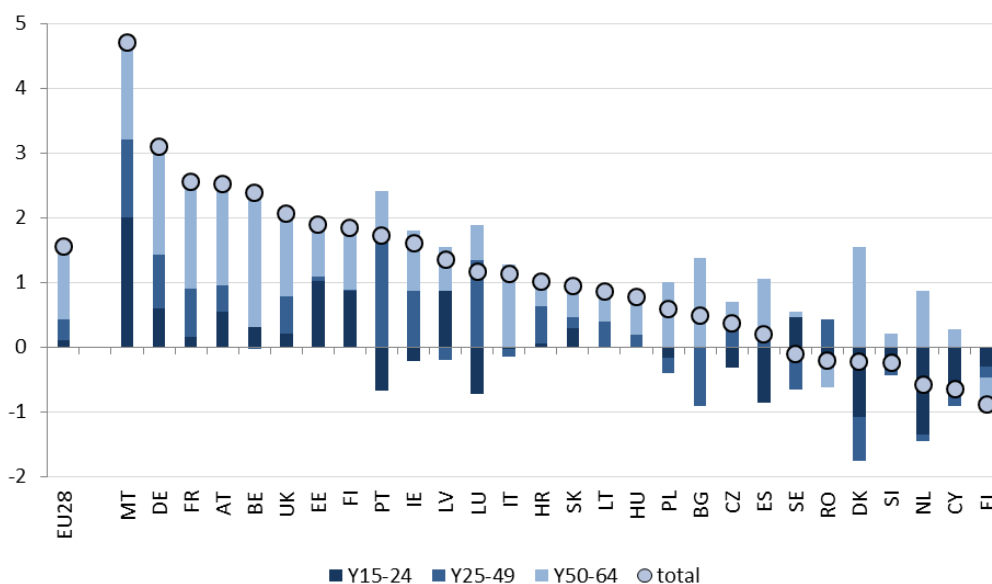
Chart 9: Employment shares in human health and social work by age group, 2008 and 2013, EU-28.



Source: Eurostat, LFS

Between 2008 and 2013, the sharpest increases in the share of older people working in the human health and social work sector were registered in Belgium, Germany, France, Austria, Denmark and Malta (above 1.5 pps), and in Bulgaria, the UK, Italy and Poland (above 1 pp). The Netherlands, Denmark and Spain recorded the biggest declines in the share of younger workers in this sector (Chart 10).

Chart 10: Change in employment rates in human health and social work by age group, 2008-2013, EU-28.



Source: Eurostat, LFS

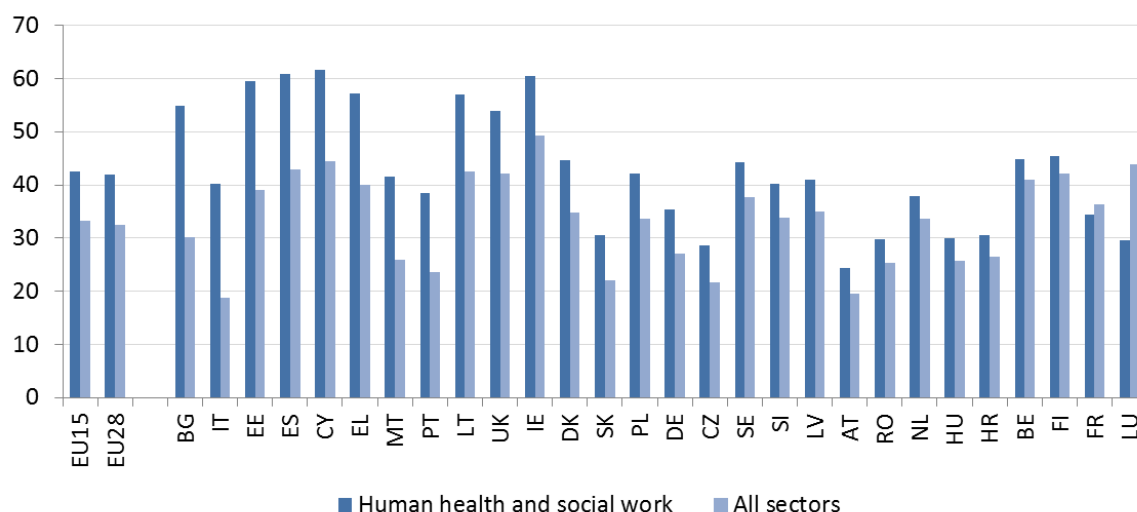
The male workforce in the health and social services sector is generally older than the female workforce (33.2% of the male workers belong to the 50-64 age group compared to 29.3% of the female workers in the same age group, while only 6.8% of male workers in the sector belong to the 15-24 age group compared to 7.9% of the female workers in the same age group). A probable partial explanation for this is the gender difference in occupations. Men are overrepresented in those occupations that require longer education and training: the proportion of men in the sector who are doctors is larger (19 per cent) than the proportion of women in the sector who are (6 per cent); while women are overrepresented in nursing and personal care (43 per cent of women hold these occupations against 22 per cent of men).

1.2.3 Skill-level

Workers in the human health and social work sector often have a medium (upper secondary and post-secondary non-tertiary education) or a high level of education (tertiary education). Compared to the average in the EU economy, employees in this sector are better skilled. This holds true in all Member States, except Luxembourg and to a lesser extent in France. In 2013, at EU level, 42% of employees in this sector held a degree in higher or tertiary education, against 33% in the total of the EU economy (Chart 11). This can be explained by the specialised training requirements in the sector. All doctors have tertiary education and in many countries also nurses do. In addition, there are high education requirements for managers, social assistants, etc.

Chart 11 shows the share of high-skilled workers by occupation in the human health and social work sector and in the whole economy. The difference between the share of high-skilled labour in the human health and social work sector and in the whole economy is the largest in Bulgaria, Italy and Estonia (around 20 to 25 pps). On the other hand, the difference is the smallest in France, Finland and Belgium (around 4 pps). It is negative in France and Luxembourg (-1.9 pps and -14.2 pps respectively).

Chart 11: Share of high-skilled employees in human health and social work versus the whole economy, EU-28, 2013, in per cent.



Source: Eurostat, LFS

Addressing skills mismatches in the health sector is important: over-skilled workers may cause possible inefficiencies in health service delivery and waste of human capital, causing job dissatisfaction and turnover, while under-skilled workers raise concerns about quality of care and patient safety. Drawing on data from PIACC³¹ and the European Working Conditions Survey³², a 2013 OECD analysis concludes that there is considerable skills mismatch in the health sector. This makes initial education and training in the health sector an important area for action and there is a need for better allocation of skills and tasks across the spectrum of health professions.

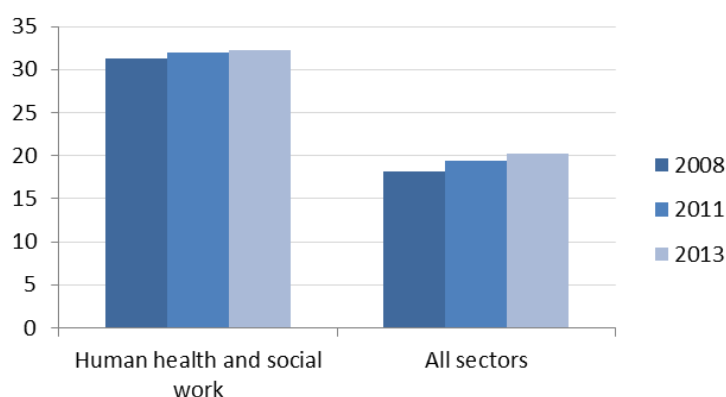
1.2.4 Working patterns

Part-time work is a common feature in the human health and social work sector, as 32% of persons employed in this sector work under this regime. As recalled in the *ESDE 2012* fluctuations in the number of jobs in the EU since the crisis have been driven mainly by part-time work. Part-time employment accounted for a significant share of the overall expansion in employment in the EU since 2000 and its growth was uninterrupted by the crisis. While the total employment figure contracted between 2008 and 2013, and the number of full-time workers shrank by 6.3 million, the number of part-timers increased by 2.1 million. Between 2008 and 2013, part-time work gained more ground at global level (in all sectors, its prevalence rose from 18.1% to 20.3%). It also increased in human health and social work, from 31.3 to 32.3% (Chart 12).

³¹ 2011-2012 Programme for the Assessment of Adult Competencies, OECD

³² 2010 European Working Conditions Survey, Eurofound

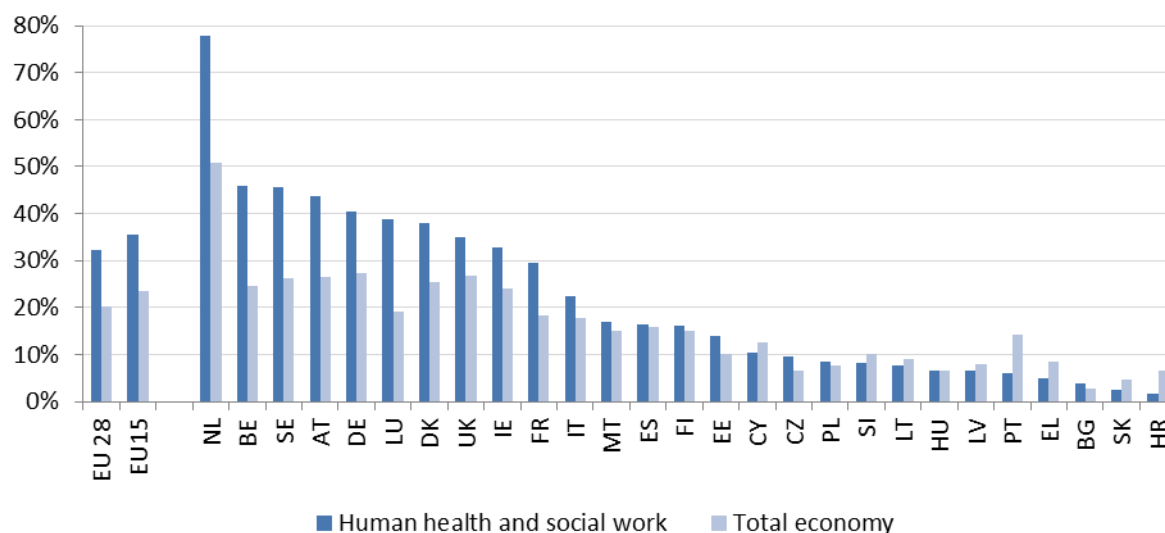
Chart 12: Share of part-time employees in human health and social work sector versus the whole economy, 2008, 2011 and 2013, EU-28, in per cent.



Source: Eurostat, LFS

As Chart 13 shows, the Netherlands clearly dominates the ranking of Member States in terms of the percentage of part-time workers in all sectors (over 50% in 2013), and in the human health and social work sector in particular (above 77%). With a few exceptions (such as Portugal, Greece and Croatia), corresponding to those countries having very low percentages of part-time workers both generally and in the human health and social work sector, all other Member States showed, in 2013, a higher share of part-time workers in this sector than in the whole economy. At EU level, the gap between the human health and social work sector and the whole economy was 12 pps in 2013. The most significant gaps (more than 20 pps) were noted in the Netherlands (27 pps), Luxembourg and Belgium.

Chart 13: Share of part-time workers in the human health and social work sector versus the whole economy, 2013, in per cent.



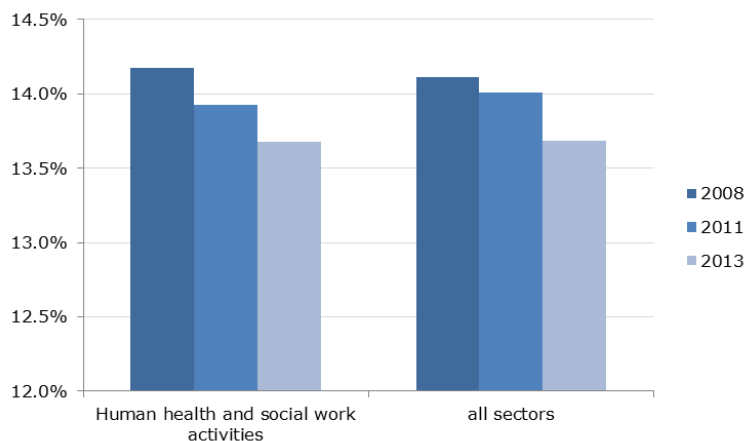
Source: LFS

Note: data not available for RO.

The percentage of employees working on temporary contracts is roughly equal between the human health and social work sector and the whole economy, at around 13.7% (Chart 14). This type of work proved to be a major adjustment variable for companies as temporary contracts have been the most reactive segment of the labour market since the onset of the crisis. At the level of the whole economy, the share of temporary employees in the total number of

employees which stood at 14.1% in 2007, had fallen to 13.7% by 2013. In the human health and social work sector the share of employees with temporary contracts fell slightly, from 14.2 to 13.7% in the five years to 2013.

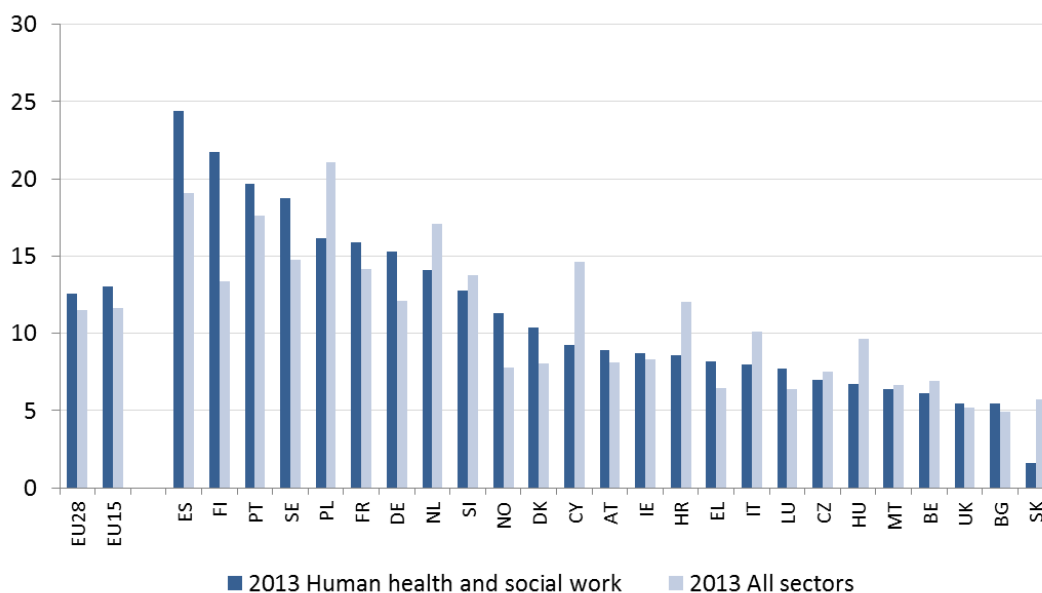
Chart 14: Share of employees aged 15-64 with temporary contracts in human health and social work sector versus the whole economy, 2008, 2011 and 2013, EU-28, in per cent.



Source: Eurostat, LFS

Chart 15 highlights the country-to-country differences in the share of employees under temporary contracts. While these percentages are rather close in most Member States between human health and social work on the one hand, and all sectors on the other hand, some major gaps arise in certain countries. In Poland, Cyprus, Italy, the Netherlands, Hungary and Slovakia, the share of temporary contracts is significantly lower in the human health and social work sector than on average, while for example in Finland and Spain it is significantly higher.

Chart 15: Share of employees with temporary contracts in all sectors and in human health and social work activities, 2013 in per cent

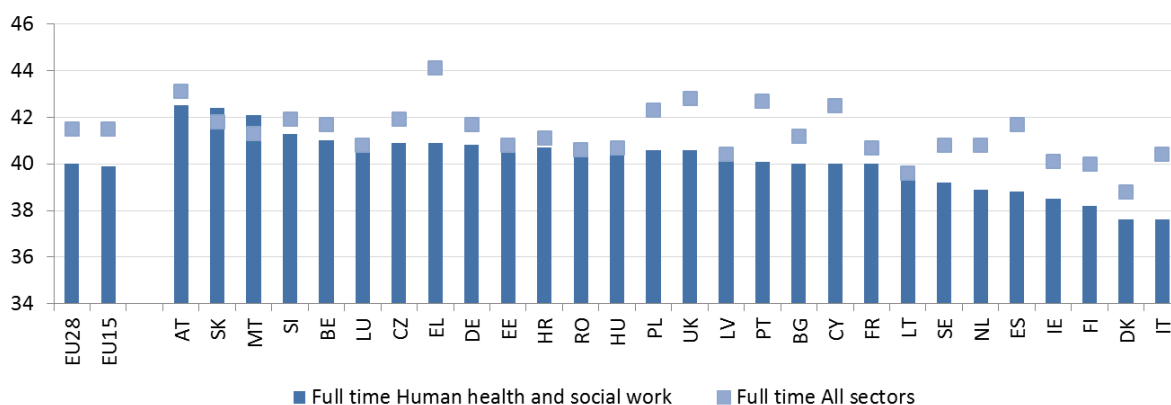


Source: Eurostat, LFS

Note: Data not available for EE, LV, LT and RO

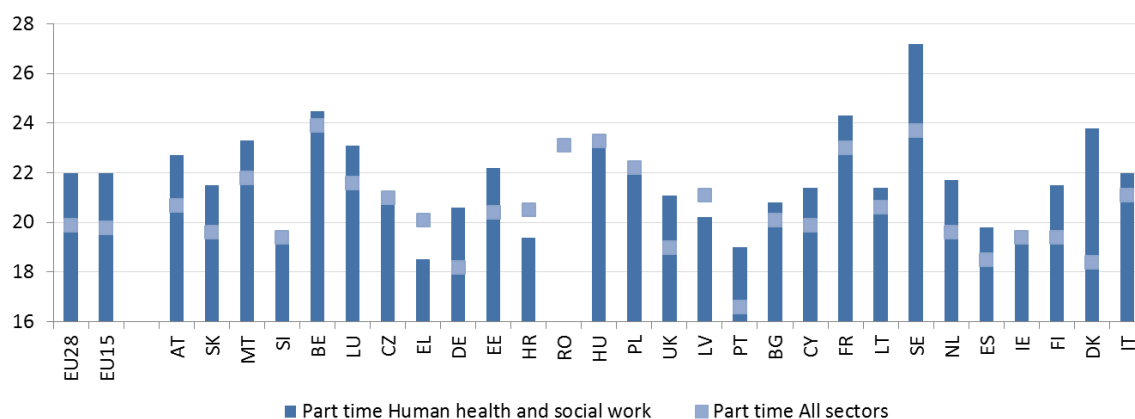
As Chart 16 shows, at EU level, full-time workers in the human health and social work sector tend to work fewer hours than in the whole economy on average: in 2013, 40 hours per week for full-time workers against 41.5 hours in the whole economy. The picture is reversed for part-time workers where more hours are worked in the human health and social work sector (22 hours) than in the whole economy (19.9 hours). This has not changed much since 2008. Full-time workers in this sector work most hours in Austria, Slovakia and Malta (more than 42 hours per week) and fewest hours in Denmark and Italy (below 38 hours per week). On the other hand, part-time workers work most hours in Sweden, Belgium and France (between 24 and 27 hours per week) and fewest hours in Greece, Portugal and Croatia (less than 19.5 hours per week).

Chart 16: Average number of usual weekly hours of work for full-time workers, in human health and social work sector compared to the whole economy, 2013



Source: Eurostat, LFS

Chart 17: Average number of usual weekly hours of work for part-time workers, in human health and social work sector compared to the whole economy, 2013



Source: Eurostat, LFS

BOX 1: Working conditions and job quality in the human health, residential care and social work sectors: main findings from the 5th European Working Conditions Survey (Prepared by EUROFOUND)

The fifth European Working Conditions Survey was carried out among almost 44,000 workers in 34 European countries, including 2,271 workers in the human health sector, 543 workers in the residential care sector and 875 workers in the social work sectors.

Structural characteristics

The three sectors are female dominated. Although the proportion of workers who reported having a female boss (60%) was much higher than in the EU28 as a whole (29%), it still falls well short of the percentage of female employees (75%). Part-time work is relatively prevalent in all three sectors, with levels of part-time work being highest in the social work sector, where 28% of men and 50% of women work part-time compared to 13% and 38% respectively in the EU28 as a whole. The proportion of employees aged 50 and older was above average in the residential care and social work sector (31% in both sectors and 27% in the EU28).

Working conditions

Relatively few workers in the three sectors reported to have experienced a decrease in their income or working hours since the economic crisis and the majority of workers reported no change in income or working hours. However, the proportions of reported increase in working hours and income in all three sectors were higher than the corresponding EU28 averages. Reorganisation and restructuring were more prevalent in the human health sector than in the other two sectors and the EU28 as a whole.

Workers in the care sectors work fewer hours than the EU28 average (34 to 35 hours in contrast to 38 in the EU28). Nevertheless, a relatively high proportion of female employees in the residential care sector (32%) and of male employees in the health care sector (40%) report to prefer working fewer hours than currently. Reversely, workers in the social work sector (18%) and men in the residential care sector (18%) reported a higher preference for working more hours than currently in comparison to the EU28 as a whole (14%).

Among men in all three sectors and also among women in the residential care sector working atypical hours is much more prevalent than in the EU28 as a whole. Similarly, men in all three sectors are relatively likely to experience irregular working hours. Consequently, a relatively large proportion of men working in the health care and social work sector report a poor work-life balance. However, this difference is not found in the residential care sector, and women in the social work sector even report better work-life balance than the EU28 average.

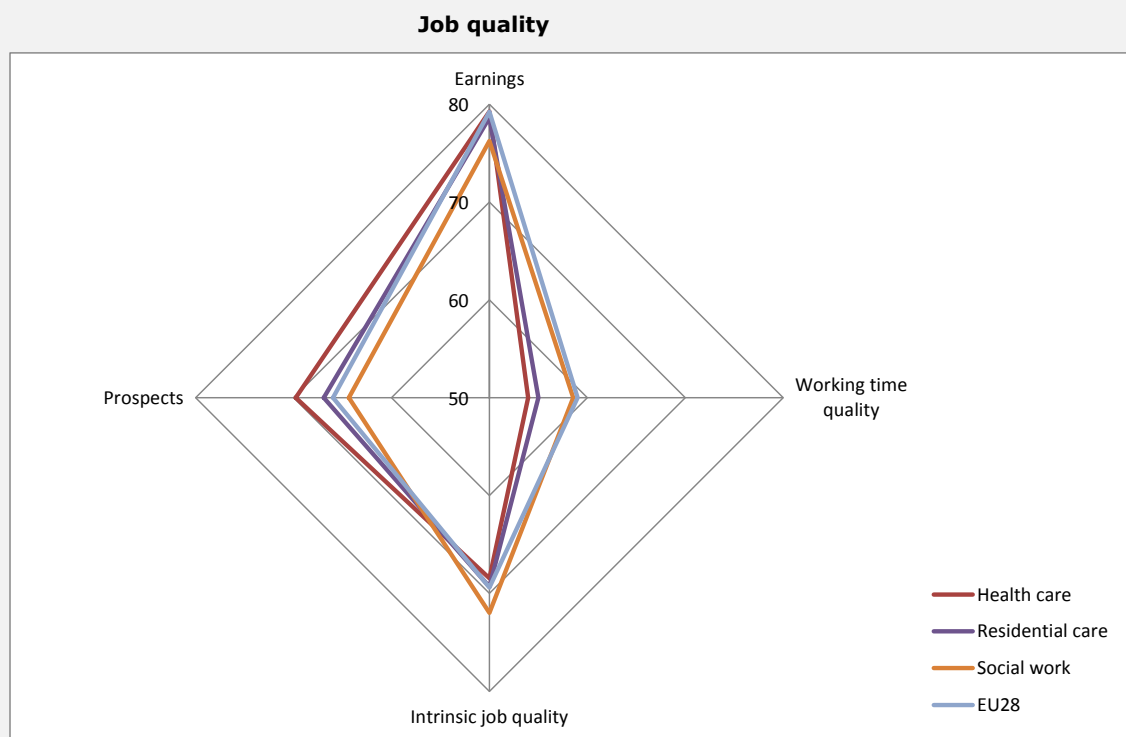
Teamwork, particularly autonomous teamwork, is relatively prevalent in all three sectors. Similarly, the proportion of workers in the sectors rotating tasks is higher than in the EU28 as a whole. In all three sectors roughly half of the workers reported that their skills correspond well with their duties. In the social work and in the health care sector around 20% and in the residential care sector 16% of the workers stated that they need further training, exceeding levels in the EU28 as a whole (13%). The difference in the proportion of 'under-skilled' is most pronounced for micro-workplaces (1-9 employees). Interestingly, employees in the three sectors also more frequently reported that they received employer-paid training in the last 12 months than the EU28 average.

Physical environment

Workers in the health care sector reported the highest level of exposure to biological and chemical risks among all sectors in the EU28 and workers in the residential care sector had also a relatively high level of exposure to biological and chemical risks. On the other hand, the levels of exposure to ambient risks are relatively low in all three sectors and exposure to posture related risks only in the social work sector. Workers in the three sectors also reported to be better informed about the risks than the average EU28 worker.

