

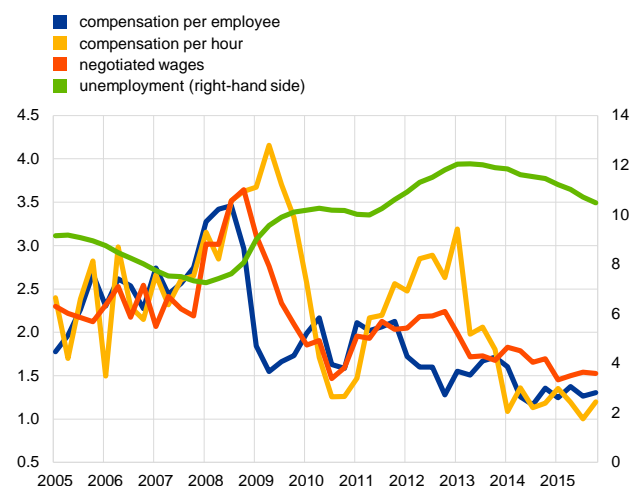
Box 2

Recent wage trends in the euro area

Wage growth has remained relatively low in the euro area despite an environment of improving labour markets. In the fourth quarter of 2015, growth in compensation per employee stood at 1.3% in year-on-year terms, being one of the lowest figures registered since the start of monetary union. The growth in negotiated wages is more robust, but also registered historically low figures in 2015. At the same time, the unemployment rate, while still high, has been declining since the second quarter of 2013, indicating a reduction in the amount of slack in the labour market.

Chart A
Wage growth and unemployment rate in the euro area

(year-on-year growth; percentages)



Sources: Eurostat and ECB staff calculations.

Wage growth has not only been low, but also consistently over-predicted. Chart B depicts forecasts for growth in compensation per employee during different Eurosystem/ECB staff projection rounds since 2013. The forecasts for growth in compensation per employee (shown by the shaded grey lines) lie above the realised outcomes (shown by the black line). This pattern indicates that the actual growth in compensation per employee surprised on the downside.

Negative forecast errors in the growth of compensation per employee have been accompanied by positive errors in employment growth (see Chart C). Indeed, employment growth has been stronger than expected in recent quarters, and the unemployment rate has declined at a faster pace than projected. The positive surprises in employment growth and the higher than expected wage moderation could

both be partly related to structural labour market reforms aimed at increasing labour market flexibility and reducing nominal rigidities.

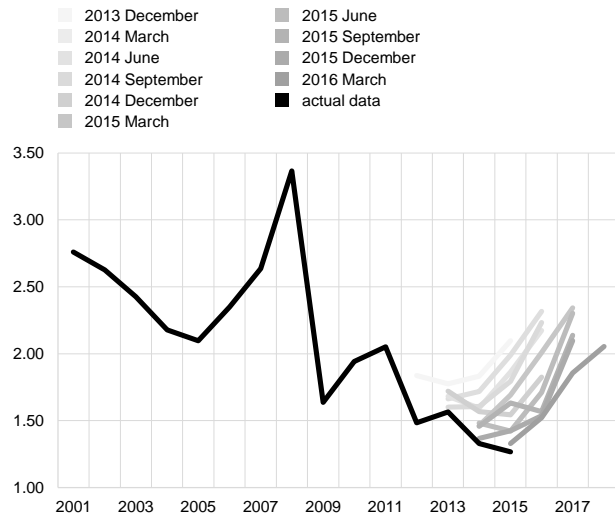
The large remaining amount of slack is a key factor pulling wage inflation down. Even if the labour market in the euro area is improving, the high unemployment rate still points to ample labour supply. The measurement of the amount of slack in the labour market is surrounded by high uncertainty and the observed unemployment rate might understate the actual labour market slack in the economy. For example, the share of underemployed people, i.e. those working on a part-time basis but who would like to work more hours, and the share of discouraged

workers increased over the crisis¹ and this is not fully captured by the observed unemployment rate.

Chart B

Compensation per employee growth

(year-on-year percentage changes)

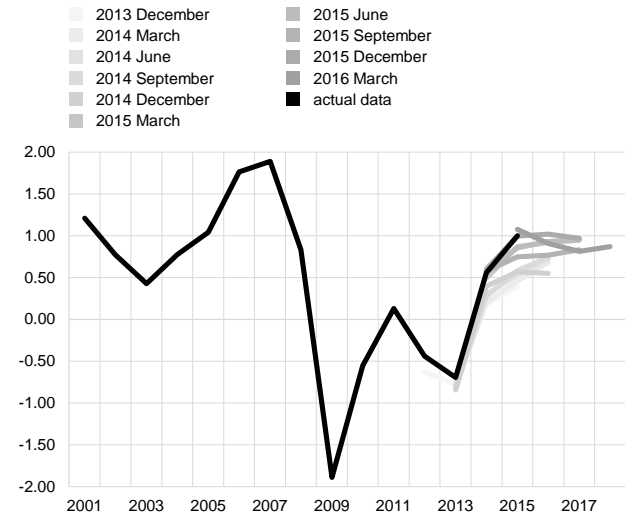


Sources: Eurostat and ECB staff calculations.
 Note: The solid black line refers to historical data as published by Eurostat while the grey lines refer to the forecast path in selected projection rounds.

