

## RECENT WAGE DEVELOPMENTS IN THE EURO AREA AND THE UNITED STATES: MAIN DETERMINANTS AND DIFFERENCES

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At the end of 2021, the degree of slack in the US labour market was lower than in the euro area. Thus, while the job vacancies-to-unemployment ratio reached an all-time high in the United States in the final stretch of the year, far outstripping pre-pandemic levels, in the euro area this ratio remained relatively close to the values observed in 2019 (see Chart 1). Also, the gap between the unemployment rate at end-2021 and its trend level was negative in the United States, but positive in the euro area.<sup>1</sup>

There are a number of reasons that may help explain the further tightening of the US labour market. First, the initial impact of the COVID-19 pandemic on economic activity in the United States was lower than in the euro area, and the subsequent recovery, swifter and stronger.<sup>2</sup> At end-2021, GDP in the United States exceeded its pre-pandemic level by 3.2%, whereas in the euro area it was only 0.2% above the level observed before the health crisis (see Chart 2). Second, the labour force participation rate in the United States declined more sharply at the onset of the pandemic and has since recovered at a slower pace than in the euro area. Thus, while the participation rate in the United States in 2021 Q4 was 0.7 percentage points (pp) lower than that recorded before the pandemic, in the euro area it was 0.7 pp higher.<sup>3</sup>

This box analyses the extent to which the varying degrees of slack in the labour markets of the United States and the euro area may have influenced wage dynamics in these

two regions. In this respect, it should be noted that compensation per employee in the United States rose by 6.1% in 2021, well above the average (2.7%) for the period 2000-2019. Other indicators, such as the labour cost index, also posted growth rates in the United States above the usual average (see Chart 3).<sup>4</sup> In the euro area, compensation per employee grew by 4.3% in 2021, compared with an average of 2.1% in the period 2000-2019, while the labour cost index rose by 1.3%, below the average annual growth rate of the last two decades.<sup>5</sup>

Wage dynamics are analysed using a quarterly econometric model based on a Phillips curve specification relating wage increases to the degree of slack in the labour market, inflation expectations and labour productivity.<sup>6</sup> Drawing on this model, it is estimated that greater slack in the euro area labour market contributed significantly to restraining wage growth in 2021, unlike in the United States (see Chart 4). In addition, the results of the model suggest that productivity gains and higher inflation expectations also contributed appreciably to explaining the higher wage growth observed in the United States in 2021.<sup>7</sup>

Looking forward, estimated historical relationships can be used to quantify expected wage growth in the medium term based on projected developments in its determinants. In this connection, taking into account the latest projections of the European Central Bank,<sup>8</sup> a more

1 In the euro area, a broader unemployment rate, which includes workers in job retention schemes, is considered.

2 See M. Diakonova and A. del Río (2021), "Some determinants of the growth differential between the euro area and the United States since the onset of the pandemic", Box 2 of the "Quarterly report on the Spanish economy", *Economic Bulletin* 2/2021, Banco de España.

3 For further details about the factors behind these developments, see F. Borralló, A. Buesa and S. Párraga (2021), *Inflation in the United States: recent developments and outlook*, Analytical Articles, *Economic Bulletin* 4/2021, Banco de España.

4 The highly uneven impact of the COVID-19 crisis on employment, depending on the sector of activity and workers' wage level, gave rise to major composition effects which distorted developments in compensation per employee in 2020 and 2021. It would therefore be advisable to complement the analysis of wage dynamics with indicators such as the employment cost index in the case of the United States.

5 These indicators are, to a certain extent, affected by the distortions associated with the job retention schemes deployed in the euro area in response to the pandemic. In any event, wage settlements in the euro area notably rose by 1.5% in 2021, below the 2.1% observed in the average for the period 2000-2019 (see Chart 3).

6 For a detailed description of these models for the euro area, see C. Nickel, E. Bobeica, G. Koester, E. Lis and M. Porqueddu (2019). "Understanding low wage growth in the euro area and European countries", Occasional Paper Series, No 232, ECB. The estimation period is 2000-2019 for the euro area and 1978-2019 for the United States. The results of the estimation for the euro area are based on aggregate data that are in line with those obtained using panel techniques with individual member country data (see Box 2 of the above-mentioned paper).

7 The unexplained component of growth in compensation per employee was large in 2020-2021 in both regions owing to the strong volatility of this variable during the pandemic, which was mainly associated with statistical distortions in the euro area and important composition effects in the United States.