Job Quality

Job quality is considered a characteristic of the job rather than the worker, and to capture it four dimensions are distinguished: earnings; working time quality (e.g. duration, scheduling, discretion over working time and short-term flexibility); prospects (e.g. job security, career progression and contract quality); and intrinsic job quality (e.g. skills and discretion, good social environment, good physical environment and work intensity; for more information see [here](#)). Workers in the health and residential care sectors had lower scores on working time quality than workers in the EU28 as a whole.



Note: Scores on all four indicators range from 0 to 100. Controlled for structural characteristics (age, gender, workplace size, education level and country)

However, workers in the health care sector also had better job *prospects*. Employees in the social work sector, on the other hand, reported better *intrinsic job quality*, lower *earnings* and poorer job *prospects* than the average EU28 worker.

More information on working conditions and job quality can be found in the Report '[Working conditions and job quality: Comparing sectors in Europe](#)' and in the corresponding '[Sectoral information sheets](#)'. An overview of case studies exploring policy initiatives to improve the quality and thereby attractiveness of jobs in the sector can be found [here](#).

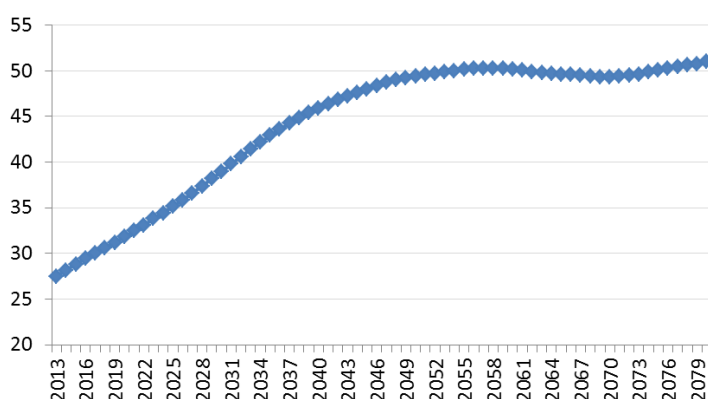
1.3 Main challenges in addressing the demand for health and social services

- The ageing of the population is a key driver in the demand for health and social services thus representing an opportunity to create new jobs.
- Member States spend the biggest share of their social on in-cash benefits rather than on in-kind benefits.
- The spending on social protection decreased during the crisis mainly on in-kind benefits.
- The ageing of the population as well as an increased demand for complex needs has put an increased pressure on public finances.
- Maintaining a balance between adequate and quality supply of health and social services and containing public budgets remains a challenge for public authorities.

1.3.1 A growing demand for health and social services

Ceteris Paribus (i.e. without a change in ill-health patterns), the ageing of the European population will continue to be a key driver of the growing demand for health and social services. The relative size and share of old (aged 65 and more) and very old (aged 80 and more) population is growing fast. The size and share of very old is growing at a faster pace than any other age segment of the EU's population. In the EU28, between 2013 and 2060, the population aged 65+ is projected to increase from 92.2 to 149 million, while the population aged 80+ is projected to increase from 25.6 to 63.8 million. The share of those aged 80 years or above in the EU-28's population is projected to more than double between 2013 and 2080.³³ The old-age dependency ratio³⁴ measures the level of financial support given by the working-age population to the older cohorts of the population. The old-age dependency ratio for the EU-28 was 27.5 % on 1 January 2013, and is projected to almost double to 50.0 % by 2055 (Chart 18).

Chart 18: Old age dependency ratio (65+ to 15-64 year olds) for EU28, 2013 to 2080.



Source: DG EMPL calculations based on Eurostat EUROPOP2013

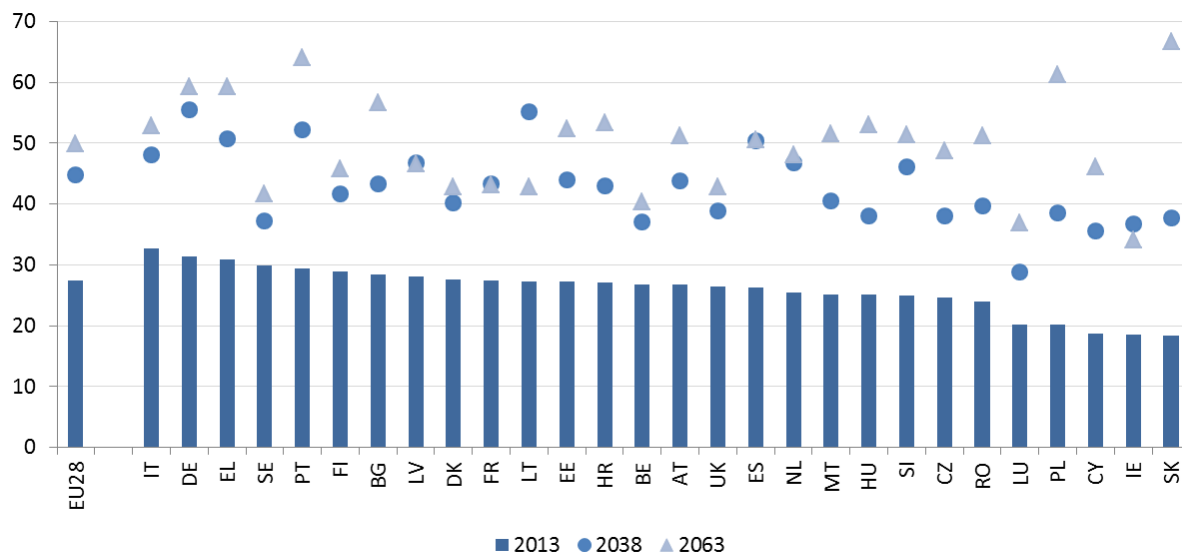
³³ For details see:

http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Population_structure_and_ageing

³⁴ The old-age-dependency ratio is the ratio of the number of elderly people at an age when they are generally economically inactive (i.e. aged 65 and over), compared to the number of people of working age (i.e. 15-64 years old).

Chart 19 shows that in absolute terms the highest increases in the share of the older population between 2013 and 2063 are expected in Slovakia, Poland and Portugal. However, in relative terms older population is projected to grow the most in Slovakia, Poland, Cyprus and Portugal.

Chart 19: Old age dependency ratio (65+ to 15-64 year olds) by Member State 2013, and projections for 2038 and 2063



Source: DG EMPL calculations based on Eurostat EUROPOP2013

Ageing can bring with it new patterns of morbidity (multiple chronic diseases, disability and dependency) spread over a long period of time. Evidence shows that the need and demand for health care and social services is strongly and positively correlated with age: health deteriorates with age and correspondingly, the demand for health and social services increases with age.³⁵ This means that due to the ageing of the population, there will be greater pressure to provide more and substantially different care and social services in the future than it is currently the case.

The "caring dependency ratio" shows how difficult or easy is for a person in the age-group 45-64 (where the peak on the provision of caring time is generally observed) to take care of those who are 65+ or 80+. The ratio of those 65 years old and over to those aged between 45 and 64 years old is projected to almost double by 2060, while the ratio of the 80+ to the 45-64 increases from 17.8 in 2010 to 51.3 in 2060, i.e. a bit less than tripling.³⁶

While the demand for long-term care services for the elderly will substantially increase, the availability of informal carers (family, friends and other relatives) may be further limited by the changing family structures, more equal gender participation in the labour market and the increased workforce mobility. The decrease in the number of informal carers may in turn lead to a marked rise in the demand for formal care, which will further increase the trend towards employment growth in health and social services.³⁷

The growth in the demand for social services will also reflect other deep-rooted trends in the European economies and societies resulting from changes in gender roles and family structures (e.g. an increase in single households, increased participation of women in the labour market), from more flexible labour markets as well as from technological change and globalisation. Due

³⁵ Joint Report prepared by the European Commission and the Economic Policy Committee (AWG), *The 2009 Ageing Report: economic and budgetary projections for the EU-27 Member States (2008-2060)*, February 2009.

³⁶ Lipszyc, B, Sail, E. and Xavier, A. (2012), Long-term care: need, use and expenditure in the EU-27, European Economy, Economic Papers 469, November 2012.

³⁷ See also the report "Adequate social protection for long-term care needs in an ageing society - Report jointly prepared by the Social Protection Committee and the European Commission, 2014

to these trends, the demand for social services is becoming more complex: an increasing number of people will require efficient services adapted to diversified needs and choices. Thus, a higher demand for formal health and social services is likely to act as a driver for increasing labour demand.

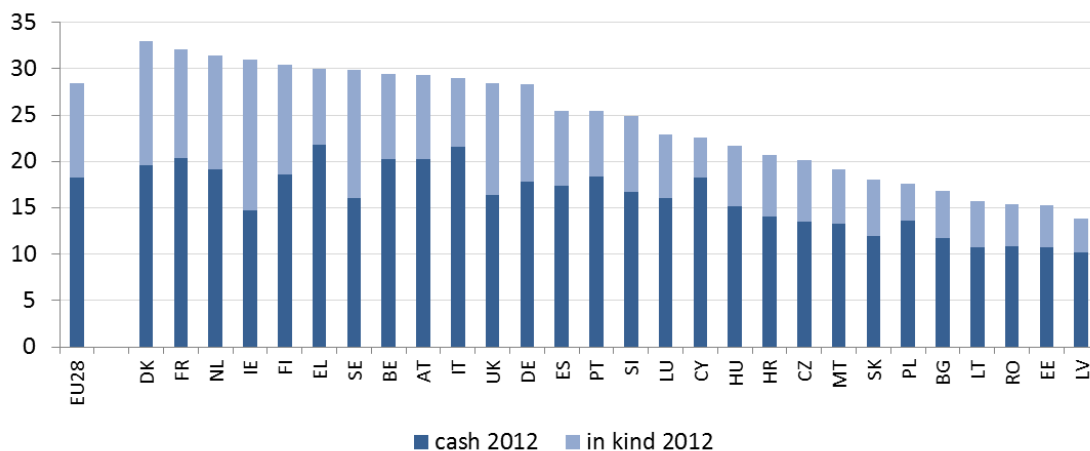
1.3.2 Developments in expenditure on health and social services

Recent developments

Expenditure on social protection is mainly financed from public budgets. It can be disaggregated into cash benefits and benefits in-kind. Cash benefits include pensions, maternity payments, sick and parental leave, family allowances and unemployment benefits. Benefits in-kind, i.e. benefits granted in the form of goods and services, encompass health care services, social assistance and services such as childcare and care for the elderly and disabled. While only part of the spending on cash benefits is intended for the consumption of social services, practically all the spending on benefits in kind finances social services. Therefore, the rest of this section will refer interchangeably to benefits in kind and health and social services.

In the EU in 2012, social protection expenditure reached 28.4% of GDP. Of this, 10.1 pps were spent on benefits in kind and 18.3 pps were spent on benefits provided in cash (Chart 21).³⁸ Usually, Member States that in total spend a higher proportion of their GDP on social protection tend to provide a larger share of social protection benefits in kind. The largest share of GDP (10% or more) was dedicated to benefits in kind in Ireland, Sweden, Denmark, the Netherlands, UK, France, Finland and Germany. On the other side of the spectrum were Latvia, Poland, Romania, Estonia and Cyprus that spent less than 5% of GDP on social protection benefits in kind.

Chart 20: Social protection spending on cash and in-kind benefits as % GDP, 2012



Source: ESSPROS

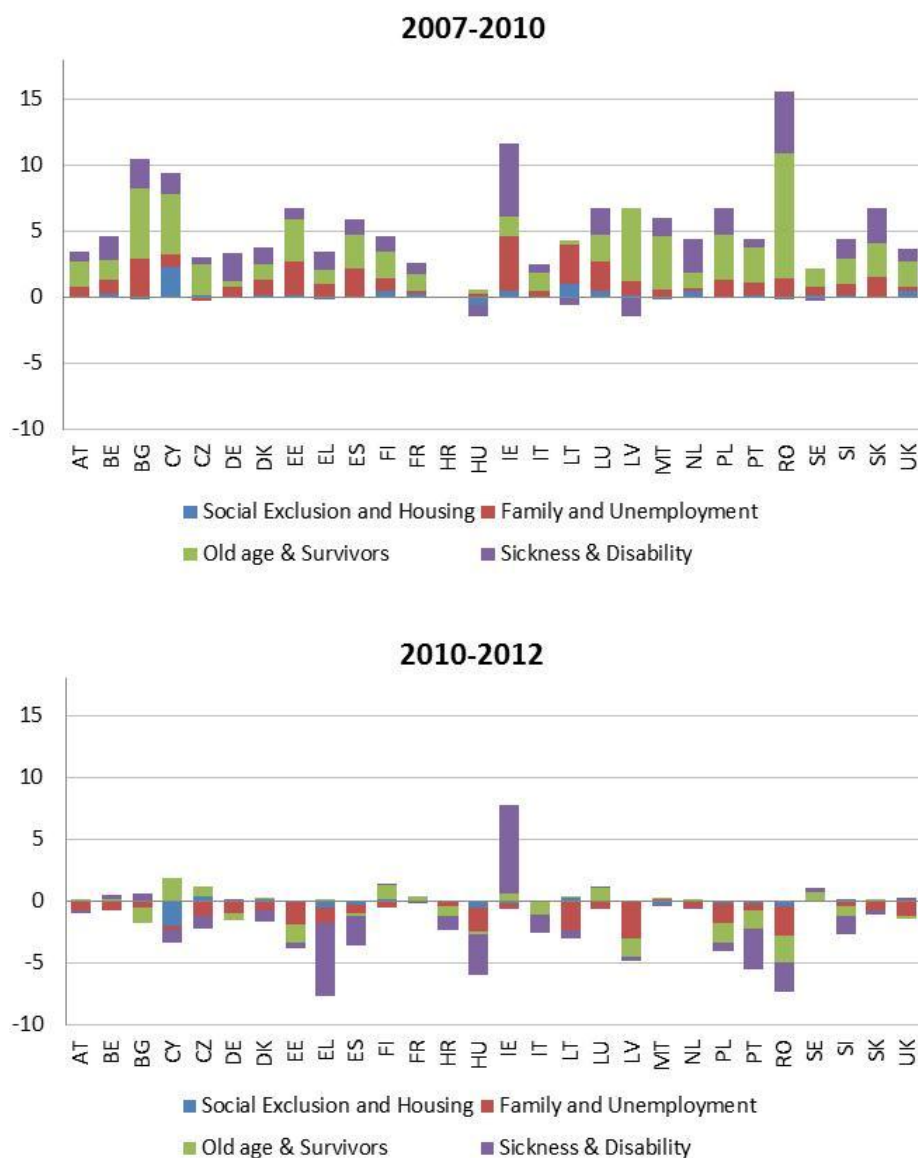
Chart 21 shows the average annual change in real expenditure on social protection benefits in kind in two periods (2007–2010, and 2011–2012). In the first period, the highest average annual growth of real social protection benefits in kind was recorded in Romania, Ireland, and Bulgaria (10-15% per year). On the other hand, a decrease in social protection benefits in kind was recorded in Hungary (by 0.7% per year).

In the second period, when public budgets got under big pressure, real spending on social protection benefits in kind decreased in 23 Member States. The largest decrease (by 5% or more per year) was recorded in Greece, Romania, Portugal, and. In Greece and Portugal, in particular, the main driver was falling health care and sickness benefits.

³⁸ For a more detailed description of social protection spending in the EU, e.g. with the dimension of spending functions, see the 2012 Employment and Social Developments in Europe Annual report (ESDE) 2012 report (<http://ec.europa.eu/social/BlobServlet?docId=9604&langId=en>).

On the other hand, in Ireland, spending increased significantly (by 7%), with health care and sickness benefits being the main driver.

Chart 21: Change in expenditure on social protection benefits, 2007–2010 average annual change (top panel) and 2010–2012 average annual change (bottom panel), by function (percentage change in national currencies deflated by HICP)



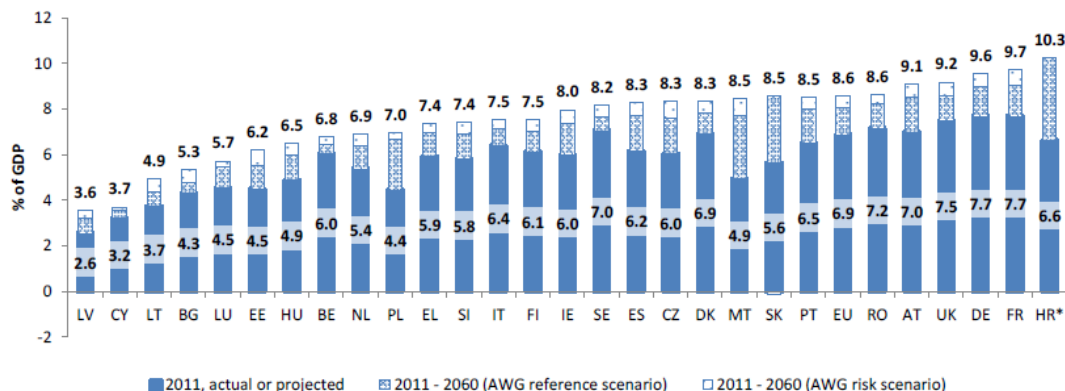
Source: DG EMPL calculations on ESSPROS data

Future expenditure developments

The ageing of the population coupled with the ageing of the workforce and with the 'elder ageing' (i.e. the rapid increase in the number of people aged 80 and over), or so-called "triple ageing" phenomenon, will have marked implications for health and social services expenditure. If age-disease patterns remain unchanged, public expenditure levels will increase in line with population ageing. According to the 2012 EPC/EC projections, public expenditure on health in the EU-27 will increase by 1.4 pp of GDP by 2060 due to population ageing, i.e. a 20% increase with respect to 2010 spending, from 7.1% to 8.5% of GDP. This increase will range from around

0.5% of GDP in Cyprus and Latvia to 3.2% of GDP in Malta, with most Member States registering increases in public health expenditure between 1 and 2 pps of GDP (Chart 22).

Chart 22: Current (2011) and projected (2011-2060) public expenditure on health



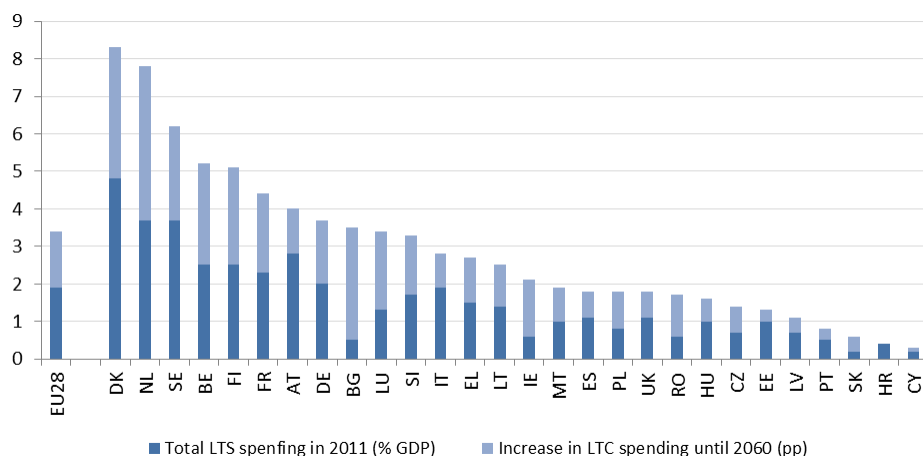
Source: Source: 2012 Ageing Report, Fiscal Sustainability Report 2012, European Commission, own calculations.

Notes: The ranking of the countries deviates from the ranking in the Ageing Report, as the 2011 data has been updated for some countries according to data availability. Data for Croatia includes the projection of long-term care spending based on national sources, as no separate projection for health care and long-term care is available. No risk scenario is available for HR either.

Data excludes spending for long-term nursing care (HC.3 category of the system of health accounts).

According to the 2012 Ageing Report, public expenditure on long-term care (LTC) will rise at a higher rate than GDP growth: public spending on LTC is expected to increase by 1.5 pps of GDP due to ageing-related factors even if one accounts for some improvements in disability status of the population (the so-called "AWG reference scenario"). This corresponds to a potential increase from 1.9 % of GDP in the EU in 2011 to 3.4% of GDP in 2060. The projected expenditure increase in LTC represents on average more than 40% of the total age-related increase in public spending till 2060.³⁹

Chart 23: Public expenditure on long-term care as % of GDP, 2011-2060



Source: DG EMPL calculations based on 2012 EPC/EC Ageing report (EPC Ageing Working Group reference scenario)

This variation of the projected changes in public expenditure on long-term care reflects the current situation of formal care provision. In those where the public expenditure on long-term

³⁹ European Commission (2014), *Identifying fiscal sustainability challenges in the areas of pensions, health care and long-term care policies*, DG ECFIN Occasional Papers nr. 201.

care and its projected increase are low (below 1% by 2060) – such as Cyprus, Latvia and Bulgaria – reflect a situation where long-term care needs are to a large extent met by informal carers (family, friends, relatives or other informal carers). By contrast in Member States where the public expenditure on long-term care is above the EU-28 average and is projected to more than double by 2060 – such as in the Netherlands, Belgium, Finland or France – the elderly population currently relies and is assumed to rely more on the formal care providers. Changes in household composition, gender patterns and family relations towards smaller households and a greater participation of women in the labour market may change the current provision pattern in countries where informal provision is now widespread.

1.3.3 Unmet needs

The rising public expectations regarding the quality, accessibility and affordability of health and social services and the context of pressure on public budgets due to the crisis has increased the challenge on some Member States to reach adequate levels of spending on health and social services while for others, the challenge remains to keep adequate levels of spending to ensure quality services.

Poor health or lack of access to health care are important dimensions of social exclusion. The impact of the crisis on them is more difficult to capture, but they are likely to have long-term detrimental impacts on the population if not tackled.

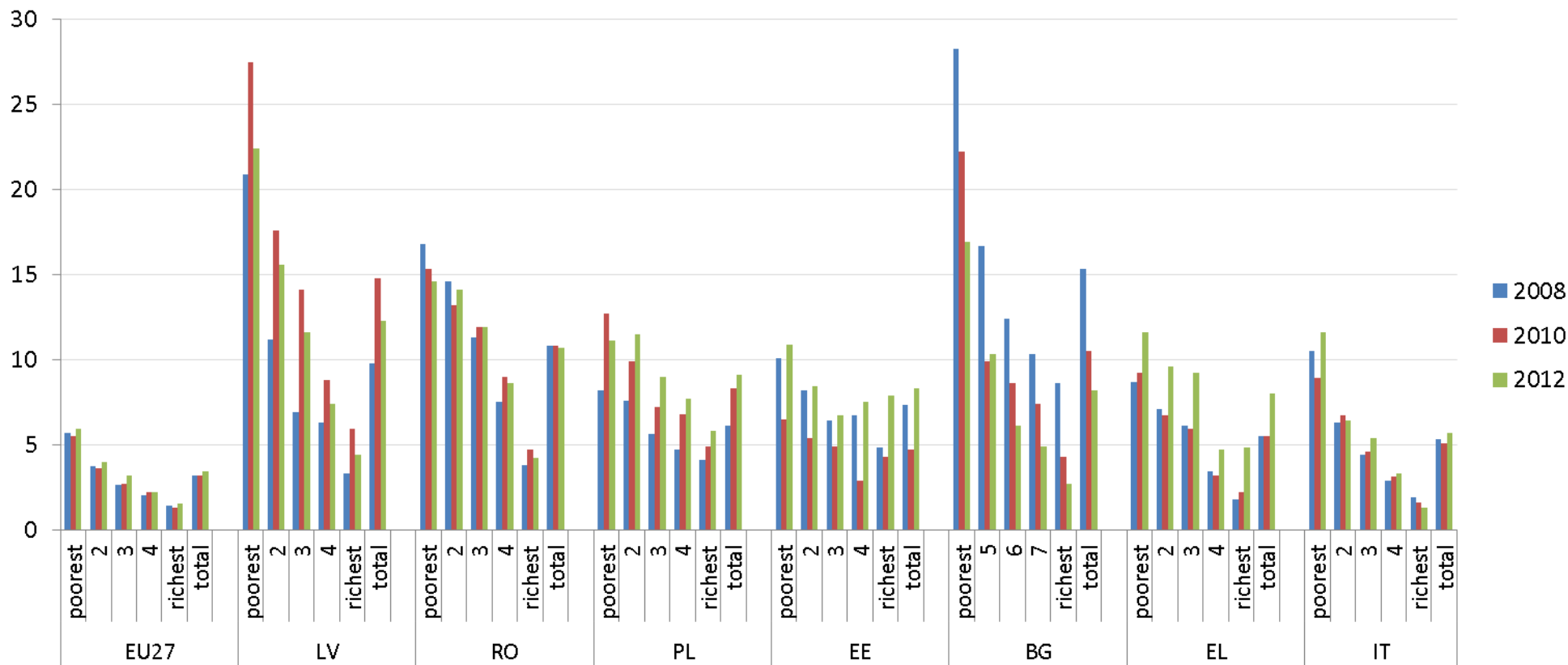
The indicator of 'unmet need for care'⁴⁰ is here used to monitor access to healthcare. In the EU27⁴¹, on average, after a period of improvement between 2008 and 2010 (which started already in 2007) the situation has worsened between 2010 and 2012 (latest data available). Access to healthcare appears to be particularly problematic in Latvia, Romania, Poland, Estonia, Bulgaria, Greece, and Italy, all these countries where 5% or more of the population in 2012 reported an unmet need for care. Between 2010 and 2012, the situation worsened considerably in Greece and Estonia (Chart 25).

