

WAGE GROWTH IN THE EURO AREA DURING THE DOUBLE-DIP RECESSION

The growth in nominal non-farm private sector wages in the euro area, which was around 2.5 per cent annually between 2000 and 2008, was particularly low during the last two recessions, contributing to the weakness of inflation. Since the start of the current expansionary phase in 2013, wage growth has remained muted at an average of 1.7 per cent per year. This is true despite the fact that the number of those in employment returned to levels close to pre-crisis highs and that the unemployment rate fell by around 3 percentage points between 2013 and 2017 (to 9.1 per cent on average in 2017).

Wage growth varied from country to country, owing in part to the different pace of cyclical recovery. In Italy and Spain, which had unemployment rates above the euro-area average (11.9 and 21.9 per cent respectively on average for the period), wages rose by barely 1.0 per cent a year. The increase in wages in Germany, while more robust (2.5 per cent), is still modest on a historical basis when looked at in relation to the unemployment rate, which last year fell to 3.6 per cent, its lowest level since the beginning of the series in 1991.

According to an estimate of the relationship between wage growth and the economic cycle (the wage Phillips curve) for the euro area, the hourly wage in the non-farm private sector is highly reactive to labour market conditions as measured by the unemployment rate, to hourly productivity and to inflation expectations.¹

However, the output of the model and the data often do not align perfectly (panel (a) of the figure): in particular, the slowdown in wage growth following the 2008-09 global crisis was stronger than predicted by the model; the acceleration since the start of the recovery in 2013 has been instead weaker. These developments may reflect the fact that the unemployment rate is not always an exhaustive measure of labour market slack. Specifically, since the global financial crisis of 2008-09 there has been a substantial increase in involuntary part-time workers, in conjunction with the loss of jobs (extensive margin), in all the main euro-area countries, including Germany; this has been coupled with a reduction in hours worked per capita (intensive margin)² that is decidedly more pronounced than the downward trend previously seen (panel (b) of the figure). During the recent recovery, hours worked stagnated considerably and only in 2017 did their cyclical component begin to signal an expansion.

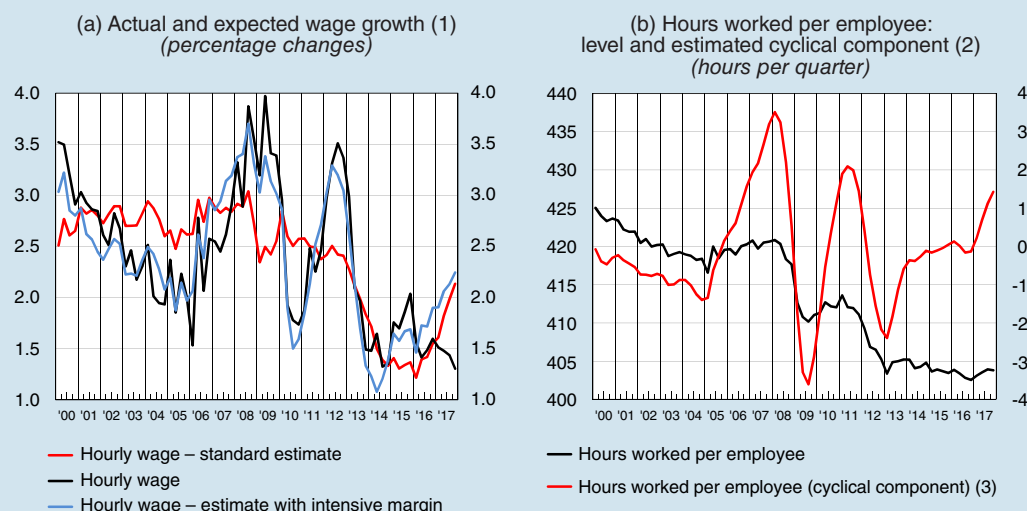
The inclusion of the cyclical component of the intensive margin of labour utilization in the estimation model can considerably improve its explanatory power

¹ Wage growth incorporates expected inflation since workers care about real wages, i.e. their purchasing power for a given level of prices. The estimated model approximates the expectations with lagged inflation, but is robust to the use of different measures of expected inflation, such as the expectations polled by Consensus Economics.

² This may be an optimal choice so as not to waste specific human capital. Some countries have special schemes (*Cassa integrazione guadagni* in Italy and *Kurzarbeitergeld* in Germany) that allow for adjustment to the intensive margin to protect employment levels.

(panel (a) of the figure) and can explain more accurately the sharp wage fluctuations observed since the global financial crisis.³

Wage growth and hours worked per employee in the non-farm private sector (1) (quarterly data)



Source: Based on Eurostat data.

(1) Standard estimate: $\pi_t^w = c + \beta_1 \cdot \pi_{t-1}^w + \beta_2 \cdot U_{t-4} + \beta_3 \cdot \Delta PROD_t + \beta_4 \cdot \pi_{t-1}^P$. Estimate with intensive margin: $\pi_t^w = c + \beta_1 \cdot \pi_{t-1}^w + \beta_2 \cdot U_{t-4} + \beta_3 \cdot \Delta PROD_t + \beta_4 \cdot \pi_{t-1}^P + \beta_5 \cdot HOURGAP_{t-3}$, where π_t^w is the hourly wage growth rate; U_t is the unemployment rate; $\Delta PROD$ is the hourly productivity growth rate; π_t^P is consumer inflation, used as a proxy for inflation expectations; HOURGAP is the cyclical component of the number of hours worked per person employed. Estimate period: Q1 2000 to Q4 2017. – (2) Hours worked per employee person. – (3) Right-hand scale.

There are, however, other factors at play. The soft labour market over the last two years explains only in part the modest wage growth. Inflation expectations, which have been very subdued, have likely contributed as well. In some countries, such as Italy, this has translated into a return to implicit forms of indexation to past inflation, which has been particularly low in recent years.

The recent improvement in the cyclical component of hours worked suggests that euro-area wage growth could strengthen over the next two years, confirming the most recent Eurosystem projections.⁴

However, the uncertainty that surrounds the measurement of such component is one reason to take a cautious, gradual approach to monetary policy adjustment.

³ G. Bulligan, E. Guglielminetti and E. Viviano, 'Wage growth in the euro area: where do we stand?', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 413, 2017.

⁴ ECB, *Eurosystem staff macroeconomic projections for the euro area*, December 2017.