8 See (2022) *ECB staff macroeconomic projections for the euro area*.

### Box 3

## RECENT WAGE DEVELOPMENTS IN THE EURO AREA AND THE UNITED STATES: MAIN DETERMINANTS AND DIFFERENCES (cont'd)

Chart 1  
LABOUR MARKET SLACK (a)

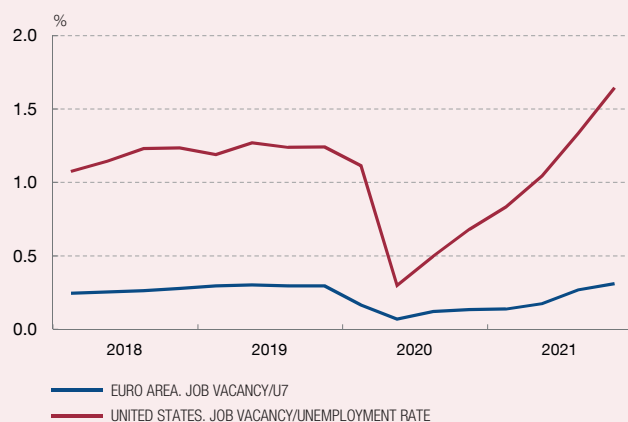


Chart 2  
GDP AND PARTICIPATION RATE  
Change 2021 Q4 - 2019 Q4 (b)

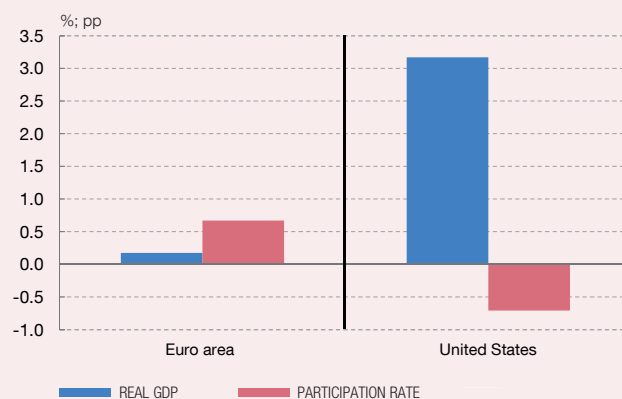


Chart 3  
WAGES AND INFLATION  
Annual growth rate

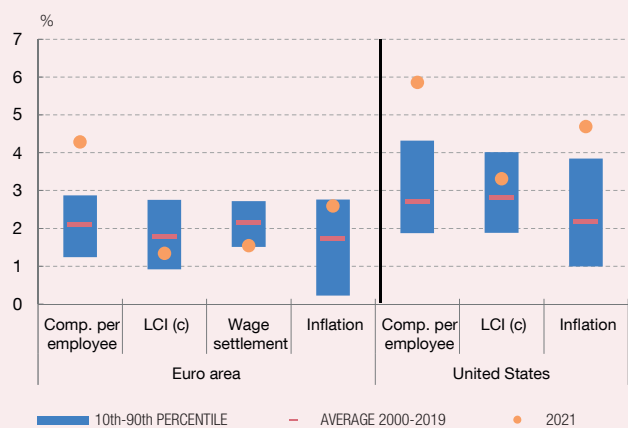
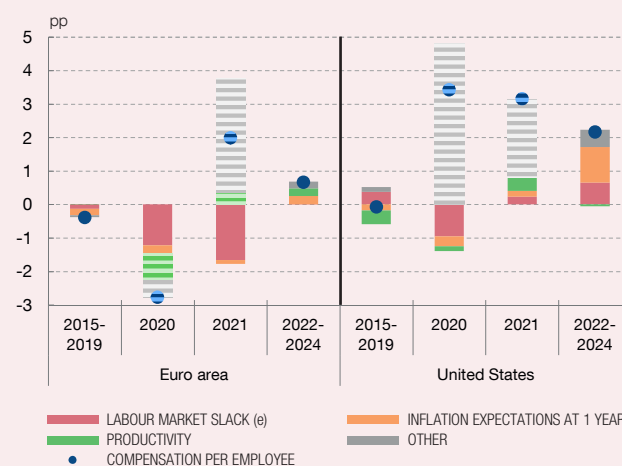


Chart 4  
WAGE EQUATION (d)  
Annual growth rate and contributions  
(Deviations from the period average)



**SOURCES:** Own calculations based on ECB, Eurostat, Bureau of Labor Statistics, Congressional Budget Office, Survey of Consumers University of Michigan, OECD and national social security statistics.

- a U7 is the unemployment rate resulting from summing up the number of workers in job retention schemes and the number of unemployed workers, as a percentage of the labour force. A ratio of job vacancy to UR(7) with value over 1 (less than 1) denotes a tight (slack) labour market.
- b Euro area participation rate data refer to 2021 Q3.
- c LCI refers to the employment cost per hour index. The euro area LCI is affected by statistical distortions (as is compensation per employee), but in the United States it is not affected by the distortions owing to the so-called composition effect. A comparable series with wage settlements is not available for the United States.
- d An equation relating wage increases (compensation per employee) to lags thereto, the slack in the labour market, inflation expectations and labour productivity is estimated. The striped areas relate to distorted variables in the reference periods.
- e Labour slack is approximated as the unemployment rate minus the structural component of the unemployment rate, both expressed as a percentage of the labour force. In the case of the euro area, U7 is used.

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moderate wage growth in the euro area than in United States is estimated for the period 2022-2024, mainly owing to a tight labour market and a lower inflation expectations forecast for Europe (see Chart 4). Nonetheless, in the present setting of high uncertainty, these estimates are particularly tentative.

In short, the evidence presented in this box suggests that the greater slack in the euro area labour market and the lower inflation expectations in this region contributed significantly to greater wage restraint in the euro area vis-à-vis the United States in 2021, a trend that might continue over the coming years.