Charts 24-26 show also the developments for the EU Member States by income quintiles. Between 2010 and 2008, at the EU27 level, the situation worsened among all income quintiles, with access to healthcare being particularly a concern for the poorest income group.

⁴⁰ This indicator is defined as the share of the population perceiving an unmet need for medical examination or treatment for different reasons. The reasons considered in this analysis are: [i] could not afford to, [ii] waiting list, [iii] too far to travel.

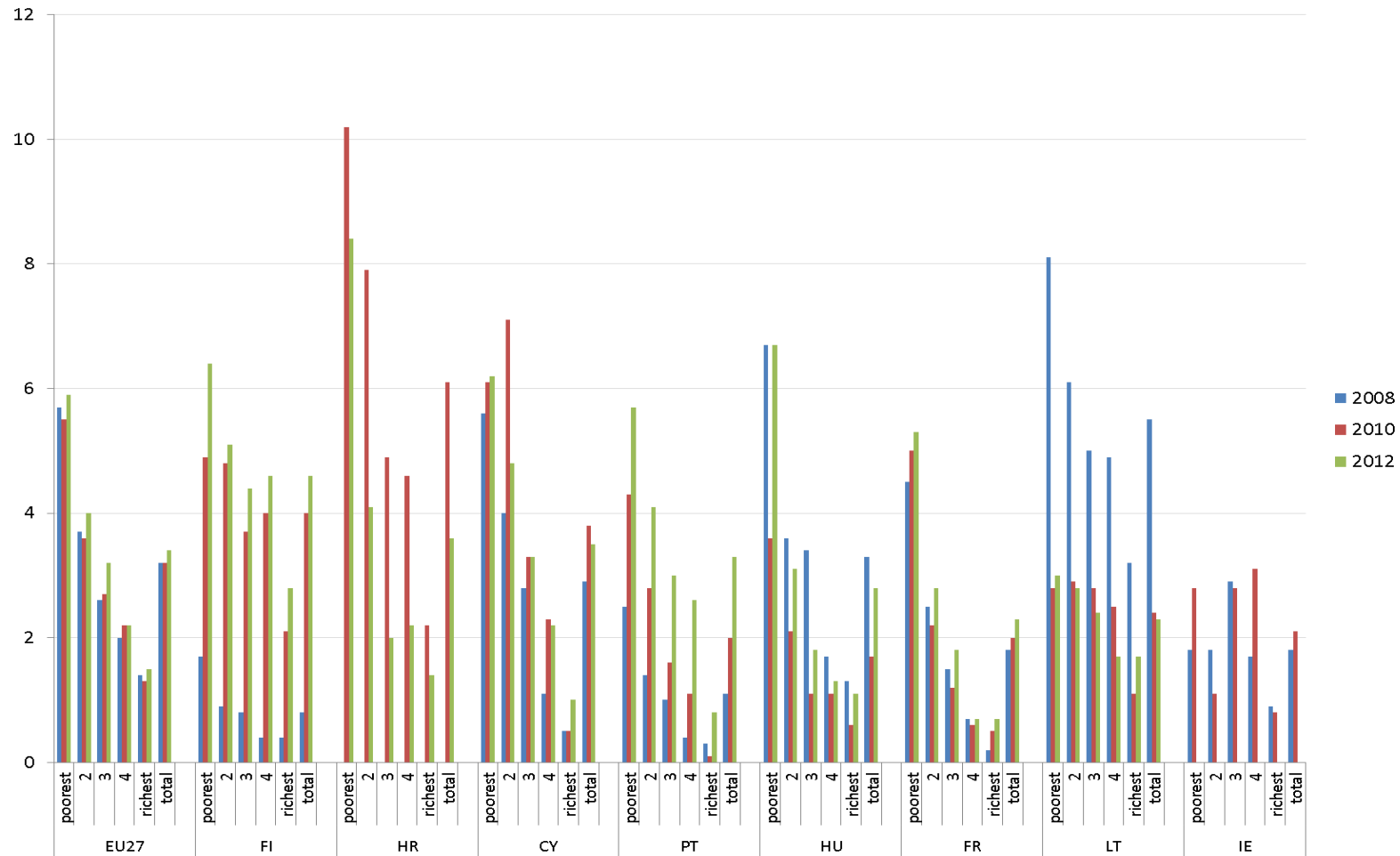
⁴¹ The EU27 average is here used for consistency with the previous waves of EU-SILC (2008 and 2010).

Chart 24: Unmet need for health indicator, by income quintiles in MS with total over 5 per cent, 2008, 2010, 2012



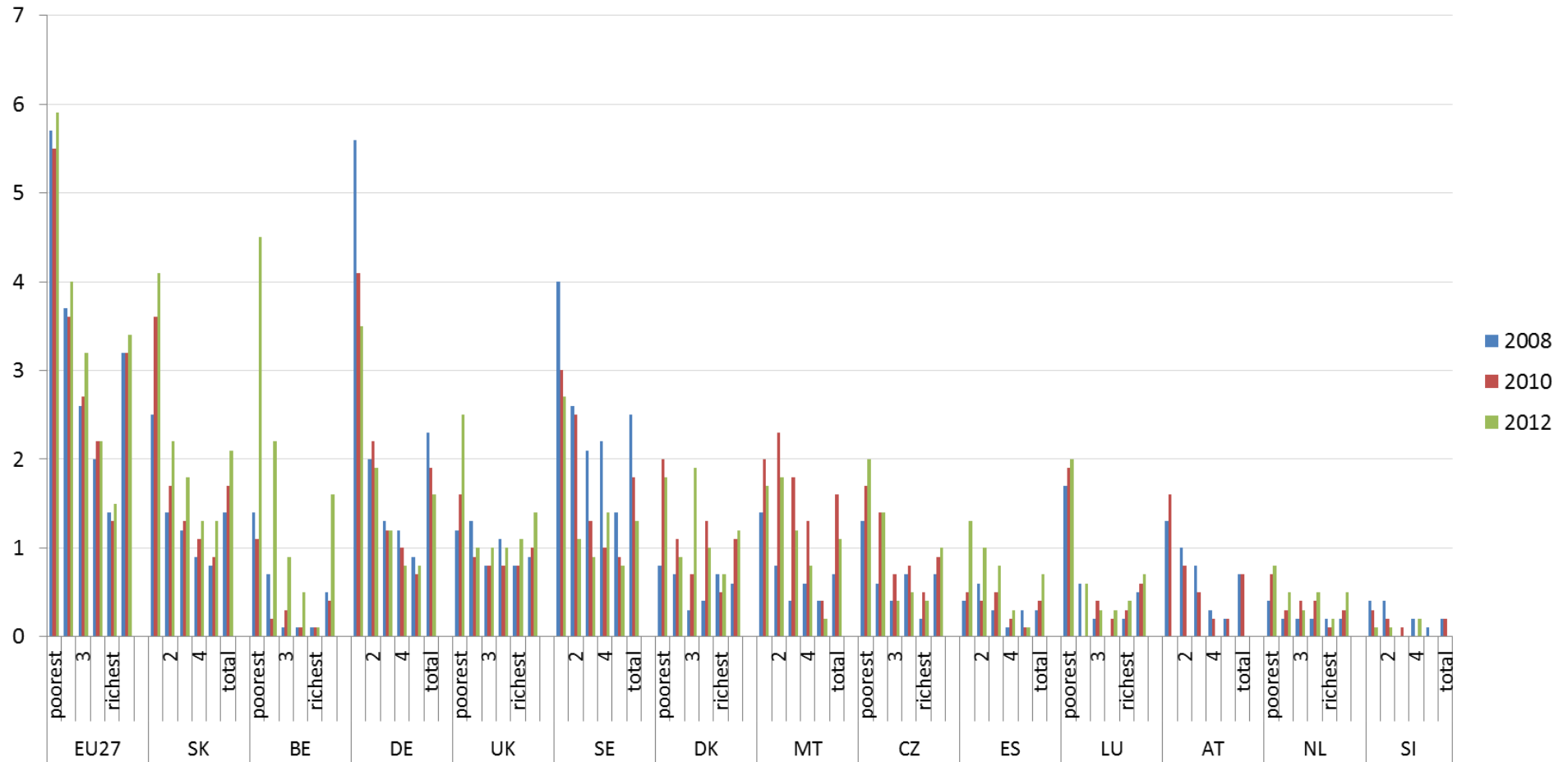
Source: EU SILC 2008 2010 2012

Chart 25: Unmet need for health indicator, by income quintiles in MS with total between 2 and 5 per cent, 2008, 2010, 2012



Source: EU SILC 2008 2010 2012

Chart 26: Unmet need for health indicator, by income quintiles in MS with total under 2 per cent, 2008, 2010, 2012



Source: EU SILC 2008 2010 2

1.4 Conclusions

Health and social services play an important role in EU economies and societies. They play a pivotal role in ensuring effective and efficient social protection by promoting social inclusion and reducing the risk of poverty and inequalities as well as by improving social cohesion. They also generate many of the newly created jobs and are a source of new jobs in the years to come. Nevertheless, in some Member States, social services are underdeveloped and access to health and social services could be improved.

The economic and financial crisis has played a double role in relation to health and social services: on one side, it has shown that these services can cushion the impact of the crisis. On the other, budget constraints had an impact on the financing of health and social services through significant cuts in the spending on in-kind benefits.

The health and social services sector is characterised by a better skilled workforce than the rest of the economy but also by a higher gender pay gap, harder working conditions, in particular with respect to working time, and a high rate of part-time work which might lead to challenges in attracting new workers into the sector. Nevertheless, the sector will generate an increased number of jobs due to ageing labour force in the sector, increased demand due to the development of new needs driven by the demographic changes, the economic and social consequences of the crisis, growing inequalities, technological developments or changing social patterns.

Strategies to develop the job potential in the sector of health and social services should focus on creating more secure, quality and better paid jobs in order to fulfil the growing demand. This could be done through the development of more efficient learning and training schemes, in order to acquire, certify and recognise qualifications, better career prospects and job security, better pay and working conditions.

Supplement: Recent trends in job vacancies and hirings in Europe

Introduction

The aim of this supplement is to update key indicators of the European Vacancy and Recruitment Report (EVRR) 2014⁴². As the EVRR has been discontinued, this supplement provides an annual update of key indicators contained in the report.

General trends in recruitment activity are monitored at EU level on the basis of job vacancy rates and hiring rates. At EU level, both indicators saw a modest improvement in the first half of 2014 but are still approximately 20–30% lower than before the financial and economic crisis.

Job vacancy rates vary markedly between Member States, though they remain generally well below the pre-crisis levels. Even greater differences between countries emerge when the rate is broken down by economic sector.

Large differences between Member States can also be observed when comparing hiring with the number of unemployed people, which gives an indication of the competition for jobs in EU Member States.⁴³ As with job vacancy rates, hiring rates are on average relatively low across the EU.

In the EU overall, more people have been hired on a part-time basis in recent years at the expense of full-time recruitment. In the second quarter of 2014, the number of new full-time workers was still low, though showing a slight increase as compared with the previous year. Part-time hiring has remained stable over the year to the second quarter of 2014.

There were fewer new permanent and temporary contracts in the EU in the second quarter of 2014 than in the second quarter of 2008 (-20% and -15% respectively). In recent years, temporary contracts have been pro-cyclical and explain most of the variability in the EU number of employees.

At EU level, recruitment has remained stable among the highly educated⁴⁴ while has fallen dramatically for those with a low level of education. In the second quarter of 2014, there were more recruits among the former than the latter.

Job vacancies and hiring – two complementary indicators

Job vacancy statistics provide a snapshot of the job market at a given point in time, but do not reflect fluctuations in the market (new vacancies posted, vacancies filled and vacancies cancelled) i.e. they reflect stocks rather than flows. A higher job vacancy rate usually indicates an increase in business activity and employment. However, changes in the structure of employment, such as for example an increase in temporary jobs, can also trigger an increase in vacancies without an associated increase in employment.

Job hirings refer to the number of employees who were employed in a 'reference week' and had started working for their employer at most three months earlier. By definition, job hirings do not cover the self-employed, as a job vacancy is defined as a vacant post for an employee. Higher job hirings is an indication of an increase in labour market dynamics and could provide a proxy for higher employment in the current low employment – high unemployment context.

In certain circumstances, it is possible to envisage a high level of hirings coexisting with a low level of vacancies. For example, if a labour market is characterised by a very high share of short-term temporary contracts, many of the vacancies created will not necessarily be registered in the vacancy survey.

Note that depending on the Member State, quarterly job vacancy statistics do not necessarily cover the whole economy.⁴⁵ They are also based on a survey of businesses rather than on

⁴² <http://ec.europa.eu/social/main.jsp?catId=955>.

⁴³ See Box on Job opportunities of the unemployed

⁴⁴ Low level of education: primary and lower secondary (ISCED 1-2); medium level: formal upper secondary education (ISCED 3); high level: upper secondary short courses, post-secondary non-tertiary and tertiary (ISCED 4-6).

household information. By contrast, the hiring statistics collected as part of the Labour Force Survey are harmonised across the Member States, which makes them more representative/comparable than job vacancy statistics. Therefore, the two measures, while not directly comparable, provide complementary sources of information on labour demand.

In addition, when trying to establish the relationship between job vacancy stocks, hiring rates and the employment of salaried workers in recent quarterly periods, it appears that vacancy stocks follow the same patterns as hiring rates and can predict variations in the number of employees.

Job hirings

According to Eurostat, '**Job hirings**' are employees who were employed in a 'reference week' and had started working for their employer at most three months earlier. Job hirings do not cover the self-employed as a job vacancy is defined as a vacant post for an employee. For a person who started multiple jobs within the same quarter, only the last recruitment is counted.

Every quarter, the Labour Force Survey measures the number of people who were recruited in the previous three months based on the individual's response in the household survey. The way in which the question is structured means that these are new jobs in the sense that they exclude, for example, contract renewals and workers undertaking new tasks for the same employer.

Eurostat indicates new jobs by reference to the 'time since the job started'.

The number of job hirings has the following strengths:

- EU Labour Force Survey data are for all 28 EU Member States, provided by Eurostat.
- It covers 'hidden vacancies' that are filled informally without any public notification of the vacancy.

Job vacancy

A job vacancy is defined (Eurostat) as a paid post that is newly created, unoccupied, or about to become vacant:

1. 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
2. which the employer intends to fill either immediately or within a specified period of time.

A vacant post that is only open to internal candidates is not treated as a 'job vacancy'.

Job vacancy rate

The Job Vacancy Rate (JVR) expresses the total number of vacancies posted as a proportion of employment (employees) plus vacant posts:

$$\text{Job Vacancy Rate} = \left(\frac{\text{Number of job vacancies}}{\text{Number of occupied posts} + \text{Number of job vacancies}} \right) \times 100$$

⁴⁵ For example, in some Member States, data are only collected for companies with over 10 employees, or are not available at all for certain economic sectors. Reference periods may also differ between Member States.

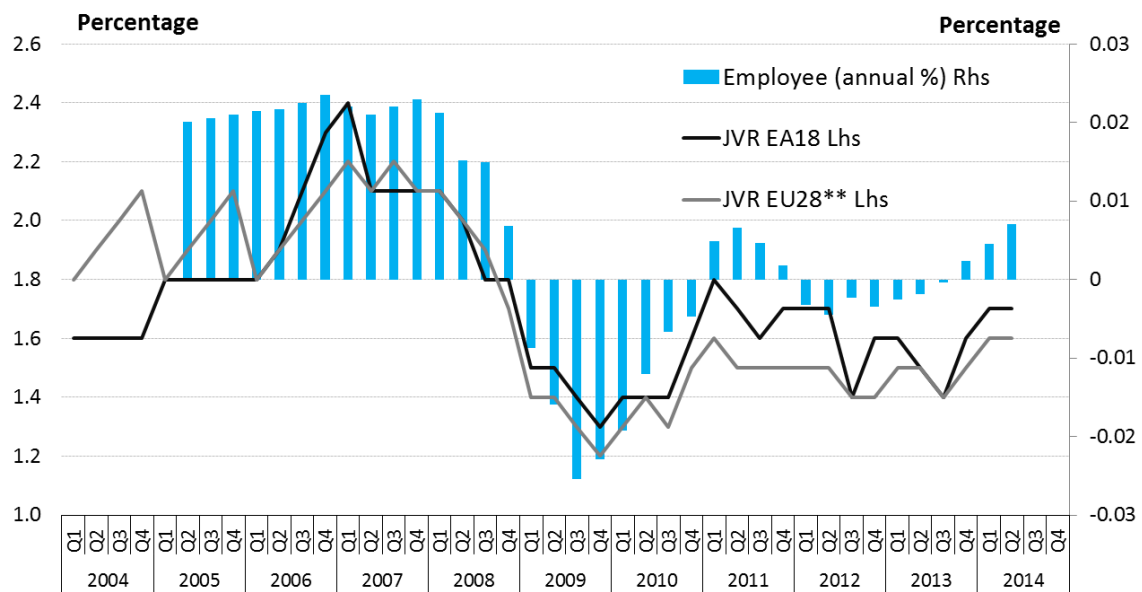
Job hiring rate

The job hiring rate is an indicator of the relative intensity of recruitment activity. Job hiring rate is a percentage of all employees who were hired in the previous three months. Much of hiring activity might be due to labour turnover with employers filling existing posts as workers leave for a variety of reasons

At EU level, the job vacancy rate improved slightly in the first half of 2014 but remained lower than pre-financial crisis levels.

The job vacancy rate in the EU and in the 18 countries of the euro area (EA) peaked in 2007 (2.2% on average in both areas) then fell steadily in the following year, reaching its lowest level at the end of 2009 at 1.2% in the EU and 1.3% in the EA. Since then, the job vacancy rate has increased slightly, reaching 1.5% in both areas in 2013 (annual average, Chart 1). Recent trends show that the job vacancy rate at EU28 level has been below average for the last decade.

Chart 1: Job vacancy rate (%) in the EU-28 and euro area, 2004–14 Q2 ⁽⁴⁶⁾ and annual change in the number of employees (%) in the EU-28



Source: Eurostat * 2006 Q1 to 2008 Q4: JVR for total of NACE Rev. 1.1. From 2009 Q1: JVR for sections B to S of NACE Rev. 2 — Industry, construction and services. There is a break in the time series: Up to 2009 Q3 German data included vacancies for subsidised jobs, from 2009 Q4 German data excludes vacancies for subsidised jobs. **EU-28 from 2010 onwards, before that the EU-27 — differences between the rates of both areas are well below 0.1 percentage points. 2004 to 2005: annual data (online data codes: jvs_a_nace1 and jvs_a_nace2). Employee [lfsq_egaps]

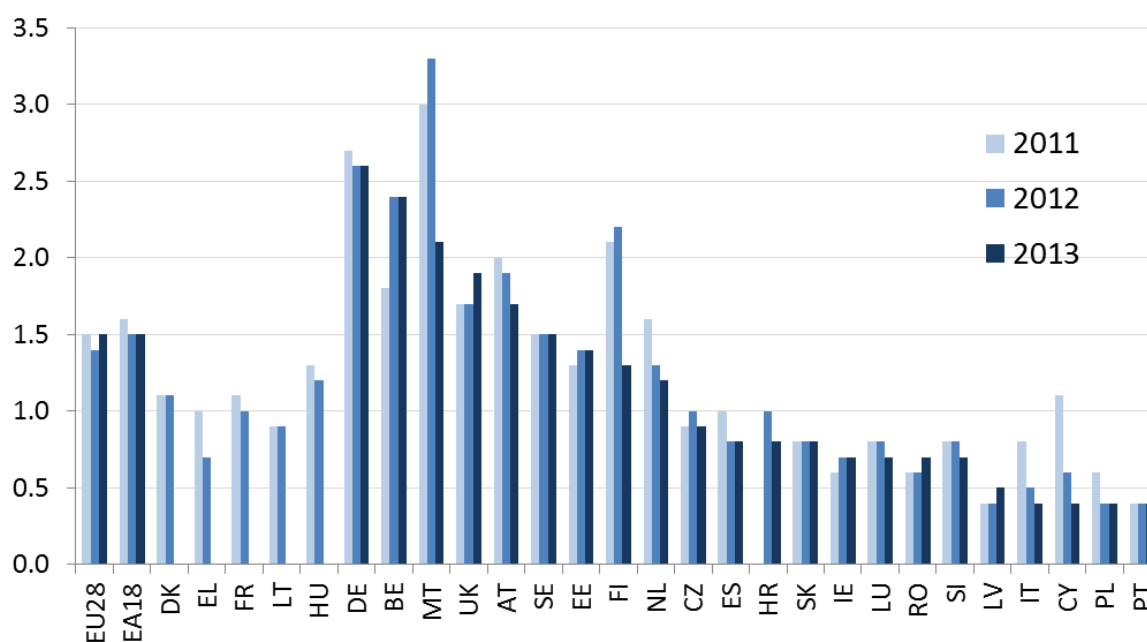
Quarterly data up to the end of first half of 2014 shows that the job vacancy rate increased moderately in both the EU and the EA: +0.2 percentage points (pp) in the EU and +0.1 pp in the EA if the second quarter of 2014 if compared with the same quarter of 2013 (Chart 1). As described above, in recent years, and still in the first half of 2014, the job vacancy rate for the EU stagnated.

⁴⁶ (1) 2003–08: NACE Rev. 1.1 Sections A to O. Since 2009: NACE Rev. 2 Sections B to S.

The job vacancy rate is high in a few Member States but low in the vast majority

Job vacancy rates vary widely across Member States. Despite being relatively low at EU level in 2013, the job vacancy rate was relatively high in two Member States: Germany (2.6%) and Belgium (2.4%). It was above the EU average in Malta (2.1%), United Kingdom (1.9%), Austria (1.7%) and Sweden (1.5%). The remaining 22 Member States have quite low rates. Indeed, there are wide differences in this indicator across the EU, with the job vacancy rate in Germany (2.6%) more than six times higher than that of Italy, Cyprus, Poland or Portugal (0.4% for all four). This shows that the availability of vacancies in the EU is concentrated in just a few Member States (Chart 2).

Chart 2: Job vacancy rates in the EU-28, the euro area and the individual Member States in 2011, 2012 and 2013 (NACE Rev. 2 sections B to S)



Source: Eurostat [jvs_a_nace2]

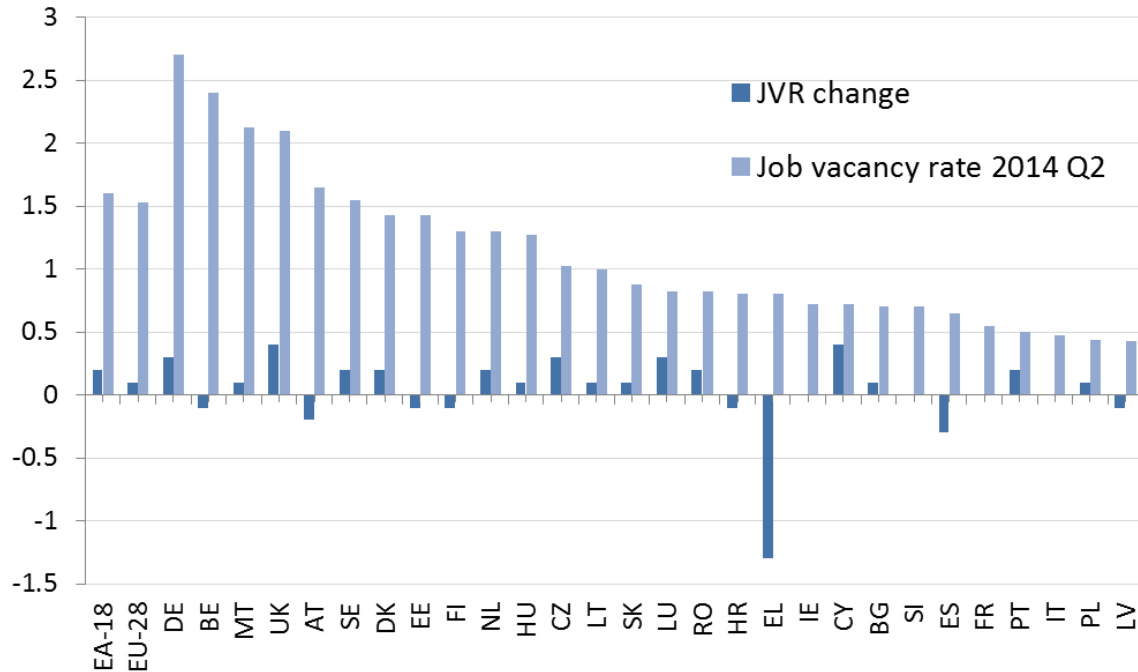
The job vacancy rate increased moderately in most Member States in the year to the second quarter of 2014.

The EVRR 2014 highlighted a general decline in job vacancies across most EU Member States based on the job vacancy rate between 2008 and 2012.⁴⁷ Since then, the job vacancy rate at EU28 level increased moderately. In the year to the second quarter of 2014, the job vacancy rate increased in 16 Member States, remained stable in four and decreased in eight. The job vacancy rate increased significantly in Cyprus, United Kingdom (+0.4 pp for both countries) and Luxembourg, the Czech Republic and Germany (+0.3 pp for all three countries).

Therefore, the largest increases occurred in countries with a job vacancy rate that was already higher than the EU average, such as Germany (2.7%) and the United Kingdom (2.1%) and in countries with a relatively low job vacancy rate, such as Cyprus (0.7%) and Luxembourg (0.8%). Decreases in the year to second quarter 2014 were rather modest (lower than -0.2 pp) across the EU, with the exception of Spain (-0.3 pp to 0.7%) and Greece (-1.3 pp to 0.8%). See Chart 3.

