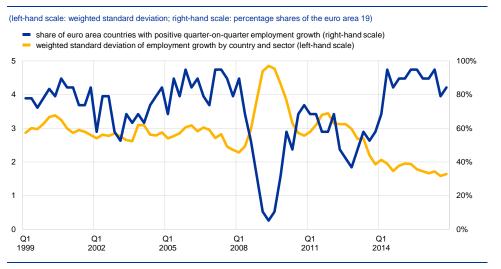
## 3 Assessing labour market slack

Despite broad improvements in euro area labour markets since the start of the recovery and a marked decline in unemployment rates across many euro area economies, wage growth remains subdued, suggesting that there is still a considerable degree of labour market slack. This box looks at developments in wider measures of labour market slack in comparison with the rather narrow definition of the unemployment rate.

The broadening of the recovery in activity is becoming increasingly apparent in euro area labour markets, with more countries and sectors recording positive employment growth. Overall, the "employment-rich" recovery<sup>22</sup> has led to an increase in the number of persons employed of just under five million since the middle of 2013, offsetting virtually all of the employment losses seen over the crisis period. Moreover, there has been a notable broadening of the labour market recovery, as evidenced by the narrowing of the dispersion of employment growth rates across euro area economies and sectors over the past two years, and almost all euro area countries are now recording positive quarter-on-quarter employment growth (see Chart A). Unemployment has declined somewhat faster than expected – albeit still remaining high compared with pre-crisis levels (see Chart 6 in Section 3) – and labour shortages reportedly appear to be emerging in some countries (most notably in Germany).

**Chart A**Dispersion of employment growth rates across euro area countries



Sources: Eurostat and ECB calculations. Note: The latest observations are for the fourth quarter of 2016.

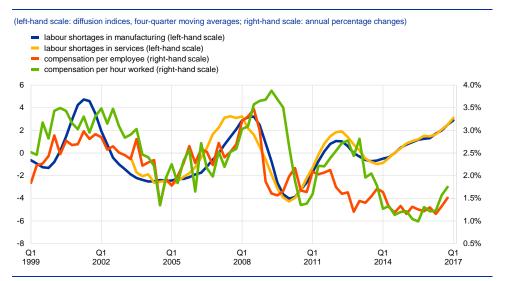
However, despite significant increases in employment, euro area wage growth remains subdued, suggesting that there may still be a high degree of underutilisation of labour – or labour market "slack" – over and above the level suggested by the unemployment rate. Chart B shows that since the start of

See the article entitled "The employment-GDP relationship since the crisis", Economic Bulletin, Issue 6, ECB, 2016.

Economic and Monetary Union (EMU) labour shortages have typically tended to signal rising wage pressure, but the co-movement seems to have broken down over the course of the recovery, which may suggest that the degree of labour market slack is still high and is containing wage growth.<sup>23</sup>

## **Chart B**

Co-movement of euro area labour shortages and wage growth since the start of EMU



Sources: Eurostat and ECB calculations.

Notes: The labour shortages series are calculated as four quarter moving averages and have been normalised for long-term averages. The latest observations are for the fourth quarter of 2016 (compensation per employee and compensation per hour worked) and for the first quarter of 2017 (labour shortages indicators).

The unemployment rate is based on a rather narrow definition of labour underutilisation. According to the International Labour Organization's definition of unemployment (on which the euro area headline unemployment rate is based), jobseekers are considered unemployed if they are (i) without work; (ii) available to start working within two weeks; and (iii) actively seeking work. However, wider definitions may also be relevant for assessing the overall degree of labour market slack, with two groups being particularly worthy of consideration: first, those who are without work but do not meet one of the other two criteria; and, second, those who are employed on a part-time basis but want to work more hours. The first group falls within the inactive category and the second group within the employed category.

Currently around 3½% of the euro area working age population are marginally attached to the labour force – that is, categorised as inactive, but simply competing less actively in the labour market. Referred to as the "potential additional labour force", <sup>25</sup> this category comprises both (i) those who are not currently seeking work, despite being available (mainly "discouraged" workers; and

This is not to deny the importance of other factors. Structural reforms to labour markets and wage-bargaining systems, as well as changes in the degree of forward and backward-looking price indexing in wage agreements and the low inflation environment, are also likely to have played a role in interrupting this correlation.

See http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Unemployment.

<sup>&</sup>lt;sup>25</sup> See the Eurostat article on underemployment and potential additional labour force statistics.

(ii) those who are actively seeking work, but are not (yet) available to begin work (perhaps because they have received a job offer with a start date some time in the future or because they are not able to start work within the next two weeks). The latter sub-group currently amounts to almost 1% of the euro area working age population, while the former sub-group is somewhat larger – currently amounting to around 2.6% of the working age population – with the majority being discouraged workers who are not actively seeking work because they do not think work is available. This sub-group, however, can be relatively quick to rejoin the labour force as labour market conditions improve. While movements in the number of those who are "available, but not seeking work" are typically countercyclical (as is unemployment), the numbers reporting that they are "seeking work, but not available" had been following a downward trend prior to the recovery, but have remained flat since the rebound.

In addition, a further 3% of the working age population are currently underemployed (i.e. working fewer hours than they would like). Part-time employment has been rising across most euro area economies for over a decade, mainly owing to structural factors (such as the growth in services and in part reflecting the rise in female participation in the labour force). Thowever, a nonnegligible share of these part-time workers would like to work more hours. Currently there are around seven million underemployed part-time workers across the euro area – an increase of around one million since the start of the crisis. Moreover, the number has declined only very modestly over the past two years, despite the robust employment growth seen during the recovery.