Chart C

Employment growth

(year-on-year percentage changes)



Sources: Eurostat and ECB staff calculations.
 Note: The solid black line refers to historical data as published by Eurostat while the grey lines refer to the forecast path in selected projection rounds.

Furthermore, labour market reforms introduced since the crisis might have altered the functioning of the labour market. The aim of these reforms has been to make wages more responsive to labour market conditions by abolishing wage indexation schemes and reducing labour protection. Indeed, there is evidence that downward wage rigidities became weaker as the crisis became more protracted.² If the labour markets are still in an adjustment phase, the impact of labour market reforms would imply that, for a certain period of time, shrinking slack would go hand in hand with low wage growth. Also, wages today might reflect nominal rigidities prevailing in the past: downward nominal rigidities could have prevented wages from adjusting sufficiently to the amount of slack during the downturn, thereby hindering a stronger wage increase in the upturn.

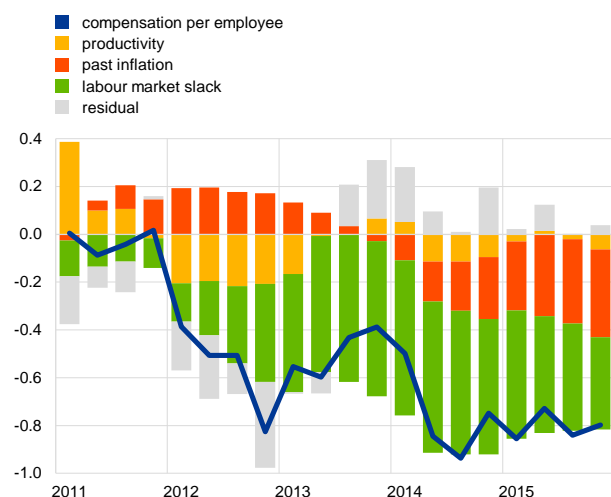
¹ See ECB (2015), "Comparisons and contrasts of the impact of the crisis on euro area labour markets", *Occasional Paper Series*, No 159, Chapter 2.4. Discouraged workers are not counted as unemployed, and thus are not included in the calculation of the unemployment gap.

² Anderton, R. and Bonthuis, B. (2015), "Downward Wage Rigidities in the Euro Area", Nottingham University Centre for Research on Globalisation and Economic Policy (GEP), *Discussion Papers Series*, No 2015/09.

Chart D

Decomposition of wage growth based on a Phillips curve model

(deviations from mean in year-on-year growth terms; percentage point contributions)



Sources: Eurostat and ECB staff calculations.

Notes: Sample: 1995-2015. Based on an equation where compensation per employee (annualised quarterly growth rate of the seasonally adjusted series) is regressed against its own lag, lagged inflation, productivity per employee, the lagged unemployment rate and a constant. Contributions are derived as in Yellen, J.L. (2015), "Inflation Dynamics and Monetary Policy", Speech at the Philip Gamble Memorial Lecture, University of Massachusetts, Amherst, September 24.

The low inflation environment may have also contributed to containing wage growth.

Low inflation, which is very much driven by low oil prices, might affect the wage negotiation process, as workers might not push for higher wages when falling energy prices boost their real income. Low inflation could affect wage growth via formal and informal wage indexation mechanisms or via expectation formation.

Disentangling between these two channels is challenging, also because of the lack of data on the expectations of households and firms, which are the ones that matter in the wage negotiation process. Chart D shows the contributions of key wage drivers to growth in compensation per employee based on a standard Phillips curve model.³ In this model, it is assumed that wage setting takes past inflation into account (but the model specification can overstate the importance of past inflation in wage setting). The results suggest that (i) labour market slack has been exerting a substantial negative drag on wage growth since the beginning of the financial crisis, although this drag is diminishing; (ii) recent inflation readings are also negatively influencing wage growth; and (iii) weak productivity growth is weighing on wages.

The structure of recent employment creation may have also contributed to low productivity and wage growth in the euro area. Since the second quarter of 2013, employment creation in the euro area has been relatively stronger in low-productivity sectors, such as business services and trade and transportation services.⁴ As low-productivity sectors tend to be associated with relatively lower wage levels and wage growth rates, this employment composition effect puts a drag on average wage growth.

As economic activity gains momentum and the labour market tightens, upward pressures on wages are expected to intensify. The recent ECB staff macroeconomic projections published in March indicate that compensation per employee is expected to grow moderately in 2016, picking up to 2.1% in 2018, following the gradual recovery in euro area real GDP.

³ The slack measure is the unemployment rate, which can overstate the importance of labour market slack in wage formation if it is assumed that the natural rate of unemployment increased after the crisis.

⁴ For more details on employment creation in the euro area see the article entitled "What is behind the recent rebound in euro area employment?", *Economic Bulletin*, Issue 8, December 2015, ECB.