⁴⁷ European Vacancy and Recruitment Report 2014, page 26; 15 countries were covered for this result: BG, CY, CZ, EE, DE, LT, LU, LV, NL, PT, RO, SE, SI, SK and UK.

Chart 3: Job vacancy rates (%) in the EU Member States⁴⁸ in the second quarter of 2014⁴⁹ and trends in the year preceding the second quarter of 2014



Source: Eurostat: DK: Only sections B to N covered; FR, IT: Section O not included; FR, IT, MT, HR: Only business units with 10 or more employees covered, PL and EL: 2014 Q1 data.

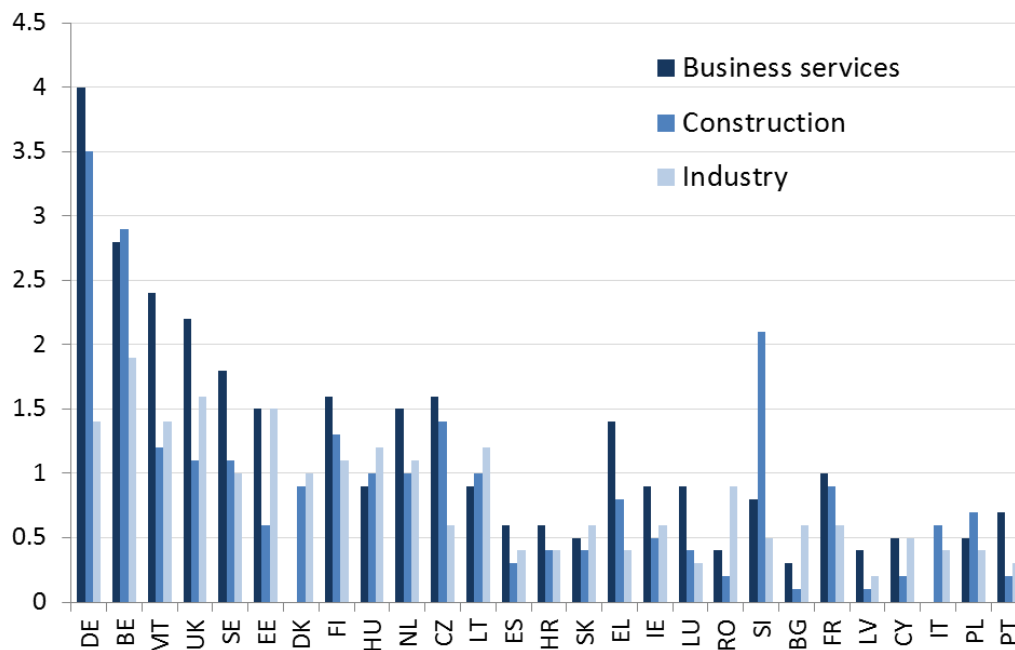
Even wider differences between Member States at sector level

There are important variations in the job vacancy rate across sectors (industry, construction and services) at EU level. The job vacancy rate for business services is higher in the majority of Member States than the rate for the industrial and construction sectors. Differences in sector-based job vacancies rates are high when looking across Member States. In 2013, the vacancy rate in the business services sector ranged from 0.3 % in Bulgaria to 4.0 % in Germany. There are greater differences between Member States in the business services and construction sectors than in the industrial sector.

⁴⁸ Industry, construction and services (NACE Rev. 2 sections B to S*).

⁴⁹ Average of the four quarters to 2014 Q2 (inclusive).

Chart 4: Job vacancy rates (%) in the Member states in 2013 in industry, construction and business services:

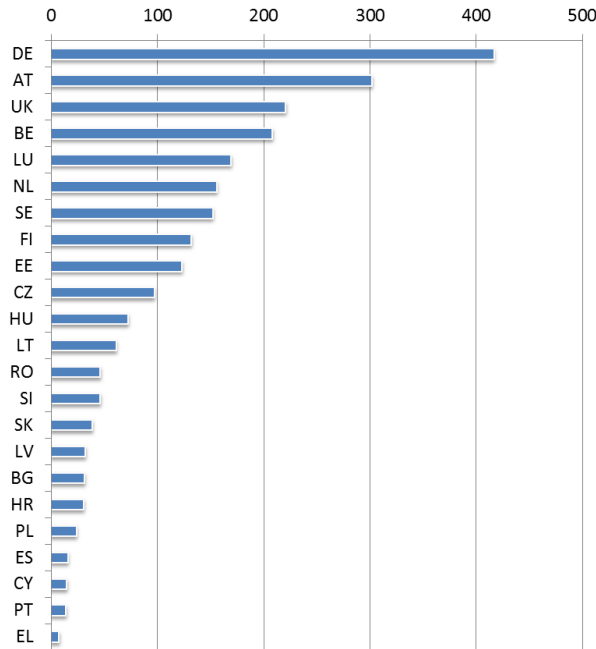


For industry: DK, EL, FR: 2012 data; DE: 2011 data; data N/A for AT; IT, MT: 10 employees or more; for construction: DK, EL, FR: 2012 data; IT, MT: 10 employees or more; data N/A for AT; for business services: EL, FR, HR: 2012 data; IT, MT: 10 employees or more; data N/A for AT, DK, IT

Few vacancies compared with the number of unemployed people in some Member States

When the number of job vacancies is compared with the number of unemployed people, there are significant differences between Member States. Based on the Member States for which data are available, for every 1 000 unemployed people in 2013 there were more than 400 vacancies in Germany but only 7 in Greece. This low ratio, in addition to the mismatch between job vacancies and jobseekers, indicates difficult labour market prospects for unemployed people in some Member States where it appears that there are simply no jobs to apply for.

Chart 5: Number of job vacancies per 1 000 unemployed in 2013

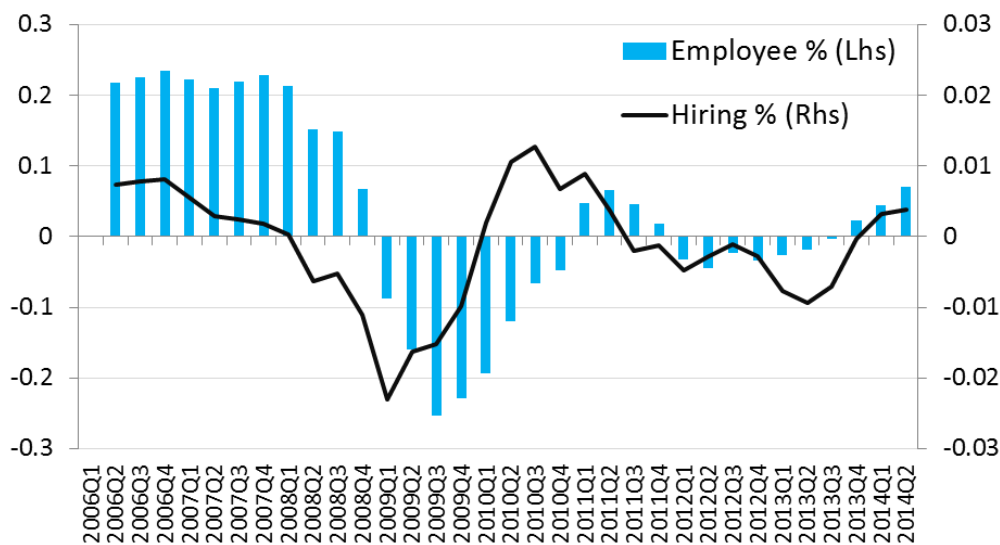


Source: Eurostat, data N/A for DK, IE, FR, IT and MT

Hiring levels increased moderately in the first half 2014, but remain lower than pre-crisis levels

The EU-28 hiring activity fell dramatically in 2008 and 2009, before experiencing a modest recovery in 2010 and 2011. In 2012 and 2013, hiring levels mostly stagnated when they did not even decline. Recruitment data for the first half of 2014 has shown some signs of improvement (+3.8 % in the second quarter of 2014, annual change) but we are far below pre-crisis levels. When compared with 2007, hiring are 25 % lower.

Chart 6: Annual change in hiring and employment in the EU



Source: Eurostat [lfsq_egdn2].

Note: Absolute value: 2007Q1: 9.451.9 Moi, 2014Q2: 8.441.3 Moi. EU aggregate without FR

Job opportunities in the EU in the second quarter of 2014: a more difficult labour market

In order to compare hiring rates in different Member States, we calculate the ratio of unemployed people to 'hirings' to give an indication of the relative competition for jobs. The higher the ratio, the more difficult it is to find a job, as more people are unemployed but fewer are hired. One advantage of this indicator is that it enables the comparison of different labour markets.

Job opportunities of the unemployed

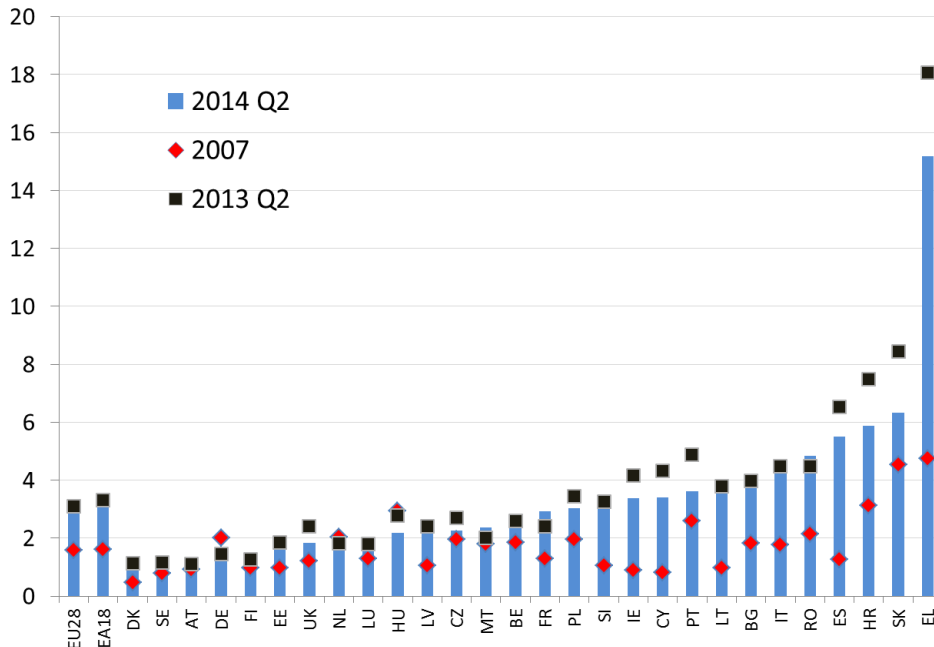
The ratio of unemployed people to job hirings indicates the relative ease of getting a new job, or the relative competition for jobs among unemployed jobseekers – the higher the ratio, the more difficult is to find a job, since there are more unemployed people but fewer people are hired. This is a useful though crude measure since it cannot account for mismatches in the labour market due to geographical or occupational (skills) factors. An increase in the ratio can be due to increasing unemployment, decreasing job hirings or both.

Even if there are high numbers of unemployed people (in which case the ratio is high and indicates tight competition for available jobs), it does not necessarily imply that it is easy for employers to recruit workers. Recruitment may still be difficult if the unemployed do not have the required skills. However, if unemployment was high and hirings were low, then this can be considered an indicator of fewer job opportunities. The ratio is in fact just one possible indicator of labour market tightness, but this one has the advantage that comparable information is available for all Member States.

A ratio of less than 1.0 would appear to indicate a shortage of labour supply (i.e. fewer people looking for work than there are vacancies available). However, this is unlikely to be the case for a number of reasons. Firstly, the Labour Force Survey unemployment data will not identify all those seeking work – some may remain hidden or undeclared. Secondly, not all jobseekers are unemployed, and in reality most vacancies are filled by those already in work and who change job without a period of unemployment

In the second quarter of 2014, only eight EU countries had a ratio of unemployed to hiring lower than 2.0, while in 2007 most EU countries (twenty Member States) had a much lower value. Thirteen countries had a ratio showing more than three unemployed for each job hiring, while in 2007 only three Member States were showing such a value (chart 7). Similarly, in the second quarter of 2014, only three countries displayed a proportion lower than in 2007, namely Hungary, Germany and the Netherlands. For the EU this ratio was 2.9 in 2014 q2, moderately decreasing when compared to a year before (-0.2 pp).

Chart 7: Ratio of unemployed to hiring, 2007, Q2 2013; Q2 2014



Source: Eurostat [lfsq_egdn2].

An almost generalised decrease in job opportunities during recent years across EU Member States

As measured by the ratio of unemployed to hiring, job opportunities have declined with this indicator increasing in 90 % of the Member States since 2007. In other words, following a period of sustained growth, where the vast majority of EU countries were showing good job opportunities, the EU observes now the inverse situation where the vast majority of EU countries face scarce job opportunities.

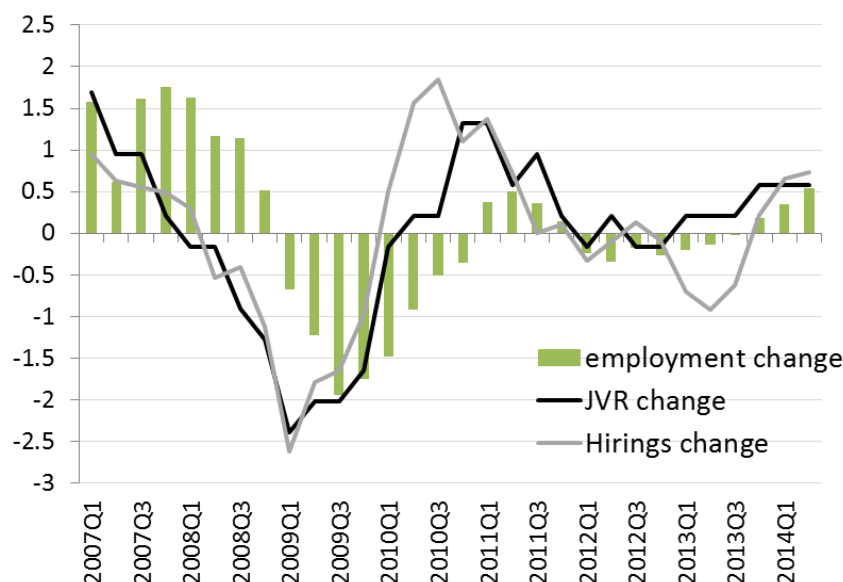
Over the year to the second quarter of 2014, a mild improvement was visible in some countries for which the labour market was offering little recruitment, in particular in Greece, Slovakia, Croatia and Spain. Nevertheless, this improvement remains relatively marginal when compared with the level reached by the job opportunity ratio before the crisis in these countries.

Hiring levels and job vacancies explain employment variations in the EU-28

When assessing the relationship between the variation in the job vacancy rate and the annual change in the number of salaried workers in the EU (Chart 8), the change of job vacancy rate appears to be a leading indicator to employment. Indeed, the following chart shows that a period of salaried employment growth occurred after a rise in the job vacancy rate. A period in which the job vacancy rate fell was also followed by a large drop in the number of salaried workers in 2009. This suggests that, in the current context, a growing number of vacancies are probably necessary for a sustained employment growth.

The variation in hiring levels also appears to provide advance notice to employment developments, recording a turning point before the annual change in the number of salaried people. When there was an upturn in employment in the fourth quarter of 2009 and a downturn in the third quarter of 2011, hiring and vacancies reflected the same differential change a few quarters earlier (Chart 8). Trends in 2013 and 2014 were more stable in respect of these three indicators and grew moderately between the fourth quarter of 2013 and the second quarter of 2014.

Chart 8: Employment, hiring and job vacancies in the EU-28, (Q1 2007-Q2 2014 year-on-year % change, standardised data)



Source: DG EMPL calculation

On this basis, a regression model can be estimated for the period under review (from the first quarter of 2007 to the second quarter of 2014), comparing the yearly employment variation (ΔEmpl) at EU level⁵⁰ with the annual change in the job vacancy rate (ΔJVR), and the annual hiring change (ΔHiring). The model, integrating the lagged value of the two explanatory variables (ΔEmpl and ΔHiring), provides a relatively accurate prediction of employment changes. More precisely, this model shows the (statistically) significant effect of a positive variation of the job vacancy rate during the two previous quarters, the variation of hiring in the two lagged quarters and the variation of employment in the previous quarter. The contribution of the job vacancy rate explains most variations with this estimate, showing that it usually changes one or two quarters before a change in the levels of employment of salaried workers evolves in the same direction (Chart 9).

Regression model for: Employment variation⁵¹

$$\Delta\text{Empl}_t = -0.000 + 0.171 \Delta\text{Empl}_{t-1} + 0.017 \Delta\text{JVR}_{t-1} + 0.009 \Delta\text{JVR}_{t-2} + 0.020 \Delta\text{Hiring}_{t-2}$$

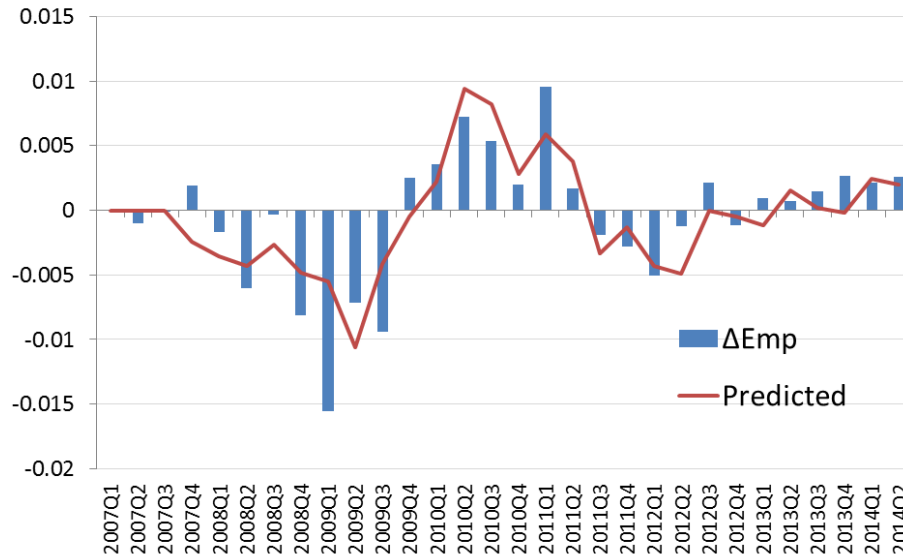
Variable	Estimate	Standard Error	t-Value
Constant	-0.000	0.001	-0.31
Δemp_{t-1}	0.171	0.176	0.97
ΔJVR_{t-1}	0.017	0.005	3.51
ΔJVR_{t-2}	0.009	0.006	1.45
$\Delta\text{Hiring}_{t-2}$	0.020	0.015	1.32

Total R-Square 0.6879; Root MSE 0.00360; Durbin-Watson 2.0648; Total R-Square 0.6879; Observations 27 Maximum likelihood estimates.

⁵⁰ Quarterly data between 2007Q1 and 2014Q2.

⁵¹ Only significant coefficients are shown in the table. The complete set of results is available upon request.

Chart 9: Employment variation and estimated employment variation Q1 2007-Q2 2014

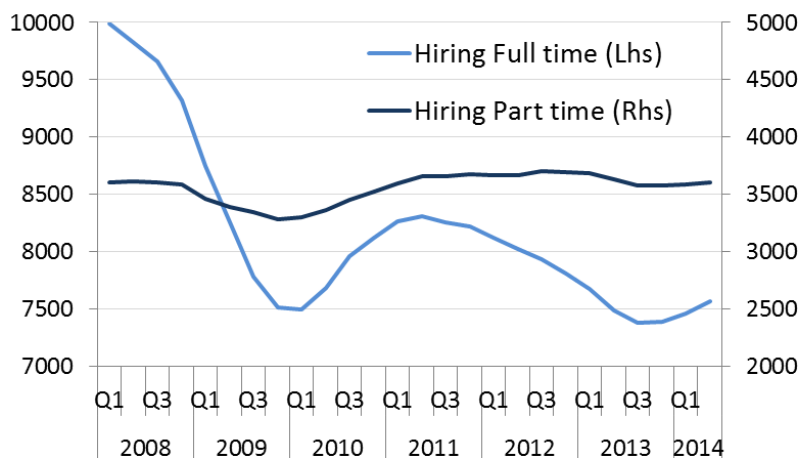


Source: DG EMPL calculation

Part-time hiring is more frequently used at the expense of full-time hiring

The number of new full-time recruits in the EU fell dramatically from 2007 to mid-2013, but then rose slightly up to the second quarter of 2014 (by 1.1 % year-on-year). The level of full-time hiring is markedly lower than in the years before the recession (-20 % as compared with 2008). Recruitment to part-time work fluctuated less and saw a moderate but sustained growth in recent years. It stabilised in the second quarter of 2014 (as compared with the previous year (-0.5 %)), but it still exceeds 2008 levels (+2.1 %). With less full-time and more part-time hiring, the latter has increased markedly as a proportion of total recruitment: in 2008 one new job in four was part-time; in the second quarter of 2014, this applied to one in three (Chart 10).

Chart 10: Full-time and part-time recruitment in the EU (Q1 2008 – Q2 2014) – new recruits per quarter (thousands)

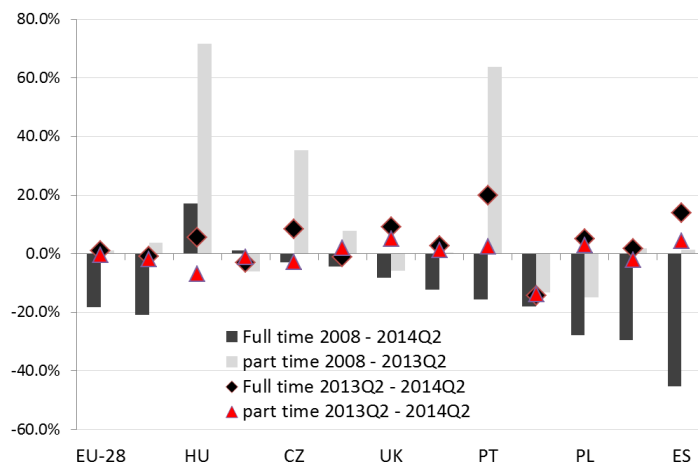


Source: DG EMPL calculation

As recruitment levels vary widely from quarter to quarter, Chart 11 presents data only for Member States with second quarter of 2014 levels over 2 % of the EU aggregate value. As

highlighted in the chart, most Member States (twenty two) saw full-time recruitment falling since 2008. For Member States for which data are presented, only Germany (+1 %) and Hungary (+17 %) saw more full-time jobs created in the second quarter of 2014 than in 2008. The number of new part-time jobs increased at EU level between 2008 and second quarter of 2014, with large variation between Member States. Over the same period, part-time employment increased in seventeen Member States. In the second quarter of 2014, both part-time and full-time employment is on the rise in the large majority of Member States.

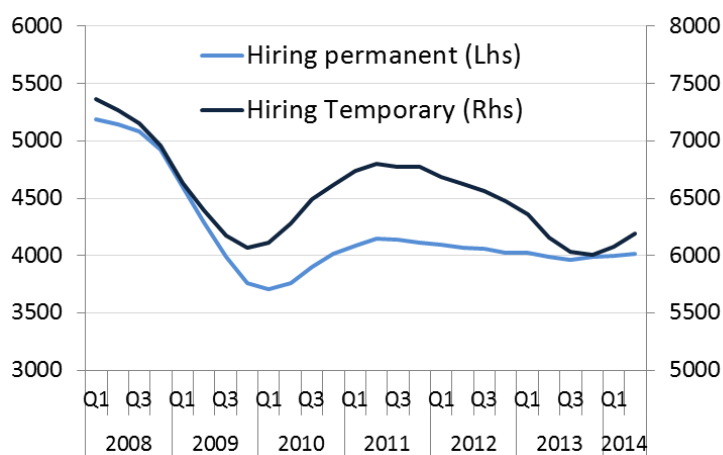
Chart 11: Full-time and part-time recruitment in the EU, the euro area and selected Member States – change between Q2 2008 and Q2 2014 and year-on-year change in Q2 2014 (%)



Source: DG EMPL calculation

There were fewer new permanent and temporary contracts in the EU in second quarter of 2014 than in 2008 (-20 % and -15 % respectively). In recent years, temporary contracts have been pro-cyclical and explained most of the variability in EU employment figures. Recent developments show stability for permanent hiring and a slight rebound for temporary jobs (Chart 12). Permanent recruitment fell in twenty four Member States between 2008 and second quarter of 2014, while fewer temporary contracts were offered in thirteen.

Chart 12: Permanent and temporary contracts in the EU (Q1 2008 – Q2 2014) – new recruits per quarter (thousands)



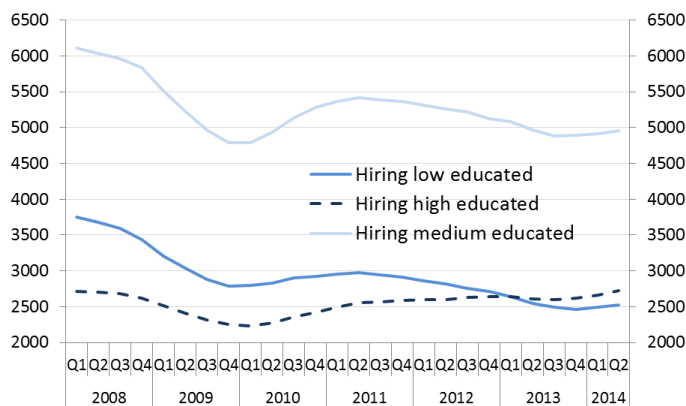
Source: DG EMPL calculation

At EU level, recruitment has remained stable among the highly educated⁵² and fallen dramatically for those with a low level of education. In the second quarter of 2014, there were more recruits among the former than the latter, potentially further reinforcing the employment gap between highly educated and those with a low level of education.