Combining the estimates of the unemployed and the underemployed with the broader measures of unemployment suggests that labour market slack currently affects around 18% of the euro area extended labour force. <sup>28</sup> This amount of underutilisation is almost double the level captured by the unemployment rate, which now stands at 9.5% (see Chart C). The broader indicator is widely used by both the US Bureau of Labor Statistics and the OECD. <sup>29</sup> As well as suggesting a considerably higher estimate of labour market slack in the euro area than shown by the unemployment rate, these broader measures have also recorded somewhat more moderate declines over the course of the recovery than the reductions seen in the unemployment rate.

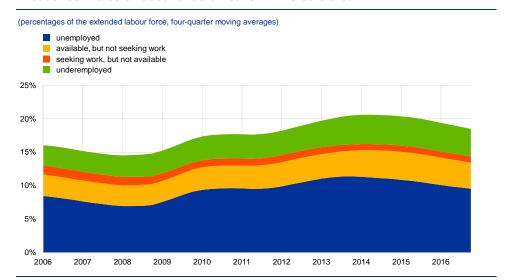
However, these workers may temporarily boost unemployment levels when they re-enter the labour force, before they find work.

See Box 6 entitled "Factors behind developments in average hours worked per person employed since 2008", Economic Bulletin, Issue 6, ECB, 2016.

The figure is computed by expressing the numbers of unemployed and underemployed, together with estimates of those available but not seeking work and those seeking work but not available (the "potential additional labour force"), as a percentage of the extended labour force (i.e., the employed and the unemployed, who comprise the active labour force, plus the potential additional labour force).

The US Bureau of Labor Statistics refers to this measure as the "U6" indicator. Even broader measures are under investigation. See, for example, Hornstein, A., Kudlyak, M. and Lange, F., "Measuring resource utilization in the labor market", *Economic Quarterly*, Vol. 100(1), Federal Reserve Bank of Richmond, 2014.

**Chart C**Broader estimates of labour underutilisation in the euro area

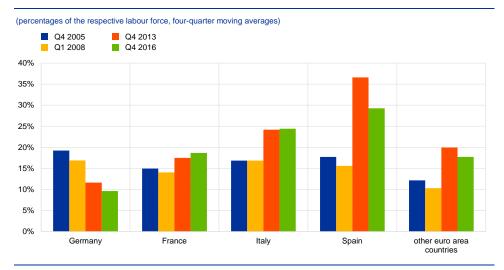


Sources: Eurostat and ECB calculations

Notes: All components are expressed as percentages of the extended labour force (i.e. the active labour force plus those available, but not seeking work and those seeking work, but not available). The latest observations are for the fourth quarter of 2016.

Cross-country differences remain significant (see Chart D) – both in terms of levels of the broader indicator and when these levels are compared with developments in unemployment rates. In Germany, the broader indicator (and all three of the main components) has been declining since 2013, as has the actual unemployment rate, providing further evidence of growing tightness in the German labour market. Elsewhere, however, these broader measures show that the degree of labour market slack is still considerable. In France and Italy, broader measures of labour market slack have continued to increase throughout the recovery, while in Spain and in the other euro area economies, they have recorded some recent declines, but remain well above pre-crisis estimates.

**Chart D**Broader estimates of labour underutilisation across euro area countries



Sources: Eurostat and ECB calculations

Note: All measures are expressed as percentages of the extended labour force (i.e. the active labour force plus those available, but not seeking work and those seeking work, but not available).

While these broader measures cannot be taken entirely at face value, euro area labour markets appear subject to a greater degree of labour market slack than the level suggested by the unemployment rate. These broader measures may overestimate the effective degree of labour market slack somewhat, in that they (i) overestimate the remaining capacity of underemployed part-time workers somewhat, since a proportion of their time (typically around half) is already spent working; (ii) may overestimate how far those in the potential additional labour force are willing and able to find work (i.e., the extent to which they are suitably skilled for local labour markets); and (iii) do not make allowances for the lower job finding probabilities of many of the very long-term unemployed (i.e., those out of work for two years or more — currently estimated to account for around one-third of the unemployment totals across the euro area). <sup>30</sup> Adjustments to the broader measures to deduct the very long-term unemployed and to allow for the time that the underemployed spend working still result in estimates of labour market slack of the order of 15% across the euro area in the final quarter of 2016 (on a four-quarter moving average basis).

Despite a clear improvement in many labour market indicators, labour markets in most euro area countries – with the notable exception of Germany – appear to still be subject to a considerable degree of underutilisation. The level of the broader indicator of labour underutilisation is still high, and this is likely to continue to contain wage dynamics.

It is, for instance, well-documented that job finding probabilities differ considerably across sub-groups of the unemployed, but it does not necessarily follow that the job finding probability of those in the inactive category is zero – although it is, empirically, well below that of the unemployed who are available and actively seeking work. Much depends both on the intensity of individuals' job search and on employers' perceptions of the various sub-groups in the context of wider labour market conditions. On the other hand, many of the very long-term unemployed may be similar to those in the inactive category in terms of employability. See, for instance, Shimer, R., "The probability of finding a job," American Economic Review: Papers & Proceedings, Vol. 98(2), pp. 268-73, 2008; Shimer, R., "Reassessing the Ins and Outs of Unemployment", Review of Economic Dynamics, Vol. 15(2), pp. 127-48, 2012; and Hornstein, A., Kudlyak, M. and Lange, F., "Measuring resource utilization in the labor market", Economic Quarterly, Vol. 100(1), Federal Reserve Bank of Richmond, 2014.