Recruitment of those with a medium level of education has developed cyclically in recent years, with totals bottoming-out towards the end of 2009 to recover up to 2011. Since mid-2011, however, the level has dropped again and was 18 % lower in second quarter of 2014 than in 2008. Recruitment among this group has consistently accounted for around 50 % of total recruitment in recent years.

The proportion of new jobs for those with a low level of education level fell in the six years to second quarter of 2014 (by 5 pp) to 24.8 % of the total, while those for the highly educated increased to the same extent (5 pp) to 26.7 %. People with low and medium levels of education have borne the brunt of the recent drop in total recruitment (31.3 % and 17.9 % fewer new jobs respectively in second quarter of 2014 as compared with 2008), while recruitment among the highly educated has been steady (+0.8 % over the same period) These trends were confirmed in the year to second quarter of 2014 , with recruitment of those with low, medium and high levels of education varying by -0.9 %, -0.3 % and +4.5 % respectively (Chart 13).

Chart 13: Hiring by education level in the EU (Q1 2008 – Q2 2014) – new recruits per quarter (thousands)



Source: DG EMPL calculation

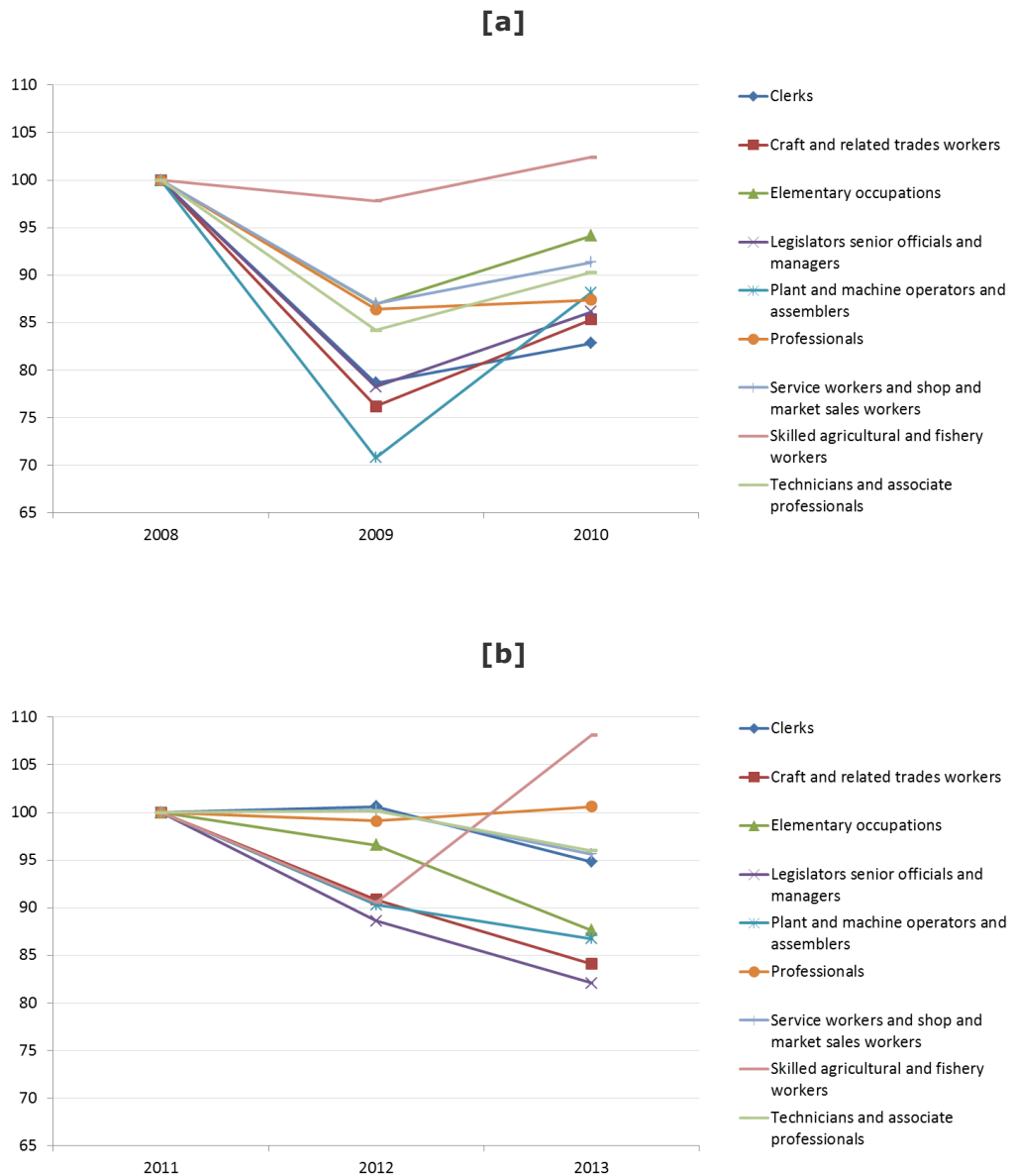
Hirings by occupation: increased for several high –skilled jobs and particularly for professionals

As identified in the EVRR 2014⁵³, in 2009 fewer people were hired in all major occupational groups, but this was less the case for "skilled agricultural and fishery workers", "services and sales workers", "elementary occupations" and "professionals" (Chart 14). Hirings partially recovered in 2010 in all major occupational groups. In 2013, hirings have decreased in all major occupational group, except for "professionals" and "Skilled agricultural and fishery workers".

⁵² Low level of education: primary and lower secondary (ISCED 1-2); medium level: formal upper secondary education (ISCED 3); high level: upper secondary short courses, post-secondary non-tertiary and tertiary (ISECD 4-6).

⁵³ <http://ec.europa.eu/social/main.jsp?catId=955> (page 49).

Chart 14: Development in job hiring by major occupational groups (ISCO 1-digit) in the EU, Index [a] 2008-2010 and [b] 2011-2013, [a] 2008=100, [b] 2011=100.

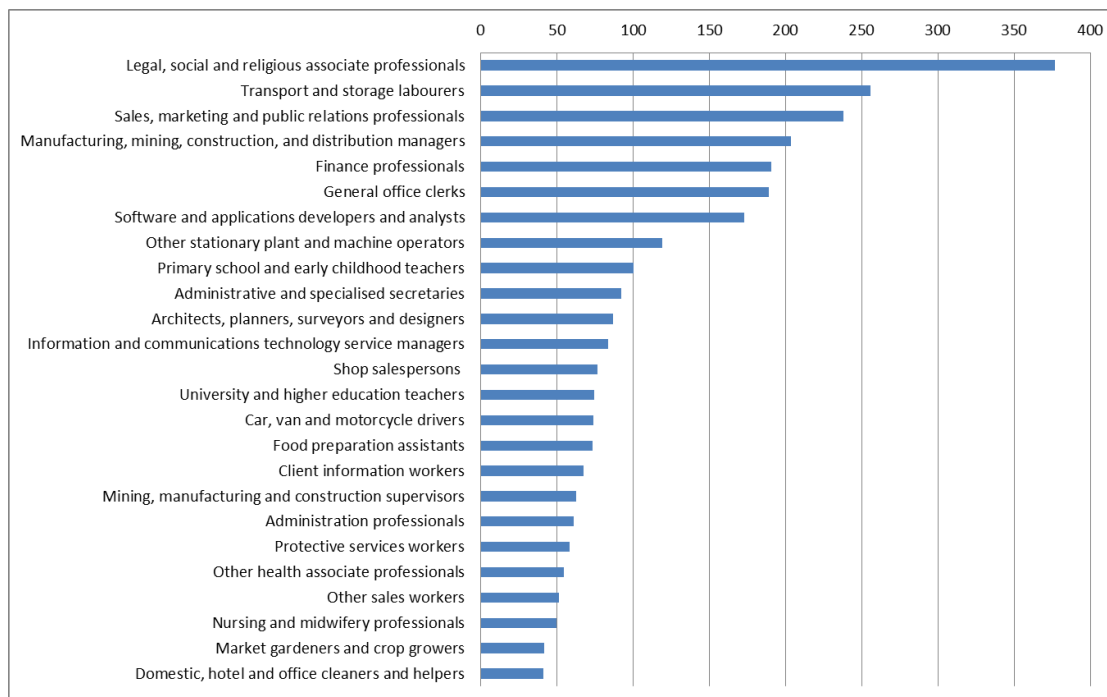


Source: Eurostat

Note: Starting with reference year 2011, a new version of ISCO (ISCO-08) has been implemented. There is no one-to-one correspondence between the two versions of ISCO: ISCO-88 and ISCO-08, resulting in a break in series between 2010 and 2011.

In 2013, the number of employee increased for several high-skilled jobs, and particularly for professionals (Table 1). More substantial staff growth was recorded for "Information and communications technology service managers" (+39 %), "Legal, social and religious associate professionals" (+20 %), "Sales, marketing and public relations professionals" (+14 %), "Manufacturing, mining, construction, and distribution managers" (+14 %). See Chart 15.

Chart 15: The 25 occupations with the largest employee increase (absolute change, 2013 compared to 2012), change (x1000 employees)



Source: DG EMPL calculation

Table1: The 25 occupations with the largest employee increase

Note: The ranking of the occupations is according to changes in the number of employees between 2012 and 2013 (Chart 15)

Ranking 2013	Occupations	Percentage change in the number of employees 2012-2013	Number of employees in 2013 (x1000)	Absolute change employees 2012-2013 (x1000)
1	Legal, social and religious associate professionals	20%	2.241	377
2	Transport and storage labourers	10%	2.772	256
3	Sales, marketing and public relations professionals	14%	1.998	238
4	Manufacturing, mining, construction, and distribution managers	14%	1.706	204
5	Finance professionals	12%	1.840	191
6	General office clerks	8%	2.456	189
7	Software and applications developers and analysts	8%	2.455	173
8	Other stationary plant and machine operators	13%	1.065	119
9	Primary school and early childhood teachers	3%	3.411	100
10	Administrative and specialised secretaries	2%	4.274	92
11	Shop salespersons	1%	9.951	87
12	Architects, planners, surveyors and designers	10%	897	84
13	Information and communications technology service managers	39%	272	77
14	University and higher education teachers	7%	1.108	75
15	Food preparation assistants	5%	1.570	74
16	Car, van and motorcycle drivers	4%	1.771	74
17	Client information workers	2%	3.021	67
18	Administration professionals	2%	2.680	62
19	Mining, manufacturing and construction supervisors	4%	1.793	61
20	Protective services workers	2%	3.424	58
21	Other health associate professionals	3%	1.763	55
22	Nursing and midwifery professionals	3%	2.003	51
23	Other sales workers	5%	1.110	50
24	Market gardeners and crop growers	4%	1.004	42
25	Domestic, hotel and office cleaners and helpers	1%	7.207	41

In 2013 compared to 2012, the number of employees declined significantly for "Other clerical support workers" (-15 %), "Process control technicians" (-14 %), "Mining and construction labourers" (-10 %), "Vocational education teachers" (-9 %), "Manufacturing labourers" (-9 %), "Metal processing and finishing plant operators" (-9 %). See Table 2 and Chart 16.

Chart 16: The 25 occupations with largest employee decline (absolute change, 2013 compared to 2012), change (x1000 employees)



Source: DG EMPL calculation

Table2: The 25 occupations with the largest employee decrease

Note: Note: The ranking of the occupations is according to changes in the number of employees between 2012 and 2013 (Chart 16)

Ranking 2013	Occupations	Percentage change in the number of employees 2012-2013	Number of employees in 2013 (x1000)	Absolute change employees 2012-2013 (x1000)
1	Other clerical support workers	-15%	2.783	-482
2	Building frame and related trades workers	-5%	4.337	-233
3	Manufacturing labourers	-9%	1.814	-190
4	Mining and construction labourers	-10%	1.280	-146
5	Building finishers and related trades workers	-5%	2.682	-141
6	Other teaching professionals	-7%	1.815	-132
7	Mixed crop and animal producers	-4%	3.468	-130
8	Financial and mathematical associate professionals	-4%	3.017	-128
9	Heavy truck and bus drivers	-3%	4.093	-120
10	Process control technicians	-14%	733	-120
11	Machinery mechanics and repairers	-3%	3.426	-96
12	Sales, marketing and development managers	-6%	1.154	-78
13	Physical and engineering science technicians	-2%	4.341	-78
14	Business services agents	-5%	1.470	-77
15	Hotel and restaurant managers	-6%	1.146	-76
16	Child care workers and teachers' aides	-3%	2.539	-73
17	Vocational education teachers	-9%	725	-69
18	Sports and fitness workers	-8%	768	-69
19	Material-recording and transport clerks	-1%	4.285	-63
20	Sheet and structural metal workers, moulders and welders, and related workers	-3%	2.101	-63
21	Shop salespersons	0%	12.465	-62
22	Personal care workers in health services	-1%	4.787	-62
23	Agricultural, forestry and fishery labourers	-3%	1.691	-58
24	Business services and administration managers	-3%	2.048	-57
25	Metal processing and finishing plant operators	-9%	582	-56

Annex 1: Real GDP growth, real GDHI growth and its main components and employment growth for the EU, euro area and available EU Member States

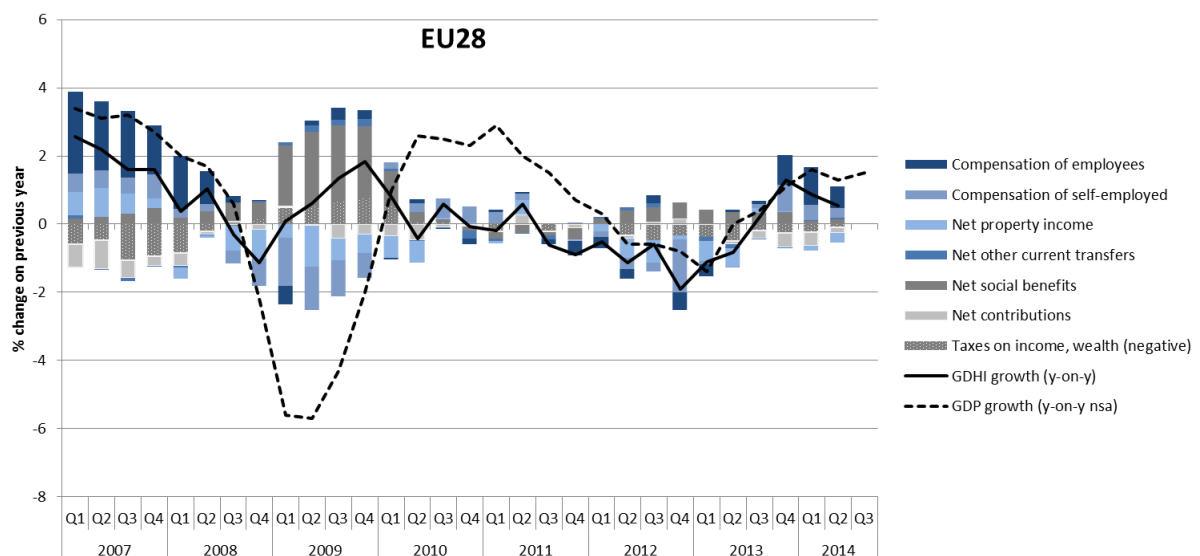
The real GDHI growth is DG EMPL estimation. The nominal GDHI is converted into real GDHI by deflating with the deflator (price index) of household final consumption expenditure. The results cover the EA18 and selected Member States for which quarterly data based on the ESA2010 are available (12 Member States). Data non-seasonally adjusted.

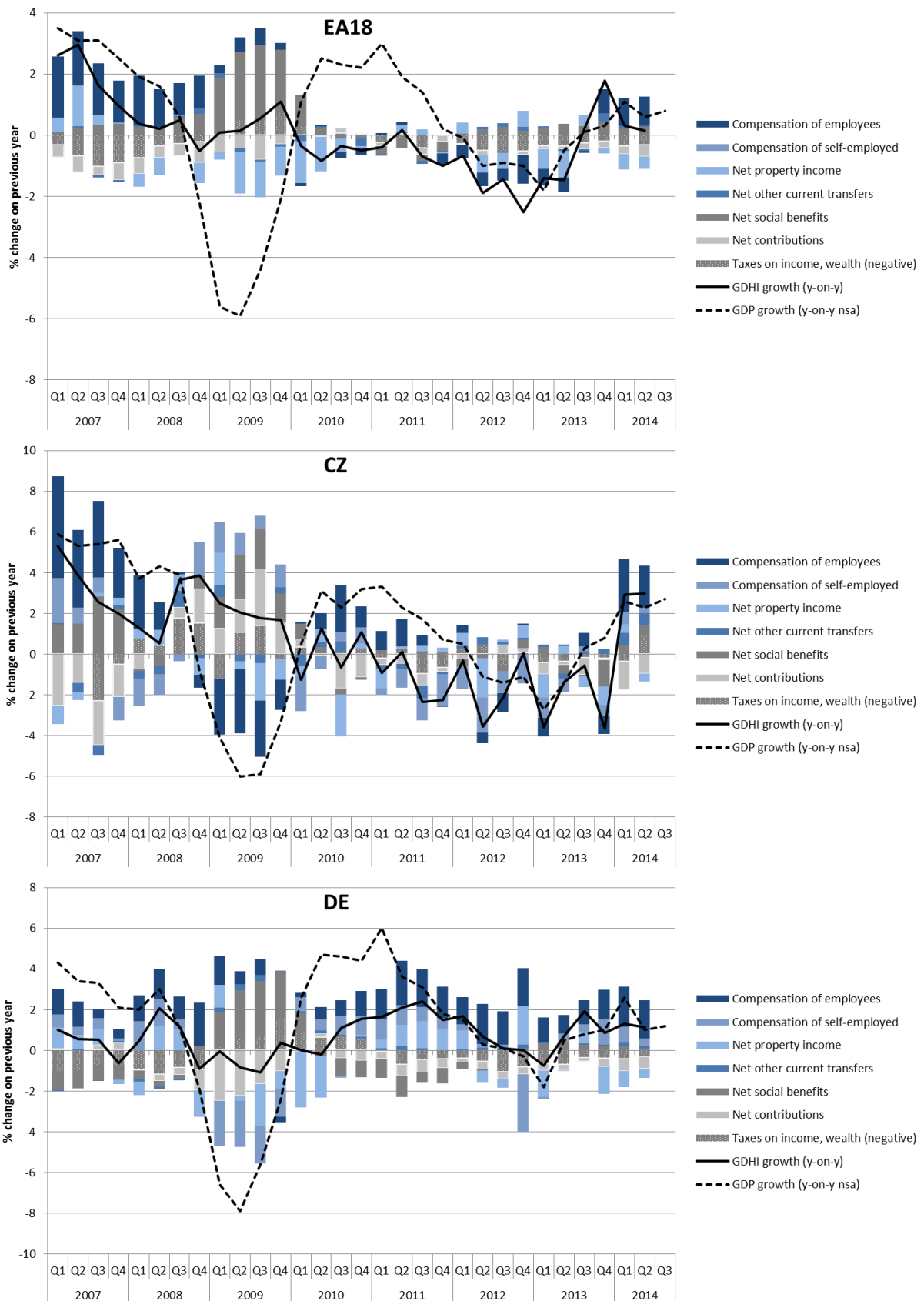
Line chart: change in total employment (million), bars: change by type of employment (million).

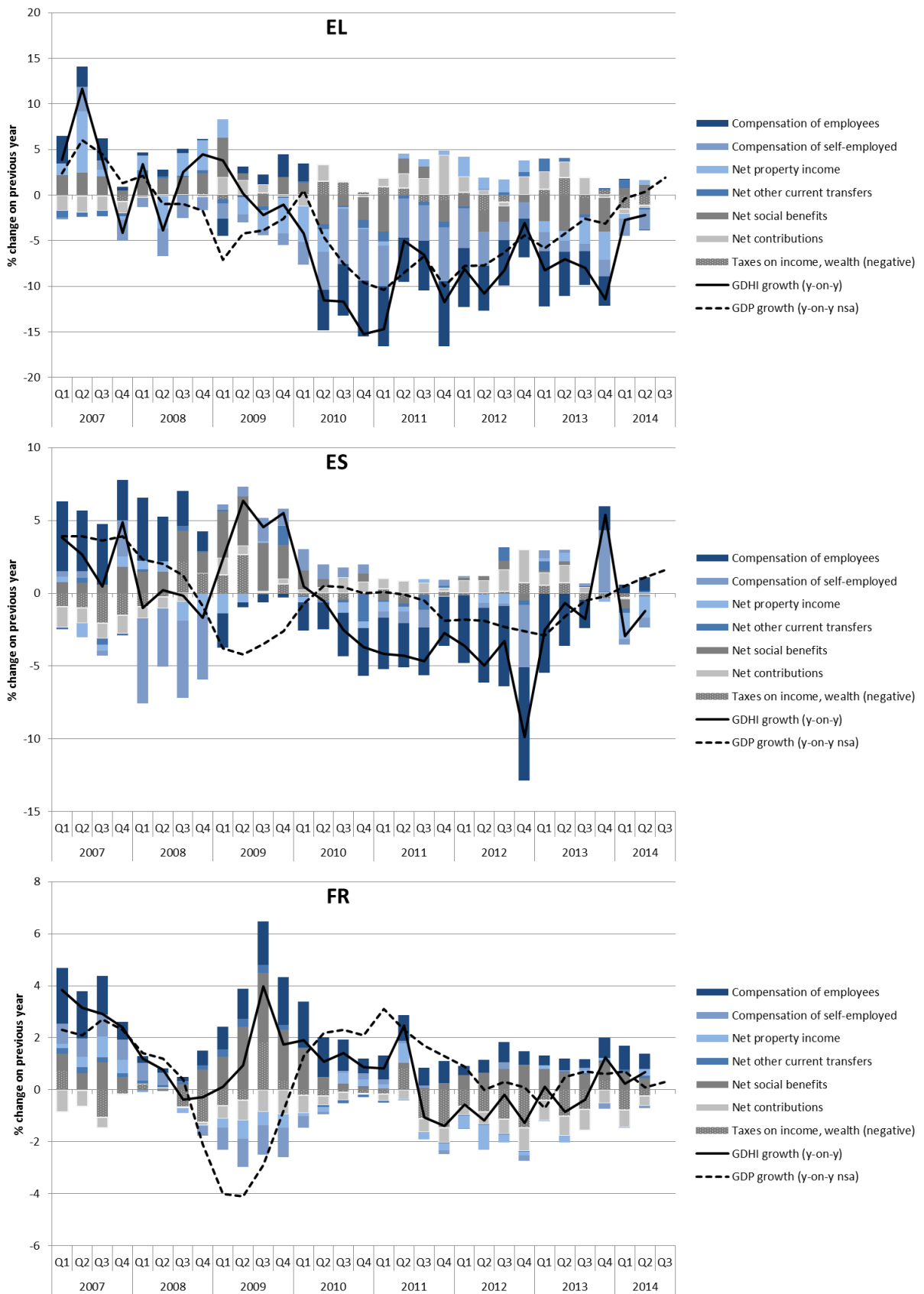
Source: Eurostat, National Accounts [nasq_10_nf_tr, namq_10_gdp and namq_10_pe] (DG EMPL calculations).

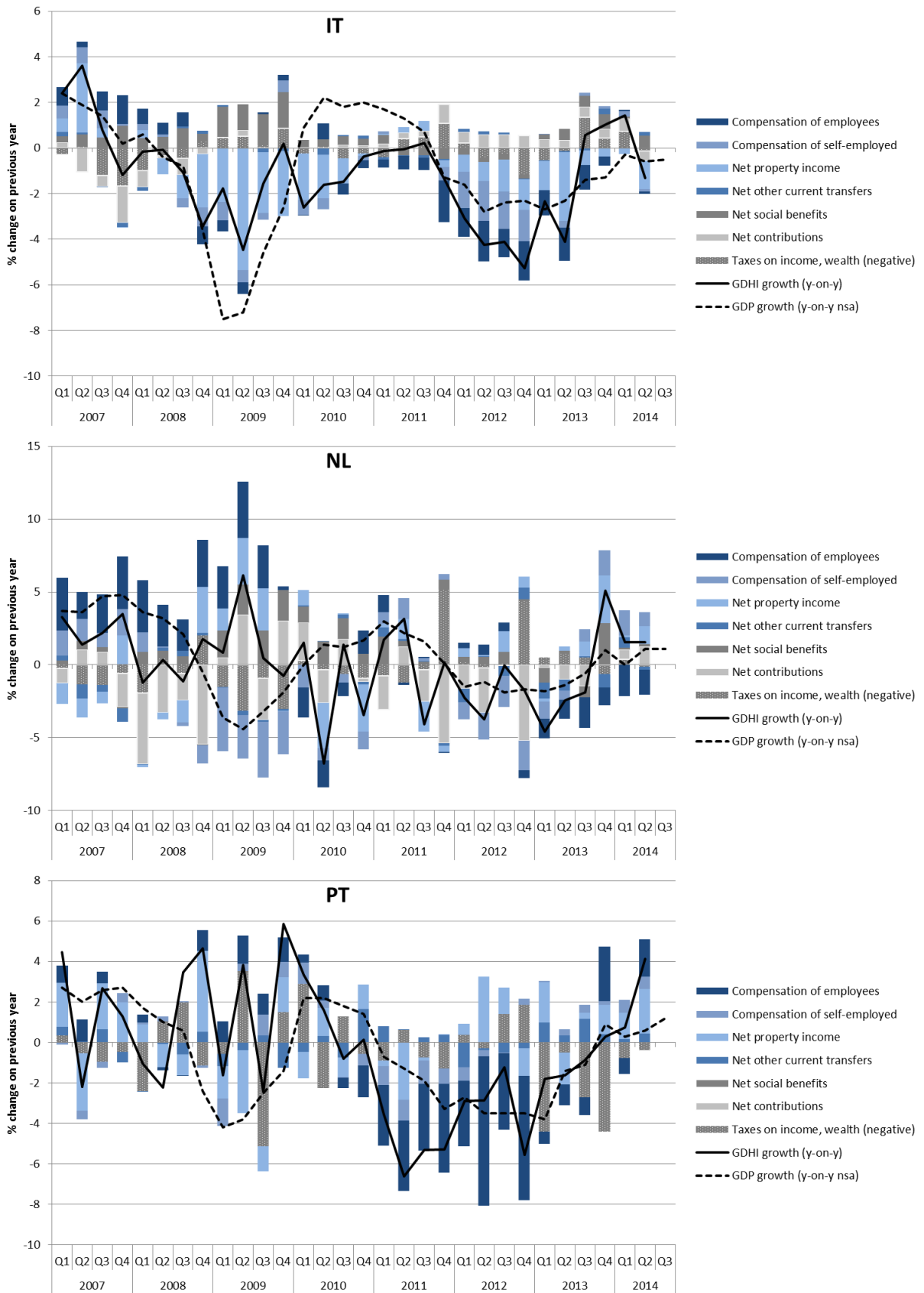
Summary of Member States' recent developments:

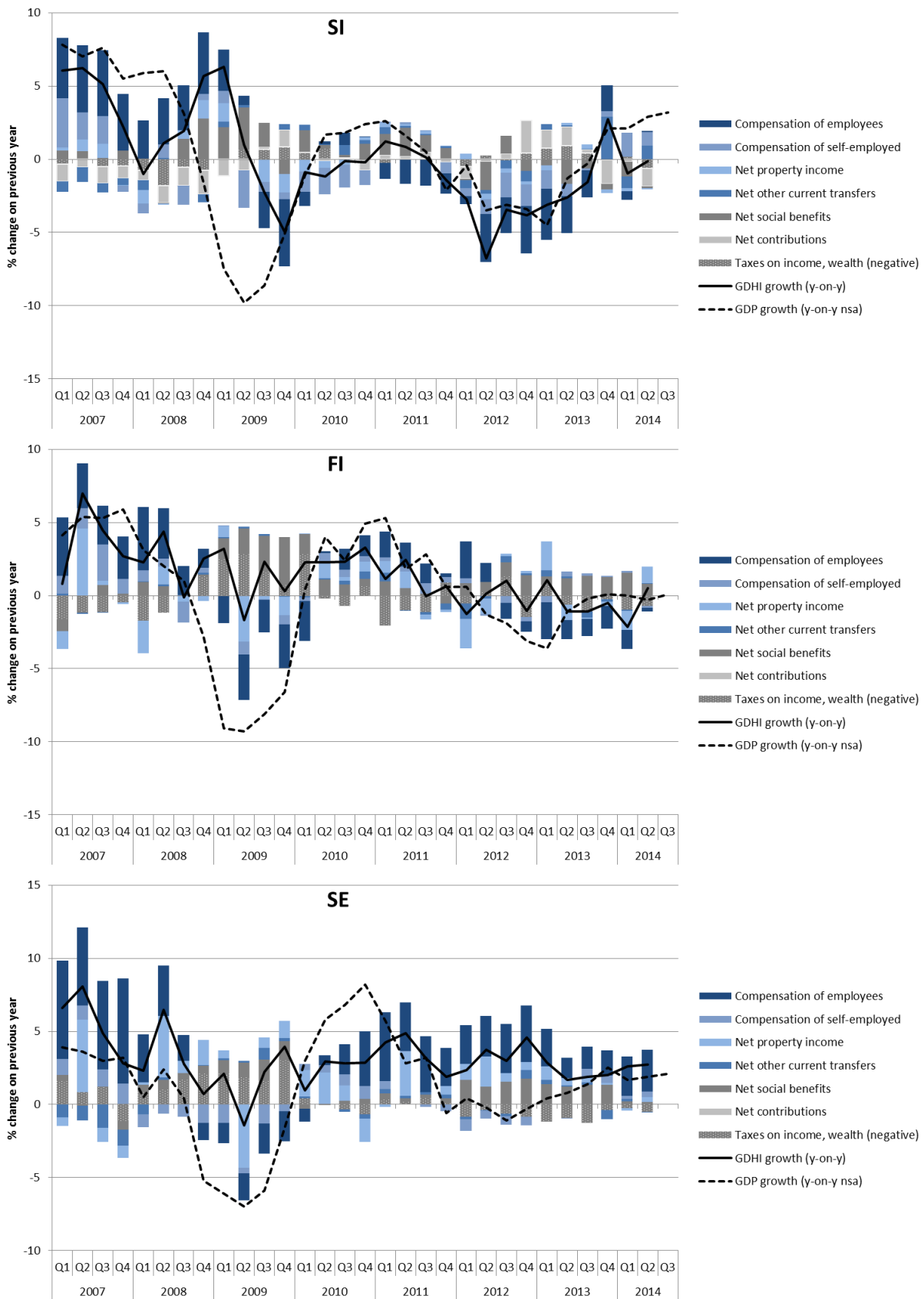
- **Continuous increase:** **CZ** since 2014Q1, **DE** since 2013Q2, **FR** since 2013Q4, **NL** since 2013Q4, **PT** since 2013Q4, **SE** continuous growth, **UK** stable or increase since mid-2013
- **Increase in 2014Q2:** **FI** – irregular changes since mid-2011,
- **Stable in 2014Q2:** **SI** after broad declines since 2008,
- **Decline in 2014Q2:** **IT** after three periods of year-on-year growth,
- **Continuous decline:** **EL** since mid-2009 (but the decline significantly smaller than in 2009-2013), **ES** since the beginning of 2010 despite signs of improvement in 2013Q4

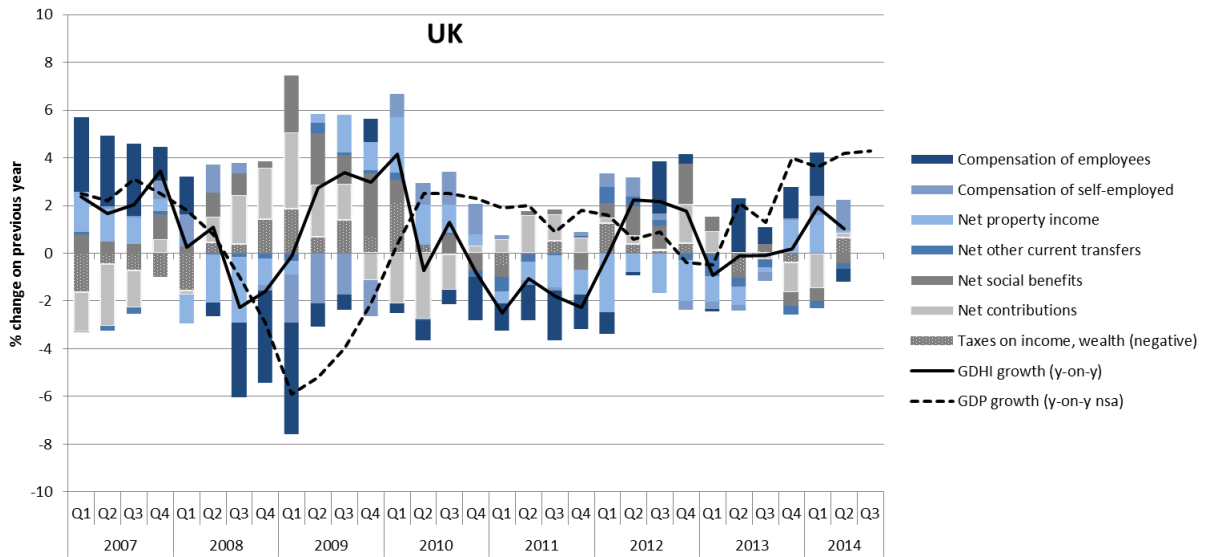








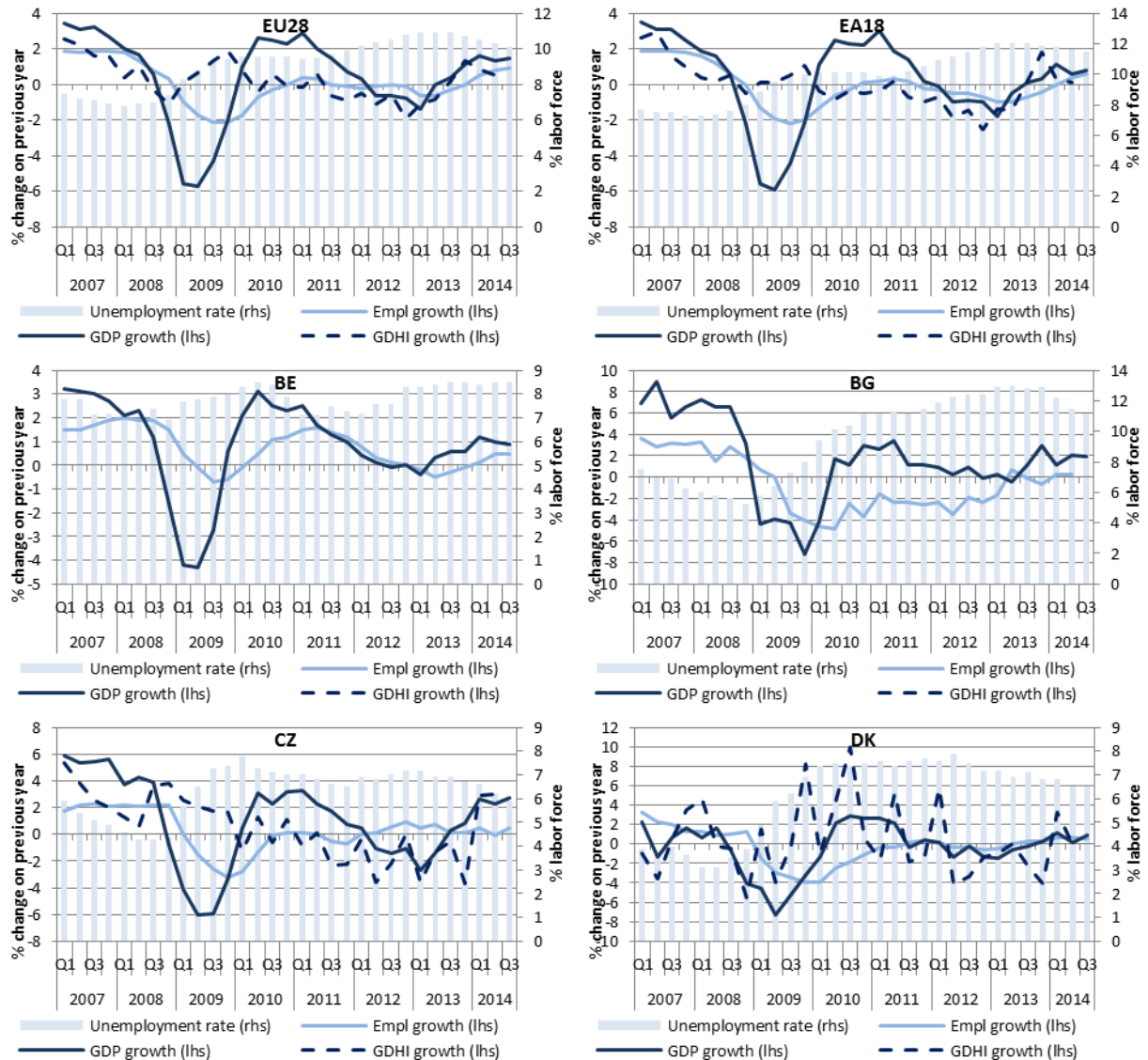


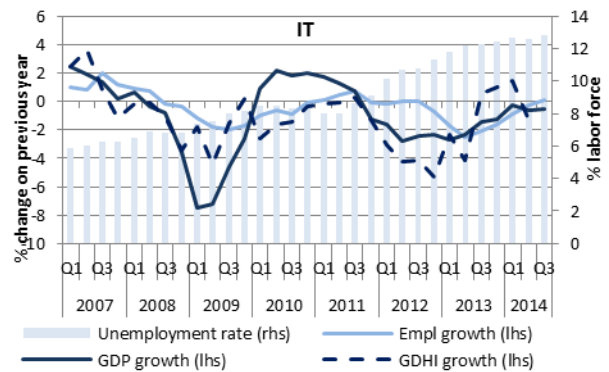
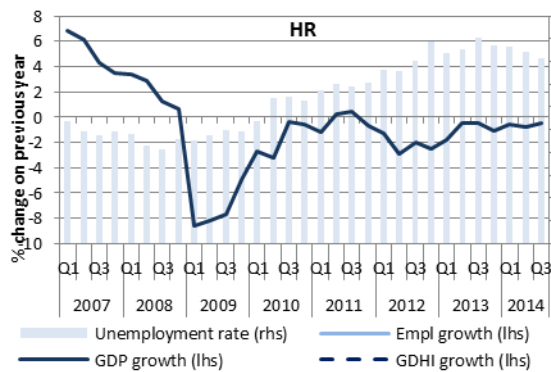
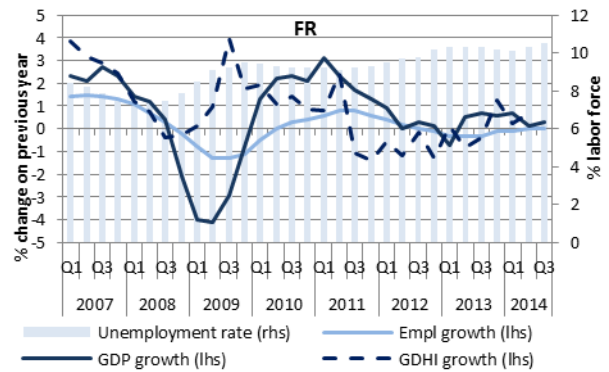
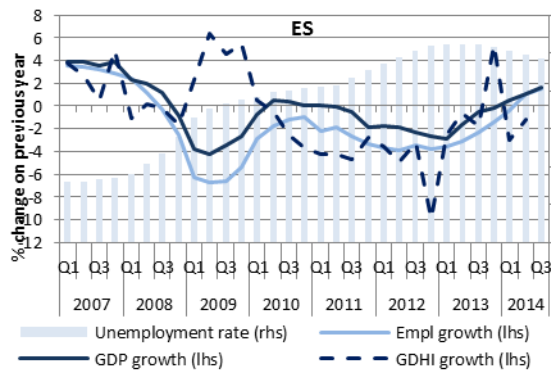
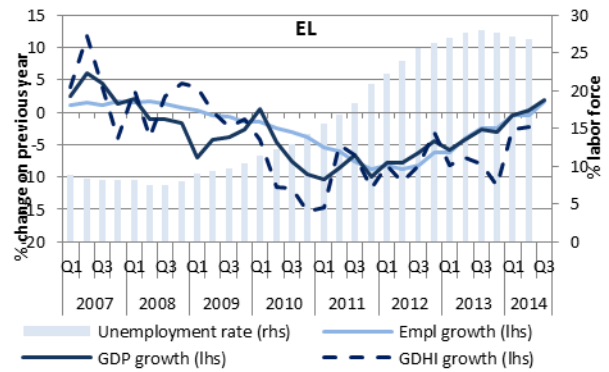
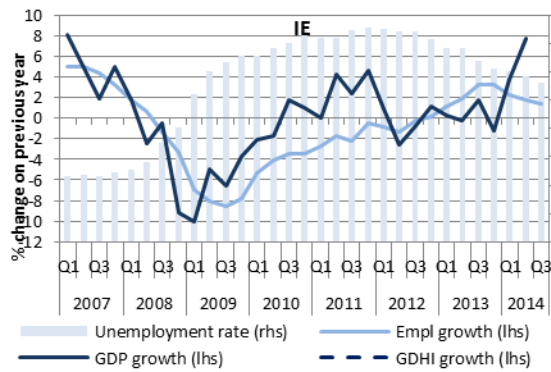
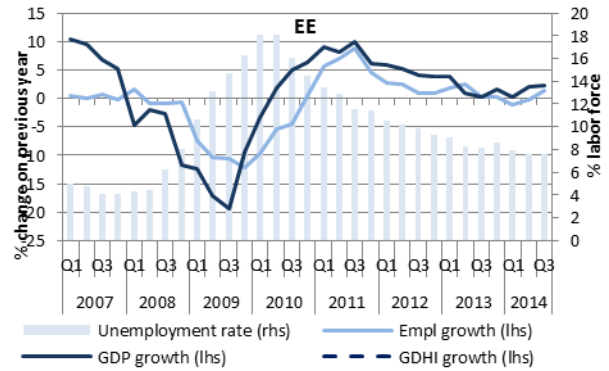
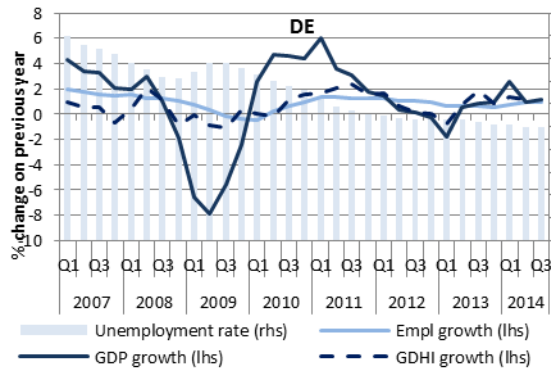


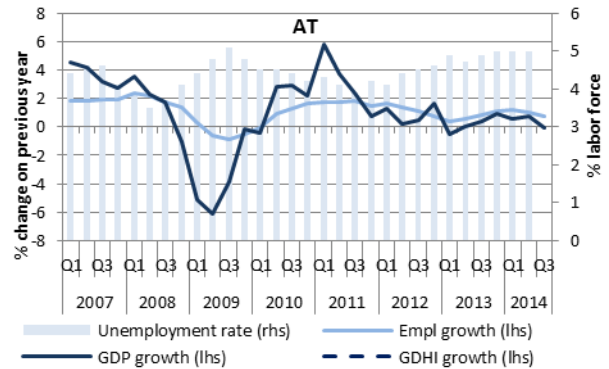
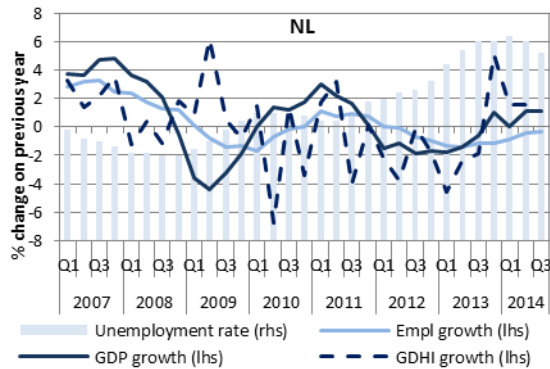
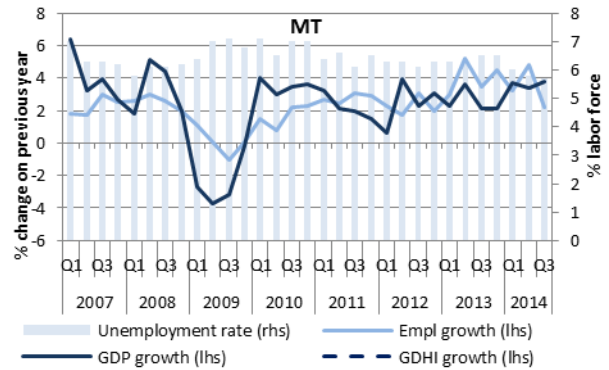
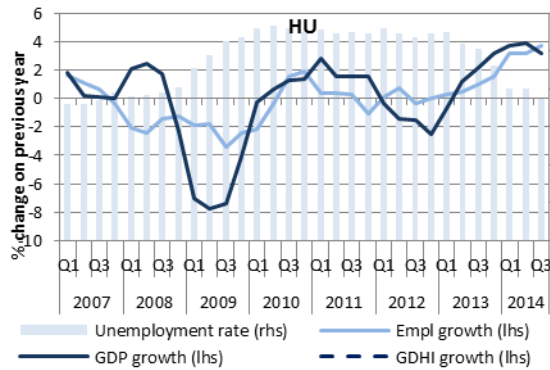
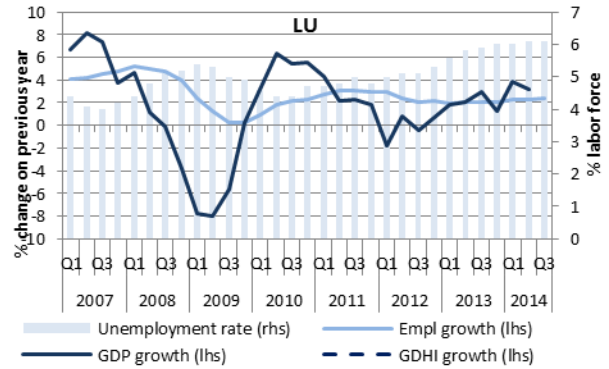
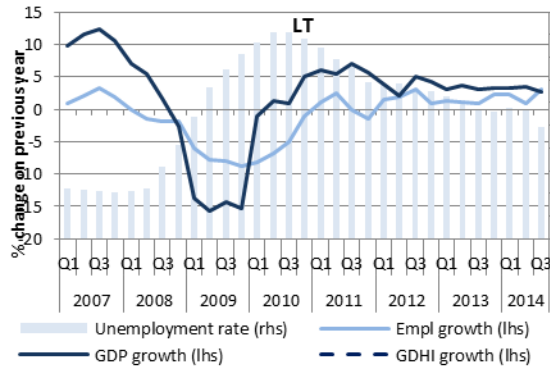
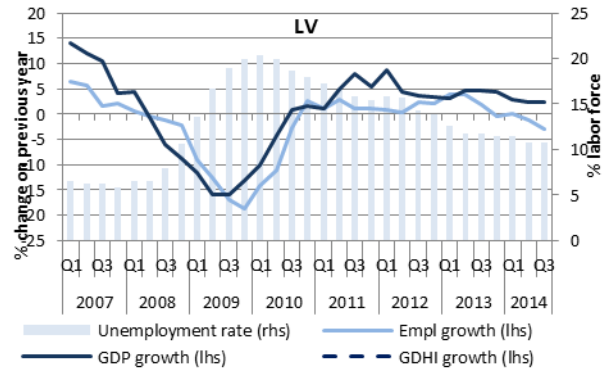
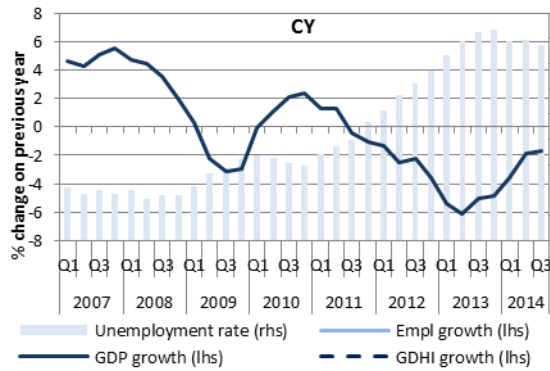
Annex 2: Real GDP growth, real GDHI growth, employment growth and unemployment rates in the EU, euro area and EU Member States

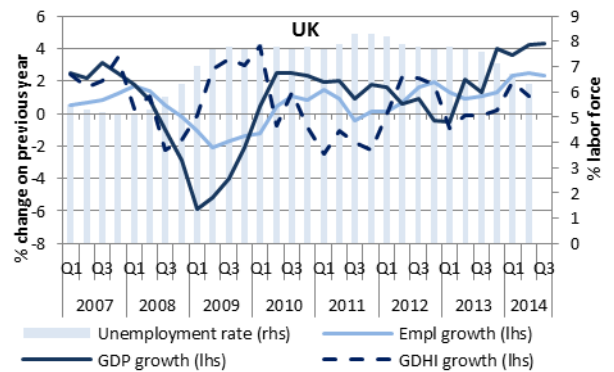
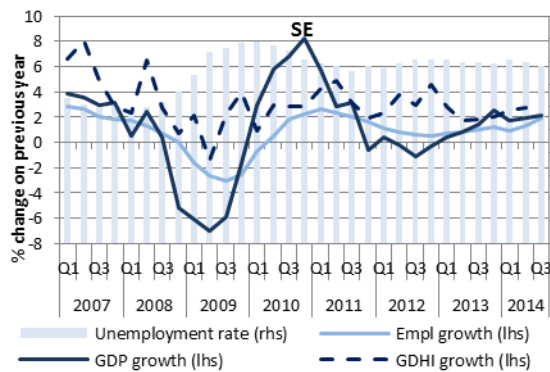
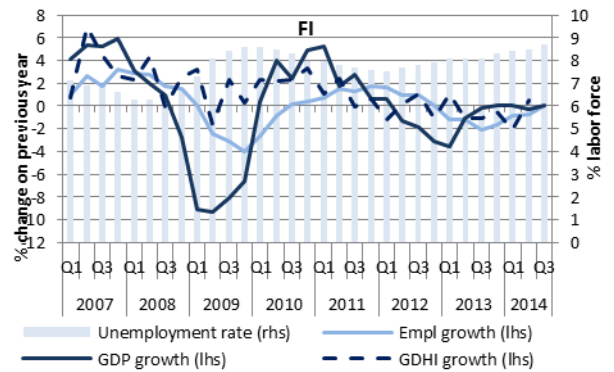
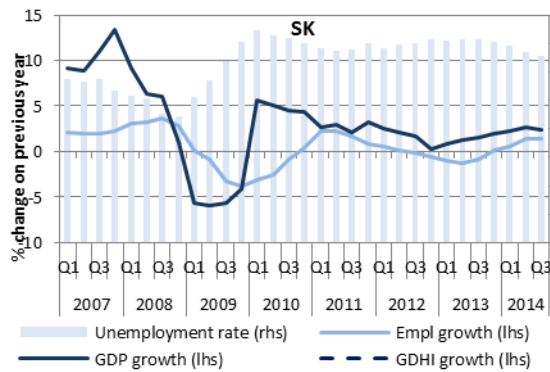
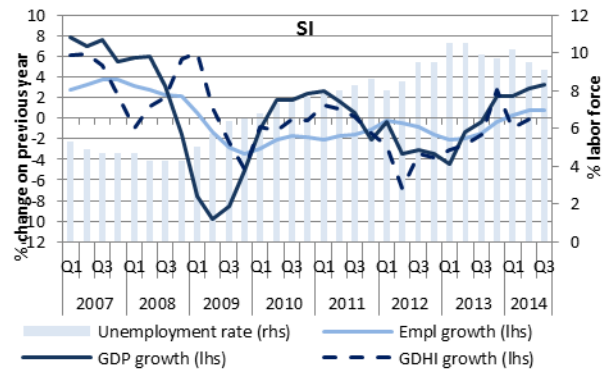
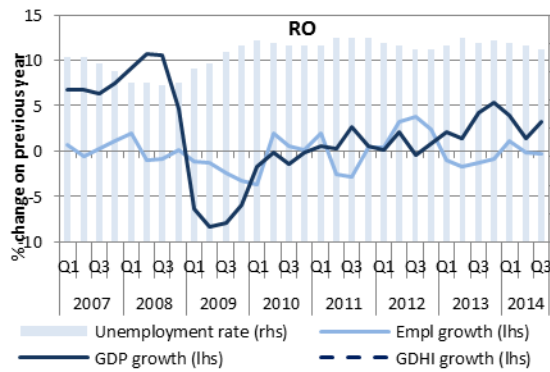
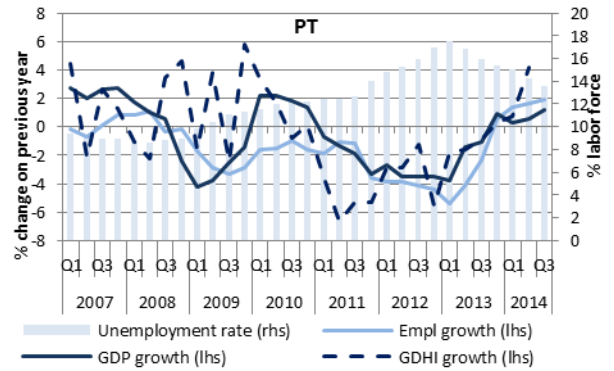
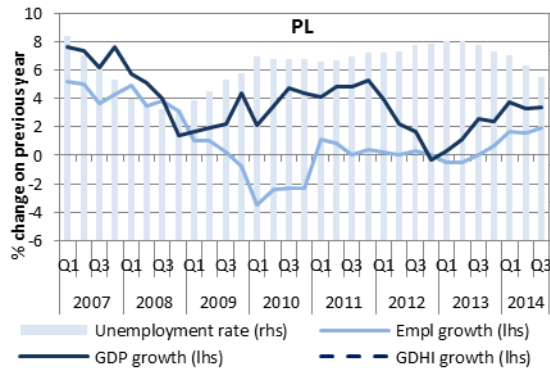
Line chart - left axis: year-on-year percentage change in real GDP, real GDHI (where available) and employment (non-seasonally adjusted). Bar chart - right axis: unemployment rate (seasonally-adjusted).

Source: Eurostat, National Accounts and Labour Force Survey [namq_10_gdp, and namq_10_pe and une_rt_q].









Annex 3: Contribution to employment change in the EU

- Permanent and temporary employees by gender

- Full time and part-time employment by gender

- By age

Line chart: change in total employment (million). Bars: change in employment by type (million).
Data non-seasonally adjusted.

Source: Eurostat, Labour Force Survey.

Chart A3.1. Change in employment: permanent/ temporary employees by gender and self-employment, EU28

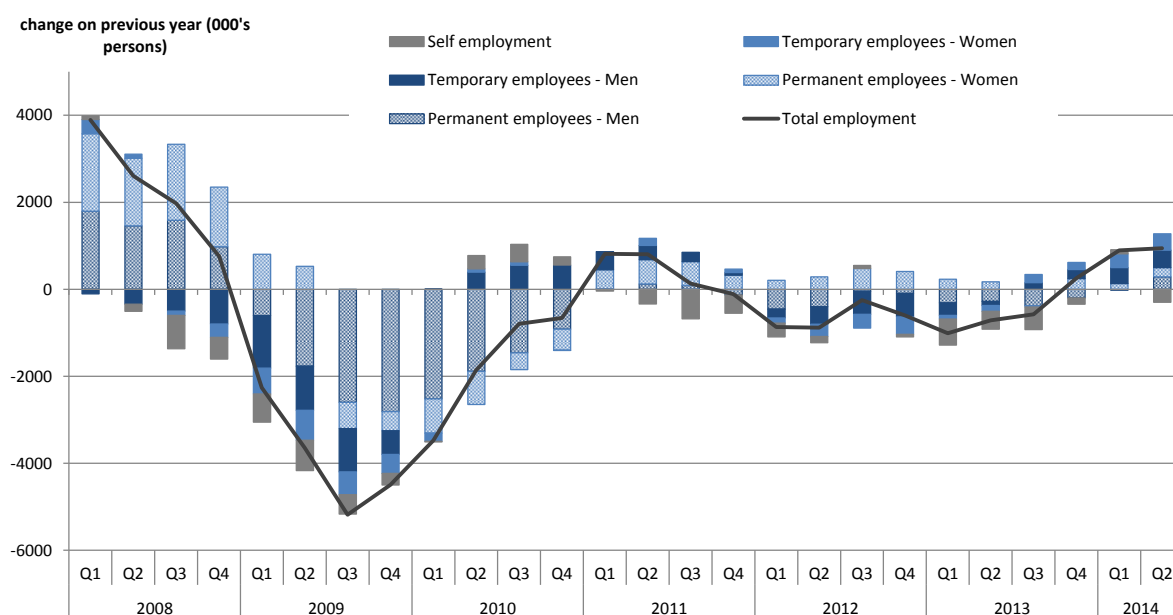
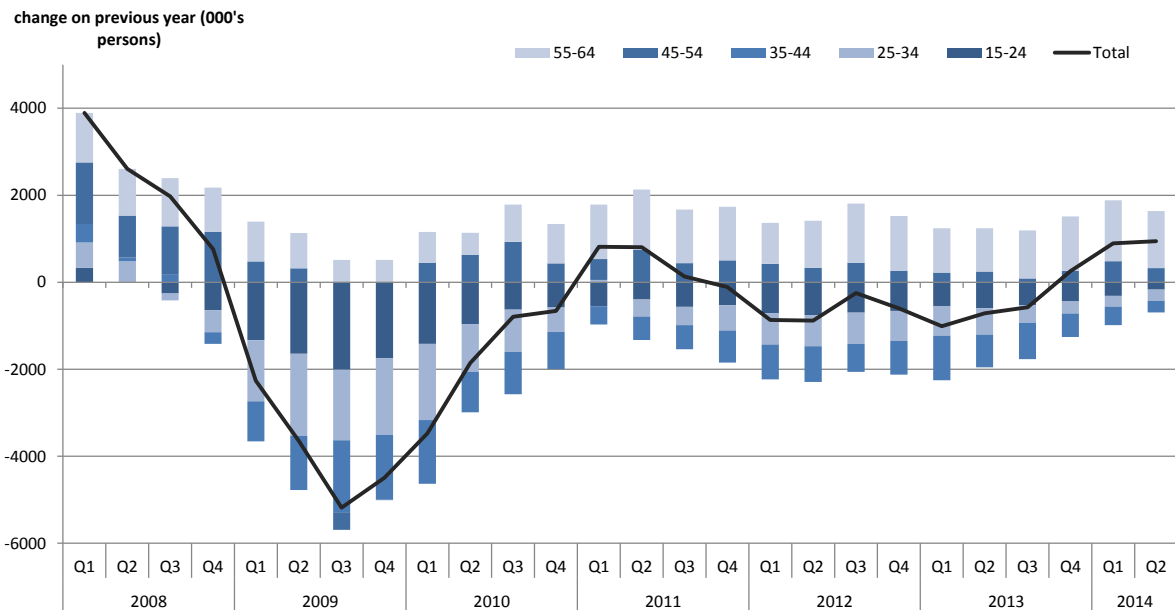


Chart A3.2. Change in employment: full-time/ part-time employment by gender, EU28



Chart A3.3 Change in employment: by age, EU28



Annex 4: Employment growth by sectors in the euro area and by EU Member States

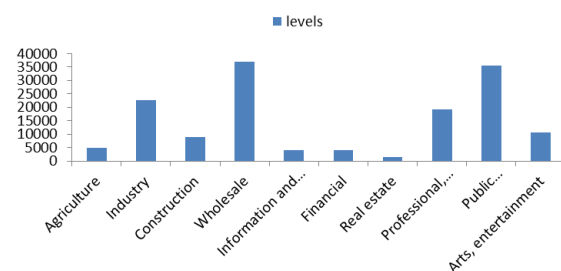
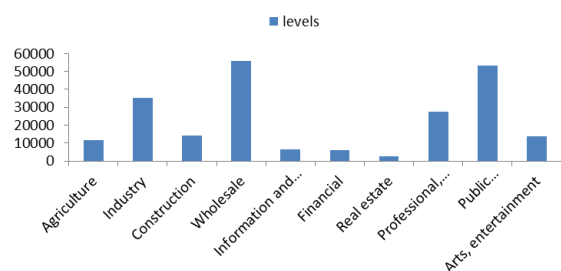
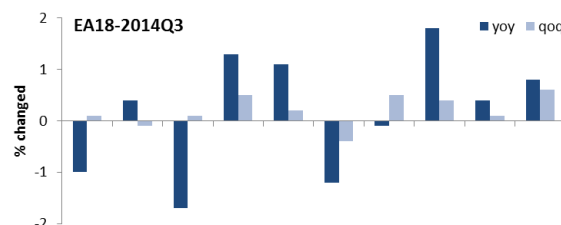
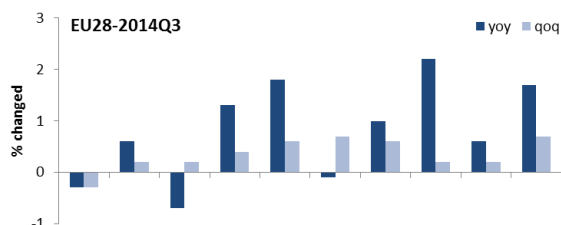
The third quarter of 2014 (2014Q3)

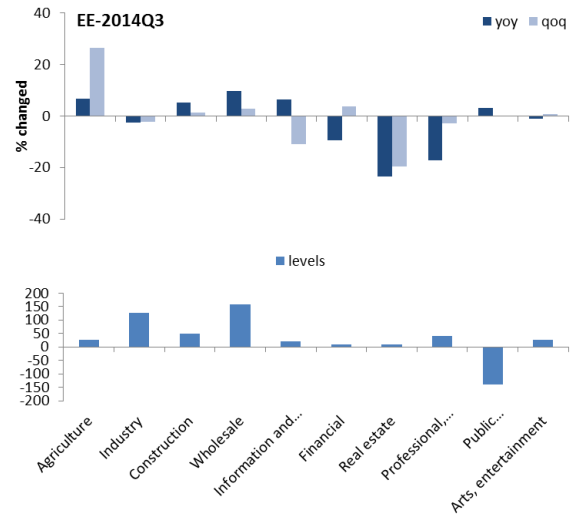
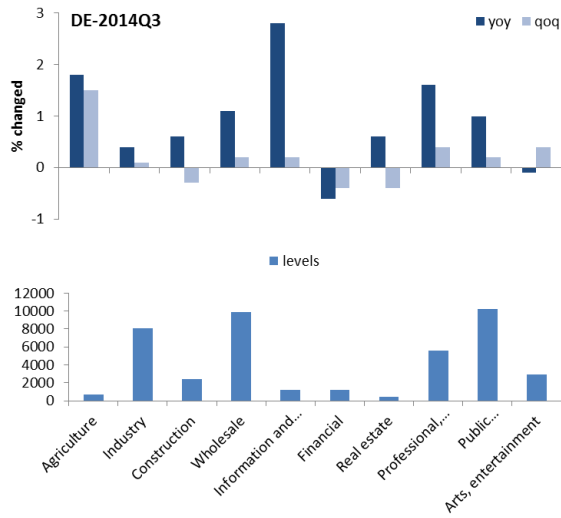
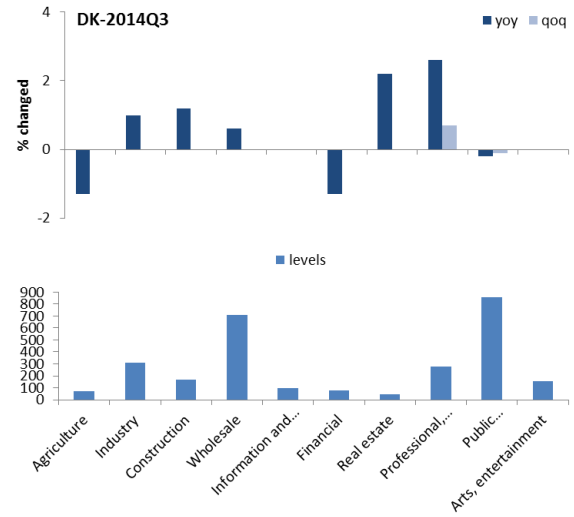
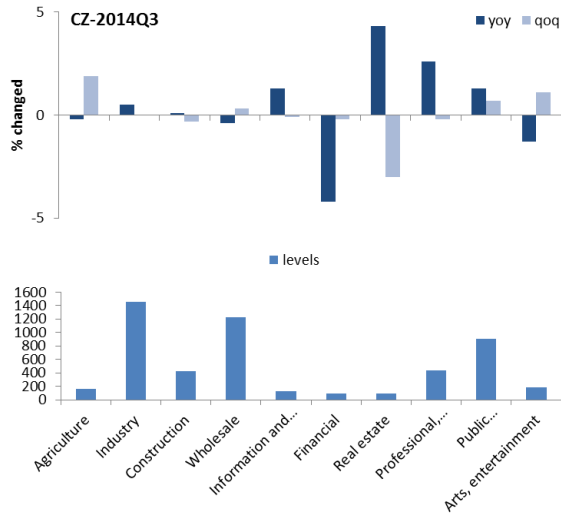
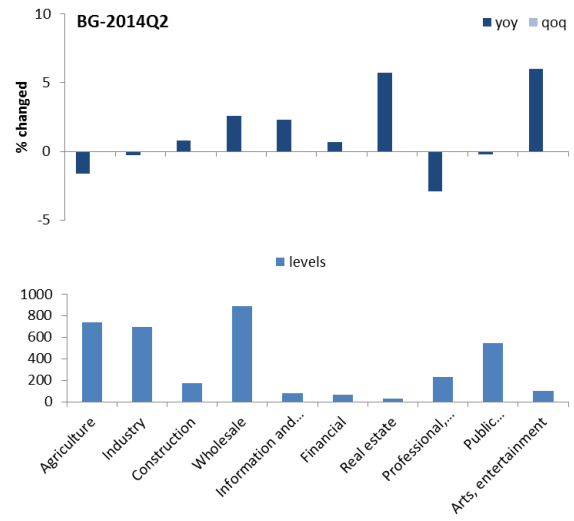
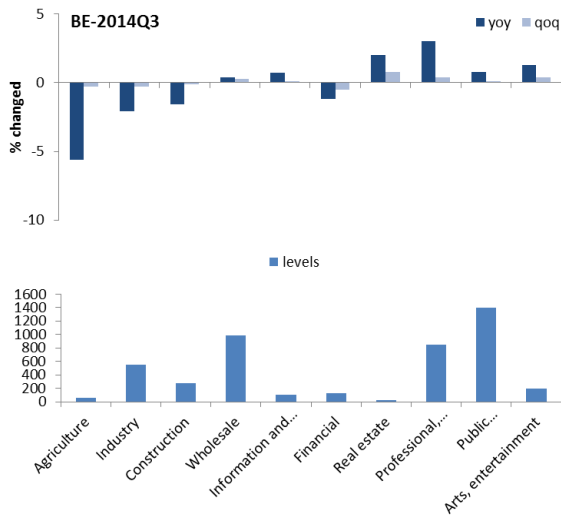
Top chart: employment change by 10 branches (%); quarter-on-quarter (seasonally-adjusted) and year-on-year (non-seasonally adjusted). Bottom chart: Persons employed by sectors (1000).

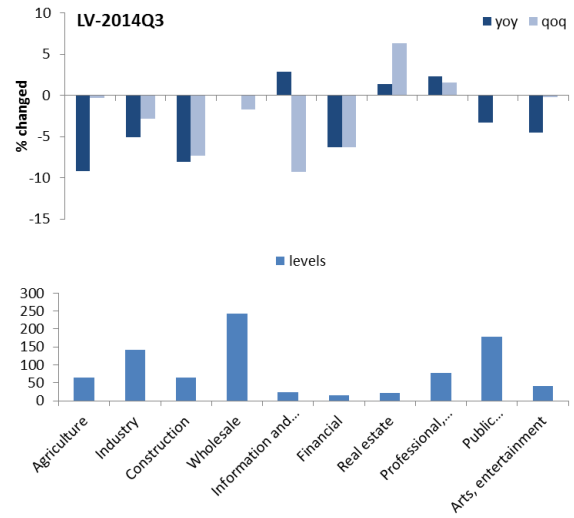
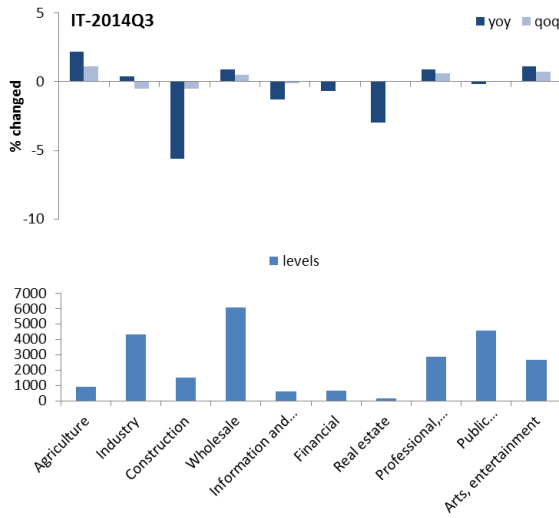
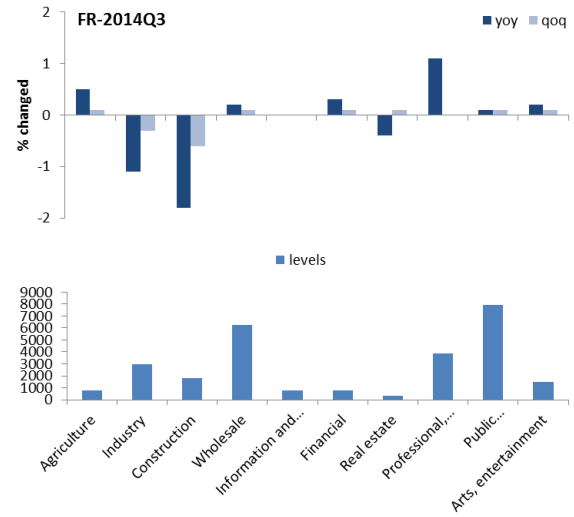
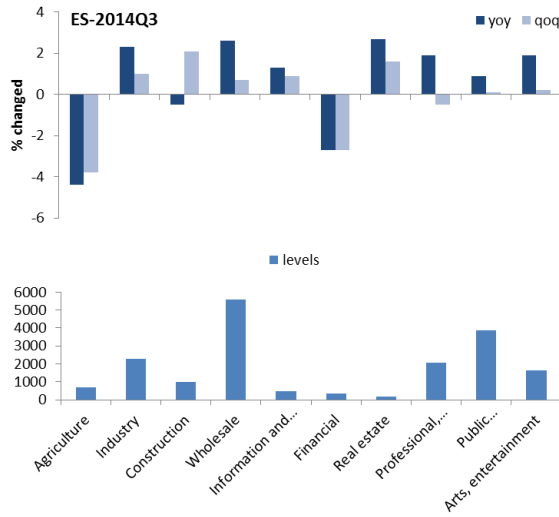
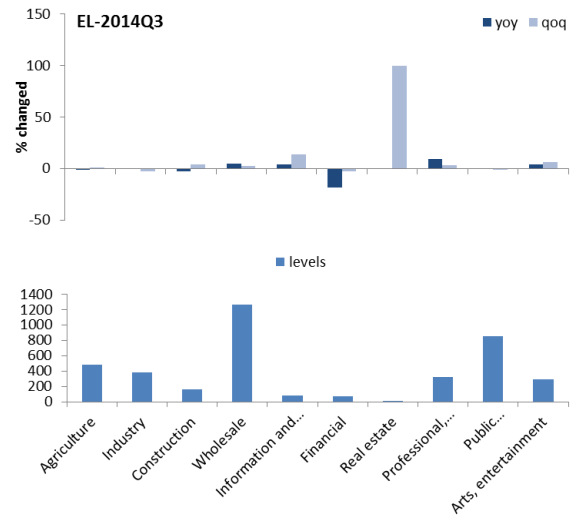
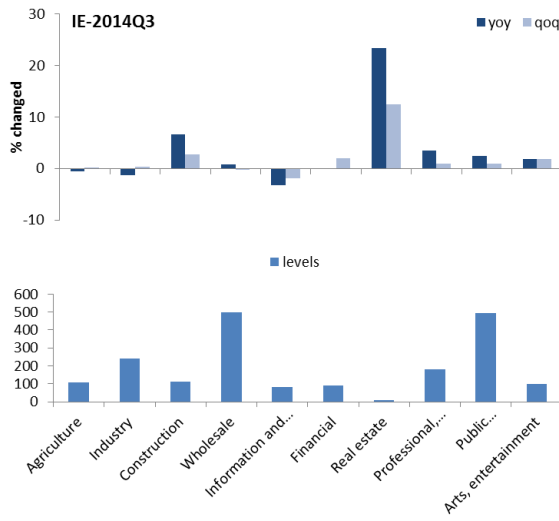
Source: Eurostat, National Accounts.

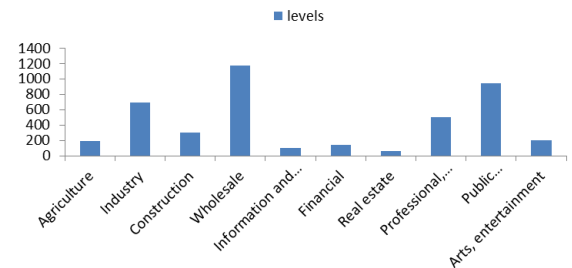
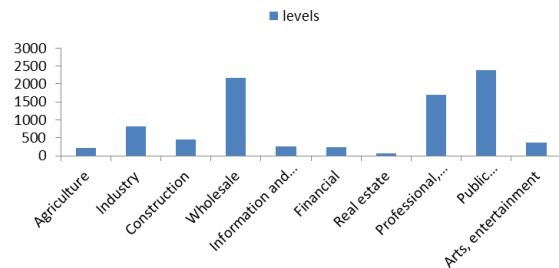
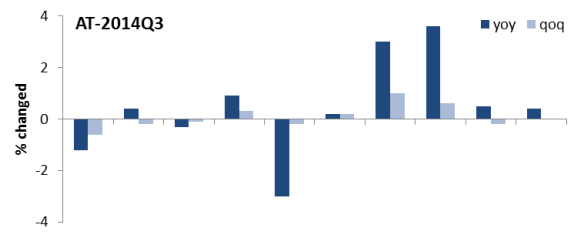
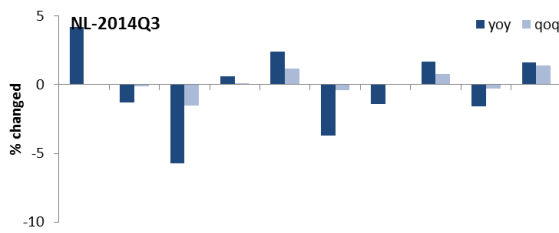
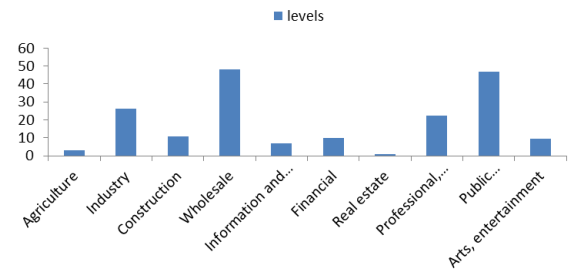
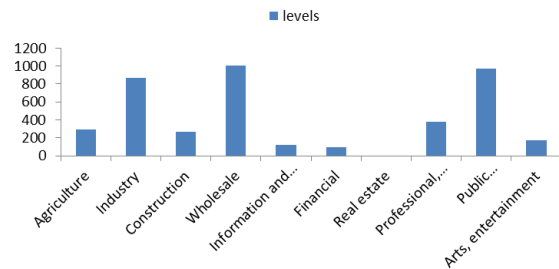
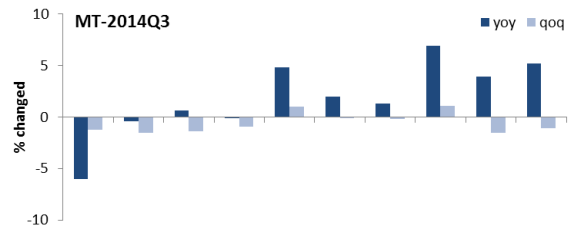
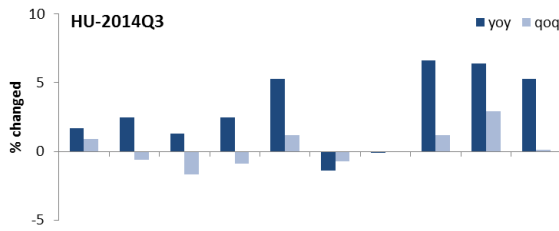
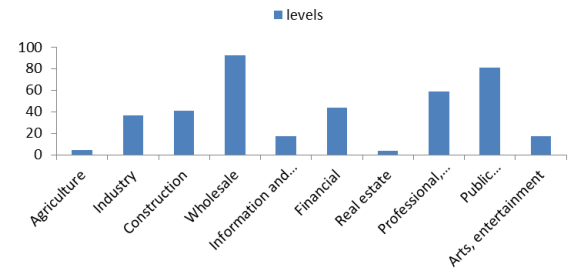
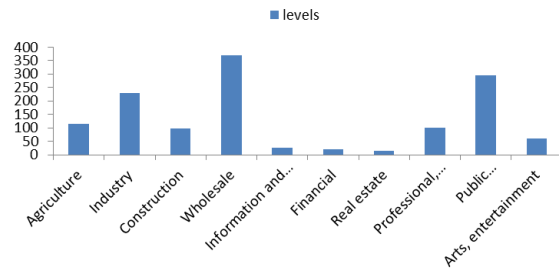
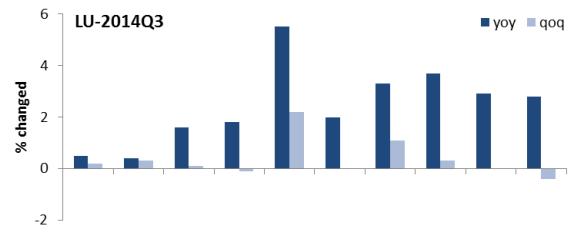
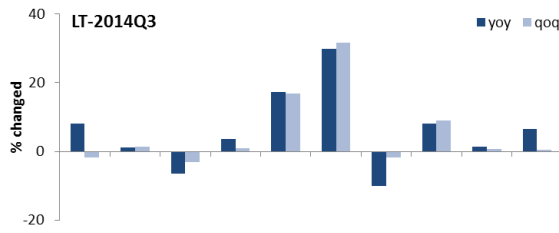
List of 10 branches (based on NACE revision 2.0)

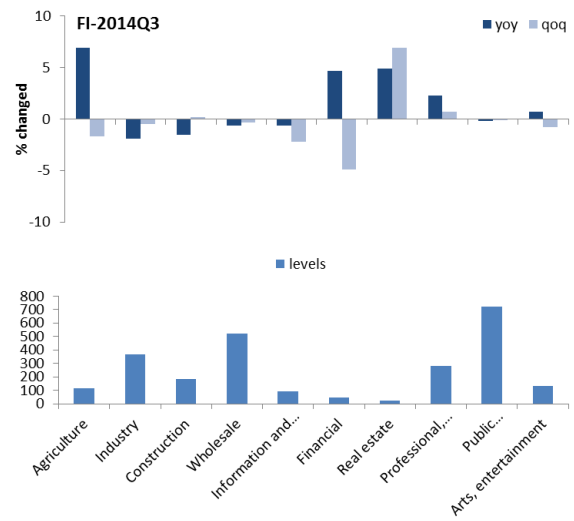
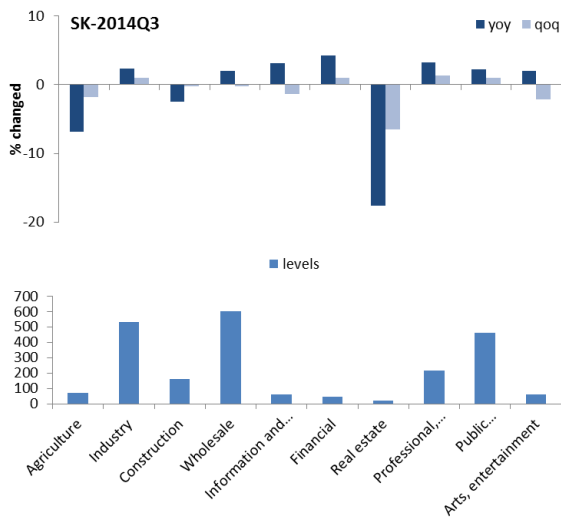
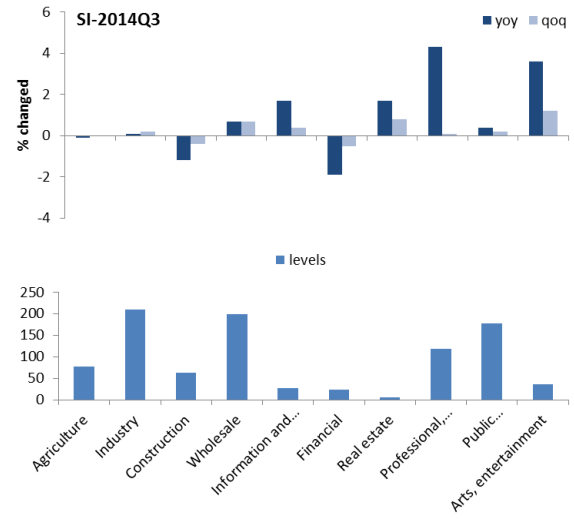
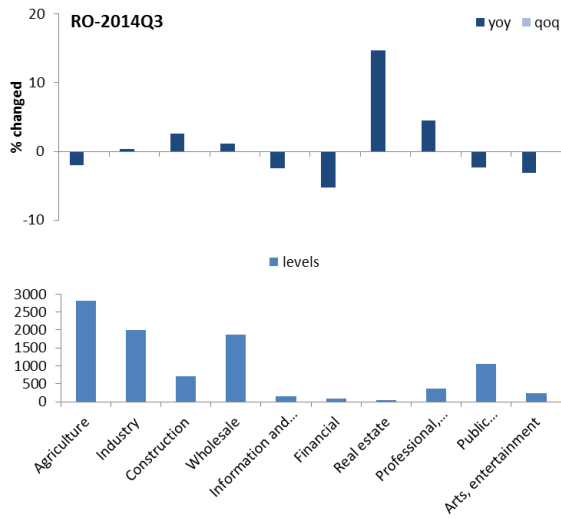
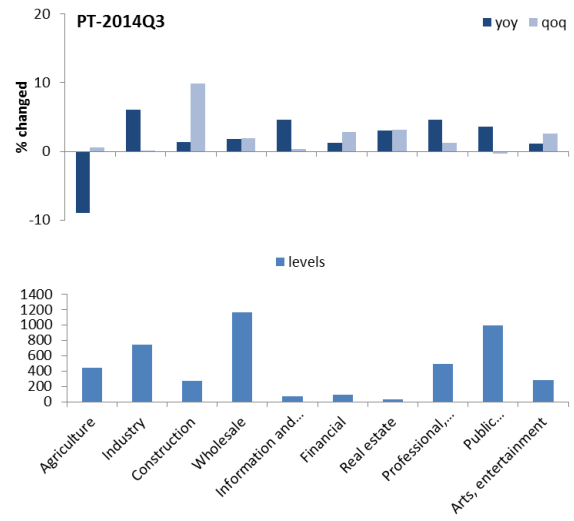
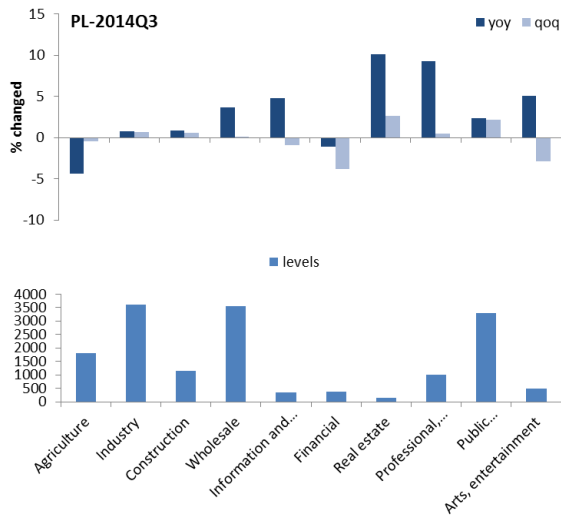
A	Agriculture, forestry and fishing
B-E	Industry (except construction)
F	Construction
G to I	Wholesale and retail trade, transport, accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M to N	Professional, scientific and technical activities; administrative and support service activities
O to Q	Public administration, defence, education, human health and social work activities
R to U	Arts, entertainment and recreation; other service activities; activities of household and extra-territorial organizations and bodies

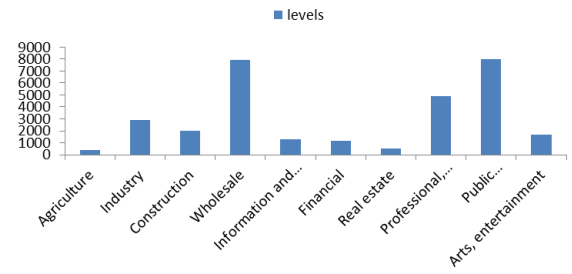
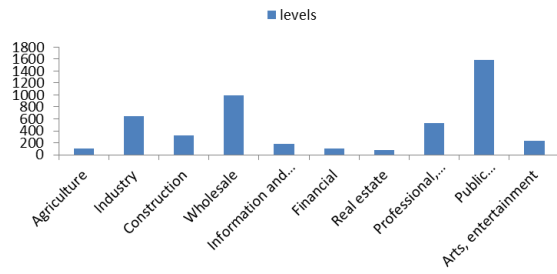
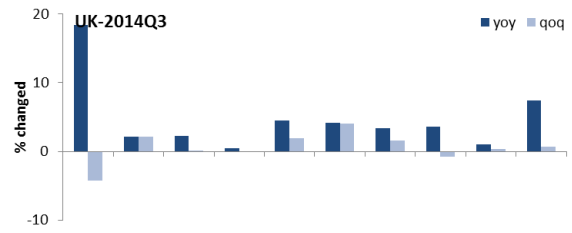
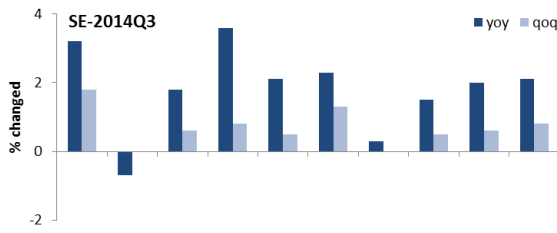










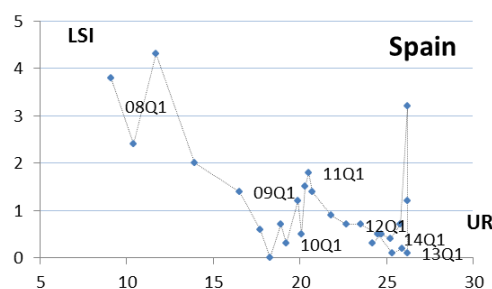
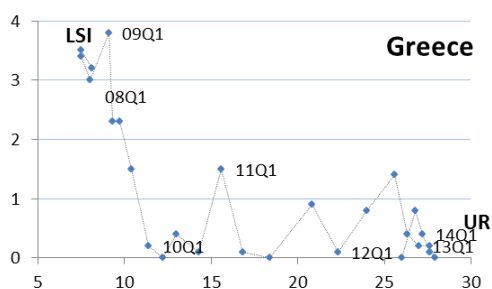
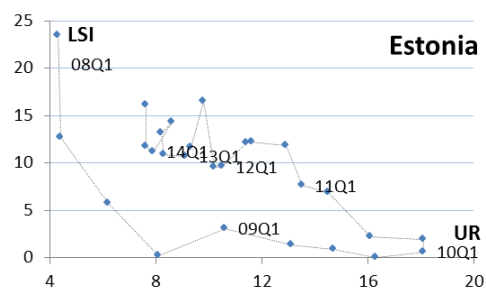
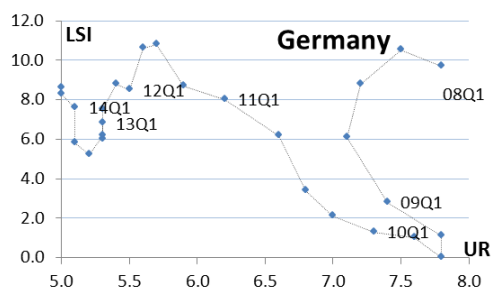
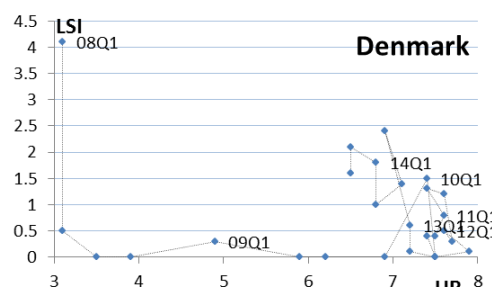
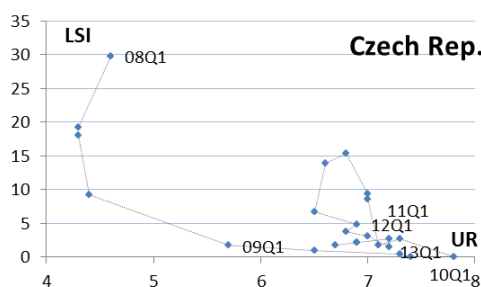
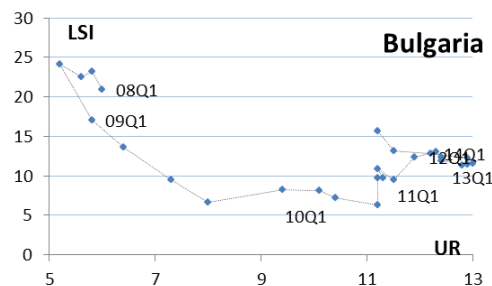
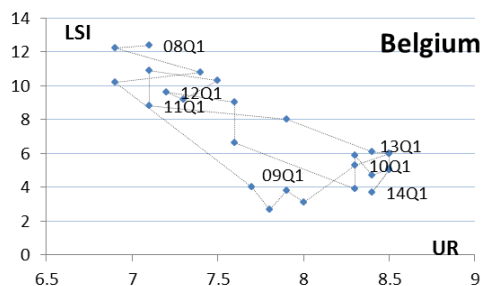


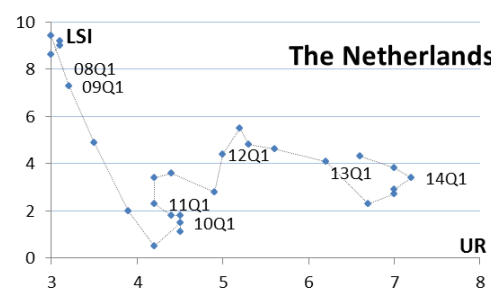
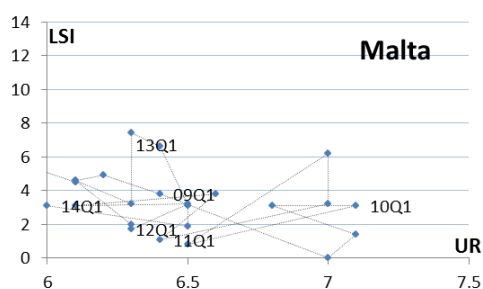
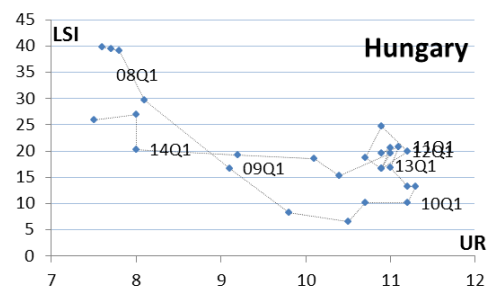
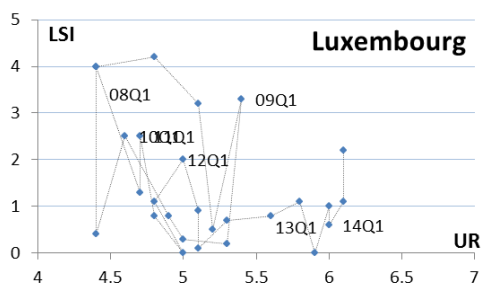
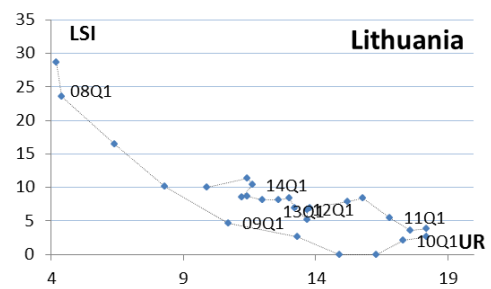
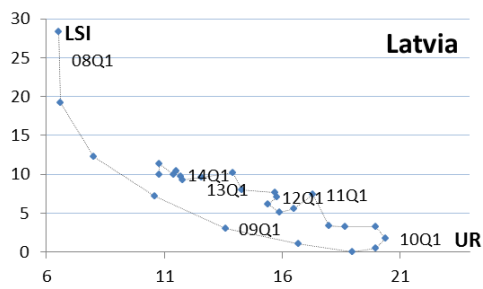
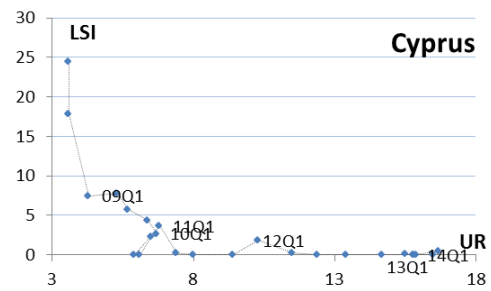
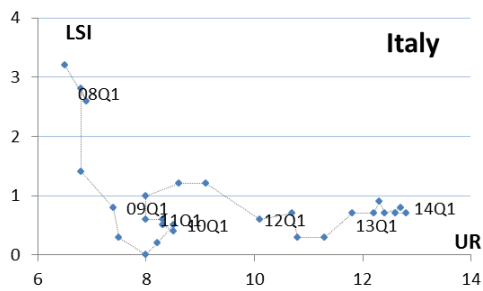
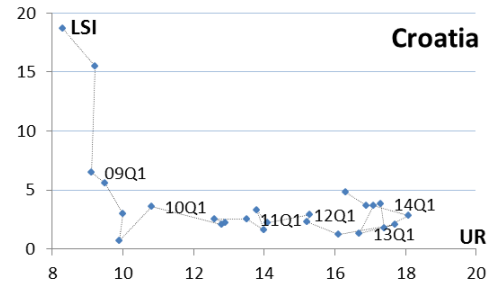
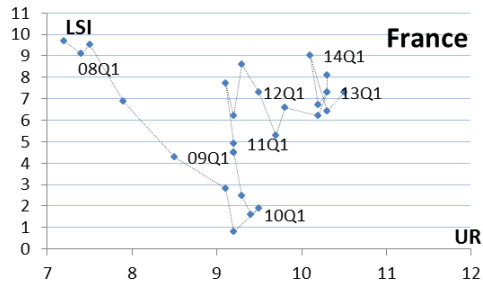
Annex 5: Beveridge curves, by Member State

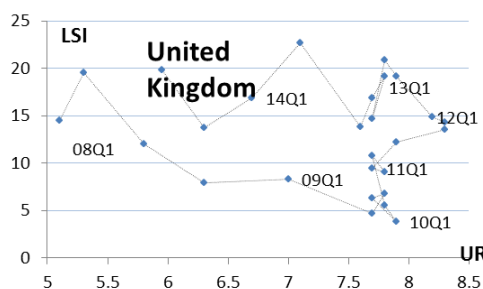
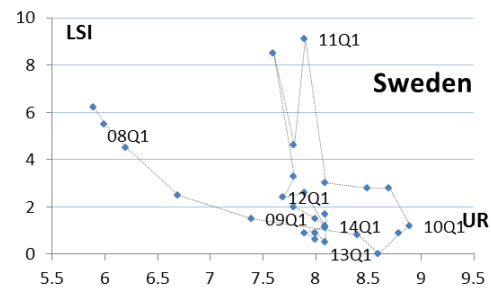
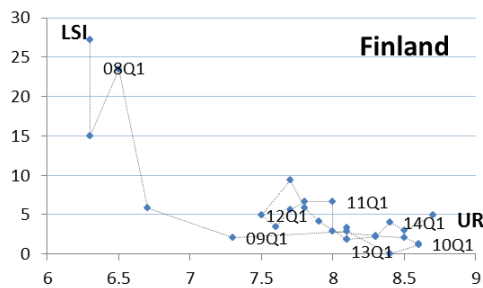
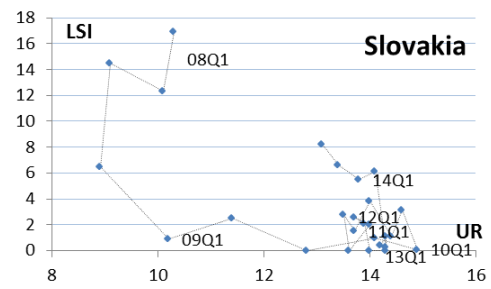
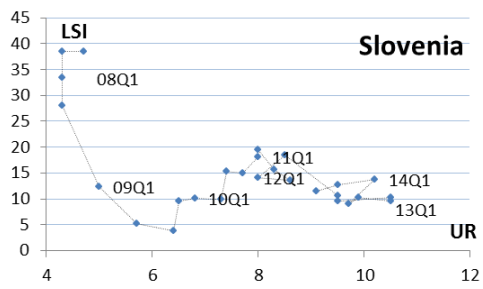
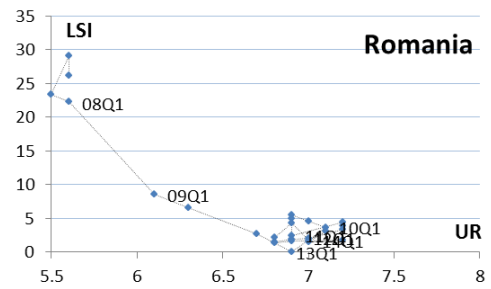
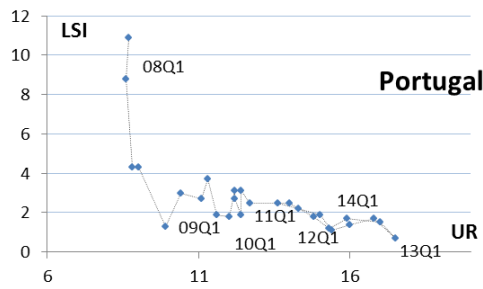
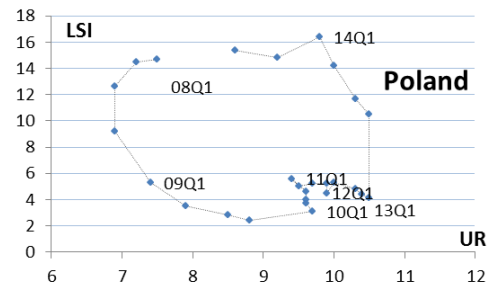
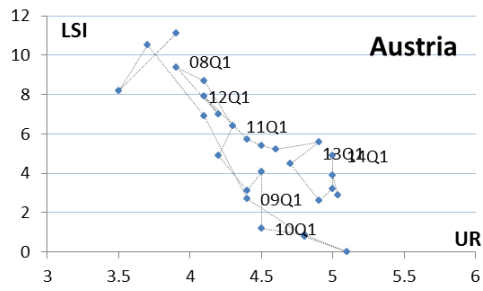
UR = unemployment rate (%). LSI = labour shortage indicator, derived from EU business survey results (% of manufacturing firms pointing to labour shortage as a factor limiting production).

Note: no chart for Ireland as the LSI for this country is not available.

Source: Eurostat, LFS and European Commission, EU Business and Consumer Surveys [une_rt_q, ei_bsin_q_r2]. Data seasonally adjusted.







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